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State-Owned Enterprise Reform

W. Raphael Lam and Alfred Schipke

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State-Owned Enterprise Reform[*]

***By* W.RAPHAEL LAM and ALFRED SCHIPKE[*]**

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Abstract

Tackling the rising vulnerabilities and low efficiency of state-owned enterprises (SOEs) is crucial to China's transitioning toward a more sustainable growth path. The need now for bold SOE reforms is similar to the reforms at the end of the 1990s, which, after steadfast implementation, helped unleash the country's growth potential and secure rapid development in the early 2000s. Successful SOE reform can improve resource allocation, create space for the private sector to flourish, and address major vulnerabilities.

SOEs continue to play a large role in the economy and cover a wide range of sectors, including heavy industries and utilities, financial institutions, media, and cultural services. Of the 10 largest companies listed on the Shanghai stock exchange, eight are SOEs, ranging from banks to energy and infrastructure sectors.[1] This chapter focuses on nonfinancial and non-cultural SOEs. Although their share in output and employment has declined over the past decades, China still has some 150,000 nonfinancial SOEs. The urgent need to implement reforms is reflected in significantly less-efficient SOE performance compared to their private counterparts, while rising leverage and deterioration of repayment capacity adds to increasing vulnerabilities.

Unlike reforms in the financial, monetary, and fiscal areas, SOE reform has been lagging, reflecting the magnitude and complexity of the problem and strong interest groups resisting change. For example, less than half of the provinces have completed the classification of SOEs for respective reforms. Current draft proposals still lack sufficient detail and are not always consistent with maximizing potential economic benefits.

The chapter examines current proposals and identifies key elements of SOE reforms that can improve resource allocation and facilitate China's transition toward sustainable growth. It then provides an illustration of the role and recent performance of SOEs, analyzes vulnerabilities emanating from high and rising leverage, and estimates the implicit support to SOEs that has contributed to resource misallocation. The chapter summarizes the government's SOE reform initiatives and current progress and presents policy recommendations and assesses potential growth benefits from SOE reforms based on international good practices.

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[*] W. Raphael Lam, Former IMF Deputy Resident Representative for China. Alfred Schipke, Senior Resident Representative, IMF; Member of IMI International Committee. Corresponding author aschipke@imf.org; xli@iwh-halle.de

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1. SOE's Role and Performance: Numerous, Large, but Less Efficient

SOEs have played an important role in China's overall development strategy and have been used to smooth business cycles and support growth through changes in investment spending, in particular during the global financial crisis (see also Batson 2016). SOEs also fill social functions, including to stabilize employment, provide social services that in other countries often either belong to or are supported by the government, and pursue other noneconomic national strategies.

About 110 central, state-owned conglomerates are supervised by the StateOwned Assets Supervision and Administration Commission of the State Council (SASAC),[2] and each has layers of subsidiaries (sometimes six or nine levels). This implies as many as 50,000 central SOEs. In addition, some 100,000 local nonfinancial SOEs exist nationwide, and with the implementation of the revised budget law, some financing vehicles funded by local governments may also be classified as SOEs (see Chapter 6). Multiple line ministries and agencies, such as SASAC, the Ministry of Finance, and the National Development and Reform Commission, are responsible for SOEs and their policies.

While SOEs account for declining shares of output and employment, they continue to take up a large share of resources (Figure 1). The SOE share of industrial value-added has dropped from about 40 percent to 16 percent over the past two decades, and SOEs now account for only about 12–15 percent of urban employment, reflecting previous reforms and the remarkable growth of private enterprises (Figure 2 and Table 1). Despite the decline, SOE assets still accounted for 180 percent of GDP in 2015.

SOEs underperform, however, with low returns and widening losses. Following the late-1990s reforms, returns improved and were catching up with those in private enterprises, but have deteriorated to 2–3 percent since 2008, well below private firms.[3] SOE productivity is about 30–40 percent of that of private enterprises (Hsieh and Song 2015 and Table 1).[4] Interest expenses in turn are relatively high and account for one-quarter of net profits on average, much higher than in private enterprises. Many SOEs also suffered sizable losses in 2015, mostly in resource-intensive industries with low capacity utilization (Figure 2).

Compared to other large emerging market economies, Chinese SOEs appear to be an outlier. Chinese SOEs are more dominant—measured by sales revenue and assets in percent of GDP (Table 2)—while on average their returns on assets are lower (about 2 percent) than those in other emerging economies (about 4 percent), underscoring the need for reform.

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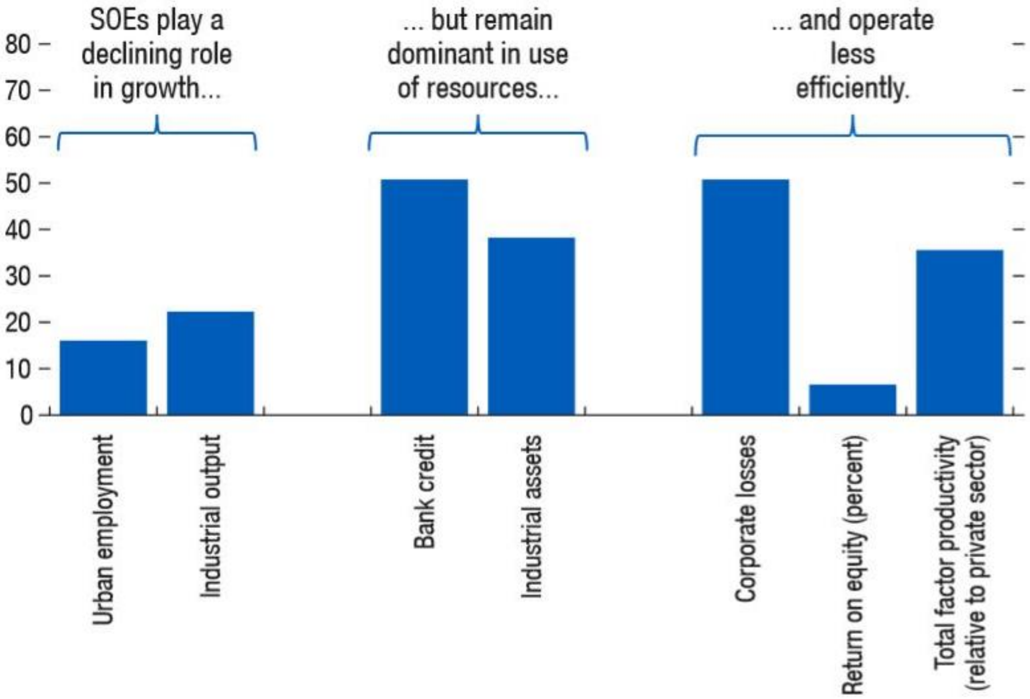
[2] SASAC was established in 2003 to better manage SOEs' assets and improve governance. It has been involved heavily in SOE operations, including key personnel decisions and asset allocation.

[3] The comparison is at the aggregate level. Since SOEs concentrate in capital or resource-intensive industries, direct comparison is difficult between private and SOEs that fully controls for size and sector.

[4] Average productivity was 1.5 percent for SOEs and 4.6 percent for private enterprises (Brandt and Zhu 2010).

Figure 1. SOEs Dominate Resource Use and Operate Less Efficiently (SOEs' share of total unless otherwise stated[1])



Sources: CEIC; Ministry of Finance; National Bureau of Statistics; People's Bank of China; WIND; and IMF staff estimates.
Note: SOE = state-owned enterprise.
[1] Sample period as of end-2015 where data are available. Bank credit and total factor productivity are average between 2011 and 2015.

