CHIH-SHIAN LIOU AND CHUNG-MIN TSAI

The Dual Role of Cadres and Entrepreneurs in China

The Evolution of Managerial Leadership in State-Monopolized Industries

ABSTRACT

By examining China's state-monopolized industries, we explore the evolution of managerial behavior. With the party-state's continued emphasis on meritocracy in elite management, managers of China's state-owned enterprises play a hybrid role as both party cadres and business entrepreneurs. This also reflects the adaptability of the Chinese Communist Party in pursuing pro-market reform.

KEYWORDS: Chinese SOEs, managerial selection, meritocracy, state-monopolized industry, Chinese Communist Party

INTRODUCTION

Although China's state sector was on the verge of a financial meltdown in the 1990s, the central state-owned enterprises (SOEs) have become profitable and have been the engine of China's economic growth in the past decade. With the establishment of the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) in 2003, Chinese reformers have introduced new initiatives to restructure corporate governance and strengthen SOEs' managerial teams in the hope of creating world-class enterprises. While the state has been promoting a commercially oriented state sector, SOE managers have increasingly behaved like their counterparts in Western capitalist firms. They have enrolled in management courses provided by the top business schools in the world and frequently attended various global business forums.

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The preceding account, however, is just one side of the story. In China's party-state, SOE managers are subject to an administrative hierarchy and are assigned bureaucratic ranks that are equivalent to those of state officials. In particular, the Chinese Communist Party (CCP) has a firm grip on the allocation of personnel in the central SOEs (CSOEs). Acting in the capacity of Party cadres, these senior managers head the Party organizations within the SOEs. SOEs have sometimes been made to carry out non-commercial programs that may reduce the firms' financial performance, and their managers have put national policy goals before the firms' commercial goals.[1]

What is the real face of SOE managers in today's China? Without denying the significance of market incentives, it is generally accepted that SOE managers are first and foremost Communist cadres, given the party-state's leverage over their career paths.[2] Most China scholars have mentioned that political loyalty to central directives overrides profit-maximizing incentives despite the transformation of state firms into commercial entities.[3] SOE managers enjoy political capital that enables their firms to win contracts in monopolized industries.[4] Moreover, the structure of corporate governance is not fully established and is less professional and more politically oriented than in Western firms.[5]

All these observations lead to an impression that SOE managers can still be seen as Party cadres rather than entrepreneurs. Nevertheless, some scholars have found that SOE managers have formed various interest groups in defense of their corporate financial interests.[6] These managers have resisted

1. Although profit maximization is also one of the official policy goals the Chinese state has prescribed for its state firms, the profit-related goals usually conflict with other policy goals that would increase the firms' financial burden, such as job creation and price stability. For the sake of clarity, in this article "SOEs' policy goals" only refers to the firms' non-commercial imperatives.

2. Kjeld Erik Brødsgaard, "Politics and Business Group Formation in China: The Party in Control," *China Quarterly* 211 (September 2012): 624–48.

3. Damian Tobin and Laixiang Sun, "Inducement Mechanisms for Entrepreneurship in the State Sector: China's Telecommunication Industry as an Illustrative Case," Discussion Paper no. 69, 2007, Centre for Financial and Management Studies, University of London; Andrew G. Walder, "From Control to Ownership: China's Managerial Revolution," *Management and Organization Review* 7 (2011): 19–38.

4. Victor Nee and Sonja Opper, "Political Capital in a Market Economy," *Social Forces* 88 (2010): 2105–32.

5. Joseph P. H. Fan, T. J. Wong, and Tianyu Zhang, "Politically Connected CEOs, Corporate Governance, and Post-IPO performance of China's Newly Partially Privatized Firms," *Journal of Financial Economics* 84 (2007): 349–51.

6. Erica S. Downs, "Business Interest Groups in Chinese Politics: The Case of the Oil Companies," in Cheng Li, ed., *China's Changing Political Landscape: Prospect for Democracy* (Washington,

governmental proposals in their pursuit of corporate strategies that they believed to be beneficial to the firms' market performance.[7] This line of thought, however, is usually derived from studies of a single industry or corporation, and falls short of the explanatory leverage needed to analyze SOE managers across the Chinese economy. In short, the existing literature on the policy-oriented as opposed to commercially focused orientations of SOE managers lacks a comprehensive analysis of regulatory rules and personnel data to support these arguments. This insufficiency makes it difficult to capture the complexity of shifting managerial behavior associated with China's prolonged SOE reform.

This article seeks to examine the hybrid role of SOE managers, as both bureaucratic actors and market players, by exploring the personnel data of top executives and official regulations in the state sector. To a larger extent, conflicting managerial images emerge in continuing reform implementation, although the tension between managerial economic and political identities is an inherent problem with the public enterprises.[8] In the late 1990s, China's SOE reform reshuffled the state sector, and more market space was opened to the private sector. Nonetheless, the reform faced serious challenges when the Chinese government poured a huge amount of stimulus money into the state sector in response to the global financial crisis in 2008; state firms obtained a privileged status in market competition.[9] No one would dispute that Chinese SOEs are profitable entities today, while the party-state continues to exercise unchallenged authority over the appointments for top managerial positions.

DC: Brookings Institution, 2008): 121–41; Chih-shian Liou, "Bureaucratic Politics and Overseas Investment by Chinese State-Owned Oil Companies: Illusory Champions," *Asian Survey* 49 (2009): 670–90.

7. Barry Naughton, "SASAC and Rising Corporate Power in China," *China Leadership Monitor* 24 (2008), <http://media.hoover.org/sites/default/files/documents/CLM24BN.pdf>, accessed January 12, 2012.

8. Raymond Vernon, "Linking Managers with Ministries: Dilemmas of the State-Owned Enterprises," *Journal of Policy Analysis and Management* 4 (1984): 39–55; John Waterbury, *Exposed to Innumerable Delusions: Public Enterprise and State Power in Egypt, India, Mexico, and Turkey* (Cambridge: Cambridge University Press, 1992).

9. While some observers identified this trend as "the state advances, the private sector retreats," there is no consensus as to what degree the phrase reflects reality. For example, in March 2011 the Brookings Institution held a panel discussion on "China's New Breed of State Capitalism," with three experts on the Chinese economy expressing diverse views; see <https://www.brookings.edu/events/chinas-new-breed-of-state-capitalism/>, accessed March 1, 2011.

This article explains changes in SOE managers' behavior in response to the new state–business relationship inspired by the reform implementation. We argue that SOE managers are developing their entrepreneurship, which is supplementary to their role as political cadres. They are both party-state cadres and entrepreneurs at once, not pure entrepreneurs.[10] This evolution is an integral part of the regulatory restructuring and institutionalization of elite recruitment in China's state sector. After the large-scale replacement of revolutionary cadres with technocrats in the 1980s, the CCP instituted a meritocratic system of personnel allocation that was conducive to economic development.[11] The party-state continued to modernize the procedure of managerial selection, which was accelerated by the crisis of SOE insolvency in the mid-1990s. SOE managers' economic expertise is now of equal importance to their political loyalty and has become their advantage under the economic-growth-obsessed CCP regime. In this sense, managerial entrepreneurship—which had enabled the party-state to sustain the national economy and thus the CCP's legitimacy—was beyond the product of SOE reform and actually the result of a broader agenda: the institutionalization and modernization of the CCP's human resources management.

