

Making Ownership Matter: Prospects for China’s Mixed Ownership Economy

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Introduction

At the Third Plenum of the 18th Chinese Communist Party (CCP) Central Committee in November 2013, China’s leaders strongly endorsed the concept of a mixed ownership economy. The Plenum’s sixty-point “Decision” called for rapid development of mixed ownership, defined as “... cross holding by, and mutual fusion between, state-owned capital, collective capital, and non-public capital.”¹

The benefits of mixed ownership anticipated by the Decision are twofold:

first, “the amplification of the function of state-owned

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capital,” and second, “ensuring the appreciation of its value and raising its competitiveness.” Indeed, President Xi Jinping’s subsequent published explanation of the Decision extends these points: “We must,” Xi wrote, “vigorously develop a mixed ownership economy,” adding that mixed ownership can augment the role of state-owned capital by “maintaining and increasing its value and raising competitiveness.”²

In essence, Chinese leaders hope that the injection of private assets into state-owned enterprises (SOEs) will promote their growth and competitiveness—and thus assure

their long-term viability. However, those in the Chinese private sector are pushing back hard. A survey taken at the recent Boao Forum for Asia in Hainan province found that 90 percent of private business leaders felt they would have no influence as board members of mixed-ownership companies, and more than half said they had no plans to seek mixed-ownership partners.³ The general manager of a Nanjing-based private electrical equipment manufacturer echoed the sentiments expressed at Boao: “Even if we participate, we have

no controlling stakes. Who can safeguard our interests against powerful SOEs?”⁴

And yet governments at all levels in China are moving ahead with plans to expand mixed ownership. Current plans are to introduce mixed ownership into six centrally controlled SOEs.⁵ According to the State-Owned Assets Supervision and Administration Commission (SASAC), the first two SOEs to implement pilot mixed ownership reform schemes will be China National Building Materials Group and China National Pharmaceutical Group Corporation (Sinopharm).⁶

As of early August 2014, provinces and municipalities including Beijing, Shanghai, Tianjin, Chongqing, Guizhou,

Gansu, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Shandong, Shanxi, Sichuan, and Yunnan had announced targets for converting SOEs to mixed ownership, although specific details remain vague.⁷ Guangdong, following the lead of the central government, will promote mixed ownership by designating 40 to 50 pilot reform projects, drawing on the experience of successful mixed ownership firms like Shunde Media, Huizhou TCL, and Zhuhai Gree.⁸

These initiatives notwithstanding, an analysis of Chinese data suggests that mixed

ownership—the joining of non-state and state assets—may yield disappointing results and may not align with top leaders’ articulated objectives. That is because ownership and control do not always correspond in China. And this means that the effects of ownership reform may be limited unless the state is willing to cede substantial control of mixed ownership enterprises to private investors.



A further problem with the government’s emphasis on mixed, rather than private, ownership is that partial privatization of SOEs may have unanticipated consequences. The intent of these policies is to bring market discipline to SOEs, thereby improving their overall performance. But perversely, the actual effect may instead be to transfer the best

state assets to private owners, resulting in the appearance but not the substance of better performance.

This Policy Memorandum explores available Chinese data and recent experience

to delve deeply into the question of mixed ownership. It concludes that performance improvements will not automatically follow from private investment in state-controlled firms. Ultimately, performance improvements may require changes not contemplated by the Third Plenum. Put as bluntly as possible: the prospects for a mixed ownership economy will ultimately depend on the state’s willingness to cede *control*—not just *ownership*—of some of the nation’s largest enterprises to private interests.

China's Mixed Ownership Enterprises

Many observers presume that Chinese firms, other than the few remaining collectives and cooperatives, are state-owned, private, or foreign-invested. Few observers have noticed, much less appreciated, that China is in the midst of an ongoing experiment with mixed ownership enterprises, or “MOEs,” which are distinct from SOEs.

What exactly is mixed ownership? The answer is not as obvious as one would think. It is easier to understand what mixed ownership is not: mixed ownership means not 100 percent state ownership, not 100 percent private ownership, not 100 percent foreign ownership, and not, for present purposes, joint foreign-domestic ownership since the focus of China's MOE policy is only on domestic firms.

Rather, mixed ownership combines state, private, and other forms of ownership. Or else MOEs may involve ambiguously defined ownership, in particular when a domestic firm is owned by “legal person” entities that are neither state nor private.

This definition of mixed ownership means that any state enterprise with private investment is no longer technically an SOE. Instead, it becomes

an MOE—as are virtually all listed subsidiaries of SOEs in China. However, this definition does not preclude state control, as distinct from outright ownership, of an MOE. Indeed, state control of MOEs is common and, as will be shown, quite significant for their performance.

Matters are further complicated by the legal registration of Chinese firms, as distinct from their ownership (see Data Appendix for firm classification). Since 1998, China has maintained fifteen non-overlapping registration categories

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for domestic firms and eight additional categories for Hong Kong, Macao, Taiwan, and foreign

firms. The differences among these categories are subtle, but critical. Still, more than 90 percent of domestic industrial firms can be grouped into three categories based on their registration: SOEs, MOEs, and privately-owned enterprises (POEs).

The largest SOEs in China—the 113 so-called central SOEs—fall under the purview of the central SASAC and are wholly state-owned group corporations or holding companies with multiple subsidiaries, some of which may be listed. Many of these firms are in industries deemed to be strategic, such as aerospace (for example, the Aviation Industry Corporation of China),

power generation and distribution (for example, China Datang, China Guodian, China Huaneng, State Grid, and Southern Grid), and oil/gas (for example, China National Petroleum Corporation, China Petrochemical Corporation, and China National Offshore Oil Corporation).

