Winter January, 2016

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Paulson Policy Memorandum

Why Mixed-Ownership Reforms Cannot Fix China's State Sector

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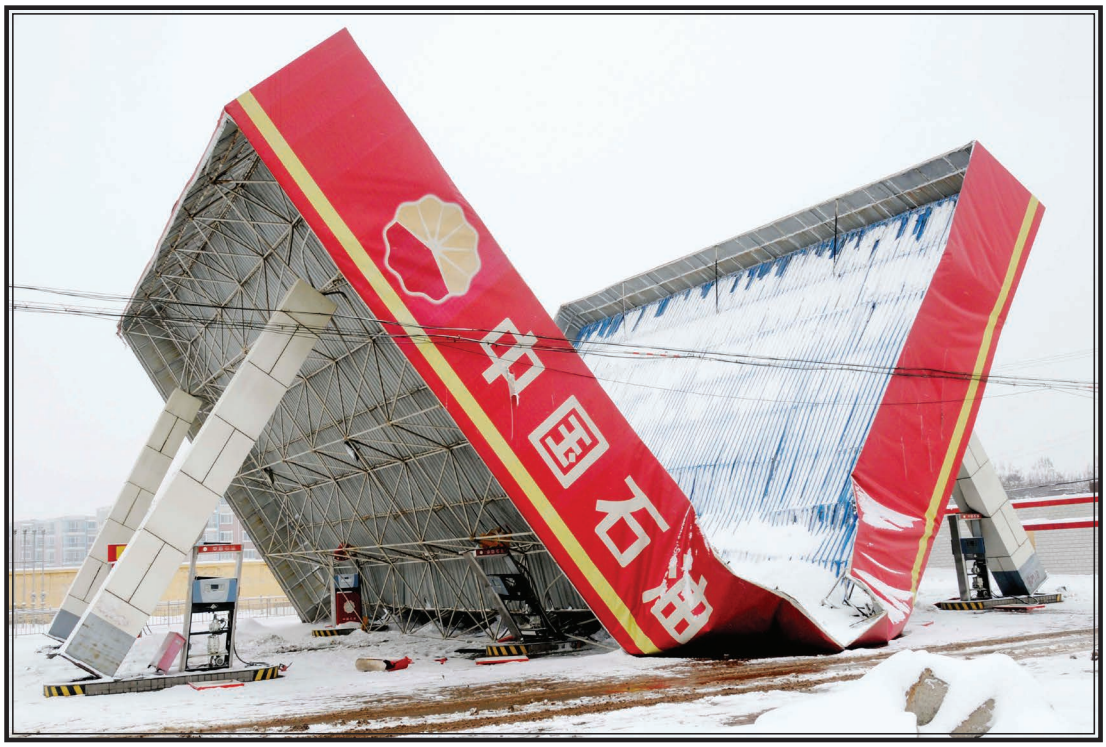
January 2016



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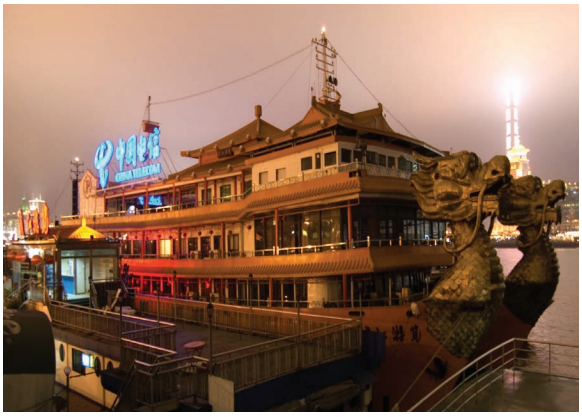
Introduction

China's economy is at a crossroads. The growth model that has served the country so well for the last three decades—a model predicated on state-driven investment and export-led industries—is showing signs of losing momentum. Indeed, in recent years, China's GDP growth has decelerated to about 7 percent, still the envy of most other countries but a comparatively low level for China. Other worries about the world's second-largest economy include slumping manufacturing activities and real estate prices, rising labor costs, a volatile stock market, and depreciation of the currency. Taken together, these developments suggest that China is undergoing a structural shift in its economic fundamentals.



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As the urgency to overhaul China's economy builds, attention has increasingly focused on how to reform China's state-owned enterprises (SOEs). Economic reforms have significantly reduced the scale of SOE involvement in the Chinese economy. Yet these firms still account for a substantial share of both assets and employment and dominate many important sectors, including electricity, telecommunications, railroads, civil aviation, petroleum, and banking.

Since the Chinese Communist Party's (CCP) Third Plenum in November 2013, SOE reforms have been a centerpiece of the agenda of China's new leadership, led by Xi Jinping. The details of China's ongoing SOE reforms are still emerging but appear to revolve around the corporatization of SOEs, the streamlining of SOE management and supervision, and the efficient allocation of SOE assets in the overall economy. These goals largely replicate those of the reform efforts of the past. In that sense, they indicate continuity and consistency in China's SOE strategy.

Yet one aspect of China's emerging strategy has received a disproportionately large amount of attention—namely, ownership reform. Specifically, a central component of the current plan has been to convert more Chinese SOEs into so-called "mixed-ownership" firms—in other words, firms in which the state and private shareholders hold joint equity stakes.

The Third Plenum first highlighted mixed-ownership reforms as a major goal of the current round of SOE reforms.[1] Subsequent to the Third Plenum, in July 2014, the State-Owned Assets Supervision and Administration Commission (SASAC), the agency responsible for supervising China's 107 central SOEs, selected six of these SOEs for a mixed-ownership pilot program.[2] The National Development and Reform Commission (NDRC), China's economic planning agency, is reportedly developing a plan to "more or less complete" mixed-ownership reforms for all SOEs by 2020.[3] In September 2015, the State Council also promulgated detailed guidelines on the implementation of these mixed-ownership reforms.[4]

But the introduction of private capital into SOEs will not, in itself, alter a key determinant of behavior in the Chinese economy: the relationship between firms and the state. That's because China's institutional environment blurs the boundary between SOEs and privately owned firms, which permits the state to exercise significant influence over firms irrespective of its equity ownership stakes and where firms of all ownership types compete for state-generated rents.[5]

As a result, SOEs and many large, privately owned firms in China actually share substantial similarities. These similarities exist in areas commonly thought to distinguish SOEs from private firms, such as market access, receipt of state subsidies, proximity to state power, and the execution of government policy objectives. One crucial policy implication, therefore, is that merely adjusting the ownership structure of SOEs will not, in reality, yield significant changes in how SOEs are positioned in relation to the state.

As a result, SOEs and many large, privately owned firms in China actually share substantial similarities.