While the entrepreneurial behavior of Chinese SOE managers has been widely recognized,[12] most studies on managerial entrepreneurship fail to account for whether it is a systematic phenomenon or merely a collection of sporadic incidents. In claiming a systematic managerial evolution, this article adopts the definition of entrepreneurs provided by the Organization for Economic Co-operation and Development (OECD): "Entrepreneurs are those persons who seek to generate value through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets."[13] But the entrepreneurs in the state sector are different from their

10. Doug Guthrie, Zhixing Xiao, and Junmin Wang, "Stability, Asset Management, and Gradual Change in China's Reform Economy," in Barry Naughton and Kellee S. Tsai, eds., *State Capitalism, Institutional Adaptation, and the Chinese Miracle* (New York: Cambridge University Press, 2015): 75–101.

11. Hong Yung Lee, *From Revolutionary Cadres to Party Technocrats in Socialist China* (Berkeley: University of California Press, 1991); Cheng Li, *China's Leaders: The New Generation* (Lanham, MD: Rowman & Littlefield, 2001).

12. Edward Steinfeld, *Playing Our Game: Why China's Rise Doesn't Threaten the West* (New York: Oxford University Press, 2010), 32–35.

13. Organisation for Economic Co-operation and Development, *Measuring Entrepreneurship: A Collection of Indicators, 2009 Edition*, <http://www.oecd.org/dataoecd/43/50/44068449.pdf>.

counterparts in the private sector.[14] They behave much like private entrepreneurs that exploit market opportunities to maximize profits, but without neglecting their political role as party cadres, which equips them with more resources than the private firms in China's transitional economy.

This article argues that SOE top managers are strengthening their entrepreneurship, but not at the expense of political responsibility. They are rational and strategic actors who, in order to promote their careers within the state bureaucracy—and not necessarily within the SOEs—will adapt their behavior to the CCP's changing standards of meritocratic selection and evaluation. That is, they are now both party cadres and business executives. The data include the top managers of the CSOEs in six state-monopolized industries: civil aviation, coal, electricity, oil, shipping, and telecommunications (see the Appendix).[15] The industries listed stand out as critical cases on which to test the claim advanced above: when facing conflict between their economic and political roles, entrepreneurial SOE managers will not sacrifice their firm's financial interests to their policy tasks, because their career advancement now strongly depends on financial performance. As the party-state places these industries under its absolute control for the sake of national interests, the CSOEs involved have been increasingly resistant to political mandates that are detrimental to the firms' interests. However,

14. According to Kellee S. Tsai, in *Capitalism without Democracy: The Private Sector in Contemporary China* (Ithaca, NY: Cornell University Press, 2007), *private entrepreneurs* are people "who undertake the risk of engaging in private business" in general (11), whereas *individual entrepreneurs* are those (called *getihu*) who engage in "businesses with fewer than eight employees" in particular (62). In her book, she uses *private entrepreneurs* and *entrepreneurs* interchangeably. The term *cadre entrepreneur* also appears in Tsai's study; however, it is not used to categorize SOE managers. Rather, the term refers to party cadres who "have used their privileged political status to run businesses indirectly or help others run red hat operations"; they are called "red capitalists" by Bruce Dickson in *Wealth into Power: The Communist Party's Embrace of China's Private Sector* (New York: Cambridge University Press, 2008), 33.

15. State monopolized industries refer to those industries that the central state has fully controlled. According to "Guanyu tuijin guoyou zibeng tiaozheng he guoyou qiye chongzu de zhidao yijian" [Opinion on advancement of the adjustment of state capital and the restructuring of state-owned enterprises], promulgated by SASAC in 2006, the SOE reform agenda aims to concentrate state capital in four areas: national security-related industries; critical infrastructure and mining resources; the provision of public goods and services; and pillar and high-tech industries. In explaining these key areas, Li Rongrong, then head of SASAC, noted that seven industries must be under the state's "absolute control": civil aviation, coal, electricity, military engineering, oil, shipping, and telecommunications; see <http://www.sasac.gov.cn/n1180/n20240/n7291323/11898160.html>, accessed March 30 2012. Nevertheless, due to the sensitive nature of the industry and limited access to relevant information, the military engineering industry is not on the list of our case studies.

instead of suffering career setbacks, SOE top managers have continued their career advancement up the party-state hierarchy.

This study of China's SOE managers has enormous implications for understanding the future development of the party-state institution in China. As the Chinese party-state builds up the economy to justify its legitimacy internally and to boost its global influence externally, SOE managers play a key role in both tasks. This political concern leads to "a revitalized and strengthened administrative hierarchy" in the Chinese marketplace,[16] an essential element of the "synchronization of a party-government-military-economy regime."[17] Under this political arrangement, the group of SOE elites with the closest affinity to the party-state is expected to emerge as a new social stratum as a result of corporate restructuring.[18] In short, among the critical actors who define the contours of China's transition, only SOE managers enjoy all of the economic, political, and social advantages.

The rest of this article is organized as follows. The next section begins with a brief description of managerial reform in China's state sector and then presents a theoretical framework to elaborate on the institutionalization and modernization of managerial selection and evaluation. Then this paper presents empirical observations of SOE managers in six state-monopolized industries. The last section summarizes the findings and discusses the further implications for SOE reform in China.

THEORETICAL BACKGROUND AND HYPOTHESIS

To pursue the goal of economic development, the party-state began to re-institutionalize the bureaucracy that had been destroyed during the Cultural Revolution in the late 1970s, leading to the rise of a technocracy.[19] But a market-oriented technocracy alone can hardly satisfy China's quest for economic modernity in a globalized era. Considering that a loss-making state sector had upset the gains of the economic reform in the 1990s, it became imperative to expand the merit-based recruitment policy to the SOE sector.

16. Barry Naughton, "Market Economy, Hierarchy and Single-Party Rule," in Janos Kornai and Yingyi Qian, eds., *Market and Socialism: In the Light of the Experiences of China and Vietnam* (London: Palgrave Macmillan, 2009), 135.

17. Nan Lin, "Capitalism in China: A Centrally Managed Capitalism (CMC) and its Future," *Management and Organization Review* 7 (2011): 70.

18. Walder, "From Control to Ownership," 2.

19. Hong Yung Lee, *From Revolutionary Cadres to Party Technocrats*.

With the Chinese leadership prioritizing managerial skills over political subservience in the search for modern corporate leaders, the main criterion for manager recruitment shifted from "red and expert" to "professional."

