# The history and present of Chinese SOE reform

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**Abstract.** The SOE reforms are pivot for Chinese economy. The future success of Chinese economy relies on the government's ability to deepen SOE reforms today. Over forty years of SOE reforms have mitigated the unanimity problem, improved SOE efficiencies, and elucidated the relationship between SOE and the government. Even though misallocation, excessive social burdens, and bureaucratic culture within SOEs still exist, this reform has achieved staged success. The success originates from a strong and consistent government leadership, but future reforms can also go astray because of the overly centralized power. This paper summarizes the overview of China's planned economy and analyzes the reform measures of the leaders in different periods respectively.

**Keywords:** Planned economy; SOE reform; history; present.

## 1. Chinese planned economy overview

Before the "Reform and Opening Up", the Chinese economy was strictly central planned. The Chinese government kept the investment high to accumulate capital. This leads to the cancelation of SOE's autonomy because the high investment cannot be ensured if firms can retain some profits. The government also kept low wages to reduce labor inputs. To enhance the living conditions of workers with low wages, SOEs established firm hospitals, firm schools, and other service agencies for employees. Under this system, SOEs are characterized by non-enterprise features. These SOEs shouldered excessive social functions like education, healthcare, housing protection, etc. It not only became a burden for firms' operation but also generates misallocation across firms. Even when some inefficient SOEs cannot self-survive, the government still subsidizes them because of their significant social roles. Chang-Tai Hsieh claims that Chinese TFP can be much higher if the misallocation problem is addressed (Chang-Tai Hsieh, 1442).

## 2. The early stage of Chinese SOE reform

First, the government allowed firms to expand autonomy and retain part of their profits. Enterprises can more independently decide procurement, production, pricing, and marketing strategies (Gregory Chow, 88). Enterprises can also set differentiated wages for workers based on their performance. This trial stimulates economic agents to expand production. However, the government cannot possibly supervise all SOEs. Some SOEs downward reported their profits to gain a larger retain. Second, the administration employed the "contract responsibility system". The government allowed firms to retain all profits after paying a fixed rate. Individuals and firms are increasingly incentivized as the management can freely distribute profits as bonuses. However, the state still experienced losses because firstly, the firms experienced soft budget constraints. The government always bailouts bankrupt SOEs, which generates financial burdens and exacerbates moral hazards (Lin, 426). According to Yifu Lin, the government should only be responsible for losses due to the policy burden, not operation, but asymmetric information prevents the government from distinguishing the nature of losses (426). Secondly, social pressure hindered the rise in compensation for management (Chow 98). Alternatively, some management took advantage of the greater autonomy, sold, and transferred state assets to their relatives and friends, causing a severe state assets loss. Carsten Holz mentions that "households had a claim to only 10.89 percent of state sector assets" in 1978 but become 50.37 percent in 1997 (347). Figure 1 below presents this trend of state asset loss.