Perhaps more important, focusing on SOE ownership reforms deflects attention from an even more pressing policy issue: how to create an institutional environment more conducive to the growth and innovativeness of all firms in China, regardless of where they fall along the spectrum from state to private ownership.

Our analysis suggests that meaningful efforts to improve China's economic performance and innovative capacity should focus not on ownership-based reforms in the state sector, but rather on measures to transform the role of the state from an active market participant to the designer and arbiter of neutral, transparent rules for market activity.

This transformation can only be accomplished by limiting the reach of the state in the economy and by introducing accountability into the

state's relationship with business enterprises of all types. In principle, such reforms are already part of the Third Plenum's agenda. But in light of the realities we discuss in subsequent sections of this memorandum, institutional reforms should be central to the Chinese leadership's efforts at economic transformation.

In fact, some of the recent initiatives undertaken in the name of SOE reform, such as the ongoing consolidation of some of the central SOEs, actually strengthen the grip of the state in key sectors. These initiatives undercut the prospects for boosting growth and enhancing innovative capacity in the Chinese economy.

An institution-based reform strategy would require the reversal of these initiatives. To be sure, institutional reforms of the sort we suggest in this memorandum will not yield immediate results. But they will lay the foundation for balanced, long-term growth and the structural transformation of China's economy.

This memorandum proceeds in four parts. Part 1 provides some historical background on mixed-ownership firms in China. Part 2 explains why, in China's current institutional environment, the standard dichotomy based on "state" versus "private" ownership of enterprise is far less important than commonly believed. Part 3 offers an analysis of firm-state relationships in China that goes beyond the focus on ownership. It explains the significance of this alternative perspective for the innovative capacity and long-term growth potential of the Chinese economy. Part 4 sets out the policy implications of our analysis and makes the case for institutional, not ownership-based, reforms.

Mixed-Ownership Firms in China

Although mixed-ownership firms were thrust to the forefront of China's SOE reforms after the Third Plenum, they are not new. Since the inception of economic reforms in the late 1970s, the boundary between state-owned and private firms in China has always been blurred.

One of the main drivers of China's economic boom during the 1980s and the early 1990s was the emergence of so-called "non-state" firms, whose share of national industrial output increased from 22 percent in 1978 to 42 percent in 1993.[6] One major category of such non-state firms was "collectively owned" firms—that is, firms ostensibly owned by "all residents" in a community. Many of these collectively owned firms were in fact privately owned and operated. They were registered as collectively owned only because, at the time, there was no legal framework in China for the registration of private firms.[7]

In China's present institutional environment, the state could exert influence over firms irrespective of its direct or indirect ownership stakes.

With the adoption of the Company Law in 1994, the Chinese government began to convert SOEs to corporate forms. This corporatization campaign created not only SOEs (whose corporate shares were wholly owned by the state) but also mixed-ownership firms, where the ownership and management of the firms were shared among state and private shareholders.

In 1997, China announced a massive program to privatize all but the largest SOEs under the slogan of "grasping the large, letting go of the small" (*zhuada fangxiao*). In practice, the newly privatized SOEs under this program did not become private firms as that the term is commonly understood; instead, they became firms with mixed-ownership. It is estimated that as of 2003, mixed-ownership firms accounted for 40 percent of China's GDP.[8] In fact, some of the best-known Chinese firms, such as Haier, TCL, and Lenovo, are mixed-ownership firms. In particular, publicly listed firms in China are typically of the mixed-ownership type.

Even prior to the 2013 Third Plenum, mixed ownership had already become an important ownership form among some of China's central SOEs at the subsidiary level. For example, almost all of the 34 subsidiaries of the China National Offshore Oil Corporation (CNOOC), a flagship oil conglomerate, were mixed-ownership firms with an average state share ranging from 40 to 65 percent.[9]

The reform agenda of the Third Plenum aims to expand mixed-ownership to all levels of the SOE structures, including the central SOEs themselves. While this goal is certainly bold, it is important to recognize that the current reform path is not conceptually different from the ones pursued in the past.

The Diminished Relevance of Ownership

The Third Plenum's mixed-ownership reform agenda is predicated on the assumption that ownership of an enterprise is a crucial fulcrum upon which meaningful economic reform rests. It is true that the ownership of a given enterprise certainly matters, since the identity of any corporation's equity owners affects that firm's performance and governance structures, as well as the incentives of its human agents. In particular, data show that privately owned firms in China have consistently outperformed SOEs in terms of return on assets.[10]

Still, in China's current institutional environment, simply focusing on who owns a firm's equity reveals surprisingly little about the degree to which the state actually exerts influence over the firm.

In another *Paulson Policy Memorandum*, co-authors Marshall Meyer and Changqi Wu document a divergence between state ownership and state control of Chinese firms.[11] Meyer and Wu argue that the Chinese state can still retain ultimate control over a firm in which it holds only a minority ownership interest or even no ownership interest at all through two pathways. The first is through indirect ownership via a controlling interest in a legal-person entity. The second is through agreement among the firm's shareholders that the state will remain the controlling shareholder despite its lack of majority ownership interest.[12]

In this memorandum, we go even further by arguing that the state's influence on firms in China extends well beyond the matter of "control" in the corporate management sense as discussed by Meyer and Wu. Indeed, we argue that in China's present institutional environment, the state could exert influence over firms irrespective of its direct or indirect ownership stakes. As a result, ownership loses much of its explanatory power in accounting for the relationship between firms and the state in China.

Specifically, the Chinese state does not exercise control over SOEs to the degree that its equity ownership would indicate. At the same time, it is misleading to view private firms in China as insulated from the state in ways that set them apart from SOEs. Rather, the human agents managing Chinese SOEs and private firms respond in similar fashion to their institutional environment, fostering close ties to state bodies, seeking state largesse, and resisting government policies that are not in their interests.

State Control of SOEs

By simple syllogism, the state "owns" SOEs. This is literally true in China: SASAC, a government agency that plays the role of both a holding company and a supervisory authority, holds 100 percent of the shares of the parent companies of each of the 107 central SOE groups. These SOE corporate groups may contain one or more entities whose shares are listed on a domestic or foreign stock exchange and held by minority private investors. But SASAC, which reports to the State Council, is the ultimate controlling shareholder atop the business groups. At least formally, this makes SASAC "the world's largest controlling shareholder."[13]

Photo: Flickr/Andreas Nilsson

Majority or even full ownership of a firm's equity by the state, however, does not solve the principal-agent problem in the firm—namely, the problem of aligning the incentives of the firm's owners and managers. Specifically, an agent of the state must monitor the managers of an SOE. And that agent, in turn, must also be monitored. In the case of Chinese SOEs, this chain of monitors does not lead to an ultimate principal, because the theoretical "owners" of the SOEs—the citizens of China—are too dispersed and powerless to play a meaningful monitoring role.