Managerial Selection in China's State Sector

Political control and the associated bureaucratic intervention in firms' decision-making have widely been recognized as the root of SOEs' inefficiency.[20] One major form of leverage that the state has retained is the allocation of SOE personnel. Under the CCP's unchallenged tenet of public ownership, the party-state exerts hierarchical control over SOE managers according to the state cadre management system. Like members of staff in state departments, each state firm and its managers are assigned bureaucratic ranks depending on their status, such that all CSOEs (except for China Coal, a bureau-level entity) in the six industries we are studying are vice-ministerially ranked.[21] These unique institutional arrangements facilitated the party-state's ability to direct state firms and the firms' personnel as a part of the bureaucracy even though enterprise autonomy has been increasingly enhanced in the course of SOE reform. At the same time, the principle of "the Party controls cadres" (*dangguan ganbu*) is also applied to managerial recruitment in the SOE sector, meaning that the CCP Organization Department (CCPOD) has the ultimate authority over filling management positions in state firms.

After the reform agenda of corporatization was implemented in the 1990s, the CCP still controlled the allocation of managerial positions, but the criteria for decisions on managerial personnel have undergone a sea change. On SASAC's establishment, the state advocated conflating the rule of "the Party controls cadres" with the appointment procedure in accordance with corporate governance. Although in theory the two are not compatible,[22] in practice the Chinese state has incorporated companies' financial performance as one of the major criteria in hierarchic recruitment. SASAC first selects candidates

20. Edward Steinfeld, *Forging Reform in China: The Fate of State-Owned Industry* (Cambridge: Cambridge University Press, 1998).

21. As of April 2017, there were 51 enterprises ranked at the vice-ministerial level, among 102 CSOEs under SASAC supervision.

22. Jonathan G. S. Koppell, "Political Control for China's State-owned Enterprises: Lessons from America's Experience with Hybrid Organizations," *Governance* 20 (2007): 255–78.

based on its evaluation system, by which managerial business conduct is monitored through a number of economic indicators.[23] CCPOD then reviews the political profiles of candidates that SASAC recommends to ensure their loyalty to the Party. In fact, CCPOD has appointed most of the top executives suggested by SASAC.[24] It is worth noting that since 2009 the selection scheme has been further improved and distinguished from the management of bureaucratic cadres by weighting business performance at up to 50% of the managers' overall evaluation.[25] In this sense, CCPOD has delegated partial authority to SASAC for selecting SOE managers, though the former is still the final authority on personnel assignments. In doing so, the Chinese party-state harmonizes corporate governance requirements with the party line. This change in the system for selecting SOE managers introduces us to the broader transformation of the elite recruitment policy, which we discuss in the next section.

The Emergence of Managerial Elites under the Influence of Globalization

From the preceding discussion, it is clear that while hierarchical control over corporatized SOE managers remains, the criteria used to recruit these corporate leaders have been changed to place more emphasis on meritocracy and professionalism. The party-state has constructed a new set of incentives that are designed to reward profit-oriented behavior. The state's attention had earlier been given to reforming the bureaucratic system that had been destroyed in the turmoil of the Cultural Revolution (1966–76). In emphasizing competence and expertise,[26] the Chinese state needed a professional bureaucracy conducive to economic reform, leading to the emergence of technocrats.[27] Nevertheless, technocracy alone could not guarantee the success of the economic reform. This was especially apparent when loss-making state

23. SASAC, "Zhongyang qiye fuzeren jingying yeji kaohe zhanxin banfa" [Interim procedures for the evaluation of Central SOE leaders' financial performance], <http://www.gov.cn/flfg/2010-01/22/content_1517096.htm>, accessed April 23, 2012.

24. Interview with a SASAC official in Beijing, July 2014.

25. State Council, "Zhongyang qiye lingdao renyuan guanli zhanxin guiding" [Interim regulation on the management of Central SOE leaders], <http://www.gov.cn/jrzg/2009-12/30/content_1500198.htm>, accessed April 23, 2012.

26. During the Maoist period, the elite recruitment policy centered on "redness" and marginalized "expertise," meaning that political correctness, not competence, became the only criterion for promoting cadres.

27. Hong Yung Lee, *From Revolutionary Cadres to Party Technocrats*; Cheng Li, *China's Leaders*.

firms continued to plague the national economy and were barely able to contend with vigorous foreign competition in the 1990s. Then-Premier Zhu Rongji's large-scale SOE reform in the late 1990s, on the principle of "grasping the large and letting go of the small" (*zhuada fangxiao*), along with the creation of SASAC in 2003, transformed the CSOEs into big-growth engines.

To continue the delivery of economic goods as the justification for the CCP's legitimacy, the party-state extended meritocracy to the corporate sector and needed a professional team to manage its vast state-owned assets on its behalf, with the selection of this team hinging on the restoration of expertise "at the expense of 'redness.'"[28] The reformed recruitment policy represents the Chinese state's endeavor to modernize its managerial elites in the era of globalization. With the new promotion system that rewards entrepreneurial and profit-oriented behavior, SOE managers whose career development is still controlled by the party-state are now incentivized to behave more like entrepreneurs.

This argument emphasizes that actors strategically adjust their behavior in response to new constraints and resources associated with shifting political-economic designs.[29] Knowing the expectations of the state, SOE managers behave entrepreneurially. For this institutionalist argument to be cogent, it is necessary to demonstrate that the formal incentive system is effective in motivating SOE managers. We thus propose the following hypothesis, which will be tested in the empirical section of this article:

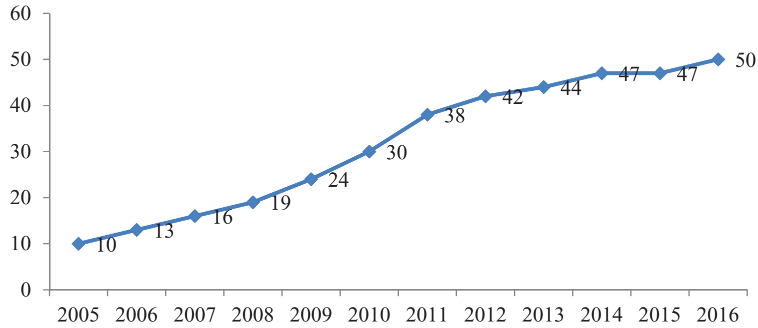
> *If managers have positive financial performance, they will be rewarded with career promotion. Otherwise, they will be punished with career setback.*

In short, corporatized SOE managers are transformed into entrepreneurs because of the CCP's elite recruitment policy, while maintaining their political identity. The transformation comes from a change in the method by which the state wields political control over SOE managers. This contention does not rule out the possibility that SOE managers during the pre-corporatization period behaved in an entrepreneurial way to enhance firms'

28. Zhiyue Bo, "Political Succession and Elite Politics in Twenty-first Century China: Toward a Perspective of 'Power Balancing,'" *Issues & Studies* 41 (2005): 162–89.