Wholly state owned firms are also numerous at the provincial and municipal levels, and many of these fall under the purview of local SASAC branches. Among the largest municipal-owned SOEs is the

Shanghai Automotive Industries Group, whose joint ventures with General Motors and Volkswagen dominate the Chinese auto industry.

The three largest private firms in China, based on 2013 sales, are the retailer Suning Appliance Group, computer maker Lenovo, and the telecom manufacturer Huawei Technologies.⁹ All three of these private firms are consumer brands and better known than many central SOEs.

Among the largest MOEs are listed subsidiaries of SOEs whose ownership and control, even within the same holding company or family, can vary

substantially. And this is where details can become complicated.

Take, for example, one central SOE: the China Ocean Shipping (Group) Company, more commonly known as COSCO Group. One of COSCO's major subsidiaries is China COSCO Holdings, listed in both Shanghai and Hong Kong, which operates most of

COSCO's shipping business lines. China COSCO is 52 percent owned by the COSCO Group, a state-owned legal person, and 2 percent owned by the National Social Security Fund, a direct state shareholder. Among China COSCO's smaller shareholders are other central SOEs

and private investors. The controlling shareholder of China COSCO is the majority shareholder, the COSCO Group, and thus ultimately the Chinese state itself.

Another listed subsidiary of COSCO is China International Marine Containers (Group) Co. (CIMC), the largest manufacturer of shipping containers globally, whose ownership is more dispersed than COSCO Group's. Two second-tier COSCO subsidiaries, Long Honour Investments and COSCO Container Industries, hold 23 percent of CIMC shares. A second-tier subsidiary of the China Merchants Group, China Merchants (CIMC) Investment, holds 25 percent. The remaining 52 percent of CIMC's shares, nearly all listed in Shenzhen and Hong Kong, are held by smaller,



and mainly private, investors. CIMC, according to its annual report, has no controlling shareholder since its two state owners hold nearly equal stakes in the company and equal numbers of board seats.¹⁰

There are several ways to categorize enterprises, and the SOE-POE-MOE classification differs from others, which, in part, aim to compare “marketized” or “reformed” firms with “government” or “conventional” Chinese firms. For example, some scholars¹¹ classify listed companies into three categories: government, marketized corporate, and private.

Marketized corporate shareholding firms are those “owned by the government, but...are not constrained by the same social objectives that government ownership bears.” Other experts¹² similarly distinguish “conventional” from “reformed” domestic firms. “Conventional firms” include firms registered as SOEs or collectives, while “reformed” firms include all others except foreign-invested firms.

In other instances, the aim is to gauge the extent of China’s state sector, the latter comprised of state-owned and state-controlled enterprises not registered as SOEs. For example, Carsten Holz¹³ labels the combined set of SOEs and state-controlled limited liability and shareholding corporations as SOSCEs or “state-owned and state-controlled enterprises.” In *Fixing China’s State*

Sector, [another policy memorandum](#) published by the Paulson Institute, Andrew Batson of GaveKal Dragonomics adopts a similar classification, treating firms registered as SOEs and state-controlled LLCs and shareholding corporations as falling into the state sector.

Our analysis arises, first, from these discrepant classifications and, second, from a discovery:

The discrepancy is between firms registered as state-owned (as in “government” or “conventional” firms above) and the larger set of firms that are actually state controlled (the “SC” in SOSCEs) whether or not they are state-owned. Indeed, by 2008 the number of state-controlled industrial firms that were not state-owned exceeded the number of SOEs (see discussion of state control versus state ownership and Tables A1 and A2 in the Data Appendix).

The discovery is that the Annual Industrial Survey (AIS) database assembled by China’s National Bureau of Statistics (NBS) identifies companies that are state-controlled whether or not they are state-owned. Specifically, the survey includes information on firms’ legal registration, their capital structure or ownership, and, most important, their controlling shareholder. For SOEs and POEs, ownership and control will correspond by definition—SOEs are

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fully state-owned and state-controlled, while POEs are privately owned and controlled. For MOEs, however, the relationship of ownership to ultimate control is much more fluid.

There are three principal categories of MOE ownership: state, private, and legal-person, the last category representing ownership by an incorporated entity and hence a legal person. We appraise the ultimate control of a firm as either state or non-state from the answers to a forced choice item about the controlling shareholder of the firm (see Data Appendix for explanation).

The state can hold a minority interest or no shares at all in an enterprise and yet retain ultimate control through one of two paths. The first path is indirect ownership via a controlling interest in the legal-person entity that, in turn, holds control of the firm. The second path is by agreement that the state will remain the controlling shareholder (for example, the state or state-controlled legal-person entities retain ownership of “golden” or voting shares, or, as in the case of CIMC, by agreement that there will be no controlling shareholder).

How Big is China’s MOE Sector?

MOEs comprise a significant portion of China’s domestic industrial firms.

According to the AIS, China had 219,304 domestic industrial firms with revenues greater than 5 million yuan in 2004, which, by 2010, had grown to number 368,531 (see Table 1).

Of the total number of industrial firms, the proportion of MOEs hovered around 20 percent from 2004 to 2010. Since 2004, the majority of domestic firms have been registered as POEs, which comprised nearly two-thirds of sizeable industrial firms since 2007. Meanwhile, the share of SOEs shrank dramatically from 11 percent to 3 percent between 2004 and 2008. (The rebound of SOEs reported in the 2010 AIS is best treated with skepticism—see our explanation in the Data Appendix.)