This agency problem in SOEs has been further compounded by specific policy choices made during China's transition from a planned economy to a market economy. As in many other formerly communist countries, efforts to revitalize the state-owned sector in China have involved massive delegation of managerial discretion to SOE insiders. As a result of such policies, "irreversible jurisdictional authority" was conferred on SOE managers throughout the transition.[14] These policies, together with privatization of SOEs into the hands of entrenched managers, led to rampant "insider control."[15]

Thus, both economic theory and the obvious consequences of economic transition policies in China suggest that Chinese SOEs enjoy far greater managerial autonomy from the state than the state's ownership interest would suggest. The relatively attenuated nature of the Chinese state's control over SOEs is corroborated by several patterns observed in China's SOE sector, which will be discussed in more detail

below. These include (1) the collection of little or no dividends from SOEs by the state; (2) the wide discretion SOEs enjoy in setting executive compensation; (3) the state's failure to implement certain major operational or policy decisions at SOEs, and (4) the state's frequent resort to its role as a regulator, rather than its role as an owner, to influence SOE behavior.

SOE Dividends

In theory, the state is entitled to all of the SOEs' after-tax profits. Yet the Chinese government has historically collected little or no dividends from SOEs. Between 1994 and 2007, the central government collected no dividends on SOE profits. In 2007, the State Council required central SOEs under SASAC to begin paying dividends ranging from 0 to 10 percent. In 2011, these SOE dividend rates were increased by 5 percentage points across the board, to 5 to 15 percent. The Third Plenum in 2013 set a goal of increasing the SOE dividend rate to 30 percent by 2020.

These rates, however, are still far below the average dividend rates paid by established industrial firms in the United States (50 to 60 percent) and the average dividend rate paid by SOEs in five developed economies (33 percent).[16] Moreover, the dividend rates paid by central SOEs to the Chinese government in its capacity as shareholder are lower than those paid to private shareholders by Chinese SOEs listed in Hong Kong.[17]

Perhaps most important, virtually all of the dividends paid by SOEs to the government are eventually recycled back to them: more than 92 percent of the dividends paid by central SOEs to the government in 2012 were remitted back to the SOEs in the form of subsidies.[18]

Executive Compensation

Theory and cross-national experience suggest that concentrated ownership alleviates agency problems in setting managerial pay. Yet executive compensation practices at Chinese SOEs, with concentrated ownership in the hands of the state, have posed problems throughout the reform era, suggesting limited state control over SOE managers.

During the initial phase of market reforms of Chinese SOEs in the 1990s, individual SOEs were allowed to base executive compensation on the performance of the firm. The practice led to significant disparities in pay levels across state firms.

To address this problem, several ministries in 2009 introduced a scheme that capped executive compensation at the central SOEs at twenty times the average employee compensation.[19] Putting aside the question of whether this is an optimal compensation formula, such a system ostensibly suggests a significant degree of state control over managerial incentives.

But beneath the surface of state control over executive compensation lies a vast domain of managerial autonomy. A common form of private benefit extraction by SOE managers is the practice of "on duty consumption," a catch-all category of perquisites, expense accounts and side payments that often significantly exceed a manager's formal compensation. These practices suggest a considerable degree of agency slack between SOE managers and the controlling shareholder.

Granted, the SOE reforms initiated by the Third Plenum aim to severely restrict on-duty consumption and total compensation for senior SOE managers. But even if these reforms are successful, the fact that a political campaign was required to accomplish what a controlling shareholder should be able to accomplish simply by exercising its rights as a shareholder undercuts the notion that the Chinese government exercises strong control over SOEs.

These practices suggest a considerable degree of agency slack between SOE managers and the controlling shareholder.

Implementing Operational and Policy Decisions at SOEs

It is widely considered to be good practice for any state to avoid involvement in the day-to-day management of SOEs. That is because government agents generally lack the expertise, information, and incentives necessary to effectively run a commercial enterprise. At the same time, however, market failure is a principal theoretical justification for the existence of SOEs. From this perspective, it would be anomalous if a government were unable to implement major operational decisions at SOEs on issues that directly implicate important state objectives.

And yet, at times, this is precisely the case in China. One example of the Chinese government's imperfect record in implementing major operational or policy decisions at SOEs can be found in the government's failure to prevent them from investing in the real estate sector during the recent boom. In an effort to rein in skyrocketing housing prices, SASAC in March 2010 ordered 78 central SOEs to withdraw from the real estate sector. But almost three years later, as of December 2012, less than one-quarter of the affected SOEs had complied with the order. In fact, many of the SOEs subject to the order actually expanded their real estate-related business during this period.[20]

Regulator vs. Controlling Shareholder

To the extent that the Chinese state does successfully intervene in SOE operations to achieve policy objectives, it often does so as a regulator, not as a controlling shareholder.

A recent example was the government's

action to change the pricing policies of state-owned liquor firms. Amid China's ongoing anti-corruption campaign, demand for luxury liquors made by two prestigious Chinese firms, Maotai and Wuliangye, both SOEs, plummeted. Starting in December 2012, some distributors of Maotai and Wuliangye offered deep discounts to win sales. The two SOEs responded by setting minimum sales prices for their products and penalizing distributors that sold below the minimum prices.

In response, the NDRC, China's powerful central government price regulator, conducted "interviews" with executives of the firms and warned them of violating China's Antimonopoly Law, which prohibits the fixing of resale prices. Following the NDRC "interviews," Maotai and Wuliangye publicly announced that they would heed the warning and terminate their resale price policies.[21]

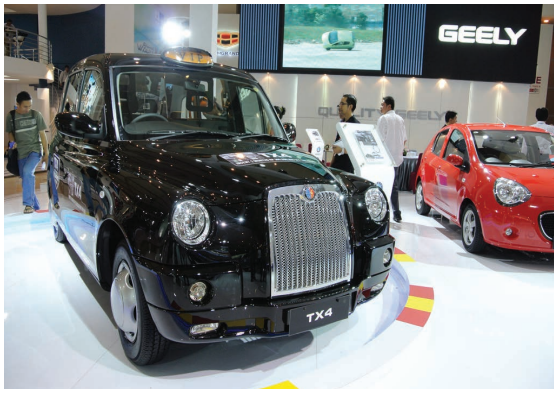
The interesting aspect of this incident is not that the state intervened, but the way it intervened. The state did not act as the liquor firms' controlling shareholder, acting with management through the board of directors to change the firms' pricing policies. Rather, it intervened as law enforcer, in the same fashion it would have dealt with privately owned enterprises (POEs).