29. For more details of neoinstitutionalism in political science, see Peter A. Hall and Rosemary C. R. Taylor, "Political Science and the Three New Institutionalisms," *Political Studies* 44 (1996): 936–57; Peter A. Hall and Kathleen Thelen, "Institutional Change in Varieties of Capitalism," *Socio-Economic Review* 7 (2009): 7–34.

FIGURE 1. China's Central State-Owned Enterprises in the Global 500



SOURCE: "Global 500," *Fortune*, <http://money.cnn.com/magazines/fortune/global500>, various years.

productivity. But they were cadres first, in the sense that they prioritized governmental policies at the expense of firms' financial performance. Managerial entrepreneurship in the post-corporatization period, on the contrary, systematically tends to make managers more like entrepreneurs than cadres.

THE EMPIRICAL EVIDENCE FOR MANAGERIAL TRANSFORMATION IN CHINA'S STATE-MONOPOLIZED INDUSTRIES

Since the early 2000s, the CSOEs have greatly improved their financial performance, and some have become international-level enterprises (Figure 1). One could contend that the marvelous development of the CSOEs has come about as a result of heavy government subsidies and monopoly rights. This argument, however, has difficulty explaining why China's state sector was once the largest liability of the Chinese economy, when the sector enjoyed more government financial and administrative support than it does now. Hence, government subsidies and monopoly rights fail to account for the fast growth of CSOEs. We consider that the firms' positive returns come from managerial behavioral change. In the following paragraphs, we demonstrate the effectiveness of the new incentive system that induced these changes.

Since the early 2000s, the personnel appointment system has been revised accordingly. Since SASAC was created in 2003, there has been a division of labor between CCPOD and SASAC to handle personnel management. The Bureau of Enterprise Cadres (a.k.a. the Fifth Bureau) of CCPOD is responsible for appointing the chief executive officers (CEOs) and party secretaries of 51 vice-ministry-level CSOEs with assistance from SASAC's First Bureau for the Administration of Corporate Executives.[30] Other high-level management positions in these SOEs are supervised by SASAC's Bureau of Party-Building. Moreover, SASAC's Second Bureau for the Administration of Corporate Executives takes charge of the leadership teams of the remaining bureau-level CSOEs.[31] Although there are various government entities, such as the National Development and Reform Commission and the Ministry of Commerce, sharing partial supervisory authority over the CSOEs, it is clear that SASAC has the exclusive mandate to manage the personnel arrangements,[32] i.e., the SOE managers are motivated by the criteria for promotion set up by SASAC.

To test the hypothesis advanced in the previous section, we developed a database of managerial background information on 20 CSOEs operating in six big state-monopolized industries between 2002 and 2016.[33] Of these 20 SOEs, 19 have vice-ministerial status and their top leaders are included in the central *nomenklatura* list.[34] Only China Coal is a bureau-level SOE, and its CEO is chosen by SASAC. Specifically, we examined 72 top corporate leaders in these SOEs (Table 1).[35] Our data show the rationale behind the SOE personnel arrangement that was illuminated in the earlier section: that SOE top executives are driven by profits. We divide these top managers into two generations in terms of their background: transition and market-oriented.

The *transition generation* refers to the first general managers of the corporatized CSOEs, who were assigned in the late 1990s or early 2000s; these managers were in their late fifties at the time of their appointments, only

30. The former chair of SASAC, Wang Yong, was the head of the Enterprise Cadres Bureau between 2001 and 2003, before being appointed vice-chair of SASAC in August 2010.

31. Ping Wang, "Dongshihui jianshe, jianxing jianjin" [Getting closer to creating the board of directors], *Guoqi Xinwenwang* (SOE News Net), <http://www.chinasoe.com.cn/magazine/201203/2012-03-12/2590_7.html>, accessed March 12, 2012.

32. Articles 12 and 22 of "Zhonghua Renmin Gongheguo qiye guoyou zichan fa" [Law of the People's Republic of China on the state-owned assets of enterprises], <http://www.sasac.gov.cn/n1180/n20240/n7291323/11896891.html>, accessed May 12, 2012.

33. COSCO and China Shipping were merged into China COSCO Shipping in 2016, so there are 19 SOEs now.

34. Hon S. Chan, "Cadre Personnel Management in China: The *Nomenklatura* System, 1990–1998," *China Quarterly* 179 (2004): 703–34.

35. There are three CEOs who have working experience in different CSOEs, so we count their statuses separately.

TABLE 1. Comparison between Transition Generation and Market-Oriented Generation

		Number			*Number*
Transition generation	Work experience before becoming CEO		Market-oriented generation	Work experience before becoming CEO	
	Government	4		Government	1
	Industry	1		Industry	29
	Both government and industry	10		Both government and industry	9
Total		15			39

SOURCE: Compiled by the authors.
NOTE: During the era of integration of government entities and business corporations (*zhengqi heyi*), based on the nature of the work and job responsibility, we consider a position in a ministry work experience in government. Otherwise, it is regarded as work experience in industry.

a few years from the retirement age of 60. There are 15 managers, making up 20.8% of our data set. They share several distinctive features. First, almost all of them have long experience working in government. Four top executives had never worked in industry before taking leadership positions in the SOEs. Ten CEOs had work experience in both government and industry (Table 1). Li Kelin of China Shipping is the only CEO who had worked in industry for his entire career. Second, all of them simply retired when they reached the mandatory retirement age. Third, they occupied both the highest business position and the highest party position in their enterprises, CEO and party secretary.[36] In other words, they were similar to their predecessors of the pre-corporatization period and performed very much like party cadres.

The *market-oriented generation* comprises three types of top managers: those who were promoted to be the first general managers after corporatization in their late forties or early fifties; successors to the transition generation; and incumbent CEOs. There are 57 managers, making up 79.2% of our data

36. In the "Decision of the CCP Central Committee Concerning Economic Structure Reform" (*Zhonggong Zhongyang guanyu jingji tizhi gaige de jueding*) announced at the Third Plenum of the 12th National Party Congress in 1984, the central authority promoted the director/manager responsibility system (*changzhang/jingli fuzezhi*). Later, in 1986, the State Council promulgated the relevant decrees to clarify that the party secretary should not hold a joint position as manager of an SOE. But this rule has not been widely adopted in the state sector.

set. Seventeen experienced a career shift after being top managers: five of them resigned, and 12 retired. In addition, some of them retired a few years after reaching retirement age; the other 19 are incumbents. In contrast to the transition generation, 29 CEOs had worked exclusively in industry, and nine top managers had taken various positions in both government and industry. Li Jiaxiang of Air China is the only exception, having never worked in industry before being named party secretary of Air China Ltd. in 2000. Li had served in the military for three decades and been promoted to major general in the Air Force. With their long experience in industry, most top managers of the market-oriented generation were former deputy general managers in the same corporations. Currently, among the 19 CEOs, only Cao Peixing of Huaneng is not the party head of the firm. The number was 15 in 2013. By examining their background data, we demonstrate that market-oriented-generation top managers are in fact entrepreneurs with rich business experience who look to maximize profit for career development.