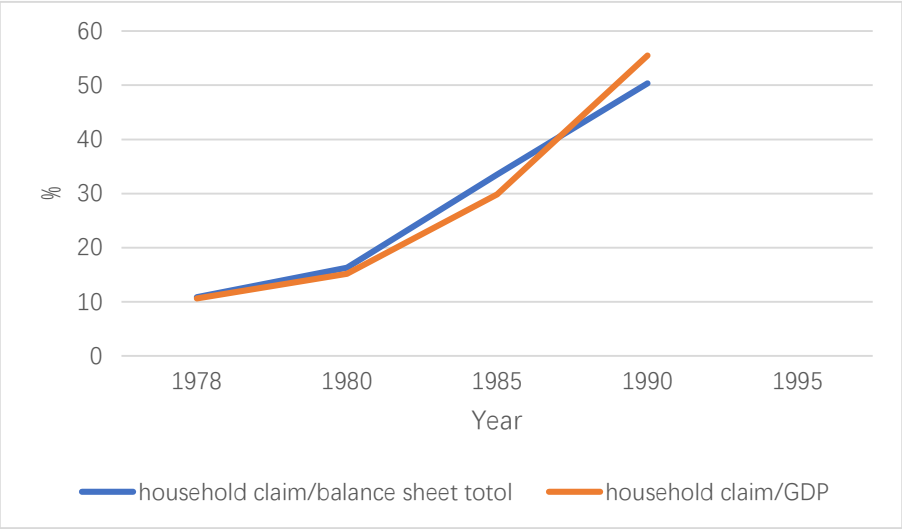



**Fig. 1** Balance Sheet Ratio (%)

In 1983, the administration proposed "the factory director responsibility system", suggesting that managers, not the party secretaries, should be responsible for firms' operation. This policy gradually pulled the party out of the firms' direct management. Reforms under the administration mitigate the unanimity problem, which was successful from the productivity perspective (figure 2). The productivity of SOEs has increased since the reform. However, the reform is far from satisfying to transform SOEs into profitable modern enterprises. Return on fixed assets for SOEs "declined from 18 percent in 1985 to below 6 percent in the early 1990s", indicating the necessity for more radical reforms (Song, 350).

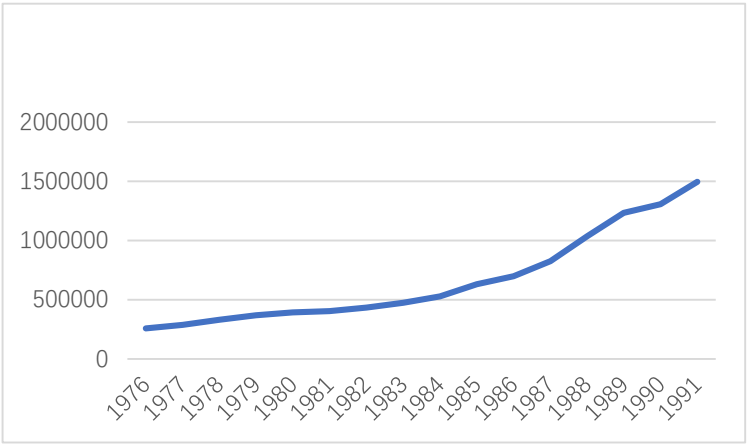



**Fig. 2** Gross Industrial Output: State Controlled Enterprises

## 3. Reform of Chinese SOE during 1993-2003

Instead of focusing solely on unanimity and incentives, the administration drastically changed the top design of the economic system. The SOE reform of this administration was characterized by "grasping the large, letting go of the small", which means to promote the efficiency of large SOEs and privatize small ones. Privatized firms do not bear the moral responsibility to hire excessive workers as SOEs do, rendering many laid-off workers. More efficient private firms can then reabsorb laid-off workers, alleviating the misallocation problem (Song 353). The government's support of reemployment service agencies to educate the laid-off workers with essential skills accelerated this process of reemployment (Xiaobo Hu, 655). The continuing decline in the number of urban SOEs employees epitomizes this trend (figure 3 and 4).