This is not in itself negative. The state should enforce laws neutrally against both SOEs and POEs, and perhaps there were public policy benefits to undertaking regulatory action in this case. But coupled with the other evidence of attenuated government control over SOEs, incidents such as this one suggest that the state does not view standard mechanisms of corporate control as its most effective means of influencing SOE behavior.

State Control Over Private Firms

When we shift our focus from SOEs to private firms, a paradoxical picture emerges. Although the Chinese government has only attenuated control over SOEs, it exerts significant control rights over private firms in which it holds no ownership interests.

Private ownership in China does not necessarily mean autonomy from the state. Indeed, many private firms in China bear a striking resemblance to SOEs along the dimensions typically thought to distinguish SOEs from POEs, including ready access to the instruments of state power and state largesse, proximity to the regulatory process, and little autonomy from discretionary state intervention in business judgment. Below, we elaborate on the ways with which the Chinese government exerts influence over private firms despite its lack of equity ownership interests.



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Politically Connected Entrepreneurs

The first mechanism of influence is a political network linking the government and the Communist Party to powerful private sector individuals. It is well known that Chinese SOEs are deeply enmeshed in a larger system of Party-state organs through dense, stable networks of relationships fostered through rotations of managers in state firms and other bureaucracies, personnel exchanges, and the wearing of multiple hats (on behalf of SOEs, the government, and the CCP) by managerial elites in China. Less well known is the fact that the founders and senior executives of large private enterprises in China share many of the same linkages to the government and the CCP.

We studied the government or Party affiliations of the founders or de facto controllers of China's 100 largest private firms (by revenue) as ranked by the China National Association of Industry and Commerce, as well as China's top ten private Internet firms (by revenue), as ranked by the China Internet Association.[22] Based on publicly available information, we identified 95 out of the top 100 private firms and eight out of the top ten Internet firms whose founder or de facto controller is currently or formerly a member of central or local political organizations such as People's Congresses and People's Political Consultative Conferences.[23]

Why do private entrepreneurs become members of these political organs, whose powers are largely symbolic? One explanation is that membership in political organs signals allegiance to and influence within the political system—creating and reinforcing networks with state-linked actors important to a firm's success, such as China's top banks (all SOEs), other leading SOEs, and government regulators. The signal of influence sent by political participation in these organs may also help ward off potential new market entrants and attract the support of local government officials eager to share in the spoils of a lucrative hometown business. At the same time, widespread membership of successful entrepreneurs in political organizations is indicative of the confluence of interests and the shared worldview of political and economic elites in China—the "integration of wealth and power" in the words of China scholar Bruce Dickson.[24]

Government Support for Private Firms

The Chinese state also exerts influence over private firms through financial support. Subsidies to large, fast growing private firms are widespread and can constitute a significant portion of a company's net profits.

Consider privately owned Geely Automobile, for example. It received subsidies totaling $141 million in 2011, over half of its net profits for the year.[25] When Geely acquired Volvo from Ford in 2010, local governments in northeast China and the Shanghai area financed much of the $1.5 billion purchase price.[26]

Another example is Huawei, China's largest telecommunications equipment maker. Huawei's shares are held by its employees under an arrangement resembling an Employee Stock Ownership Plan. Yet analysts have suggested that the Chinese government views Huawei as a "national champion," and the firm receives major funding from state banks.[27]

Extra-Legal Control of Private Firms

The Chinese state also exercises significant extra-legal control rights over private firms. To be sure, in every economy corporations are subject to regulations that dilute the control rights of corporate equity owners. State encroachment into private ownership of enterprise is particularly acute, however, when the state does not scrupulously follow clearly delineated and neutrally enforced legal rules in exercising its control rights over private firms.

The Chinese state relies on several means to exercise extra-legal influence over private firms. One mechanism is the so-called industrial association.

Established in industries where the former line ministry has been disbanded, these nominally private organizations are designed to coordinate activities within an industry. Yet the industrial associations are staffed by

former government officials from the defunct ministries and retain basically the same organizational structures and functions as those ministries.[28] The industrial associations actively supervise the operations of firms in their respective industries and have retained much, if not all, of the power exercised by their state predecessors.[29]

Another means by which the Chinese state exercises extra-legal control over private firms is the practice of regulators conducting "interviews" with private firm managers to encourage or compel compliance with policies favored by the government. As illustrated in the liquor industry example above, the NDRC regularly engages in this practice. By law, the NDRC has the authority to regulate the prices of only a small number of products and services still subject to formal price control.[30] Yet the NDRC routinely conducts interviews with firms that are not subject to these controls, to prod, and at times order, adoption of NDRC-favored pricing policies.

For example, in 2010, China's main cooking oil producers raised or were planning to increase prices due to cost pressures. Concerned about the impact of these price hikes on food price inflation, the NDRC interviewed executives of the cooking oil producers three times to urge them not to increase prices. During one of the interviews, the NDRC flatly ordered the producers to freeze prices for four months, and the producers complied.[31]

Yet another means by which the state exercises extra-legal control over private firms is through the practice of prodding or even forcing private firms to participate in state-led industrial restructuring efforts. The right of corporate ownership implies the right to sell control and to refuse offers to purchase control. But in China, this right must yield to the state's plans for restructuring an industry.

In 2009, for example, Shandong Steel Group, a major SOE in Shandong Province, acquired a 67 percent stake in Shandong Rizhao Steel, an emerging private steel producer, under the auspices of a restructuring plan for the industry previously adopted by the Shandong provincial government.[32] The acquisition was completed after the owner of Shandong Rizhao Steel, Du Shuanghua, had repeatedly stated his strong opposition to the deal and had put up fierce resistance by listing 30 percent of his firm's assets in Hong Kong through a reverse merger with a Hong Kong-listed company.[33]

The point of these illustrations is not that the government has unbridled control over POEs any more than it has free rein to impose its will on SOEs. Rather, it is to underscore the point that when a government routinely enforces its policies by extra-legal means, the added degree of autonomy that ordinarily flows from private, as compared to government, ownership of an enterprise may be illusory.

Understanding the Firm-State Relationship in China

As the discussion in earlier sections of this memorandum demonstrates, ownership is not a dispositive factor in understanding the relationship between firms and the state in the current Chinese institutional environment. It follows, then, that simply adjusting the ownership structure of China's SOEs will not fundamentally alter the trajectory of China's economy. In this section, we explain why the firm-state relationship is of central importance in China, what determines the firm-state relationship in China, and the implications of our analysis for China's long-term growth.

Simply adjusting the ownership structure of China's SOEs will not fundamentally alter the trajectory of China's economy.

The Centrality of the Firm-State Relationship

In every economy, the state plays an important role in influencing economic growth through macroeconomic and regulatory policies. In China, however, the role of the state is of particular importance to firms for two reasons: the high degree of state intervention in the economy and the lack of procedural discipline to constrain the ways in which the state intervenes.