A NEW INCENTIVE STRUCTURE: LINKING CAREER DEVELOPMENT TO FINANCIAL PERFORMANCE

SASAC's focus on improving the value of state assets has inspired top managers to develop their businesses, because their career prospects and remuneration are closely linked to individual performance. SASAC has adopted total profit and rate of return on net assets as indicators to evaluate and then reward or punish top managers. Senior management teams have been assessed every year since 2004 and also have an overall evaluation every three years. The results are announced on SASAC's website regularly.[37] All CSOEs are divided into five groups, from A (highest) to E (lowest). According to the grades they receive from SASAC, top managers may receive bonuses, promotions, demotions, or even be removed from their positions.[38] In 2009, SASAC incorporated economic value added, which emphasizes

37. For detailed information, see "Zhongyang qiye fuzeren jingying yeji kaohe zhanxing banfa" [Interim measures for performance evaluation for central state-owned enterprise executives], <http://www.sasac.gov.cn/n1180/n20240/n7291323/11898865.html>, accessed May 21, 2012; "Zhongyang qiye fuzeren xinchou guanli zhanxing banfa" [Interim measures for remuneration management for central state-owned enterprise executives], <http://www.sasac.gov.cn/n1180/n20240/n7291339/11863882.html>, accessed May 21, 2012.

38. For example, those managers who earned an E would not receive a bonus that year.

a firm's economic profit instead of sales, into the performance evaluation system.[39]

Does the CCP rely on the preceding evaluation scheme when making personnel decisions? The answer is yes. Among 16 market-oriented top managers who had been assessed,[40] 14 were evaluated as A-class at least once, and eight of them even earned an A every year during their tenure. Given that the majority of CSOEs are in the B-class, these A-class managers were rewarded with job promotions. Meanwhile, managers who had never been evaluated as A-class were not promoted. Through the new incentive structure and these promotions, SASAC motivates the SOE management teams to maximize business performance. We detail these trends next.

Job promotion takes place in four major forms (see Table 2): I, being promoted to chair or member of the board of directors; II, being shifted to the political track; III, being given responsibility for a larger company; and IV, being delegated to save a poorly performing firm with a state-funded capital injection.

In the first form of promotion, the CEO is appointed chair or outside director as part of a grand project that SASAC is now working on to improve corporate governance.[41] Unlike the transition-generation top executives who simply retired, market-oriented-generation CEOs have an opportunity to prolong their careers past the normally mandatory retirement age: SASAC wants these experienced hands to continue working to contribute their knowledge and expertise.[42] Some top managers were promoted to be the first chair of the newly established board of directors in the same enterprises in which they had served as CEO, such as Jiang Jiemin of China National Petroleum Corporation

39. For detailed information, see the 2009 revised version of the "Interim Measures," <http://www.gov.cn/flfg/2010-01/22/content_1517096.htm>, accessed June 21, 2012.

40. Although 19 top managers experienced career shifts, three of them—Wang Jianzhou at China Unicom, Li Yizhong at Sinopec, and Wei Liucheng at CNOOC—had held their positions before SASAC's evaluation system was initiated.

41. SASAC has been improving the corporate governance system by setting up boards of directors in group parent companies, and 40 CSOEs had this supreme governing body as of December 2011. For details, see "Dongshihui shidian zhongyang qiye dongshihui guifan yunzuo zhanxing banfa" (Interim measures for the standard operation of the board of directors of a central enterprise in the pilot program on the board of directors), <http://www.fsou.com/html/text/chl/1183/118357.html>, accessed June 30, 2012.

42. Generally speaking, the mandatory retirement age for SOE top managers is 60. Managers directly appointed by the CCPOD can stay in the position until they are 63. In some special cases, the retirement age can be extended to 65.

TABLE 2. Performance Evaluation and Career Development

Promotion type	*Case number*	
I	7	Fu Chengyu, CNOOC Jiang Jiemin, CNPC Kong Dong, Air China Li Shaode, China Shipping Wang Jianzhou, China Mobile Wag Xiaochu, China Telecom Wei Jiafu, COSCO
II	9	Li Jiaxiang, Air China Wang Changshun, Air China Jiang Jiemin, CNPC Li Yizhong, Sinopec Su Shulin, Sinopec Wei Liucheng, CNOOC Zhang Xiwu, Shenhua Li Xiaopeng, Huaneng Liu Shunda, Datang
III	2	Cao Peixi, Huadian Wang Binghua, CPI
IV	1	Liu Shaoyong, CSA
N	3	Chen Tonghai, Sinopec Li Fenghua, China Eastern Airlines Ma Fucai, CNPC

SOURCE: Compiled by the authors.

(CNPC), Li Shaode of China Shipping, Wang Jianzhou of China Mobile, Wang Xiaochu of China Telecom, and Wei Jiafu of China Ocean Shipping Group Company (COSCO), while some moved to other enterprises, such as Fu Chengyu of China National Offshore Oil Corporation (CNOOC).

In the second form of promotion, under the unique party-state system in China, the top manager is promoted to a political position, and we have nine such cases in our data set. It is not rare in the oil sector for the heads of national oil companies to become political leaders. Examples are Jiang Jiemin of CNPC, Li Yizhong and Su Shulin of Sinopec, and Wei Liucheng of

CNOOC. Li Xiaopeng, former CEO of the Huaneng Group, is another case. Although the fact that his father is China's ex-Premier Li Peng is regarded as a major factor in his appointment as executive deputy governor of the province of Shanxi, Huaneng's consistent growth and expansion during his tenure was impressive and contributed to his advancement. At Air China, before Li Jiaxiang's arrival, the firm carried a deficit of more than US$ 100 million and a debt ratio over 90%. Li led the company from loss to profit for four consecutive years, and it became one of the top 20 airlines in the world during his tenure. After the 2008 administrative reform, Li was promoted to vice minister of transport and director of the Civil Aviation Administration of China in recognition of his excellent performance.

In the third form of promotion, a top executive is assigned to take charge of a larger enterprise with more assets and employees. Under Cao Peixi's leadership, the Huadian Group's revenue hit a record high of US$ 700 million in 2007, with a growth rate of 36%, and the net profit was US$ 150 million, an increase of 60%.[43] Due to this stellar performance, Cao left Huadian, which he had led for only 18 months, to become the CEO of Huaneng Group, the largest power utility group in China, with total assets of US$ 60 billion in 2008. Another example is Wang Binghua. After being the CEO of China Power Investment Corporation (CPI) for five years, Wang became the founding president of State Nuclear Power Technology Corporation, a company with great strategic significance.