MOEs also control a large but essentially static share of the assets and industrial value added (IVA) of China’s domestic industrial firms. Both figures have been around 40 percent between 2004 and 2010 (see Table 2 and Table 3). In terms of both assets and value added, therefore, MOEs constitute about 40 percent of the Chinese economy. By contrast, SOE shares of assets and IVA have declined over time, from 40 percent and 28 percent in 2004 to 33 percent and 22 percent in 2010, respectively. Finally, POE assets and IVA have also increased correspondingly over the same time period.

Table 1. Number of Domestic Industrial Firms by Registration Type, 2004-2008, 2010*

	2004	2005	2006	2007	2008	2010
SOE	25,144	18,347	16,074	11,572	10,517	15,587
MOE	46,956	47,850	52,948	58,779	68,258	80,865
POE	119,352	123,820	149,736	177,080	237,144	243,774
All domestic industrial firms	219,304	215,448	241,090	269,312	335,324	368,531

*2009 industrial survey is incomplete and omitted here and in subsequent tables.

Source: NBS

Table 2. Assets of Domestic Industrial Firms by Registration Type (RMB millions)

	2004	2005	2006	2007	2008	2010
SOE	6,327,183	6,864,931	7,663,640	8,528,687	9,038,888	10,956,538
MOE	6,420,881	7,273,415	8,842,955	10,800,254	13,096,147	13,705,681
POE	2,372,480	3,033,002	4,052,930	5,330,524	7,301,937	7,149,032
All domestic industrial firms	15,973,742	18,105,769	21,506,285	25,741,141	30,397,717	33,267,043

Source: NBS

Table 3. IVA of Domestic Industrial Firms by Registration Type (RMB millions)

	2004	2005	2006	2007	2008	2010
SOE	1,122,077	1,412,893	1,640,186	1,893,047	n/a	2,443,899
MOE	1,710,065	2,086,816	2,669,742	3,473,839	n/a	4,367,649
POE	909,247	1,285,555	1,873,586	2,638,218	n/a	3,578,155
All domestic industrial firms	4,058,824	5,171,637	6,593,700	8,491,612	n/a	11,046,763

Source: NBS

Ownership and Control of China’s MOE Sector

As demonstrated above, MOEs clearly already constitute a significant part of China’s overall industrial firms and assets. But have the sheer numbers of MOEs in China had an effect on SOE reforms?

To get a better sense of whether MOEs have facilitated progress in achieving the Chinese government’s stated objective of SOE reform, it is important to examine the difference between ownership and control of the MOE sector and how it is practiced in reality.

Several issues are involved, including the extent of state ownership of the MOE sector, the extent of state control as distinct from ownership, whether state control is disproportionate to state ownership, and to what extent (and whether) ownership structures of non-state and state-controlled enterprises

have converged or diverged since 2004. Evaluation of the last issue requires some judgment since ownership percentages vary continuously while control is binary: a firm either is or is not state controlled.

Ownership

For this purpose, state ownership of MOEs is measured by the percentage of assets owned by state versus private, legal-person, and other entities. Overall, direct state ownership of firms in the MOE sector has been small, declining from 6.9 percent in 2004 to 4.4 percent in 2010, while private ownership has increased correspondingly from 45.2 percent to 50.8 percent (see Table 4). The percentage of MOE assets held by legal-person entities, however, changed very little from 2004 to 2010, hovering around 40 percent. But it is unclear

Table 4. Ownership Types of MOE Assets

	2004	2005	2006	2007	2008	2010
State	6.9%	6.0%	5.4%	4.6%	4.7%	4.4%
Private	45.2%	47.0%	49.0%	50.4%	52.7%	50.8%
Legal-Person	40.2%	40.2%	38.9%	39.2%	43.3%	39.1%
Other	7.8%	6.8%	6.7%	5.9%	5.0%	5.6%

Table 5. State Control vs. State Ownership of MOEs

	2004	2005	2006	2007	2008	2010
State-Controlled MOEs	15.3%	13.7%	13.1%	11.8%	11.0%	11.2%
State-Owned MOEs	7.7%	7.7%	6.9%	5.1%	4.2%	4.8%

Source: NBS

from the AIS whether these legal-person entities are ultimately state or privately controlled.

Control

Ultimate control of a firm is measured as either state or non-state based on answers to a forced-choice item about the firm’s “control situation” in the AIS. Though the control categories have varied from year to year—in 2004 there were two categories, “state control” and “other”—state control has remained the top-line choice throughout.

Based on the data, it appears that state control is far more extensive in China than state ownership (more than 50 percent) since only half of state-controlled MOEs are majority state-owned (see Table 5). For instance, in 2004, 15.3 percent of MOEs were reported as state-controlled while 7.7 percent were majority state-owned and in 2008, 11 percent of MOEs were state-controlled and 4.2 percent reported being majority state-owned. (The discrepancy between state control and majority direct state ownership may be due either to indirect state ownership

via legal-person entities or the vesting of control rights in a state-affiliated controlling shareholder, which are not distinguished in the AIS.)

Private Investment in State-Controlled MOEs

The mixed ownership economy envisioned at the Third Plenum calls for increased private investment in state enterprises and, ultimately, reduction if not outright elimination of the differences in ownership structures of state and non-state enterprises. The AIS, however, indicates that the ownership gap between state- and non-state enterprises increased from 2004 to 2010. A simple measure of this gap is the difference between the percentages of private ownership of non-state MOEs and of state-controlled MOEs (see Table 6).