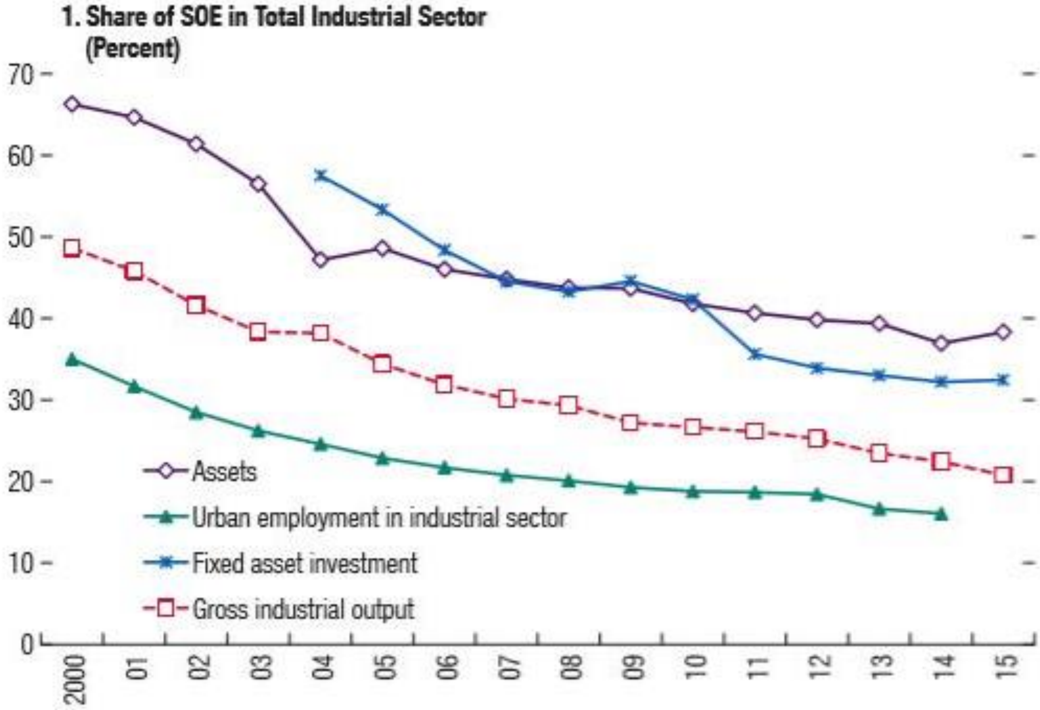
2. High and Rising Corporate Leverage Largely Driven by SOEs

In recent years, one of China's key vulnerabilities has been excessive corporate credit growth. Nonfinancial corporate credit grew about 20 percent on average per year between 2009 and 2015, much higher than nominal GDP (Maliszewski and others 2016; IMF 2016). The corporate debt-to-GDP-ratio (broadly defined) rose from about 100 percent of GDP in 2009 to about 145 percent of GDP in 2015, and is now significantly higher than in countries at a similar level of development, and even exceeding that typical for developed economies (Figure 3). The credit boom, in turn, has led to falling investment efficiency, weakening debt servicing capacity, and rising economic and financial risks.

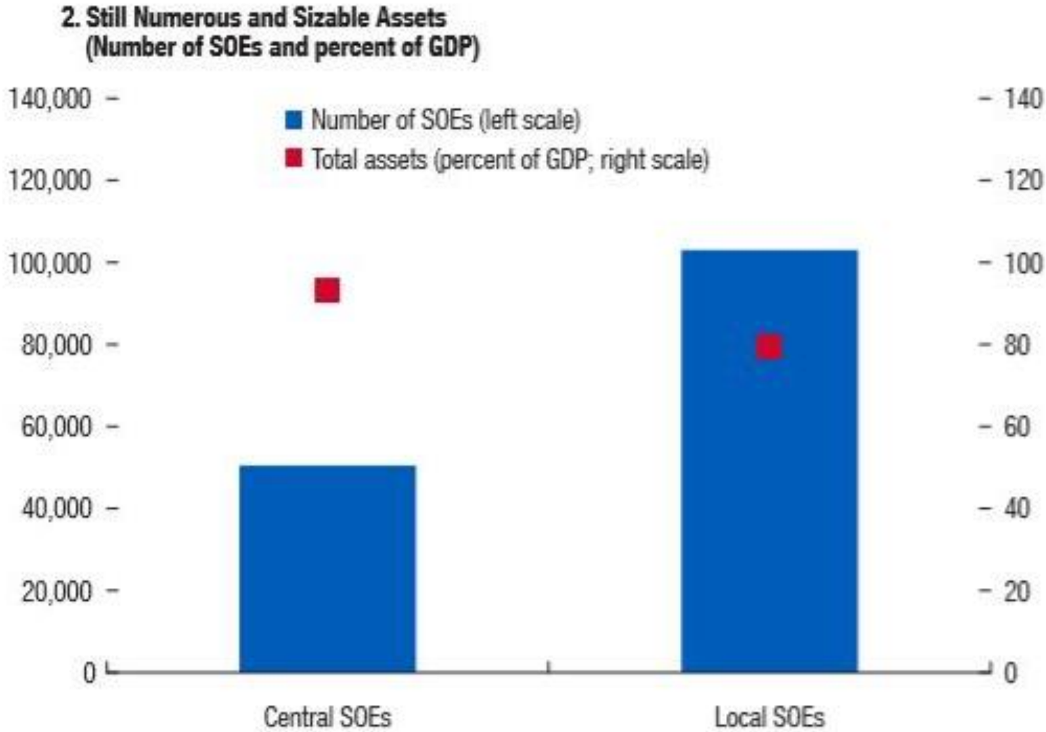
Much of the rise in corporate leverage has been driven by SOE borrowing. At the end of 2015, SOEs accounted for over half of bank outstanding credit, and by some estimates, about two-thirds of overall corporate debt was related to SOEs (Li 2016). Acting as a conduit for policy-driven investment to support growth, SOEs have higher and rising leverage[5]—reaching 180 percent on average (with a fat tail in the distribution at the 90th-percentile SOEs of about 350 percent) (Figure 4).

[5] Ratio between total liabilities and owners' equity.

Figure 2. SOE Share of Output Has Shrunk and Efficiency Has Declined

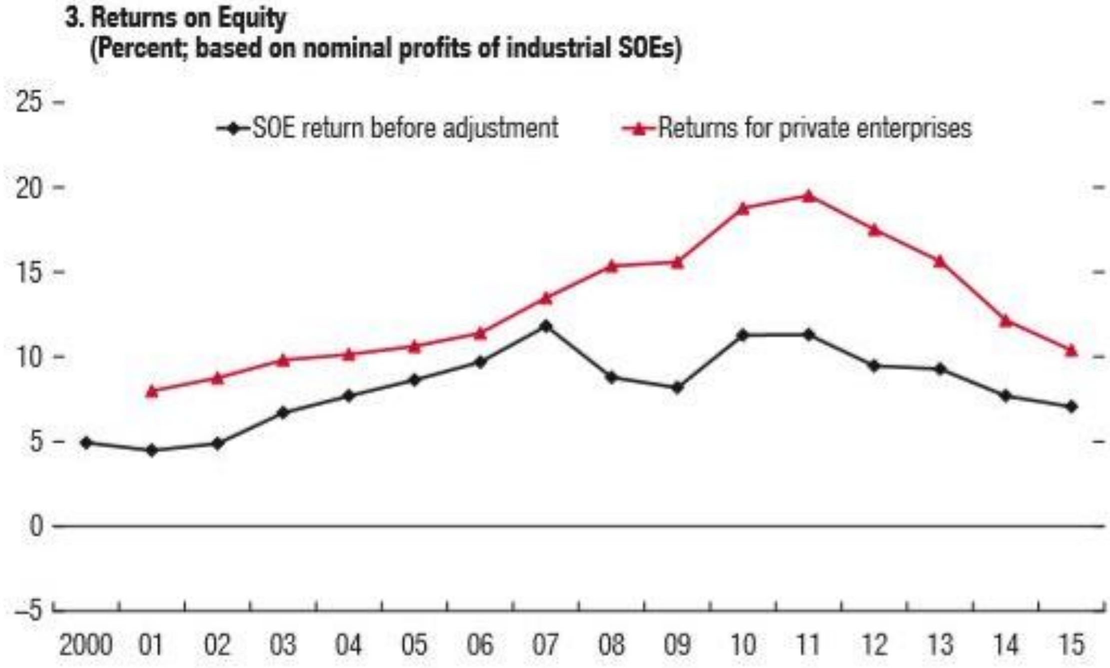


Sources: CEIC; National Bureau of Statistics; and IMF staff estimates.