In the fourth form of promotion, the CEO is moved to a company with poor performance as part of the central government's plan to revive such companies. This is considered a promotion because the central government has provided CEOs with more resources, e.g., preferential policies or financial support, to use in their new assignments. It also demonstrates the interdependence between the state and top executives: the state not only controls the future of SOE managers' careers but also relies on capable managers to help SOEs achieve goals. When Liu Shaoyong moved to China Eastern Airlines (CEA) in 2008, the company was experiencing its most difficult time since being established in 1995. CEA had been pushed to the verge of insolvency, with a very high debt-to-equity ratio of 98%. Liu's assignment as CEO of the airline was regarded as an emergency rescue plan to save CEA from the

43. "Work Report 2008 of Huadian Group," <http://www.chd.com.cn/html/zghd30/2.htm>, accessed June 24 2012.

downturn, and the central government granted a capital injection of US$ 1.5 billion to facilitate a merger with Shanghai Airlines in 2009. It was believed to constitute a recognition of Liu's contribution to the success of China Southern Airlines (CSA). During Liu's tenure, CSA became China's first aviation enterprise to join the Sky Team Alliance, an international aviation organization. CSA also improved from a C-class to an A-class enterprise in SASAC's annual performance assessments.

While some CEOs were promoted because of their achievements, some were dismissed for their firms' decline or industrial accidents (category N in the table). This broke the rule of "only promotion, no demotion" (*neng shang buneng xia*). A typical case is Li Fenghua, former general manager of CEA. During his tenure, between 2004 and 2008, CEA suffered from a high debt-to-assets ratio, rising deficits, and frequent pilot resignations. CEA had faced a deficit problem since 2005 and was deteriorating.[44] Li presided over CEA's worst performance ever and never earned an A in SASAC's annual performance evaluation. He was relieved of his duties and received no other assignment, although he was only 58, two years short of the mandatory retirement age. Another case is Ma Fucai, former CEO of CNPC. In December 2003, a CNPC gas well in Chongqing City exploded, killing 243 workers. Although he had turned once-lumbering CNPC into China's most profitable SOE, Ma took responsibility and resigned (in fact, he was removed by CCPOD) after the investigation report was completed.[45] Ma was then idle for a year before being assigned a new position.

After President Xi Jinping launched his anti-corruption campaign in late 2012, two incumbent CEOs (Si Xianmin of CSA and Chang Xiaobing of China Telecom) were investigated and later dismissed; even former top central SOE leaders who had already shifted to other positions were not immune and were dismissed, such as Jiang Jiemin of CNPC and Su Shulin of Sinopec.

MOVING TOWARD BOTH THE PARTY AND THE MARKET

In addition to the effective new managerial incentive structures discussed earlier, two institutional arrangements facilitate market-oriented-generation

44. CEA lost RMB 0.46 billion in 2005, RMB 3.31 billion in 2006, and RMB 14 billion in 2008, though it had a profit of RMB 0.58 billion in 2007.

45. Feng Wang, "Oil Boss Ma Fucai Resigns," *Caijing Net*, April 20, 2004, <http://english.caijing.com.cn/2004-04-20/100013933.html>.

CEOs' entrepreneurial behavior. That is, unlike the transition-generation top managers, market-oriented-generation CEOs are party bosses of the firms in a different sense (see below). They face monitoring from both the stockholders and the supervisory body at the same time.

SASAC originally planned to separate the roles of business leader and party leader to relieve market-oriented CEOs from party affairs and give them complete authority in business-related decisions. According to a report issued by the Research Group of the Second Bureau for the Corporate Executives Administration of SASAC,[46] a division of labor among the chairperson, general manager, and party secretary has proved to be a better arrangement for SOEs. These agents are in charge of decision-making, execution, and political duties, respectively; the troika arrangement is expected to improve efficient operation and risk management. In 2013, 13 incumbent top managers (65%) were not leading party organizations, compared to only five (33%) in the transition generation.[47] Nonetheless, with the establishment of boards of directors in more CSOEs, the role of party secretary was returned to the CEO (thereby reuniting the division of labor), and loyalty to the party will be linked to their career evaluation.[48]

Second, most SOE top executives jointly hold the leadership positions in their respective major overseas-listed subsidiaries. Only two CSOEs, State Grid Corporation and China Southern Power Grid, have no major overseas-listed companies. Of the rest of the SOEs, most CEOs are chairpersons, and several vice chairs or general managers are the heads of their overseas-listed companies. Moreover, six top managers led their companies through the onerous overseas-listing procedures and obtained foreign regulatory approval. Leading the listed subsidiaries, especially those listed internationally, has put these SOE CEOs in an environment that allows them to experience the

46. Research Group of the 2nd Bureau for the Corporate Executives Administration of SASAC, "Zhongyang qiye dongshizhang, zongjingli he dangweishiji renzhi peizhi wenti yanjiu" [On the positions and arrangement among the chairpersons, general managers, and party secretaries in the CSOEs], October 2007, <http://www.tsruc.com/tsadmin/eWebeditor/UploadFile/200964164851907.pdf>, accessed May 24, 2012.

47. The principle was first announced in 1984 but was not comprehensively implemented till the late 2000s. Also see note 38.

48. "Dui dang zhongchengdu jueding yangqi fuzeren xinchou" [Loyalty to the party decides the top managers' salaries in the central SOEs], *Deutsche Welle*, April 18, 2017, <http://www.dw.com/zh/%E5%AF%B9%E5%85%9A%E5%BF%A0%E8%AF%9A%E5%BA%A6%E5%86%B3%E5%AE%9A%E5%A4%AE%E4%BC%81%E8%B4%9F%E8%B4%A3%E4%BA%BA%E8%96%AA%E9%85%AC/a-38460733?&zhongwen=simp>.

discipline of capital market and governance norms. They have directly faced pressure from entities such as shareholders and regulatory agencies and dealt with issues of financial transparency and corporate profitability. At this point, these SOE top managers are entrepreneurs seeking gains, just like their counterparts in private enterprises, because the performance of listed subsidiaries and the stock market's responses have become reliable and public indicators of their efforts and ability.[49]

Besides the preceding formal mechanisms, an interesting trend also reflects managerial identity shift: the number of CEOs who have obtained postgraduate degrees in business management and other relevant fields is substantially greater among the market-oriented generation than among their predecessors. The number is much higher if we survey the management teams in the entire state sector. This trend reflects how knowledge of entrepreneurship and business development has gained managers' attention. In other words, market-oriented-generation managers recognize that cultivating management skills and the business profession has become the very essence of running a state firm—it is a competence no less important than maintaining good bureaucratic connections. It is also the best way for these managers to accumulate social capital and build up their network with other entrepreneurs both domestically and internationally. Reflecting this managerial trend, our data show that most CEOs in telecommunications companies have obtained doctorate degrees in business administration,[50] and some other CEOs hold either MBA or Executive MBA degrees from both Chinese and foreign universities. Four top executives earned master's degrees in other relevant fields.[51] Obtaining such a degree equips them with a greater ability to run a business in a capitalistic manner.