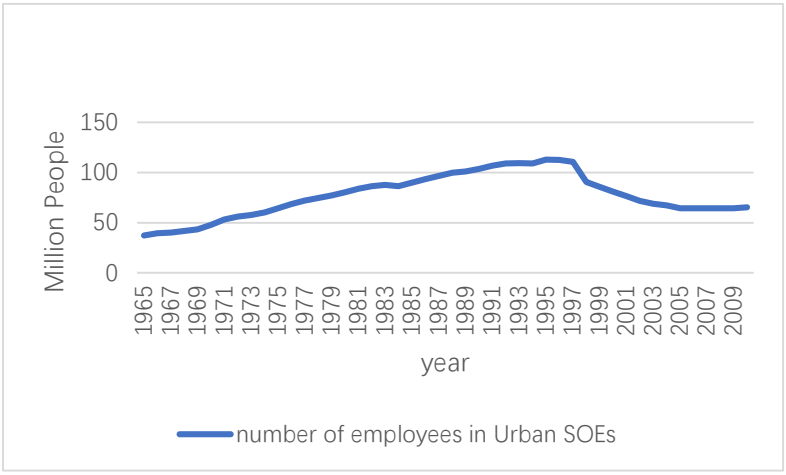



**Fig. 3** Employment Urban: SOEs

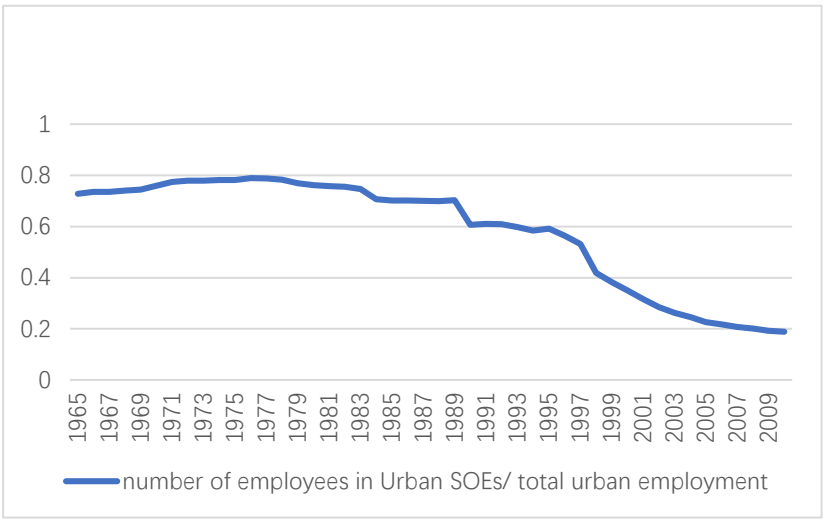



**Fig. 4** Number of Employees in Urban SOEs/ Total Urban Employees

The administration also assuaged the problem that political power influences firms' performance. The government achieved it by declaring relevant laws and defining the roles of different economic entities. First, authorities promulgated laws to create a level-playing ground for all enterprises. Congress passed the Company Law in 1993 to protect the legal rights of shareholders and the Anti-unfair Competition Law in 1994 to curtail unfair competitions. These laws defined the rights and responsibilities of companies, which are unlikely to change due to political movements. Second, this government carries out both fiscal and financial system reform. Fiscal reform compartmentalizes different roles between central and local governments. Fiscal reform of 1994 introduces value-added and consumption tax and abolishes the previous system of industrial and commercial taxes. This reform elucidates that the central government has claims on taxes related to "central government-controlled sectors", consumption taxes, and 75% of VAT (Value-Added Tax), while provincial governments collect real estate, profits, pollution taxes, and 25% of VAT (Naughton Barry, 254). Without this rule-based order, the local government was able to intervene in economies arbitrarily to gain a larger surplus of revenue in name of fees (Naughton, 253). After fiscal reform, the tax revenue share between central and local governments stabilizes (figure 5). This reform, therefore, clarifies the functions of different governments and shrinks the discrepant power between central and provincial governments, leaving enterprises increasingly estranged from politics. However, the policy that provincial governments share 25% of VAT encourages local protectionism. Local governments provide local firms with favorable policies, set barriers of entry for firms from other provinces, and discourage cross-provincial mergers to prevent tax revenue from fleeing to another jurisdiction.