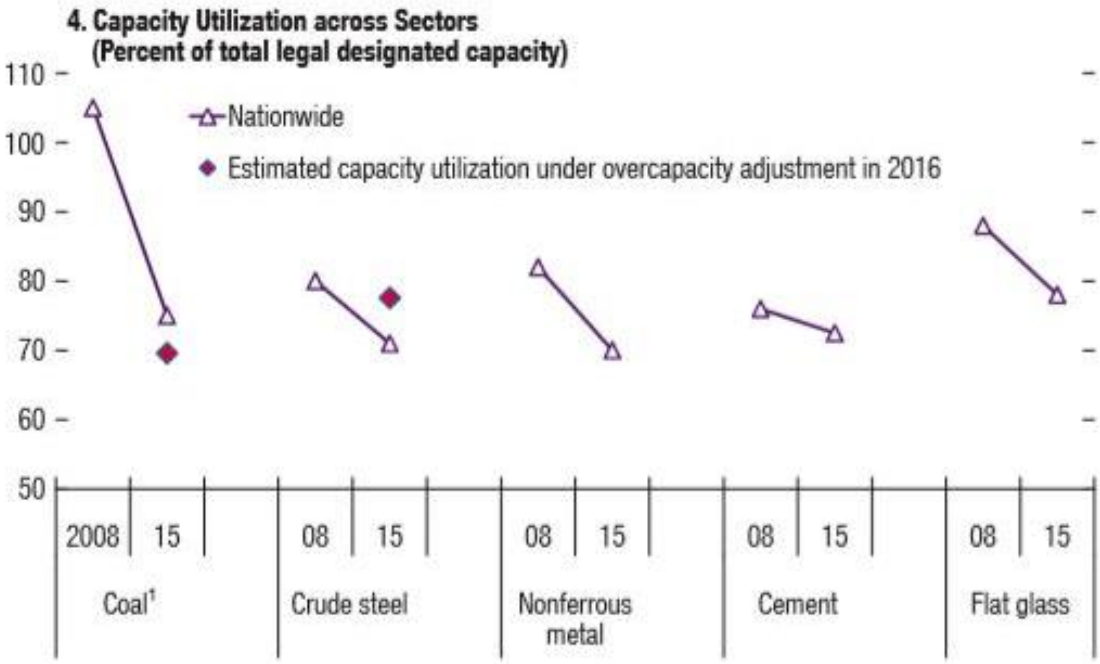


Sources: CEIC; Dragonomics; and Ministry of Finance.
Note: SOE = state-owned enterprise.

Figure 2. SOE Share of Output Has Shrunk and Efficiency Has Declined (continued)



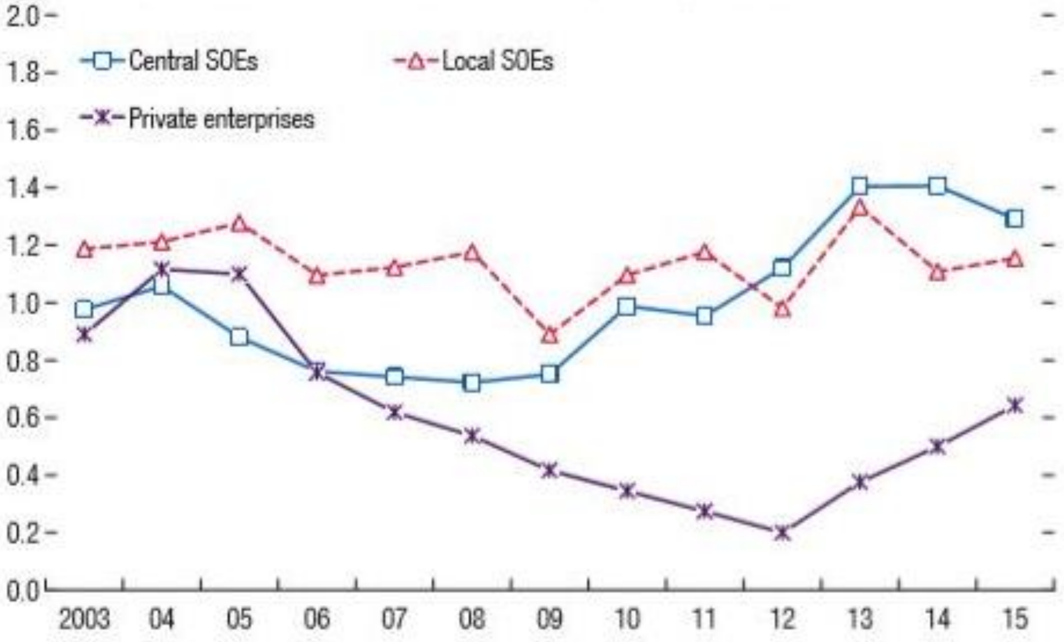
Sources: *Statistical Yearbook* 2015; Unirule Institute of Economics 2015; and IMF staff estimates.
Note: SOE = state-owned enterprise.



Sources: European Chamber of Commerce; Goldman Sachs; and IMF staff estimates.
[1] Coal capacity exceeds 100 percent because coal mines produced more than the legal designed capacity level in earlier years.

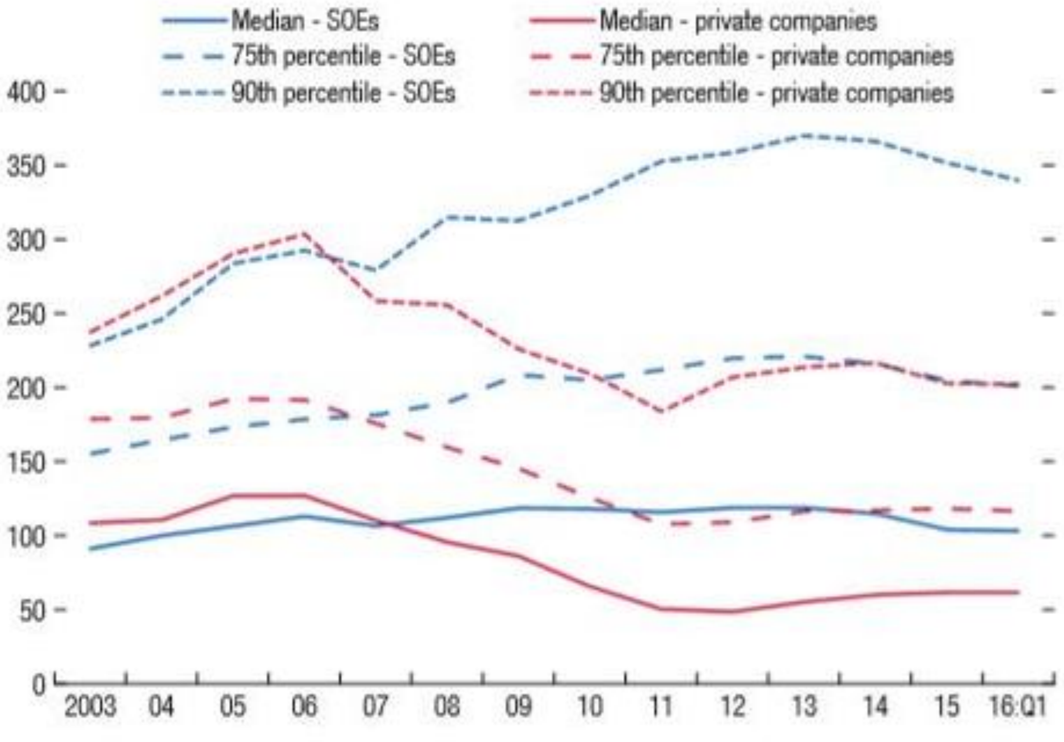
Figure 3. SOEs Contributing to High and Rising Corporate Credit