Overall, ostensible state ownership of the MOE sector has declined while private ownership has increased. Meanwhile, state control of MOEs has also apparently decreased. But digging a bit deeper presents a different story: state control remains disproportionate

Table 6. Gap in Private Ownership between Non-State and State-Controlled MOEs

	2004	2005	2006	2007	2008	2010
Private ownership of non-state MOEs	50.6%	52.0%	59.9%	55.7%	57.4%	55.9%
Private ownership of state-controlled MOEs	15.0%	15.1%	8.6%	10.3%	12.9%	10.2%
Gap	35.6	36.9	46.3	45.4	44.5	45.7

Source: NBS

to state ownership insofar as fewer than half of state-controlled firms are majority state-owned.

As Table 6 indicates, private ownership of non-state MOEs increased from 50.6 percent in 2004 to 55.9 percent in 2010, but private ownership of state-controlled MOEs actually saw a decline from 15 percent to 10.2 percent over the same period. Consequently, the gap in private ownership between non-state and state-controlled enterprises in

China expanded from 35.6 percentage points to nearly 46 percentage points in 2010.

In short, rather than showing convergence of ownership structures of MOEs, the data demonstrate precisely the opposite. Over time, private ownership has increased among *non-state* MOEs while declining among *state-controlled* MOEs, thus implying a retreat from the mixed ownership economy.

Ownership and Performance of China's MOEs

If Beijing wants to continue to encourage the formation of MOEs, a pivotal question will be whether and how increased private participation in state-controlled MOEs contributes to their performance.

A simple performance comparison of non-state and state-controlled MOEs can be conducted by using two performance measures: the first, an operational measure; the second, an accounting measure.

The operational measure is the IVA/assets ratio, measured at the firm level, where IVA is the total output of a firm's industrial activities minus its intermediate factor costs. The accounting measure is return on assets (ROA). On both dimensions, the performance of state-controlled MOEs

suffers in comparison with non-state MOEs (see Table 7).

Consider, first, the IVA/assets ratio. For state-controlled MOEs, the mean IVA/asset ratio increased from 0.255 in 2004 to 0.276 in 2010; for non-state MOEs, the mean IVA/asset ratio increased from 0.280 in 2004 to 0.362 in 2010. This shows that not only did state-controlled MOEs suffer a deficit in operating efficiency in comparison with non-state MOEs, but this deficit grew over time, both in absolute and percentage terms.

The ROA figures show a similar trend. For state-controlled MOEs, mean ROA increased from 0.078 in 2004 to 0.104 in 2010. For non-state MOEs, however, the improvement was more dramatic, with mean ROA rising from 0.115 in 2004 to 0.164 in 2010. Moreover, the

Table 7. Mean IVA/Assets and ROA for Non-State and State-Controlled MOEs

	2004	2005	2006	2007	2008	2010
IVA/assets						
State-controlled MOEs	0.255	0.267	0.276	0.286	n/a	0.276
Non-state MOEs	0.280	0.309	0.332	0.362	n/a	0.362
Absolute performance gap	0.025	0.042	0.056	0.076	n/a	0.086
Percentage performance gap	9.8%	15.7%	20.3%	26.6%	n/a	31.2%
ROA						
State-controlled MOEs	0.078	0.084	0.091	0.102	0.106	0.104
Non-state MOEs	0.115	0.146	0.157	0.159	0.218	0.164
Absolute performance gap	0.037	0.062	0.066	0.057	0.112	0.060
Percentage performance gap	47.4%	73.8%	72.5%	55.9%	105.7%	57.7%

Source: NBS

ROA performance gap in percentage terms was substantially larger than the IVA/asset performance gap, peaking at 105.7 percent in 2008 (in other words, ROA for non-state MOEs was 105.7 percent higher than for state-controlled MOEs).

In interpreting the data, it is important to keep in mind that industry is not controlled in these descriptive statistics—in other words, the performance differences between non-state and state-controlled firms could be due to the concentration of state-controlled firms in capital-intensive industries.

But even with this caveat in performance difference outcomes, the growing gaps over time cannot be explained merely by industry differences. Nor can these performance differences be explained by disproportionate social costs borne by state-controlled firms: in principle,

state-controlled MOEs are marketized—in other words, reformed enterprises not carrying the same social obligations as pure SOEs. In our judgment, the liabilities attached to state control stem from other sources, especially government-driven preferences for growth over profitability. This helps explain why the gap in financial performance between non-state and state-controlled MOEs is much larger than the gap in their operational performance.

The critical question, however, is the effect of augmented private ownership on the performance of state-controlled MOEs. As best as we can gather, augmented private ownership yields positive performance benefits. However, while these benefits substantially reduce the gap in operating efficiency (IVA/assets) between non-state and state-controlled MOEs, the financial performance (ROA) gap sees far less of a reduction.