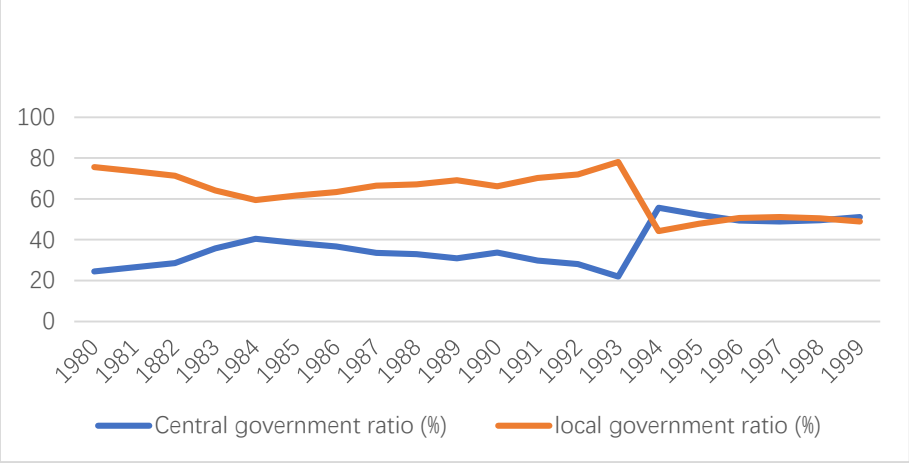



**Fig. 5** Total Revenue Ratio of Central and Local governments

Financial system reform was through the annunciation of relevant financial laws. In 1995, Congress declares five financial laws and one regulation including "the central bank law", "commercial bank laws", "insurance law", etc. These laws replicate the financial designs of the west to diversify financial assets from a mono-bank system and to release commercial banks from policy orientation. These laws stipulate that the central bank is to improve macroeconomic management and stabilize the economy instead of providing funding for SOEs as it did before. Insurance companies, investment companies, credit cooperatives, and foreign banks were legally recognized, and it became illegal for government officials to command banks to make loans against their will (Naughton 267). However, the financial reform did not fully achieve the goal to separate politics from financial system operation. The government still relies heavily on the banking system to finance SOEs projects (Naughton 269). Naughton claims, "SOEs finance 99.8% of their inventory accumulation through bank credit" and it became problematic since SOEs "appear to be among the weakest performers" with high risks of default (269). Financial sectors are still not fully separated from politics under Jiang's administration.

## 4. Reform of Chinese SOE during 2003-2013

With the "grasping the large, letting go of the small" policy and proper legal environment set forth by the previous administration, Hu administration was able to deepen the reform and apply policies to deal with remaining issues and invigorate remaining SOEs with new institutional design.

This administration still reckons that public ownership is the key characteristic of socialism. While small SOEs can continue to privatize, large and essential SOEs remain public as a political obligation. The success of SOE reform depends on whether this administration can better manage and improve the performance of the remaining SOEs. For this purpose, the State-owned Assets Supervision and Administration Commission (SASAC) was founded to supervise, preserve, and expand assets of SOEs on behalf of the central government. Ross Garnaut states that "SASAC controls three-fifths of all state non-financial companies" in 2010 (336).

SASAC employs mergers and acquisitions (M&A) to restructure SOEs because the Chinese government contends that M&A can reduce the cost of production and enhance SOE's competitiveness abroad. With this trend of M&A, the number of SOEs continued to decrease and the average size of SOEs grew larger in this period (figure 6 and 7). However, the costs of industrial SOEs are not decreased (figure 8). The cost to revenue ratio of industrial SOEs is not significantly reduced (figure 9). State-holding assets of industrial enterprises also grow slower than the total assets on the national balance sheet (figure 10). The result of slow state asset growth aligns with the world bank's calculation that even in 2013, ten years after the establishment of SASAC, the profits of SOEs are nine percentage points lower than private firms (Lauren Brandt 12). Therefore, SASAC may not fully solve or even exacerbate the lingering problems of SOEs.