It is clear that China's SOE CEOs are motivated and benefit personally when they shift their behavior toward a business orientation. SASAC evaluates

49. From the information provided on companies' websites and the annual reports to shareholders, most of the major listed subsidiaries of CSOEs in the state-monopolized industries have maintained steady profitability and stable growth since 2005.

50. Interestingly, five of them earned their Doctor of Business Administration degrees from the same program at Hong Kong Polytechnic University. The program was designed for senior managers in the telecom industry and sponsored by a Western multinational corporation (interview with a researcher of the Development and Research Center of the State Council, Beijing, July 20, 2015).

51. Li Jiaxiang of Air China has a master's degree in international economic law. Li Shaode and Xu Lirong of China Shipping obtained master's degrees in shipping management. Liu Shaoyong of China Eastern Airlines earned his master's degree in economics.

them using profitability measures and provides them with opportunities for career progression in a variety of forms. Assuming the roles of business leader and party head and jointly holding leadership positions in their firms' major overseas-listed subsidiaries all expose the SOE CEOs to market regulation and party discipline at the same time. An engineering degree is common among former SOE top CEOs, but as a new generation emerges, these younger managers realize the need to sharpen their management skills to survive in a capitalist world and thus meet the CCP's requirements for promotion.

CONCLUSION

In this article, we demonstrate the central state's intention to seek capable CEOs and the pressure on SOE managers to advance entrepreneurship while keeping their party identity. With the institutionalization of career evaluation and development, SOE top managers have pursued better economic performance for their firms. In contrast to their predecessors, as a market-oriented generation they are neither revolutionary cadres nor pragmatic technocrats. They are more like entrepreneurs, devoted to maximizing profits, focusing on corporate operations, and facing both market regulators and shareholders directly. By following the rules of the capitalist market, they have a brighter career future.

Nonetheless, it is misleading to assume that the transformation of SOE top managers into entrepreneurs has distanced them from being political actors. In China's party-state, where the CCP is still the absolute power center, the logic of SOE operations and top managers' entrepreneurship remain political in nature. In light of the changing evaluation system, good financial records become valuable political assets which SOE heads can leverage to ensure bright career prospects. It is clear that political calculations outweigh economic calculations, for one of the managerial promotion options is to transfer to the political track at a much lower salary. It also suggests that with the progress of corporatization, the state's instruments of control over SOE personnel have not been eroded but instead have been strengthened and diversified. To some degree, this orientation toward professionalism reflects the adaptability of the CCP to market forces, especially in the era of globalization.[52]

52. A number of China scholars have noted the adaptability of the CCP to the new economic environment brought about by the market transition. Our observation echoes this body of literature.

The Chinese government has not only incorporated the capitalists into the political system, as noted by a number of China scholars,[53] but it has also gone a step further by forming a dual identity of party cadres and entrepreneurs.

With the CCP's ruling legitimacy increasingly relying on economic performance, managers' professional knowledge has become valuable in achieving economic growth. This is especially true when pursuing the goal under the impact of globalization, which requires a highly professionalized team of managers who can provide specific skills that the state needs. Seen in this light, the relationship between the party-state and SOE managers has shifted to a situation that encourages both economic expertise and political loyalty.

Facilitated by their direct role in the marketplace, the CSOEs are the winners, due to favorable regulatory terms and cheap production elements.[54] To their managers, staying in the state sector and hierarchy means a better chance of career success. Moreover, because China's "top-tier stratifications in politics and economics are synchronized," central SOE managers have advantages enabling them to advance to the top echelon of the political arena.[55] Such an arrangement strengthens the effect of the incentive mechanism associated with the party-state hierarchy. Consequently, the interdependent relationship between the state and its managers has been stabilized, with the former needing managerial skills in the pursuit of economic development and the latter relying on the state for career advancement.

By motivating these executives to pursue better financial performance, the Chinese state has benefited from economic growth and political stability. Nonetheless, the whole process remains dynamic, and the Chinese state keeps improving the corporate governance of SOEs. This study is just the beginning in examining the trend, and future studies can verify our arguments by extending empirical research to other CSOEs or local state firms.

See e.g. Dickson, *Wealth into Power*; David Shambaugh, *China's Communist Party: Atrophy and Adaptation* (Berkeley: University of California Press, 2008).

53. Yongnian Zheng, *The Chinese Communist Party as Organizational Emperor: Culture, Reproduction, and Transformation* (New York: Routledge, 2010): 181–86.

54. Yasheng Huang, *Capitalism with Chinese Characteristics: Entrepreneurship and the State* (New York: Cambridge University Press, 2008), chapter 5.

55. Lin argues that the Chinese party-state exhibits a "total involvement" in the marketplace, which he claims is evidence that "the state itself acts as a capitalist." Nan Lin, "Capitalism in China: A Centrally Managed Capitalism (CMC) and its Future," pp. 8–19.

APPENDIX. Top Leaders of the SOEs in the State-Monopolized Industries

Industry	Firm (board of directors)	Year (established /reorganized)	Top leader	Age[1]	Tenure	Party head	Previous position	Next position
Civil Aviation	Air China (2016)	1988/2002	Wang Kaiyuan	59	2002-2004	N	General manager (GM) of Air China Ltd.	Retired
			Li Jiaxiang	55	2004-2008	N	GM of Air China Ltd.	Vice-minister of transport and director of CAAC
			Kong Dong	57	2008-2011	N	Deputy general manager (DGM) of Air China	Outside director of China Telecom and Shenhua
			Wang Changshun	54	2011-2014	N	Deputy director of CAAC	Vice-minister of Transport
			Cai Jianjiang	49	2014-2016; 2016-	Y	GM of Air China Ltd.	
	China Eastern Airlines (2016)	1993/2002	Ye Yigan	59	2002-2004	N	Director of East China Branch of CAAC	Retired
			Li Fenghua	54	2004-2008	N	DGM of China Eastern Airlines	Resigned
			Liu Shaoyong	50	2008-2016; 2016-	N, Y	GM of China Southern Airlines	

(continued)

APPENDIX *(continued)*

Industry	*Firm (board of directors)*	*Year (established /reorganized)*	*Top leader*	*Age*[1]	*Tenure*	*Party head*	*Previous position*	*Next position*
	China Southern Airlines (2016)	1993/2002	Yan Zhiqing	60	2002-2004	N	DGM of China Southern Airlines	Retired
			Liu Shaoyong	46	2004-2008	N	Deputy director of CAAC	GM of China Eastern Airlines
			Si Xianmin	51	2008-2016	N	GM of China Southern Ltd.	Resigned due to corruption scandals
			Wang Changshun	59	2016-	Y	Vice-minister of transport	
Coal	Shenhua* (2005)	1995	Chen Biting	58	2003-2008	Y	GM of Shenhua	Retired
			Zhang Xiwu	50	2008-2014	Y	GM of Shenhua	Deputy director of SASAC
			Zhang Yuzhuo	52	2014-	Y	GM of Shenhua	
	China Coal (2009)	1982/2003	Jing Tianliang	58	2003-2008	N	GM of China Coal (pre-reorganization)	Retired
			Wang An	49	2008-2015	Y	DGM of Shenhua	GM of China International Engineering Consulting Corporation
			Li Yanjiang	58	2015-	Y	GM of China Coal	