The Chinese economy is subject to state intervention to a much larger degree than most of the world's other major economies. On one ranking of economic freedom, for instance, China ranks near the bottom of the countries surveyed on measures of limited government, regulatory efficiency, and open markets.[34] The direct consequence of such intervention is that the state controls vast amounts of resources, both financial and regulatory, that are vital to a firm's prosperity or even survival.

One such resource is subsidies. According to a recent estimate, subsidies to SOEs amounted to $310 billion in nominal terms between 1985 and 2005.[35] This figure does not include subsidies to private firms.

Another resource controlled by the state is low-cost financing. As numerous empirical studies have demonstrated, the political connections of firms in China are a strong indicator of their access to low-cost loans.[36] Similarly, firms with political connections are also favored in stock listings.[37] Smaller firms without political connections, by contrast, are forced to obtain financing from China's vast shadow banking system at higher interest rates.

Yet another key resource under state control is monopoly rights. Many pillar industries in China, such as power, telecommunications, petroleum, railroads, public utilities, and banking, are dominated by firms that are de facto

monopolies or oligopolies. These firms acquired their monopoly or dominant status not through market competition, but through market-entry restrictions imposed by the state. Although China adopted an Antimonopoly Law in 2007, the law left intact the monopoly or dominant status of firms in these industries.[38]

Compounding the magnitude of these interventions is the fact that they take place with few of the procedural disciplines found in advanced market economies. Although China has many lawmaking institutions and procedures that resemble those typically found in developed markets, real authority in China is concentrated in the hands of political elites and is not subject to systematic monitoring by the public or politically independent institutions. The lack of external checks on state power explains why maintaining a good relationship with the state is essential to a firm's success—regardless of ownership structure—both to secure state beneficence and to avoid arbitrary punishment.

The most important determinant of the firm-state relationship in China is not corruption, but growth potential.

The Determinants of the Firm-State Relationship

If public versus private ownership is not the main factor in setting the terms of a firm's relationship with the state, then what is? Given the realities of the Chinese political economy just discussed, the ability to "capture" the state's control over the deployment of financial and regulatory resources is the key to understanding why some firms succeed and others fail. SOEs may have natural advantages in capturing state power due to both proximity and ideology, but private firms are also able to win favors and protection by aligning their business model with the priorities of the state.

It is important to recognize that for many SOEs in China, proximity to state power was inherited, not earned. Many SOEs were literally hived off of government ministries that were eliminated in the transition out of a centrally planned economy. In other words, those SOEs are in the best position to capture state power because at one point in their corporate history they were part of the state itself.

Examples are abundant. Take the oil and gas sector: China National Petroleum Corporation (CNPC), Sinopec, and CNOOC, China's "big three" national oil companies, were created from the operating assets of the former Ministry of Petroleum Industry. The country's five state power generating firms and two state power grids were once part of the State Power Corporation, which received the operating assets of the former Ministry of Electricity. Similarly, China's three major state telecom firms, China Telecom, China Unicom, and

China Mobile, were converted from the operating assets of the Ministry of Posts and Telecommunications (MPT) through many rounds of industry restructuring.

Despite these natural advantages of SOEs, it is possible for other firms in China to win the right to compete with incumbent firms. Corruption of the sort that figures prominently in other transitional economies certainly can buy influence in China, as seen in the widespread phenomenon of private firms bribing government officials to obtain government contracts and other favors from the state. Family, personal, and professional connections with government officials also play important roles in capturing the state's power in China.

Yet the most important determinant of the firm-state relationship in China is not corruption, but growth potential. Because the Chinese government derives its legitimacy primarily from its ability to deliver economic development, this "growth imperative" has enabled private firms to capture the state by demonstrating their potential in meeting that imperative.

For example, Huawei, a leading private telecom and technology company, achieved its initial success by developing a particular digital telephone switch with greater capacity than any other products available in the Chinese market at the time. After Huawei's technological breakthrough, government support flowed into the firm. Through its advanced technology and ingenious marketing strategies, Huawei was able to overtake other influential firms in the Chinese market, including Shanghai Bell, a joint venture between the business arm of the MPT and French corporation Alcatel, and Julong, which was assembled from eight SOEs supervised by government ministries and the Chinese military.

The political imperative of growth has been institutionalized in ways that further set China apart from other transition economies. A unique attribute of the Chinese economy is the large role played by local governments. Since the inception of economic reforms in the late 1970s, economic decentralization accelerated under transition policies such as "fiscal federalism"—a revenue-sharing regime that grants a significant amount of autonomy to local governments in setting local budgets and expenditures.[39]

In particular, a fundamental fiscal reform in 1994 assigned local governments a lower revenue share but higher budgetary responsibilities, leaving them no choice but to seek new sources of tax revenue.[40] This crucial 1994 reform package, combined with the delegation of investment approval authority to local governments, led to competition among local governments for investment projects with high potential to generate tax revenues.

Scholars Oliver Blanchard and Andrei Shleifer have theorized that this

competition was made possible by a politically centralized state ready to reward and punish local officials based on their economic performance.[41] Their hypothesis is supported by empirical evidence indicating that the likelihood of promotion for China's provincial leaders increases with favorable economic performance.[42]

This underlying institutional arrangement suggests that the state or private ownership of enterprise will diminish in importance as the Chinese economy grows more complex. The growth imperative forces the state to look beyond SOEs to bolster its claim to legitimacy, thus enabling private firms to secure access to the state's discretionary authority in dispensing financial and regulatory favors by demonstrating growth potential, particularly to local government officials. As one recent private sector report notes, "local leaders these days are assessed based on economic growth, and are increasingly agnostic about what type of firm provides that growth."[43]

As the Chinese economy plateaus into a "new normal" of slower but higher quality and more balanced growth, China's new leadership is emphasizing a diversification of development goals to include non-economic considerations such as environmental protection and soft power. It remains to be seen whether this new emphasis can be sustained. But even if it can, our argument is that firms in China cater to the state's needs—whatever those needs are—in the conduct of their business. In return, the state rewards those firms that best fulfill its goals. What emerges is a symbiotic relationship between firms and the state, without the need for an explicit ownership nexus.

Implications for China's Long-Term Growth

The institutional environment detailed above has important implications for China's long-term growth potential. As China's investment-driven economy matures and growth drivers diversify, economic growth and competitiveness will increasingly depend on the ability of Chinese firms to move up the value chain. Innovation and entrepreneurship will be central to this effort, and thus the future dynamism of the Chinese economy will depend in large measure on the country's capacity to foster entrepreneurship and to nurture enterprises that generate consumer surplus rather than cozy up to the state.