1. A Proxy of Credit Intensity
(Number of times; Change in total debt to change in net operating revenue)



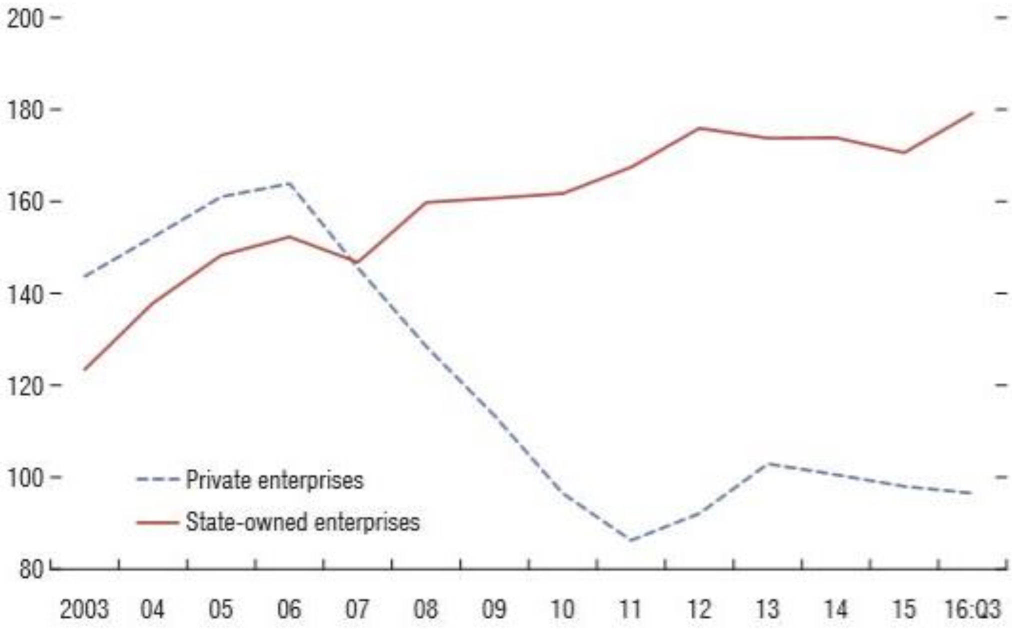
Sources: WIND; and IMF staff estimates.
Note: SOE = state-owned enterprise.

2. Distribution of Leverage Ratios
(Total liabilities in percent of total equity)



Sources: WIND database; and IMF staff estimates.
Note: SOE = state-owned enterprise.

Figure 4. Rising Average Leverage Ratios (Total liabilities as percent of total owners' equity based on listed companies)



Sources: WIND database; and IMF staff estimates.

Table 1. Comparative Indicators between SOEs and Private Enterprises

	State-Owned Enterprises			Private Enterprises		
	2000–07	2013–15	Direction	2000–07	2013–15	Direction
(Share of total in percent unless otherwise indicated)						
Industrial Sector						
Total assets	54	38	Down	46	62	Up
Urban employment	35	16	Down	65	84	Up
Gross industrial output	37	22	Down	63	78	Up
Loss-making enterprises (amount)	46	52	Up	54	48	Down
Fixed asset investment	51	33	Down	49	67	Up
Bank credit to nonfinancial corporate	62	51	Down	38	49	Up
Leverage (percent of owners' equity)	125	192	Up	144	101	Down
Return on equity (percent)	8.4	6.6	Weaken	10.3	12.7	Improve
Efficiency relative to private enterprise (measured by gross output by each unit of credit)	54	43	Weaken	...		
Total factor productivity in percent	1.6			4.5		
Total factor productivity of SOEs relative to private enterprises	35.6			...		

Sources: CEIC; Ministry of Finance; National Bureau of Statistics; People's Bank of China; WIND database; and IMF staff estimates.

[1] Some data are not available for the whole sample period. Estimates are based on where data are available.

Table 2. Key Indicators of SOEs

Percent of GDP

	Sales Revenue	Net Profit	Asset	Market Value	Share in the Top 10 Firms
China	**35**	**3**	**176**	**45**	**88**
Brazil	12	2	51	18	50
India	16	4	75	22	59
Indonesia	3	0	19	12	69
Russian Federation	16	3	64	28	81
South Africa	2	2	3	1	2

Sources: Kowalski and others 2013; and IMF staff estimates.

Alongside the rising leverage, SOEs' credit efficiency has deteriorated. At the same time, and despite the weaker corporate performance, SOEs' nonperforming loan ratios have been much lower than those of private companies, possibly related to implicit support and soft budget constraints (see next section). The accumulated nonperforming loan ratio (including historical write-offs) since 2010 was only 1.3 percent of total loans for SOEs, relative to 12.6 percent for private firms as of June 2016. At the same time, debt servicing capacity, measured by earnings before interest and tax relative to interest expenses, was three times lower for SOEs on average relative to private firms (Deutsche Bank 2016).

3. Resources Misallocation Arising From Implicit Support

SOEs tend to enjoy significant implicit support on factor inputs, such as land, credit, and natural resources. This implicit support has contributed to resource misallocation and an uneven playing field with private firms, further reinforced by protected markets and monopolistic and oligopolistic rights.[6] It partly crowds out private investment and impedes competition and innovation. The implicit support includes:

Land use. Before 2002, SOEs received land from the state based on allocations or negotiated sales at book value. Although the current guidelines require SOEs to pay for land use, it is not clear if such land rental is appropriately charged. Exemptions also exist from land use taxes in selected sectors (for example, thermal power stations). More importantly, SOEs can use endowed land as collateral and are hence often able to borrow at favorable interest rates.

Credit. Financing costs for listed SOEs tend to be about 40–50 basis points below the benchmark lending rate, even as banks increasingly differentiate among SOEs in their lending policy (for example, those in overcapacity sectors). Some studies conclude that SOEs are more likely to get bank financing and undertake fixed investment than private firms, despite having lower average returns on capital, while others note that the spread between comparable SOEs and private enterprises has turned much narrower (Lardy 2014).[7] Widespread implicit guarantees imply that SOEs have credit ratings about two to three notches higher than comparable private firms (Moody's 2015), allowing SOEs to access financing in capital markets at low costs. Some SOEs can also access cheaper funds through their own financing companies by borrowing directly in the interbank market (Chun, Chu, and Liao 2010).

Input prices. Some studies suggest that SOEs may have paid for natural resources below market value (equivalent to about 7–12 percent of SOE profit during 2003–13)

[6] Empirical research finds a statistically significant negative relationship between SOE ownership and corporate efficiency and productivity, and the efficiency (measured in returns and sale revenues) tends to improve after introducing private ownership (Unirule Institute of Economics 2015).

[7] Also see Dollar and Wei 2007 and Brandt and Zhu 2010.

but quantifying this is difficult (Unirule Institute of Economics 2015).[8] For example, SOEs tend to enjoy lower resource taxes and fees for petroleum, natural gas, and coal. Dominance in natural resources also encourages SOEs to diversify to upstream and downstream industries, potentially further adding distortions in resource allocation.[9]

Fiscal support. Direct fiscal subsidies to cover SOE losses have been largely phased out since 2007, although a few exemptions remain for oil and fuel industries.[10]10 Ad hoc fiscal support was provided to SOEs in oil, aviation, and other industries in 2007–09 and later took the form of capital injection (National Development and Reform Commission 2016). Indirect fiscal support takes place more often through local governments, such as through tax deductions. For instance, the average effective tax rate for listed local SOEs was about 10 percent, much lower than the 24 percent rate for private firms.[11]

Market access. In addition to implicit support, SOEs often operate as monopolies or oligopolies, especially in the natural resource sectors (for example, petroleum and coal). Also, there are significant barriers to entry, or, in the case of a number of service sectors, outright entry restrictions (for example, telecommunications).