Table 8a. Regressions of IVA/Assets on State Ownership and Private Ownership*

	2004	2005	2006	2007	2010
Constant	0.386	0.508	0.440	0.497	0.509
State Ownership	(-0.026)	(-0.008)	(-0.014)	(-0.035)	-0.040
Private ownership	0.160	0.149	0.133	0.227	0.164

Table 8b. Regressions of ROA on State Ownership and Private Ownership

	2004	2005	2006	2007	2008	2010
Constant	0.168	0.226	0.193	0.185	0.242	0.196
State Ownership	-0.018	-0.020	-0.014	(-0.006)	(0.003)	(-0.005)
Private ownership	0.051	0.042	0.069	0.227	0.060	0.070

*Industry fixed effects not shown for either table; coefficients in parentheses not statistically significant. Source: author calculations



To explore the effect of private ownership on IVA/assets and ROA, we estimated a series of models where these performance measures were regressed on the percentage of state ownership, the percentage of private ownership, and two-digit industry fixed effects—in other words, industry differences are now controlled (see Table 8a and Table 8b).

There are three basic findings:

First, for state-controlled MOEs, the state ownership percentage has little or no impact on performance. There is no statistically significant effect of state ownership on IVA/assets for 2004-2007, and the 2010 effect, although marginally significant, is small. Similarly, there is no statistically significant effect of state ownership on ROA. These results suggest that state control, whether via a state-controlled legal-person entity or a controlling state shareholder, trumps direct state ownership of MOEs.

Second, private ownership has positive effects on operating performance measured by IVA/assets and on financial performance measured by ROA. All coefficients of private ownership are positive and statistically significant. Further, these effects are of the same magnitude: a given percentage improvement in private ownership yields about the same percentage improvement in IVA/assets and in ROA.¹⁴

Third, since the ROA gap between non-state and state-controlled MOEs is two to five times greater, in percentage terms, than the gap in IVA/assets (see Table 7), private investment closes far less of the ROA gap than the IVA/assets gap. In other words, while augmented private investment potentially renders state-controlled MOEs competitive operationally, it is unlikely to render them competitive financially.¹⁵

To summarize the performance results: there is a substantial performance gap between state-controlled and non-state MOEs. The gap is much greater for financial performance measured by ROA than for operating performance measured by IVA/assets. That gap has also increased over time, especially for operating performance. Private ownership of MOEs improves performance on both dimensions. However, given that the financial performance gap is two to five times the operating performance gap, private ownership reduces far more of the latter than the former.

Indeed, it is unclear that any amount of private investment in state-controlled MOEs can eliminate the financial penalty caused by state control. These results reflect the current state of MOE governance and justify changes to the governance structure.

There is a substantial performance gap between state-controlled and non-state MOEs.

The Mixed Ownership Challenge

The Third Plenum's call for further development of the mixed ownership economy is not new. After all, China has experimented with mixed ownership for many years. And the MOE sector already comprises about 40 percent of China's industrial economy, consisting of LLCs and shareholding companies with state, private, and legal-person owners.

Lessons Learned

The lessons learned from the preceding analysis of the existing data should inform current Chinese policy. The crucial point is this: what matters is not the type of ownership per se, but control of a firm. And that means that China's efforts to pursue mixed ownership alone are unlikely to solve the larger problem of SOE governance, at least not satisfactorily.

Indeed, state control has been disproportionate to state ownership in the MOE sector. Although there is no precise gauge, several indicators do point to this imbalance. These include: (1) from 2004 to 2010, the proportion of state-controlled MOEs exceeded that of the majority state-owned MOEs by 5-7 percent; and (2) whereas the average private ownership of non-state controlled MOEs remained above 50 percent from 2004 to 2010, the average

state ownership of state-controlled MOEs ranged from 33 to 36 percent. Often, majority interests in state-controlled MOEs were held by legal-person entities, suggesting that these entities were, in turn, state controlled.

Among MOEs, state control exacts penalties from both operating and financial performance. The financial penalty is much larger than that on operating performance, and private ownership mitigates the latter better than the former. Specifically, the operating performance, or the IVA/assets ratio, of non-state MOEs exceeds that of state-controlled MOEs by 10 to 31 percent. Meanwhile, the difference in financial performance, or the ROA, is even more striking at 47 to 106 percent.

Given the magnitude of the ROA gap between the two types of MOEs, it is unlikely that any amount of private investment can close it. Although the comparisons are imperfect, they nonetheless remain apt: in 2006 and 2007, an *additional* 100 percent of private investment in state-controlled MOEs would have been required to close the ROA gap with non-state MOEs.

Some qualification is in order, however. Of particular concern is the uncertain direction of the ownership/performance relationship. Private ownership appears

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to contribute to the performance of state-controlled firms, and far more so to operating efficiency than to financial performance. But the reverse is also possible, and causality may run from performance to private investment in state-controlled firms due to policies and practices encouraging partial privatization of the best state assets.

These results certainly help us to better understand why the private sector hesitates to embrace the Chinese government's wish to pursue a mixed ownership economy. Simply put, the problem is that the *benefits* of mixed ownership are asymmetrical. Private investment in state-controlled enterprises improves the IVA/assets ratio and hence contributes to output and GDP growth sought by the government. However, while private investment also yields improvement in ROA, this improvement is small in comparison with the gap in ROA between non-state and state-controlled MOEs. As a consequence, private investors remain better off avoiding firms ultimately controlled by the state.

These observations can be explained simply: it is easier to transfer private-sector technology and personnel practices than to transfer private-sector financial discipline and governance to state-controlled firms. And this is all the more true when private investors are minority owners, or when ultimate control via state-owned legal-person shareholders and/or a controlling state shareholder trumps ownership.

To put this another way, mixed ownership, at least as it is currently practiced in China, is good at transferring the hardware, such as technology and capital, and certain software, such as pay-for-performance, into state-controlled firms. But it is not nearly as effective in transferring the firmware of market discipline and corporate governance.