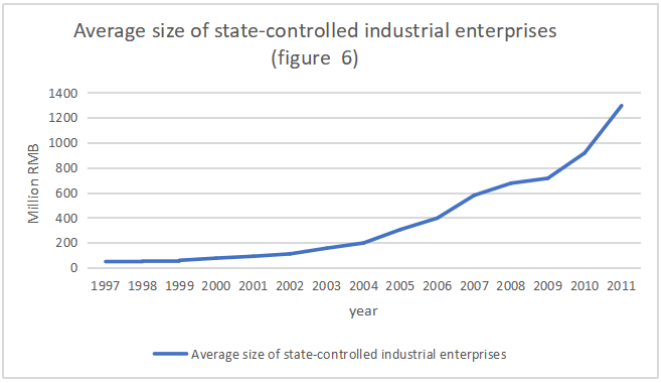



**Fig. 6** Average size of state-controlled industrial enterprises

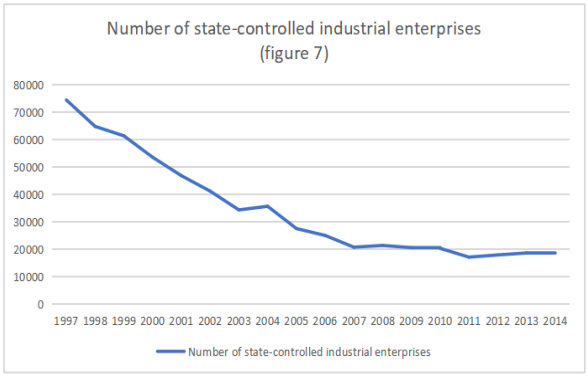



**Fig. 7** Number of state-controlled industrial enterprises

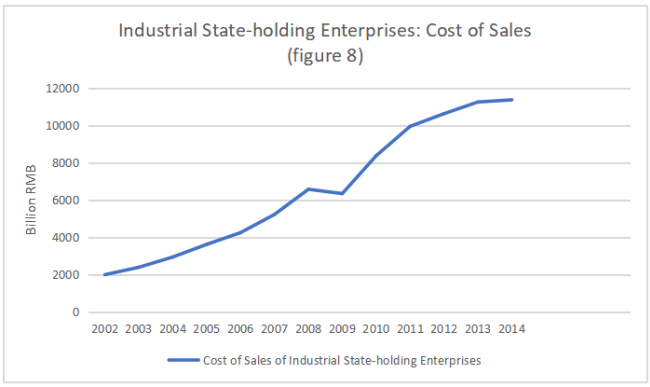



**Fig. 8** Industrial State-holding Enterprises: Cost of Sales

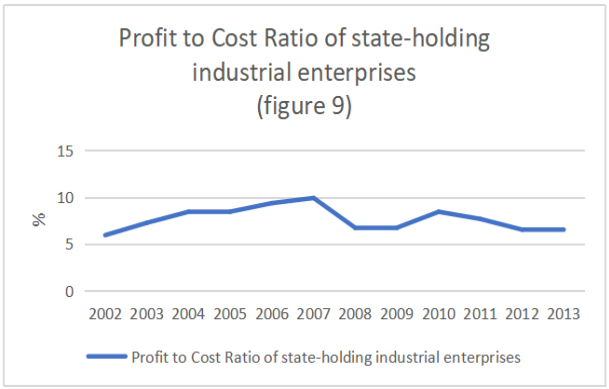



**Fig. 9** Profit to Cost Ratio of state-holding industrial enterprises

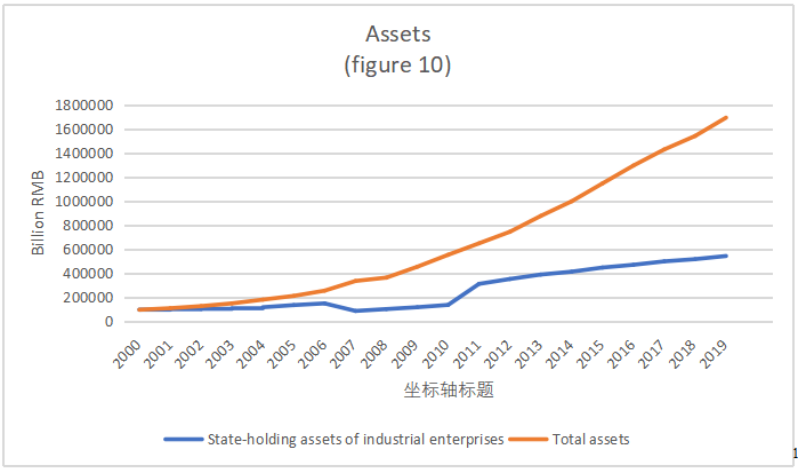



**Fig. 10** Assets

The design of SASAC is inherently problematic. To recapitulate, SASAC has three mandates: 1) fulfill investors' responsibility to enhance SOE performance 2) perform government's responsibility to carry out intended policies 3) conform with the socialist ideology to regulate income distribution. These goals are contradictory. Under this administration, the second mandate includes building a "harmonious society", aiding post-disaster reconstruction, and stimulating the economy after recessions. These non-profitable activities are at odds with SOE's commercial objective to maximize profits. This mandate also further aggravates the soft-budget constraint problem as they increase SASAC's tolerance on SOE performance. The third mandate intends to balance efficiency and fairness. However, it intensifies the overstaffing problem, especially after M&A, when the number of excessive workers increases. Regulating income distribution also leads to the unanimity problem

because hard-working employees may face a mandated income ceiling. The second and the third mandates contradict the first objective.

## 5. Reform of Chinese SOE from 2013 to the present

Despite more than 30 years of SOE reform, SOE still lacks adequate supervision, bears excessive social functions, and is deeply tangled with politics. The administration conducted comprehensive reform to mitigate these steadfast issues.

Firstly, administrators continued the practice of the previous administration to direct and encourage M&A between SOEs. The logic behind this policy is clear: 1) as mentioned previously, economies of scale can reduce firms' cost of production, increasing Chinese firms' competitiveness abroad 2) M&A avoids fierce price competition between Chinese SOEs oversee. 