3.1 Estimates of Implicit Support

Overall the implicit support to SOEs in recent years is estimated at about 3 percent of GDP (Figure 5).[12] Adjusting for the estimated implicit support shows that SOE return on equity would have fallen from an average of 8 percent to about −1.3 percent during 2011–15. In particular, the rapid buildup of SOE leverage after the global financial crisis suggests credit misallocation is increasing and accounts for half of the estimated implicit support (or 1½ percent of GDP).

Estimating implicit support is subject to caveats due to data limitations. First, the estimates cover only the data of industrial SOEs published in the Statistical Yearbooks, excluding SOEs in the services sector.[13] Second, the estimates rest mostly on lower pricing. Some implicit support could have been reflected in the amount of credit rather the lower cost. Third, estimates do not account for SOE legacy cost and social functions (about 0.9 percent of GDP in 2015) such as excess labor, complying with better regulatory standards, and paying for retiree pensions and payroll.

[8] An indirect estimation can be based on the difference in tax levied on resources based on the price differential with global prices. Unirule Institute of Economics (2015) estimates the extent in a few sectors, including petroleum, natural gas, and coal sectors.

[9] In some sectors, the government sets prices above those in world markets supporting profitability, often in sectors dominated by SOEs (for example, in oil and natural gas).

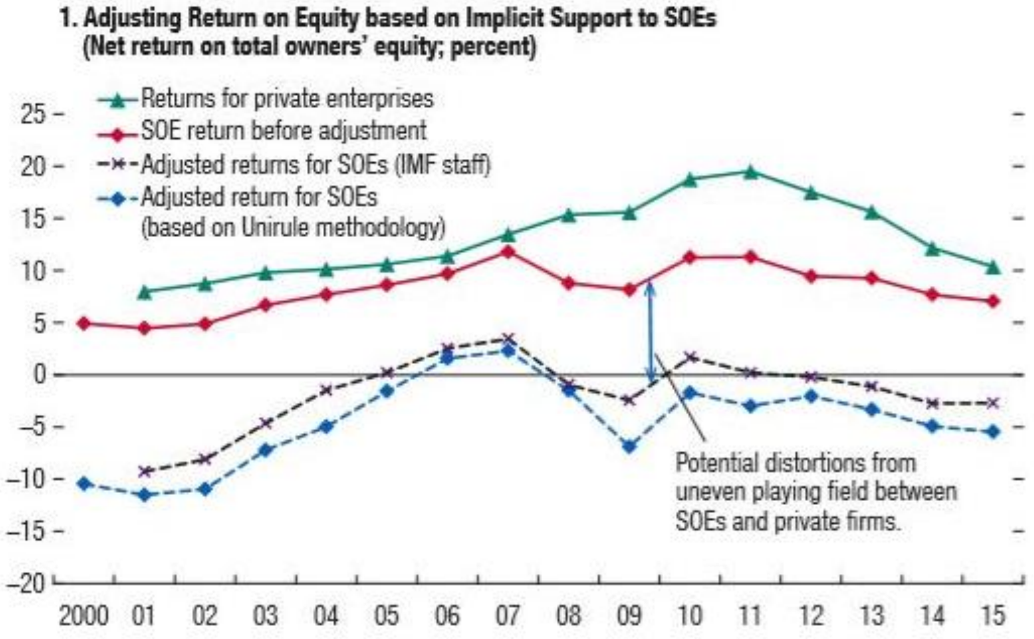
[10] Consumption tax is exempted or fully refunded for oil consumed by manufacturers of refined oil for own use since 2009. A preferential tax rate is levied for value-added tax on coal and gas. While these are available for all enterprises, they tend to favor SOEs, given their dominant role in these sectors.

[11] Significant variation existed in the effective tax rates of SOEs, with an effective tax rate at 31 percent for the largest 50. On average, taxes paid by SOEs are about 8 percent of their total revenue, higher than private enterprises, at 3 percent of total revenue.

[12] For the land use, the quantity of land endowed to SOEs is taken from Unirule, while land prices are taken from the annual Statistical Yearbook published by National Bureau of Statistics. With respect to credit, the credit component, the average spread of effective interest payments is estimated between listed individual SOEs and private firms, controlling for firm characteristics (Chivakul and Lam 2015). Estimates on input prices are based on Unirule, while the fiscal support component is based on periodic releases by the Ministry of Finance. From 2007 to 2014, incomplete estimates based on Ministry of Finance capital contributions suggest ad hoc fiscal subsidies were about RMB274 billion (0.4 percent of 2015 GDP). Distortions arising from protected market access are excluded. As a result, the estimated implicit support could be considered a lower bound.

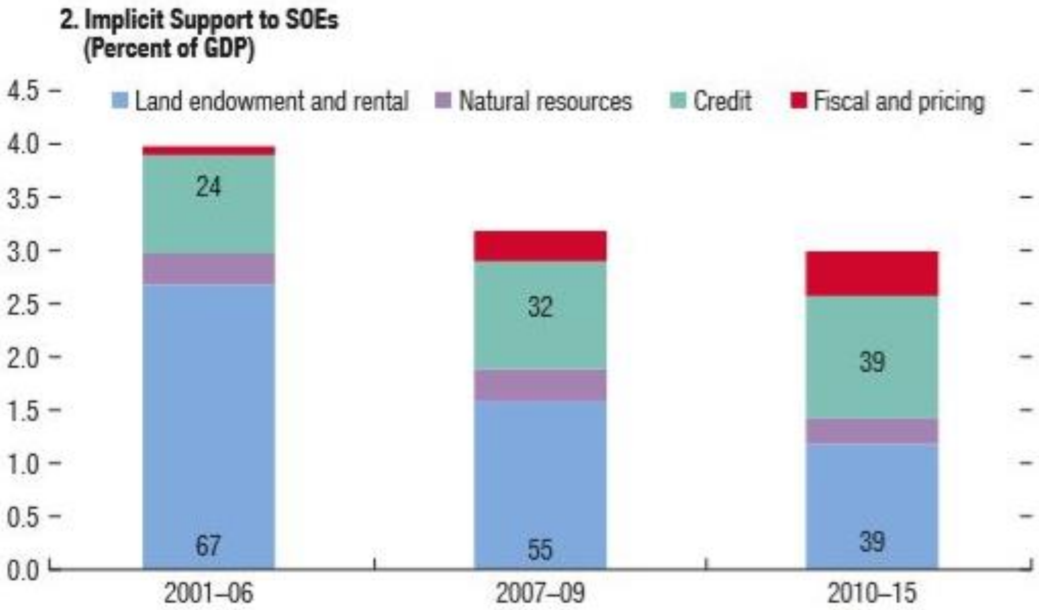
[13] While data of the Ministry of Finance have broader coverage, they do not contain subcategory information.

Figure 5. Implicit Support to SOEs Contributing to Resource Misallocation



Sources: *Statistical Yearbook* 2015; Unirule Institute of Economics 2015; and IMF staff estimates.
Note: SOE = state-owned enterprise.
[1] Based on nominal profits of industrial SOEs net of fiscal subsidies, implicit support through the use of land and natural resources, and lower implicit financing cost.

Figure 5. Implicit Support to SOEs Contributing to Resource Misallocation （continued）



Sources: CEIC; Unirule Institute of Economics 2015; and IMF staff estimates.
Note: SOE = state-owned enterprise.
[1] Numbers in the bar chart refer to the share of total implicit support.