Déjà Vu All Over Again—And What to Do About It

As we have shown, mixed ownership in China is not new. Nor are Chinese government policies aimed at drawing private investment to state enterprises particularly fresh. A 2006 SASAC initiative pursued ownership diversification and, ultimately, accountability of state enterprises for performance: non-tradable legal-person shares were converted to so-called “G” shares subject to a lock-up period after which they morphed into tradable “A” shares. The conversion of non-tradable to tradable shares encountered resistance from “A” shareholders who, fearing that conversion of non-tradable to tradable shares would dilute their assets, demanded and ultimately received compensation.

Today, circumstances *seem* different. Investors have piled money into listed Chinese companies announcing ownership reform programs in the hope that any change will be for the better. However, market valuations of SOEs hammered by several years

of dismal profits have created yet another obstacle to private investment: regulations prohibiting the sale of state assets below book or net asset value.

These regulations could prove particularly onerous for Chinese commercial banks. For example, the *Wall Street Journal* reports that the Bank of Communications' Hong Kong shares are selling at 77 percent of book.¹⁶ There will be workarounds, of course—for example, private investment will be channeled to profitable subsidiaries where share prices reflect performance.

But the Chinese government is trapped by an inherent contradiction: private investment is sought as a remedy for poor performance, yet poor performance has depressed the market

capitalization of many firms below the floor at which their assets can be legally sold. The central policy problem, therefore, is how to make private investment in state enterprises both attractive to investors and feasible for the Chinese government.

Several steps are possible that would improve matters without greatly changing the current institutional context.



The first step is to redefine the problem and the goal post. The immediate problem is not ownership. Rather, it is state control. The goal post is not greater private investment in state enterprises. Rather, it is reduced state control—from which private investment will follow.

The second step is greater transparency through simplification of ownership and control. Shares should be either state or private. Firms should be either state- or privately-controlled depending on the controlling shareholder, if any. Legal-

person entities, which were intended as halfway houses between state and private enterprise, should be re-categorized as state- or privately-controlled, and legal-

person shares should become either state or private shares depending on control of the legal-person entity. The simplification of ownership and control will draw attention to the magnitude of state control and will likely intensify pressures for its diminution.

The third step is a relaxation of regulations prohibiting the sale of state assets below book value. This would undoubtedly be enormously difficult

and politically controversial. But it has an underlying market logic that would help the government to achieve its reform objectives.

The fourth step is a rethinking of state shares. Currently, state shareholders, such as SASAC, have control rights, although the right to appoint senior managers of the largest SOEs remains with the CCP Organization Department. Still, the flow of profits via dividends to state shareholders has been uncertain. The Third Plenum Decision aims to rectify this by raising the dividend payout to 30 percent by 2020. We suggest a further step: redefining state shares as preferred shares with

guaranteed dividend payouts but limited control rights.

The bottom line for Chinese decision-makers is this: SOE reforms have just been revived as part of the Third Plenum reform agenda, but it is not at all clear that recent pronouncements aimed at promoting a mixed ownership economy will achieve the stated objective.

Can the state-owned asset management companies envisioned by the Decision of the Third Plenum credibly give greater priority to “capital management” and less to economic growth? This and the prospects for a mixed ownership economy will ultimately depend on the state’s willingness to cede *control*—not just *ownership*—to private interests.

Data Appendix

We utilize the Annual Industrial Survey (AIS) Database (2004-2008, 2010) from the National Bureau of Statistics (NBS) of China. The dataset, aggregate information from which is reported in the annual *China Statistics Yearbook*, contains firm-level information on Chinese industrial enterprises with revenues exceeding 5 million yuan.

The entire dataset covers the period of 1999 through 2011. However, in 2004 there is a sharp increase in the total number of industrial enterprises in the database. This can be attributed to the inclusion of private enterprises for the first time in the 2004 economic census. Firms that were largely privately-owned and should have been in earlier AIS had been omitted because of imperfections in the business registration system, which were corrected in the 2004 census.¹⁷ The 2009 survey is omitted, as no capital structure information is available for that year in the dataset. The 2011 survey is omitted because it and subsequent surveys are limited to firms with revenues exceeding 20 million yuan.

Completeness of Data

We judge the completeness of the AIS Database by comparing it with statistics reported in the CEIC China Premium database, a commercial database that includes extensive time series records

on Chinese industry and the Chinese economy but not on individual firms.

Based on multiple comparisons, we believe the AIS is complete for 2004-2007. However, some discrepancies between the AIS and the CEIC database, especially in reported numbers of SOEs, appear in 2008 and especially in 2010. As can be seen in Table A1, the total numbers of industrial enterprises and of state-owned industrial enterprises (code 110 in the AIS) are identical from 2004 to 2007. However, in 2008, CEIC reports a greater number of industrial enterprises than in our AIS database (426,113 vs. 410,909), as well as state enterprises (9,682 vs. 9,123).

This pattern is reversed in 2010 when 10,000 more enterprises appear in the AIS than in CEIC (462,730 vs. 452,872) and nearly 5,000 more SOEs appear in the AIS than in CEIC (13,534 vs. 8,726). As a consequence of these discrepancies, we believe that considerable caution is required in drawing conclusions from the 2008 and 2010 AIS data, the latter in particular. That said, results for 2008 and 2010 reported above are for the most part consistent with 2004-2007 results.