Electricity	SGC (2013)	2002	Zhao Xizheng	60	2002-2004	Y	DGM of SPCC	Retired
			Liu Zhengya	52	2004-2016	Y	DGM of SGC	Retired
			Shu Yinbiao	58	2016-	Y	GM of SGC	
	CSPG	2002	Yuan Maozhen	56	2002-2010	Y	GM of Southern Branch of SPCC	Retired
			Zhao Jianguo	52	2010-2016	Y	GM of CSPG	Chair of Huadian
			Li Qingkui	60	2016-	Y	Chair of Huadian	
	Huaneng	1988/2002	Li Xiaopeng	43	2002-2008	Y	President of Huaneng Ltd.	Deputy governor of Shanxi
			Cao Peixi	53	2008-	N	GM of Huadian	
	Datang (2010)	2002	Zhai Ruoyu	56	2002-2010	Y	GM of Northern China Power Group	Retired
			Liu Shunda	55	2010-2012	Y	DGM of Datang	Chair of the State Council's Board of Supervisors
			Chen Jinxing	58	2013-	Y	GM of Datang	
	Guodian (2013)	2002	Zhou Dabing	57	2002-2008	Y	DGM of SPCC	Retired
			Zhu Yongpeng	58	2008-2013	N	DGM of Guodian	Retired
			Qiao Baoping	58	2013-	Y	DGM of Guodian	

(continued)

APPENDIX *(continued)*

Industry	*Firm (board of directors)*	*Year (established /reorganized)*	*Top leader*	*Age*[1]	*Tenure*	*Party head*	*Previous position*	*Next position*
	Huadian (2013)	2002	He Gong	59	2002-2006	Y	DGM of SPCC	Retired
			Cao Peixi	51	2006-2008	Y	DGM of Huadian	GM of Huaneng
			Yun Gongmin	58	2008-2013	N	Vice chair of Shenhua	Retired
			Li Qingkui	57	2013-2016	Y	DGM of Huadian	Chair of CSPG
			Zhao Jianguo	58	2016-	Y	Chair of CSPG	
	CPI Merged with SNPTC and renamed SPI in 2015	2002	Wang Binghua	47	2002-2007	Y	DGM of China National Nuclear Corporation	GM of State Nuclear Power Technology Corporation
			Lu Qizhou	56	2007-2015	Y	DGM of SGC	Retired
			Wang Binghua	61	2015-	Y	Chair of State Nuclear Power Technology Corporation	

Oil	CNPC (2011)	1988/1998	Ma Fucai	52	1998-2004	Y	DGM of CNPC	Resigned
			Chen Geng[3]	58	2004-2006	Y	GM of CNPC Ltd.	Retired
			Jiang Jiemin	51	2006-2013	Y	DGM of CNPC	Director of SASAC
			Zhou Jiping	59	2013-2015	Y	DGM of CNPC	Retired
			Wang Yilin	59	2015-	Y	Chair of CNOOC	
	Sinopec (2011)	1983/1998	Li Yizhong	53	1998-2003	Y	DGM of Sinopec	Deputy director of SASAC
			Chen Tonghai	55	2003-2007	Y	DGM of Sinopec	Resigned
			Su Shulin	45	2007-2011	Y	DGM of CNPC, director of Organization Department of Liaoning[4]	Deputy party secretary and acting governor of Fujian
			Fu Chengyu	60	2011-2015	Y	Chair of CNOOC	Retired
			Wang Yupu	59	2015-	Y	Vice-president of Chinese Academy of Engineering	
	CNOOC (2011)	1982	Wei Liucheng	52	1998-2003	Y	DGM of CNOOC	Deputy party secretary and deputy Governor of Hainan
			Fu Chengyu	52	2003-2011	Y	DGM of CNOOC	Chair of Sinopec
			Wang Yilin	55	2011-2015	Y	DGM of CNPC	Chair of CNPC
			Yang Hua	54	2015-		GM of CNOOC	

(continued)

APPENDIX *(continued)*

Industry	*Firm (board of directors)*	*Year (established /reorganized)*	*Top leader*	*Age*[1]	*Tenure*	*Party head*	*Previous position*	*Next position*
Shipping[5]	COSCO (2011)	1961/1988, 1993, 2000	Wei Jiafu	48	1998-2013	Y	GM of COSCO Bulk Carrier Ltd.	Chair of COSCO
			Ma Zehua	58	2013-2016	N	DGM of China Shipping	Retired
	China Shipping (2011)	1997/2002	Li Kelin	60	2002-2006	N	GM of China Shipping (pre-reorganization)	Retired
			Li Shaode	56	2006-2013	N	DGM of China Shipping	Chair of China Shipping
			Xu Lirong	56	2013-2016	N	DGM of COSCO	Chair of China COSCO Shipping Co.
	China COCSO Shipping Co.		Xu Lirong	59	2016-	Y	Chair of China Shipping	
Telecom	China Mobile (2011)	2000/2008	Zhang Ligui	58	2000-2004	Y	Director of Post and Telecom Bureau	Retired
			Wang Jianzhou	56	2004-2012	N	GM of China Unicom	Retired
			Xi Guohua	61	2012-2015	Y	Deputy minister of industry and information technology	Retired

		Shang Bing	60	2015-	Y	Deputy minister of industry and information technology	
China Unicom*	1994/2008	Yang Xianzu	60	1999-2003	Y	Vice minister of information industry	Retired
		Wang Jianzhou	55	2003-2004	Y	GM of China Unicom	GM of China Mobile
		Chang Xiaobing	47	2004-2015	Y	DGM of China Telecom	Chair of China Telecom
		Wang Xiaochu	57	2015-	Y		
China Telecom (2011)	2000/2001, 2008	Zhou Deqiang	58	1999-2004	Y	Vice minister of information industry	Retired
		Wang Xiaochu	46	2004-2015	Y	DGM of China Mobile	Chair of China Unicom
		Chang Xiaobing	58	2015	Y	Chair of China Unicom	Resigned
		Yang Jie	54	2016-	Y	DGM of China Telecom	

SOURCE: Compiled by the authors.

NOTES:

[1] Age at which the CEO took the position.

[2] TG: transition generation; MG: market-oriented generation.

[3] Chen Geng is included in the transition generation because he was assigned to CNPC due to Ma Fucai's sudden resignation as the provisional candidate.

[4] Su Shulin's working experience in Liaoning Province is regarded as "on-the-job training through rotation" (*gua zhi duan lian*), not a shift to the political track.

[5] China COSCO and China Shipping were merged to become China COSCO Shipping Corporation in 2016.

* Top leader is called "chair" due to different governance structure.