3) Many SOEs are in strategic fields like energy, telecommunication, electricity. The innovation in these fields requires substantial research investment. M&A increases the size of SOEs and provides a solid funding foundation for innovation. However, M&A may not achieve the first goal. A recent example is the establishment of China Tower Company. China Tower was established in 2014 to control towers of the cellular base stations for China Mobile, China Unicom, and China Telecom. Authority believes that consolidating and constructing towers by a single company avoid overlapping construction and reduce network cost, but my interview on China Mobile employees and the empirical data suggest the opposite. According to data from China Mobile Jinhua in 2015, China Mobile Jinhua transfers 6632 cellular base stations to China Tower Company with a total worth of 0.59 billion RMB. China Mobile then rents the base stations from China Tower. However, the rental reimbursements are estimated to be 0.874 million RMB, which is 0.284 billion RMB higher than before the merger. This is because the M&A turns the competition from an oligopoly model to a monopoly model. Tower company takes advantage of the increasing market power to overprice its service. Similarly, the second goal to avoid competition may increase the total revenue for Chinese SOEs in the short run but will reduce the long-run competitiveness because of the decreased incentive for product and efficiency improvement (Song 363). The third goal of M&A to enhance innovation is promising. The regression below shows that SOEs under the Xi administration innovate more than private firms. The regression model is the following:

$$y = \beta_0 + \beta_1 * treatment + \beta_2 * change + \beta_3 * treatment * change + \varepsilon$$

I acquire data of 1769 firms from 2013 to 2020. During this time, 141 firms transformed from private firms to SOEs. Under this regression, y is the degree of innovation calculated as the ratio of R&D inputs to total revenue. Treatment equals one if the transformation from private firms to SOE happens and zero otherwise. Change equals one for the time after the transformation and zero otherwise. $\beta_3$ should be positive if SOEs are more innovative than private firms.