Classification of Firms by Registration

In this Policy Memorandum, we focus on industrial firms with mixed ownership, called mixed ownership

enterprises (MOEs). To locate MOEs, we initially classified firms by their legal registration. Excluded from the set of MOEs are firms registered as state-owned, private, collective, and cooperative enterprises. More than 90 percent of Chinese domestic industrial firms can be grouped into three principal types of registration as follows:

- **State-Owned Enterprises:** They comprise three registration categories: (1) traditional, pure SOEs without shareholders, owned by “the whole people” (code 110 in the AIS); (2) SOEs reorganized as limited liability companies (LLCs)—often to facilitate transactions with private or overseas firms while retaining 100 percent state ownership—normally re-register as exclusively state-funded LLCs (code 151); (3) a small number of state-owned joint venture enterprises treated as SOEs for our purposes (code 141).
- **Privately-Owned Enterprises:** They comprise four additional registration categories that include domestic firms entirely under private ownership: (1) sole private ownership (code 171), (2) private partnerships (code 172), (3) private LLCs (code 173), and (4) private limited liability shareholding corporations (code 174), which is required to have at least two but no more than 200 shareholders under the Company Law.
- **Mixed Ownership Enterprises:** Two

registration categories are reserved for domestic enterprises combining state, legal-person (or corporate), and private ownership: (1) is “other LLCs” (code 159), consisting of LLCs whose ownership is neither 100 percent state nor 100 percent private, and (2) a category labeled as limited liability shareholding corporations (code 160), consisting of shareholding firms not 100 percent privately owned and almost always with legal-person shareholders consisting of “a mix of various domestic institutions [comprising] private companies, SOEs and non-bank institutions such as investment funds and security companies.”¹⁸ Firms in these two categories comprise the MOEs.

The remaining domestic industrial firms are registered in a potpourri of categories. These include collectives (code 120), cooperatives (code 130), collective joint ownership enterprises (code 142), state-collective joint ownership enterprises (code 143), other joint ownership enterprises (code 149), and enterprises classified as “other” (code 190), none of which are considered for our purposes. Nor do we consider foreign- and Hong Kong-, Macao-, and Taiwan-invested (HMT) enterprises, for which there are eight registration categories depending on whether they are sole ownership, joint venture, cooperative, or shareholding enterprises (codes 210, 220, 230, and 240 for HMT enterprises; codes 310, 320, 330, and 340 for foreign enterprises).

Table A1. Number of Enterprises and SOEs: AIS vs. CEIC, 2004-2008, 2010

	Number of Enterprises		SOEs (Code 110)	
	AIS	CEIC	AIS	CEIC
2004	276,474	276,474	23,417	23,417
2005	271,835	271,835	16,824	16,824
2006	301,961	301,961	14,556	14,555
2007	336,768	336,768	10,074	10,074
2008	410,909	426,113	9,123	9,682
2010	462,730	452,872	13,534	8,726

Sources: NBS, CEIC

State Control Versus State Ownership

Critical to our analysis is the difference between state ownership and state control. State ownership can be construed narrowly as firms registered as SOEs or somewhat more broadly as encompassing SOEs, 100 percent state-owned LLCs, and state-owned joint venture enterprises as above.

State control, however, is somewhat independent of legal registration and is indicated by answers to an item on the “enterprise’s controlling shareholder” (企业股控情况) in the AIS: a firm is state-controlled when the controlling shareholder is the state.¹⁹ State control is reported obliquely in the *China Statistical Yearbook* through 2006, after which it was dropped. It is reported in the CEIC database under the heading “state-owned and holding companies.”

State control is more accurately captured in Holz’s acronym “SOSCE” for “state-owned and state-controlled enterprises.”²⁰ As shown in Table A2,

particularly striking is that the number of firms whose controlling shareholder is the state in the AIS corresponds almost exactly to the number of state-owned and holding companies reported by CEIC for the years 2004-2007. That these numbers diverge in 2008 and 2010 is hardly surprising given the divergence in numbers of reported SOEs: in 2008 CEIC reports 21,313 state-owned and holding companies whereas the AIS shows 20,321 state-controlled firms. Meanwhile, in 2010 the AIS shows 27,233 state-controlled firms, almost as many as 2005, while CEIC reports 20,253 state-owned and holding companies.

Two inferences can be drawn from the juxtaposition of Tables A1 and A2. First, as before, results based on the 2008 and 2010 data should be interpreted cautiously given the discrepancies between the AIS and the CEIC database in these years. Second, the number of industrial enterprises where the state remains the controlling shareholder

Table A2. Number of State Firms: AIS vs. CEIC Database, 2004-2008, 2010

	State-controlled firms (AIS)	State-owned and holding companies (CEIC)
2004	35,997	35,597
2005	27,477	27,477
2006	24,960	24,961
2007	20,680	20,680
2008	20,321	21,313
2010	27,233	20,253

Sources: NBS, CEIC

greatly exceeds the number of SOEs throughout.

Missing and Extreme Values

As in other census data, the AIS dataset contains observations with missing values as well as unreasonable

values that are clearly the result of misreporting. As a consequence, we omit from the analysis cases with missing values and with values greater than three standard deviations from the means in relevant categories.

Endnotes

¹ “Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform,” (full English translation), January 16, 2014, accessed at http://www.china.org.cn/china/third_plenary_session/2014-01/16/content_31212602.htm; Chinese version of the Decision can be accessed at http://news.xinhuanet.com/politics/2013-11/15/c_118164235.htm.