4. Current SOE Reform Plans

Faced with these challenges, the government has identified SOE reform as a main pillar of its reform efforts. The broad objectives are outlined in the Third Plenum reform blueprint and the latest Five-Year Plan (2016–20), as well as a number of reform proposals (Table 3). Faced with SOEs' deteriorating performance and overcapacity, the reform plan focuses on modernizing corporate governance, improving the supervision of state assets, and phasing out excess capacity. The Five-Year Plan also calls for "diverse forms of ownership and private participation in SOEs," as well as "restructuring zombie enterprises." At the same time, it stresses "keeping state ownership as the mainstay of the economy" and "making SOEs bigger and stronger to strengthen the influence and to serve national strategies." Current plans envisage the following:

• Classifying SOEs into several categories, each with specific ownership structures, reform plans, and assessment criteria (Table 4). Specifically,

Commercial strategic SOEs (such as defense, telecommunications, and major energy companies) will be entrusted to pursue national strategies such as "going global" and "creating global champions," possibly through merger and acquisition. The state will continue to hold majority ownership;

Commercial nonstrategic SOEs will compete directly in the market; and

SOEs with social functions will be tasked to provide quality public services with better efficiency.

• Improving SOE efficiency through repositioning the state as a capital investor rather than operator. Mixed-ownership reforms envisage a spectrum of ownership structures (for example, cross-shareholdings and public listings) and greater private sector participation.[14] The reforms envisage professional management and better alignment of respective rights and responsibilities between owners (the respective government agency) and the board, with checks and balances. State capital investment and operation corporations would be established to exercise state ownership rights (Annex Figure 1). Social SOE functions such as the provision of hospitals, schools, and some fringe benefits for employees and retirees are to be gradually phased out. At the same time, SOEs are required to contribute more dividends to the government budget (a target of 30 percent by 2020) and allocate part of their capital to replenish social security funds.

• Resolving nonviable SOEs. Broad guiding principles on resolving debt were announced, including the use of debt-equity swaps and creditor committees. Sectors with overcapacity (such as the coal industry) often overlap with highly leveraged SOEs. The State Council committed to reducing overcapacity by 10–15 percent over 3–5 years, cutting aggregate losses by 2017, and expediting the exit of nonviable "zombie" SOEs through asset transfer, consolidation, and closure. Currently, the list of zombie SOEs includes over 2,000 subsidiaries of central and near 7,000 local SOEs, and a few central SOEs are assigned pilot plans for potential debt-equity swaps.

• Institutionalizing the leadership role of the Communist Party. The core political role in SOEs will be institutionalized, for example, the board chair will also be designated as the corporate party secretary and management will have greater mobility between party and corporate ranks. Strategic SOEs will be strengthened to become global champions to meet national strategies. President XI Jinping highlighted that this feature of political leadership in SOEs would be integrated into

[14] Capital reforms for SOEs provide for more diverse ownership, including SOE listings on stock exchanges, preference shares, cross-shareholdings, equity swaps, joint ventures, and franchises.

modern corporate governance.[15]

Table 3. Strategic Principles of Current SOE Reforms

Strategic Principles	Measures	Recent Developments and Progress
1. Classifying SOEs for respective reforms	- SOEs to be classified into commercial competitive, commercial strategic, and social functions.	About 20 provinces have identified SOEs into various categories for respective reforms. All central SOEs to be incorporated by 2017.
2. Improving SOE efficiency		
• Mixed-ownership reform	- Encourage private capital participation	Pilot program initiated; about two-thirds of SOEs plan to diversify equity base but few in strategic industries.
	- Allow employee stock ownership	Pilot program initiated but without details.
• State asset management	- Focus on ownership rather than management	About 11 SOEs were chosen as pilot state capital management/ operation companies.
• Professional management	- Link remuneration to management performance; salary cap; professional recruitment and board of directors	Salary structure reviewed for 72 central SOEs, while pilot programs on corporate governance rolled out.
• Separate social functions	- Separate fringe benefits for employees (utilities and other public services) from SOEs	Social functions on utilities and real estate management fees to be separated from SOEs by 2018, while other public services will be gradually phased out.
3. Resolving overcapacity and meeting national strategies	- Eliminate excess capacity	Reduce coal and steel capacity by 10–15 percent over 3–5 years (meeting 38–47 percent of 2016 target as of end July). A restructuring fund established to minimize social cost.
	- Exit of nonviable "zombie" firms	About 345 central SOEs identified as zombies (about 7,000 at local level) to be resolved in 2–3 years. However, the focus appears to be on mergers and consolidation of SOEs.
	- Prepare broad guiding principles on resolving overindebtedness	Guidelines made available on creditor committee and debt-equity swaps to advance debt restructuring.
	- Encourage strategic SOEs to "go global"	An SOE Adjustment Fund was established to facilitate restructuring and facilitate investment.
4. Institutionalizing the Communist Party's control of SOEs	- Prevent the loss of state assets	Pilot program initiated but details not disclosed.

Sources: Chinese Communist Party and State Council 2015; Ministry of Finance and State-Owned Assets; State Council 2015a, 2015b, 2015c; State-Owned Assets Supervision and Administration Commission of the State Council, Ministry of Finance, and National Development Reform Commission 2016; Supervision and Administration Commission of the State Council 2015.
Note: SOE = state-owned enterprise.

Table 4. Classification of SOEs under the Reform Plans

	Commercial SOEs		
	Competitive SOEs	**Strategic SOEs**	**Social Function SOEs**
Objectives	Commercial-oriented with capital appreciation	Meeting national strategy	Provide quality social services and improve living standards.
Reform Plan	Turn these SOEs into joint-stock corporations; improve corporate governance.	Separate state involvement from daily management; specific measures vary across industries.	Introduce market mechanism to improve efficiency of public services
Ownership Structure	Encourage a diverse ownership structure, including state majority holding, private sector capital.	Maintain state's majority ownership, while allowing some minority nonstate capital.	Can maintain full state ownership but can allow diverse private capital base. Private participation can take the form of agency, purchasing, and franchises.
Assessment Criteria	Asset returns; capital gains; market competitiveness	Ability to meet national security and strategic goals; reasonable returns on capital	Ability to meet social functions (service quality, social feedback, operation efficiency); less priority on returns of capital

Source: Ministry of Finance and State-Owned Assets Supervision and Administration Commission of the State Council 2016.
Note: SOE = state-owned enterprise.

5. Assessment of Current Reform Plans

Parts of the reform proposals are in line with international good practices[16] and

[15] Reported in China News, October 11, 2016 (in Chinese). http://news.china.com/domestic/945/20161011/23747105_1.html.

[16] According to the Organisation for Economic Co-operation and Development (OECD), the proposed governance reform could be broadly consistent with their Guidelines on Corporate Governance of SOEs if there is sufficient transparency on the role of state (OECD 2009, 2015a, 2015b, 2016).

have the potential to increase efficiency and create the conditions for a more level playing field. However, the current proposals also contain competing objectives, while important details still need to defined. At the same time, implementation— as acknowledged by the government itself—has been an uphill battle. During the SOE reforms in the late 1990s, the government implemented bold and far-reaching reforms, including through restructuring excessive debt, reducing redundancy, and opening up the economy to greater competition (notably through World Trade Organization accession) (Annex Figure 2).[17] Compared to the challenges then, today's SOEs problems seem less challenging in economic terms (such as employment).

In recent years, SOE reform implementation has been lagging other reforms (financial, monetary, external, and fiscal). For example, less than half of the provinces have completed the classification of SOEs for respective reforms. Ten pilot programs, each with a few selected SOEs, started in 2016 (Table 5). The State Council announced that it would reduce a significant part of SOE social services in providing utilities and property management (Sangongyiye) to employees by 2018. Greater discretion is given to local governments on local SOE reform (Annex 11.3). Nonetheless, substantial SOE reform has proved difficult—as reflected by government statements—reflecting vested interests and the lack of consensus. The announced pilot plans to reform a few central SOEs seem focused more on financial restructuring through merger and consolidation without concrete steps to raise efficiency. Progress has been slow in regions where SOEs play an outsized role in the local economy and have complex, multilayer subsidiary structures.

Table 5. Selected SOE Reform Pilot Programs

1	Clearly define the role of the board of directors
2	Market-based personnel recruitment
3	Institutionalizing professional management in SOEs
4	Corporate wages and salary compensation
5	Establishing State-Capital Investment Operation Company
6	Consolidation and restructuring
7	Key areas on mixed-ownership reforms
8	Employee stock holdings
9	Information disclosures
10	Separation of social functions and legacy issues

Sources: SASAC; and media reports.