**Table 1.** Linear regression

Linear regression

| | | | |
|---|---|---|---|
| Number of obs | = | **13,311** | |
| F(3, 13307) | = | **9.02** | |
| Prob > F | = | **0.0000** | |
| R-squared | = | **0.0034** | |
| Root MSE | = | **5.5215** | |

| y | Coef. | Robust Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Change | **-1.183001** | **.6810191** | **-1.74** | **0.082** | **-2.517895** | **.1518934** |
| treatment_to_SOE | **.4017637** | **.2124392** | **1.89** | **0.059** | **-.0146474** | **.8181748** |
| change_treatment | **2.614936** | **.8164568** | **3.20** | **0.001** | **1.014564** | **4.215307** |
| _cons | **4.625309** | **.0491551** | **94.10** | **0.000** | **4.528958** | **4.72166** |

$$y = 4.625 + 0.402 * treatment - 1.183 * change + 2.615 * treatment * change + \varepsilon$$

The regression result indicates that the $\beta_3$ is positive and significant at the 95% level. This suggests that SOEs under the Xi administration are more innovative than private firms. However, more evidence is needed to show that M&A between SOEs can further enhance SOE innovation.

Secondly, the administration classifies SOE into public and commercial SOE. The goal of public SOE is to "safeguard the livelihood of people, serve the public, and provide public goods". The administration also measures the performance of pubic and commercial SOE with different metrics. While commercial SOEs are assessed by economic criteria like profits and economic value-added, public SOEs are evaluated by cost-control endeavors, product and service quality, and operational efficiency. This dual-track reform releases commercial SOEs from excessive policy burden and reconciles the conflicting goals of SOE. This reform also alleviates the soft budget constrain problem because the losses from commercial SOEs are unlikely to emerge from the policy burden. However, obstacles still exist. The commercial SOE itself should function with all market-based logic, but as the de facto system, commercial SOEs are still infiltrated with bureaucratic culture. For instance, Wendy Leutert claims that organization within SOEs originates from the communist system, reflecting traditional values (98). Connection and family background strongly influence hiring and promotion (98). The bureaucratic culture also causes employees to waste time on bureaucratic procedures and unnecessary "policy communication meetings", causing another form of inefficiency. Therefore, without proper adjustment on SOE culture, releasing policy burden alone cannot fully restore the efficiency of commercial SOE.

Thirdly, the administration deepened mixed-ownership reform. This reform allows private capital to the previously restricted public entities through shareholding or venture capital. By shifting from asset to capital management, the administration introduces supervision from private sectors to SOEs. CPC's transformation to capital management also leads to more flexible management hiring procedures in SOEs. The board of directors of Xinxing Cathy International group elected their general manager for the first time in 2015, while in the past, all central SOE managers are appointed by the administration (Wendy 94). A dual-tracked hiring procedure was formed with differentiated wages and job stability between appointed and hired managers. Both the private capital and the dual-tracked hiring process provide SOE with more private resources and expertise, introducing competition to previously monopolized fields. This reform also mitigates the principal-agent problem as the ownership and operation become less separated with the introduction of private capital. However, the effect of private capital on SOE governing is by far limited. Joint appointments are still prevalent in central SOEs. Even though private investors can be board members, the general manager and chairman are often the same as the party secretary because of the joint appointment. This vitiates the decision power of private investors significantly. Investors may also cast doubt on the independence of board decisions because of the administration involvement (Wendy 95).

## 6. Conclusion and the future of SOE reform

Over forty years of SOE reforms improved SOE efficiencies, and elucidated the relationship between SOE and the government. Even though misallocation, excessive social burdens, and bureaucratic culture within SOEs still exist, this reform has achieved staged success. The success originates from a strong and consistent government leadership, but future reforms can also go astray because of the overly centralized power.

Future SOE reforms should focus on eight aspects. First, the government should continue to encourage market competition. The legal environment should continue to be perfected to allow some inefficient commercial SOEs to bankrupt. Second, the government should encourage public SOEs to employ their easier funding conditions to promote innovation. Third, the government should shoulder more social security functions to alleviate the social burdens of commercial SOEs. Fourth, the government should refine its income redistribution mechanism to promote fairness so that SOE can focus on enhancing efficiency. Fifth, Congress should continue to revise cooperative laws to protect the rights and improve the decision power for individual shareholders of SOEs. Sixth, SASAC should

increase its supervisory ability. Seventh, the government-oriented M&A within SOEs should be reconsidered and preceded with more caution. Eighth, the government should continue to create level playing grounds for all enterprises.

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