Photo: Flickr/US Army Band

Nothing in our analysis suggests that ownership reform is the key to achieving this transition. A large swath of China's economy is insulated from market competition because of state-sanctioned entry barriers. When incumbent firms become entrenched, they become well positioned to resist additional reforms that would threaten their privileges.

Indeed, the power of incumbency can be seen from the state's repeated failures to break up SOE monopolies.[44] It is also visible in the marginalization of emerging firms that attempt to compete with incumbents but then wither due to lack of state support, a phenomenon illustrated by the failure of private airlines in China.

This is not to say, however, that new firms cannot compete with entrenched SOEs. Some large, successful private firms have emerged in industries with strong SOE incumbents, but they did so principally in new markets—those not controlled from the outset by SOE incumbents.

Where private firms demonstrate growth potential and technological innovation in markets valued by the state, their rise has not been blocked; often, it has been nurtured, particularly at the local level. SOE incumbents, shielded from market competition by the state, generally lack the acumen and incentives to anticipate, much less create, new markets. Private firms have developed to fill the void.

Examples abound of private firms dominating new markets in China. Baidu, China's largest Internet search engine, spearheaded the Internet search market in China when it was still in its infancy. AliPay, a third-party

online payment platform owned by the e-commerce giant Alibaba Group, became the largest player in China's emerging online payment market despite the dominance of state-owned banks in the traditional banking market.

Even in the heavily state dominated energy sector, private firm ENN Group, China's largest downstream natural gas supplier, achieved its initial success by distributing natural gas to city residents through pipelines at a time when most of the urban population did not use natural gas at home or had it distributed in tanks. ENN Group acquired its dominant market position after it was able to secure franchise rights from over 90 cities across China. By contrast, CNPC, China's main upstream natural gas supplier, was late in entering the downstream residential market. It had to use its monopoly on upstream natural gas supply to pressure provinces and cities into granting it franchise rights for downstream distribution.[45]

But what will happen to the private firms that have successfully ingratiated themselves with the central or local governments? With a powerful state inclined to pick winners and losers, many entrepreneurs can be expected to shift their focus to maintaining the privileges of incumbency rather than continuing down the difficult and uncertain path of innovation.

Does it matter whether it is an SOE or a private firm that has captured state power and largesse? Intuitively, any influential firm—whether SOE, private, or of mixed ownership—will resist reforms that threaten its privileged position in the economy. Far from rejuvenating the state sector, pumping private capital into SOEs via the Third Plenum mixed-ownership reforms may simply be expanding the amount of assets trapped in an unproductive incumbency economy.

Ultimately, the fact that not only SOEs but also large swaths of the private sector have a vested interest in the status quo increases the challenge of developing a truly entrepreneurial economy in China. Chinese entrepreneurs have clearly proven themselves capable of innovation.[46] What they need to flourish more fully is a neutral institutional environment that does not favor any particular enterprise, regardless of ownership structure or informal relationship to the state. They need a state that behaves like a referee, not a participant in the marketplace.

An Institution-Based Reform Agenda

Our analysis suggests that the focus of China's economic reforms ought to be the state itself, not SOEs per se. Such reforms should have two main goals: first, limiting the reach of the state in economic activities, and second, introducing accountability into the state's operations. Only through these institutional reforms will SOEs, and all Chinese firms, move onto a sustainable path toward the kind of innovation and entrepreneurship needed to ignite the next stage of economic growth and balanced development.

Our analysis suggests that the focus of China's economic reforms ought to be the state itself, not SOEs per se.

This means, in the first instance, that China simply must find ways to limit the reach of the state in its economy. The state, as currently constituted, controls too many resources and generates too many rents. A resourceful state with the power to accumulate and deploy capital may have had an underlying rationale when China was a rapidly developing, investment-driven economy. But as China moves toward a knowledge-based, consumption-driven economy, the concentration of financial and regulatory resources in the hands of a weakly checked state will stymie that transition process.

As the World Bank's influential China 2030 report, jointly undertaken with the Development Research Center of the State Council, argues, "[a]s an economy approaches the technology frontier and exhausts the potential for acquiring and applying technology from abroad, the role of government and its relationship to markets and the private sector need to change fundamentally."[47]

Fortunately, reducing the distortionary role of the state in the economy is already part of the reform agenda that emerged from the Third Plenum. And China has made important progress in this respect. The recent decision by the People's Bank of China to abolish the ceilings for bank deposit rates is a milestone in China's efforts to reduce state control in the economy.[48] Of course, China needs to follow through with deposit rate reforms and must take steps to prevent informal deposit rate controls from creeping in to take the place of formal controls. Also, China needs to reduce the state's role in allocating credit so that firms do not have to invest in political connections to obtain access to financing.

While China has made progress in curbing the state's power in certain areas, in others, particularly with respect to SOEs, it has actually moved in the opposite direction. The massive restructuring of central SOEs currently

underway is one example. Since the Third Plenum, the Chinese government has pushed through a merger between the largest two state-owned railroad rolling stock companies[49] and a merger between two giant state power generation firms.[50]

The government is reportedly planning to merge the largest SOEs in more sectors, including shipbuilding and petroleum.[51] These massive consolidations will accentuate the role of the state in key sectors and will generate even more rent-seeking activities. Even if the consolidations may enhance the competitiveness of SOEs in international markets, such benefits are likely to be outweighed by the additional deadweight loss that would be generated by the creation of monopolies in the domestic markets.

An institution-based reform agenda will entail the reversal of such consolidations and require the government to dismantle the entry barriers it has erected against new firms in China's monopoly industries. Such reforms have been attempted in the past but need to be a top priority now.

Besides limiting the reach of the state in the economy, the second component of an institution-based reform agenda is to introduce accountability into the operation of the state. Greater accountability would make it more difficult for special interest groups to capture the state's power for their own benefit. If the state can manage the transition in its own role to impartial rule-maker and arbiter in the market, firms of all ownership types will have fewer incentives to seek favors and protection from the state, and greater incentives to focus on innovation and entrepreneurship.

The bottom line is this: Mixed-ownership reforms dominate the Chinese government's current thinking about SOE reforms. But our analysis, which shifts the focus from ownership of enterprises to China's institutional ecology, exposes the serious limitations of the current reform agenda.

Injecting more private capital into SOEs will do little to increase the market orientation of the Chinese economy and may in fact set back progress toward that goal. True reform of China's SOEs—and of the Chinese economy as a whole—requires changing institutions, not ownership.

Endnotes

[1] See Third Plenum Decisions, Communiques, and Explanations (full texts in Chinese), China Economic Net, November 18, 2013, http://www.ce.cn/xwzx/gnsz/szyw/201311/18/t20131118_1767104.shtml.