A key issue is continuing ambiguity about the role of the market and the government. While highlighting greater market discipline, reform proposals emphasize the strengthening of state influence (Naughton 2016). The same is true for the creation of a more "arms-length relationship" between the government as an owner and corporate management. While reforms envisage better delegation to professional management and boards of directors, the more institutionalized role of the Communist Party could lead to greater political influence and misaligned incentives for managers, and undermine the ability of company management to make decisions based on commercial considerations (Leutert 2016). Also, while the government might want SOEs to pursue more than just economic objectives, there is the risk that too many objectives will undermine its ability to evaluate performance, invite shirking, and, in the end, lead to continued misallocation of resources. Instead,

[17] Reform in the 1990s led to a temporary wave of layoffs of some 35 million workers.

the government could pursue noneconomic and social functions more efficiently and directly on-budget. Also, even under the mixed-ownership concept, the prospects for private sector participation might be more limited except, for example, in cases where the private investor wants to benefit from SOE's monopoly rents. The recent establishment of an equity fund (RMB350 billion or ½ percent of GDP) financed by SOEs has the potential to facilitate debt restructuring, but there is also the risk of supporting ailing industries and delaying needed restructuring.

6. Steps to Advance SOE Reforms

Successful SOE reform is critical to reduce vulnerabilities from rising indebtedness and foster a more efficient resource allocation. It should leave China with a more dynamic set of SOEs that compete on a level playing field with the private sector, and feature modern corporate governance with professional boards and management. Nonviable SOEs would be restructured or allowed to exit.

Empirical estimates support this conclusion. A two-sector model with reasonable parameters—including SOEs' share of the economy, productivity, and cost of capital differentials—suggests that successful SOE reforms could improve growth prospects significantly over the medium term. Illustrative scenarios show that a better allocation of capital and labor, as well as narrowing the productivity gap between SOEs and private enterprises, could lift output by 3–9 percent (relative to baseline projections), or about 0.3–0.9 percentage points of growth per year if the effect is spread across a decade (Annex 11.4). Other research supports the estimates, although they vary, suggesting that growth could improve by 2–13 percent of GDP (Dollar and Wei 2007; Hsieh and Song 2015; Unirule Institute of Economics 2015).

China's SOE reform strategy, based on international experience, should focus on the following:

- Act early to tackle both SOEs' stock and flow problems of excessive debt through financial and operational restructuring.
- Harden SOE budget constraints and strengthen corporate governance.
- Reduce barriers to entry and create a level playing field.
- Strengthen safety nets to support temporarily displaced workers and to facilitate the restructuring process.
- Establish a high-level steering committee to deal with the complexity of the reforms and to overcome strong interest groups.

In particular, this strategy should imply the following:

Restructuring or resolving nonviable SOEs. Triage the universe of SOEs to (1) identify those that are fundamentally sound; (2) liquidate nonviable SOEs (which does not necessarily mean closure); (3) establish a restructuring plan for viable SOEs that encounter losses or low returns. Expedited out-of-court restructuring for priority distressed companies that would use independent experts may complement the existing insolvency framework. Given the size and complexity, progress could usefully be kick-started with a few high-profile pilot cases of over-indebted SOEs (IMF 2016). Successful pilot restructuring in a controlled manner can help build up experience in advancing further SOE reforms (such as the experience of restructuring large chaebols in Korea [Darrow and others 2006]). Noncore objectives such as social functions (hospitals, schools, and provision of utilities) should be transferred to the budget with related assets and expenses accounted for.

Hardening budget constraints. Gradually resolving implicit guarantees through greater tolerance of defaults and carefully allocating losses to firm owners and creditors will improve the markets' assessment of credit risks in the financial system unaccustomed to defaults. Removing implicit SOE support through credit, land endowment, and natural resources would not only help address the existing debt overhang, but also improve the efficiency of new credit allocation. In addition, increasing the transfer of individual SOE profits, which is now mostly reinvested and well below the target, to the fiscal budget (the target of 30 percent by 2020)[18] and allocating SOE capital to social security funds would help harden budget constraints (Figure 6).

Introducing greater competition to level the playing field. Reducing entry barriers and phasing out restrictions that give SOEs a privileged role will send a clear signal (Kitzmuller and Licetti 2012). Analysis of firm-level data suggests that partial reforms of ownership change do not bring significant gains (Hao 2016). In that regard, allowing entry of private firms in the state-dominated services sector (currently more stringent than in OECD markets) (Figure 6) such as logistics, finance, and telecommunications; breaking up administrative monopolies; and promoting the growth of dynamic small and medium-sized enterprises would foster competition and promote growth (Kovaic, Lin, and Morris 2016).[19]

Increasing measures to support the restructuring. To minimize social costs during the restructuring, the government can mobilize on-budget fiscal support to minimize the adverse effects of layoffs, retraining, and relocation of workers. The recently established RMB100 billion (0.15 percent of GDP) restructuring fund for coal and steel industries is an important step in this direction. Complementary reforms on the household residency system, rural land property rights, and framework for insolvency and resolution will facilitate the process. Fiscal reforms to improve social security portability and align intergovernmental finances by matching expenditure responsibilities with revenue sources will help address SOE legacy issues.

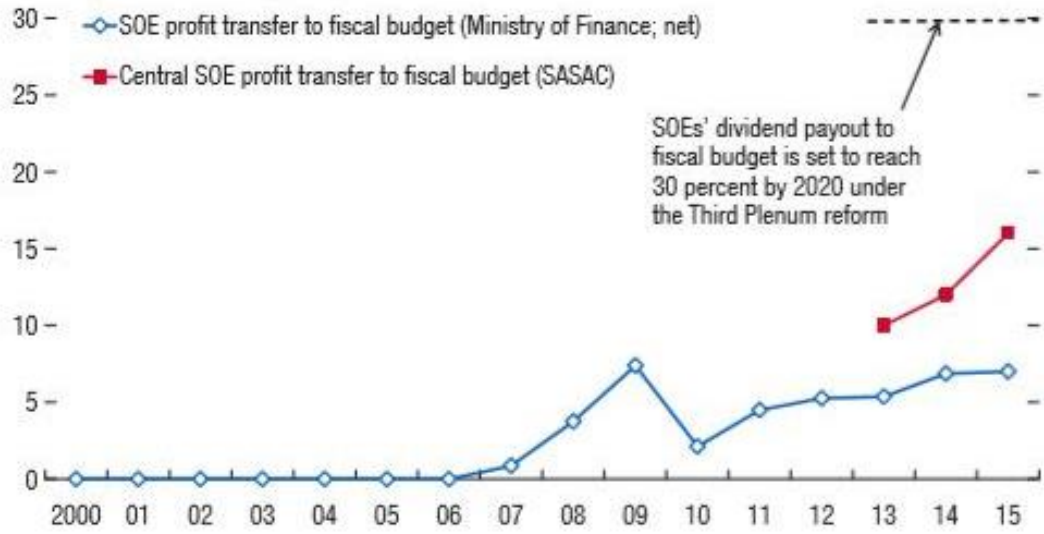
Establishing a high-level committee. Structural reforms are difficult to implement in any country because of strong vested interests to maintain the status quo. It is even more challenging in China's case given the large number of SOEs and the fact that reforms straddle many government agencies. There are therefore merits in establishing a well-staffed, high-level steering group with a clear mandate to promote and implement practical SOE restructurings. Strong coordination between the central and local governments, as well as financial regulators and development ministries, will facilitate the process.

[18] This would bring Chinese SOEs more in line with other countries where SOEs transfer one- to two-thirds of profits to the budget (Zhang 2009).

[19] In 1999, the plenum tried to define the functions of state ownership by listing four areas of SOE ownership—state safety, natural monopolies, public goods provision, and important pillar and high-tech sectors. In 2006, SASAC declared the state should have full control in seven sectors and strong influence in another nine. Classification of SOEs should withdraw SOEs from contestable markets, while state ownership can focus on the provision of public goods.