² For President Xi Jinping’s explanation of the Plenum Decision, see http://news.xinhuanet.com/politics/2013-11/15/c_118164294.htm (in Chinese).

³ Zhang, Ed, “Questions on Mixed Ownership Still Arise,” *China Daily*, April 28, 2014, accessed at http://www.chinadailyasia.com/business/2014-04/28/content_15132559.html.

⁴ “Mixed Ownership Reform Advances Against Headwinds,” *Xinhua*, June 16, 2014, accessed at http://www.china.org.cn/business/2014-06/16/content_32674454.htm

⁵ The six are 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).

⁶ Wildau, Gabriel, “China Announces Plan for Reform of State-Owned Enterprises,” *Financial Times*, July 15, 2014, accessed at <http://www.ft.com/intl/cms/s/0/07928638-0c24-11e4-a096-00144feabdc0.html#axzz3ACZBn3Td>.

⁷ “Multiple Provinces Adopt State Assets Reform Plans, Execution Path Clear,” *Securities Times*, August 6, 2014, accessed at <http://finance.chinanews.com/cj/2014/08-06/6464102.shtml>.

⁸ “Guangdong To Comprehensively Push Forward Mixed Ownership Economy Reforms,” *Caixin*, August 5, 2014, accessed at <http://economy.caijing.com.cn/20140805/3643954.shtml>.

⁹ Lin, Xu, “Top 10 Private Enterprises in China,” *China.org*, November 12, 2103, accessed at http://www.china.org.cn/top10/2013-11/12/content_30542813_10.htm.

¹⁰ The CIMC 2013 Annual Report, accessed at <http://www.cimc.com/en/ir/reports/annualreport/201404/P020140423315121610690.pdf>.

¹¹ Deilos, Andrew, Wu, Zhijian, and Zhou, Nan, 2006. “A New Perspective on Ownership Identities in China’s Listed Companies,” *Management and Organization Review*, 2: 219-343.

¹² Chang, Sea Jin, and Xu, Dean, 2008. “Spillovers and Competition Among Foreign and Local Firms in China,” *Strategic Management Journal*, 29: 495-518.

¹³ Holz, Carsten A. 2013. “Chinese Statistics: Classification Systems and Data Sources,” working paper, January 7, Stanford Center for International Development, Stanford University.

¹⁴ To illustrate the gains in IVA/assets and ROA attributable to private ownership in comparison with 2006 and 2007 mean values: in 2006 the coefficient for private ownership is 0.133 in the IVA/assets model, meaning that net of industry fixed effects a 20-percentage point increase in private ownership improves IVA/assets by $0.133 * .020 = 0.0266$ or 9.6 percent of mean 2006 IVA/assets (.276); the 2007 coefficient for private ownership is 0.227, meaning that net of industry effects a 20-percentage point increase in private ownership improves IVA/assets by $0.227 * 0.20 = 0.0454$ or 15.9 percent of 2007 mean IVA/assets (.286). Similarly, in 2006, the coefficient for private ownership is 0.069 in the ROA model, meaning that net of industry fixed effects a 20-percentage point increase in private ownership improves ROA by $0.069 * 0.020 = .0138$ or 15.1 percent of mean 2006 ROA (.091); the 2007 coefficient for private ownership is 0.057, meaning that a 20-percentage point increase in private ownership improves ROA by $0.057 * 0.20 = .0114$ or 11.0 percent of mean 2007 ROA (.102).

¹⁵ To illustrate the gains in IVA/assets and ROA attributable to private ownership in comparison with 2006 and 2007 performance gaps: a 20-percentage point increase in private ownership closes 47.5 percent of the 2006 IVA/assets performance gap (0.056) and 59.7 percent of the 2007 IVA/assets performance gap (0.076) between non-state and state-controlled MOEs. The same increase in private ownership, however, closes only 20.9 percent of the 2006 ROA performance gap (0.066) and 20.0 percent for the 2007 ROA performance gap (.057) between non-state and state-controlled MOEs. Similar comparisons hold for 2004, 2005, and 2010: private ownership closes substantially more of the IVA/assets gap than of the ROA gap between non-state and state-controlled MOEs.

¹⁶ Back, Aaron, "China's Corporate Reform is Mixed Up," *Wall Street Journal*, August 22, 2014, accessed at <http://online.wsj.com/articles/chinas-corporate-reform-is-mixed-up-heard-on-the-street-1408696605>.

¹⁷ Brandt, Loren, Van Biesebroeck, Johannes, and Zhang, Yifan, 2012. "Creative Accounting or Creative Destruction? Firm-level Productivity Growth in Chinese Manufacturing," *Journal of Development Economics*, 97: 339-351. "Noteworthy is the sharp increase in the number of sample firms between 2003 and 2004. This can be attributed to the Industrial Census, and the identification of firms, largely private in ownership, that should have been in the sample in earlier years, but were left out because of a less-than-perfect business registry" (p. 341).

¹⁸ Delios, Andrew and Wu, Zhijian, 2005. "Legal Person Ownership, Diversification Strategy, and Firm Profitability in China," *Journal of Management and Governance*, 9: 151-52.

¹⁹ The choices in most years are state-controlled, collectively controlled, privately controlled, Hong Kong-Macao-Taiwan-controlled, foreign-controlled, and other; the top-line choice, however, is always state-controlled.

²⁰ Holz, Carsten A. 2013. "Chinese Statistics: Classification Systems and Data Sources," working paper, January 7, Stanford Center for International Development, Stanford University.

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