[2] The six central SOEs were the State Development & Investment Corporation (SDIC), China National Cereals, Oils and Foodstuffs Corporation (COFCO), China National Building Materials Group (CNBM), China Energy Conservation and Environmental Protection Group (CECEP), Xinxing Cathay International Group (XXCIG) and China National Pharmaceutical Group (Sinopharm). See "China Names Six SOEs for Pilot Reforms," *Xinhua*, July 15, 2014, http://news.xinhuanet.com/english/china/2014-07/15/c_133485883.htm.

[3] See "NDRC Leading Efforts on Mixed-Ownership Pilot Reforms, Aiming to Diversify Ownership of SOEs," Sohu, August 28, 2014, http://news.sohu.com/20140828/n403838954.shtml.

[4] See "Opinions on Promoting the Development of the Mixed-Ownership Economy," State Council, http://www.gov.cn/zhengce/content/2015-09/24/content_10177.htm/.

[5] Milhaupt, Curtis J. and Wentong Zheng, "Beyond Ownership: State Capitalism and the Chinese Firm," 103 *Georgetown Law Journal*. 665 (2015).

[6] Che, Jiahua & Yingyi Qian, "Insecure Property Rights and Government Ownership of Firms," 113 *Quarterly Journal of Economics*. 467, 467 (1998).

[7] See Huang, Yasheng, "How Did China Take Off?," 26 *Journal of Economic Perspectives*. 147, 154 (2012).

[8] See "Mixed-Ownership Sector Accounts for 40% of Economy, To Hit 80% in 5-10 Years," *Xinhua*, November 25, 2003, http://www.southcn.com/news/china/zgkx/200311250786.htm.

[9] See Runqiu, Wang, "Seventy-Percent of Central SOEs Undergoing Structural Reforms; Promoting the Development of Mixed-Ownership Economy," *People's Daily*, November 26, 2012, http://dangjian.people.com.cn/n/2012/1126/c117092-19693335.html.

[10] See Batson, Andrew, "Fixing China's State Sector," P*aulson Policy Memorandum*, January 2014, http://www.paulsoninstitute.org/wp-content/uploads/2015/04/fixingchina_sstatesector_english.pdf.

[11] Meyer, Marshall W. and Changqi Wu, "Making Ownership Matter: Prospects for China's Mixed Ownership Economy, *Paulson Policy Memorandum*, September 2014, http://www.paulsoninstitute.org/wp-content/uploads/2015/04/PPM_Making-Ownership-Matter_Meyer-and-Wu_English.pdf.

[12] Ibid. at 6.

[13] Li-Wen, Lin and Curtis J. Milhaupt, "We are the (National) Champions: Understanding the

Mechanisms of State Capitalism in China," 65 *Stanford Law Review*. 697, 700 (2013).

[14] Masahiko, Aoki, "Controlling Insider Control: Issues of Corporate Governance in Transition Economies," in *Corporate Governance in Transitional Economies: Insider Control and the Role of Banks* 8 (Masahiko Aoki and Hyung-Ki Kim eds., 1995).

[15] Ibid.

[16] See World Bank, "Effective Discipline with Adequate Autonomy: The Direction for Further Reform of China's SOE Dividend Policy 13, 23-30 (2010), World Bank Policy Note No. 53254.

[17] Ibid.

[18] See "Central SOEs Paid Less Than 100 Billion Yuan as Dividends Last Year; Most Remitted Back," Sina, March 10, 2013, http://finance.sina.com.cn/china/20130310/142714780509.shtml.

[19] See "Pay for Senior SOE Executives Capped at 20 Times of Average Employee Pay," China News Net, September 25, 2009, http://www.chinanews.com/cj/cj-gncj/news/2009/09-25/1885412.shtml.

[20] See "Central SOEs Not Withdrawing from Real Estate Three Years Later; Less Than Quarter of 78 Firms Withdrew," *Xinhua*, December 5, 2012, http://news.xinhuanet.com/house/2012-12/05/c_124048485.htm.

[21] See "Wuliangye Interviewed by NDRC After Maotai; To Correct Its Policy Pursuant to the Antimonopoly Law," Sina, January 17, 2013, http://finance.sina.com.cn/chanjing/gsnews/20130117/173414320012.shtml.

[22] The China National Association of Industry and Commerce publishes a ranking of China's largest 500 POEs every year. The 2013 ranking used in our analysis is available at http://finance.sina.com.cn/leadership/mroll/20130829/101816602059.shtml.

[23] For our hand-collected list of firms and affiliations, see the Appendix in Milhaupt & Zheng, supra note 5.

[24] See Dickson, Bruce J., "Integrating Wealth and Power in China: The Communist Party's Embrace of the Private Sector," 192 *China Quarterly*. 827, 827 (2007).

[25] See Forney, Matthew and Laila F. Khawaja, Fathom China Ltd., "Public Funds for Private Firms," 10 (2013).

[26] See Wines, Michael, "China Fortifies State Businesses to Fuel Growth," *New York Times*, August 29, 2010, http://www.nytimes.com/2010/08/30/world/asia/30china.html?pagewanted=all&_r=1&.

[27] For example, in 1998, the Beijing headquarters of China Construction Bank lent Huawei 3.9 billion yuan in buyer's credit, representing 45 percent of the total credit it extended that year. See Ahrens, Nathaniel, "China's Competitiveness: Myth, Reality, and Lessons for the United States and Japan: Case Study Huawei 6 (2013).

[28] See Zheng, Wentong, "Transplanting Antitrust in China: Economic Transition, Market Structure, and State Control," 32 *University of Pennsylvania Journal of International Law*. 643, 669-70 (2010)

[29] On the official functions of such industrial associations, a US court noted:

> The [industrial associations] were given both governmental functions, which had previously been performed by the [ministries], and private functions. The governmental functions included, inter alia, responding to foreign anti-dumping charges and industry "coordination." The private functions of the Chambers included organizing trade fairs, conducting market research and "mediating" trade disputes.

In re Vitamin C Antitrust Litigation, 810 F.Supp.2d 522, 526 (E.D.N.Y. 2011).

[30] In a government catalog published in 2001, the last year for which such catalogs are publicly available, only thirteen categories of products or services were subject to price control by the government, such as electricity, military products, and postal services. See "State Planning Commission and State Council Pricing Catalog," State Planning Commission Order No. 11, promulgated July 4, 2001; effective August 1, 2001, http://www.sgpi.gov.cn/laws/wj/gjdjml.htm.

[31] See "Cooking Oil Companies 'Interviewed' Three Times in Recent Years; Downstream Restaurants Temporarily Halting Price Hikes," *Xinhua*, July 30, 2012, http://news.xinhuanet.com/fortune/2012-07/30/c_123494170.htm.

[32] See "Shandong Steel Clinches Deal to Acquire 67% of Rizhao Steel," Sina, September 7, 2009, http://finance.sina.com.cn/chanjing/gsnews/20090907/04566714022.shtml.

[33] Ibid. For more background on the acquisition, see Sheng, Hong and Zhao Nong, *China's State-Owned Enterprises: Nature, Performance and Reform*, 145–48 (2013).

[34] Heritage Foundation, "Index of Economic Freedom," 166 (2013). China's world rank is 136.

[35] USHA C. V. Haley & George T. Haley, "Subsidies to Chinese Industry: State Capitalism, Business Strategy, and Trade Policy," 2-3 (2013).

[36] See, for example, Clement K. W. Chow et al., "Investment Opportunity Set, Political Connection and Business Policies of Private Enterprises in China," 38 *Review of Quantitative Finance and Accounting*. 367, 367 (2012) (finding that firms with political connections in China are able to borrow more); Robert Cull et al., "Government Connections and Financial Constraints: Evidence from a Large Representative Sample of Chinese Firms," World Bank Policy Research Working Paper No. 6352 (2013) (finding that government connections are associated with substantially less severe financial constraints at private firms in China); Hongbin, Li et al., "Political Connections, Financing and Firm Performance: Evidence from Chinese Private Firms," 87 *Journal of Development Economics*. 283 (2008) (finding that Communist Party membership helps private entrepreneurs in China to obtain loans from banks or other state institutions); Wubiao, Zhou, "Bank Financing in China's Private Sector: The Payoffs of Political Capital," 37 *World Development* 787 (2008) (finding that membership in China's legislative or semi-legislative organs helps private entrepreneurs obtain access to bank loans).

[37] More than half of the companies listed on the Shanghai Stock Exchange are formerly SOEs. See

Shen, Hong, "Weak Links Mar Investing in China," *Wall Street Journal*, June 26, 2013, http://online.wsj.com/article/SB10001424127887323998604578567722934644106.html. A significant percentage of the listed firms have former or current government officials as their CEOs. Also see Joseph P. H. Fan et al., "Politically Connected CEOs, Corporate Governance, and Post-IPO Performance of China's Newly Partially Privatized Firms," 84 *Journal of Financial Economics*. 330 (2007) (finding that almost 27 percent of the CEOs in a sample of 790 newly partially privatized firms in China are former or current government bureaucrats). Among the listed firms, those with politically connected CEOs tend to underperform firms without politically connected CEOs, suggesting that firms with politically connected CEOs may have been unduly favored in the state's listing decisions (see ibid). Politically connected firms also reap greater benefits in the process of going public. See Bill B. Francis et al., "Political Connections and the Process of Going Public: Evidence from China," 28 *Journal of International Money and Finance*. 696 (2009) (finding that politically connected firms, irrespective of their ownership status, have relatively higher offering price, lower underpricing, and lower fixed costs during the IPO process).

[38] The AML provides that "the state protects the lawful operations of undertakings in SOE-dominated industries concerning the health of national economy and national security, and in industries where state trading is authorized by law." See Article 7 of the Antimonopoly Law of the People's Republic of China, promulgated by the Standing Committee of the National People's Congress on August 30, 2007, took effect August 1, 2008.

[39] See Zheng, supra note 28, at 656-57.

[40] See Justin Yifu Lin et al., "Deregulation, Decentralization, and China's Growth in Transition," in *Law and Economics with Chinese Characteristics: Institutions for Promoting Development in The Twenty-First Century*, 467, 485 (David Kennedy and Joseph E. Stiglitz eds., 2013).

[41] Blanchard, Oliver and Andrei Shleifer, "Federalism With and Without Political Centralization, China versus Russia," NBER Working Paper 7616 (2001).

[42] See, for example, Li, Hongbin and Li-An Zhou, "Political Turnover and Economic Performance: The Incentive Role of Personnel Control in China," 89 *Journal of Public Economics*. 1743 (2005).

[43] Fathom China Ltd., "Public Funds for Private Firms," 18 (2013).

[44] With few exceptions, all such efforts have resulted in the breakup of SOEs along either geographical or product lines, ensuring minimal competition among the successor entities. In the petroleum industry, when the three giant SOEs—CNPC, Sinopec, and CNOOC—were initially created in the 1980s, they were assigned mutually exclusive business areas, with CNPC focusing on onshore upstream production, Sinopec focusing on downstream refining, and CNOOC focusing on offshore upstream production. Between 1998 and 2002, the state restructured the petroleum industry and converted CNPC and Sinopec to vertically integrated firms in preparation for China's entry into the World Trade Organization, but it did so by exchanging assets between CNPC and Sinopec along geographical lines. As a result of the restructuring, CNPC and Sinopec were assigned separate business territories, with CNPC concentrating in the north and Sinopec concentrating in the south. See Kong, Bo, *China's International Petroleum Policy* 14-15 (2010). In the telecommunications industry, since 1994 the state has engaged in a continuous process of breaking up SOEs along product

or geographical lines, reshuffling industry assets, and merging state enterprises. But all of the activities still have not resulted in nationwide competition among firms across all product lines. See Zheng, supra note 26, at 701-02.

[45] See Hong and Zhao, supra note 33, at 152-54.

[46] See "Business in China: Back to Business," *The Economist*, September 12, 2015, http://www.economist.com/news/special-report/21663327-despite-chinas-recent-troubles-prospects-its-entrepreneurial-private-sector.

[47] World Bank and Development Research Center of the State Council of the People's Republic of China, "China 2030: Building a Modern, Harmonious, and Creative High-Income Society," xv (2012).

[48] See "China Takes 'Riskies' Step by Ending Deposit Rate Controls," *Bloomberg News*, October 23, 2015, http://www.bloomberg.com/news/articles/2015-10-23/china-takes-riskiest-step-by-scrapping-deposit-rate-controls.

[49] On June 1, 2015, China South Railway Rolling Stock Corp. Ltd. merged with China North Railway Rolling Stock Corp. Ltd. to form China Railway Rolling Stock Corp. Ltd. See "CSR, CNR Merger Said to Become Official with Gov't Registration," *Caixin*, June 2, 2015, http://english.caixin.com/2015-06-02/100815577.html.

[50] See "China Power Investment Corp. Formally Merges with State Nuclear Power Technology Corp., Setting Up Three Pillars in Nuclear Industry," *Caixin*, May 30, 2015, http://companies.caixin.com/2015-05-30/100814810.html.

[51] See "Central SOEs To Undertake Large-Scale Mergers and Restructuring, Reducing Total Number to Forty," Sina, April 27, 2015, http://finance.sina.com.cn/china/20150427/011222048170.shtml.

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