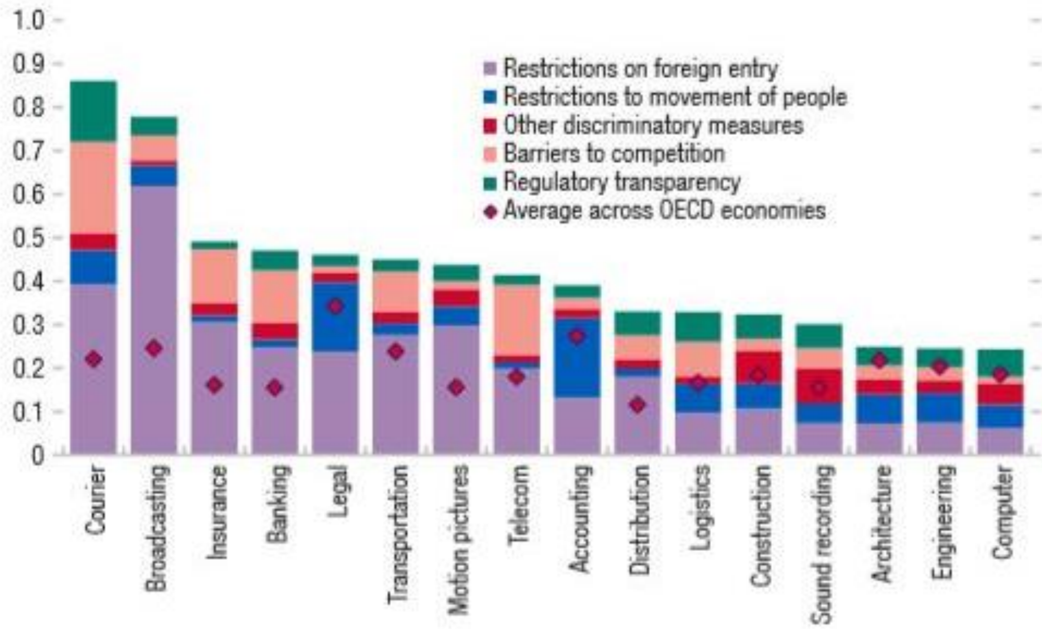
Figure 6. SOE Reforms to Unleash Growth

1. Transfer of SOE Dividend to Fiscal Budget
(Percent of SOEs' profit)



Sources: Ministry of Finance; Unirule Institute of Economics; and IMF staff estimates.
Note: SOE = state-owned enterprise.
[1] SOEs were required to contribute their profits to fiscal budget since 2007. Data for 2007 did not cover all SOEs. The Third Plenum reform required the transfer 30 percent of SOE profits to fiscal budget by 2020.

2. Further Room to Open Up Services Sector
(Index between 0 and 1; higher index reflects more restrictive)



Source: Organisation for Economic Co-operation and Development (OECD) 2015c.

7. Conclusions

SOEs continue to play a key role in the Chinese economy and have served as key players in countering the slowdown after the global financial crisis. While SOEs' share of output and employment has declined, they still take up an outsized portion of resources and operate at low efficiency. Implicit support to SOEs (about 2–3 percent of GDP)—such as preferential access to finance, land, protected market access, and cheaper use of natural resources—has contributed to resource misallocation.

SOE reform is a main pillar of the government's overall reform agenda. Broad objectives were outlined in the Third Plenum reform blueprint and the latest Five-Year Plan (2016–20). Key strategic principles include classifying SOEs for respective reforms, improving SOE efficiency by repositioning the state as a capital investor rather than operator, resolving overcapacity and nonviable zombie SOEs, and institutionalizing the leadership role of the Communist Party. Important details still need to be defined and it is less clear if the current reform will be as bold as that in the late 1990s, which transformed the economy.

Although SOE reforms were rightly featured prominently in the overall reform strategy, objectives are often competing and implementation has proven difficult. So far the implementation has been uneven. The announced plans for several central SOEs seem to focus more on financial restructuring without concrete steps to raise efficiency. Progress is particularly slow in regions where SOEs play an outsized role in the local economy and complex multilayer subsidiary structure.

Successful SOE reforms can help reduce vulnerabilities and raise growth potential. The overarching strategy is to address both the stock and flow problems of SOEs' excessive debt and to strengthen corporate governance. This requires prompt action to restructure SOEs and allow exit of nonviable zombie firms, harden budget constraints, and open up state-dominated sectors to a level playing field. These could significantly lift growth potential over the medium term. In the process, the government could mobilize on-budget fiscal support to minimize temporary social costs. To overcome vested interests and to foster the coordination among the many government agencies that need to be involved, a strong mandate to promote and implement SOE restructuring will be critical.

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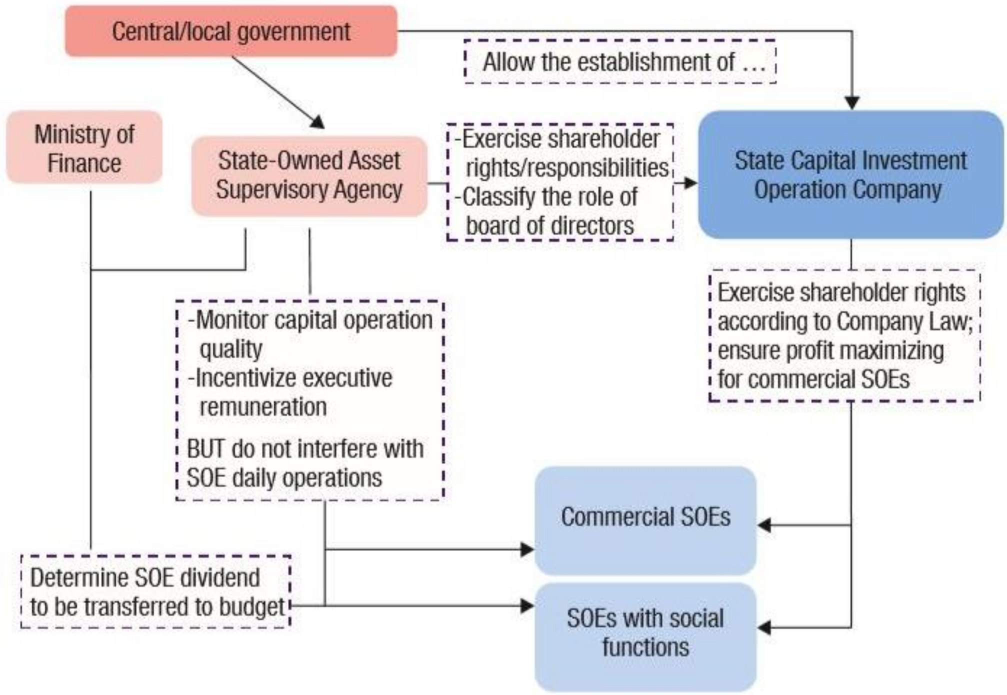
Appendix

A. State Capital Investment and Operation Companies to Manage State Assets

Annex Figure 1. State Capital Investment and Operation Companies to Manage State Assets



Sources: Chinese Communist Party and State Council 2015; Ministry of Finance and State-Owned Assets; State Council 2015a, 2015b, 2015c; State-Owned Assets Supervision and Administration Commission of the State Council, Ministry of Finance, and National Development Reform Commission 2016; Supervision and Administration Commission of the State Council 2015.

B. Will Current SOE Reform Be as Bold as the Last Round?

SOE reform has traditionally lagged behind other economic reforms in China. SOEs were often a policy tool to stabilize macroeconomic shocks, at times when the government advanced on other economic reforms. Since the mid-1990s, SOE reform has been a priority. The 14th Third Plenary meeting in 1993 set the agenda to modernize SOE corporate governance.[20] Later, in the Fifth Plenum in 1995, the strategy of "Grasp the large, let go the small" concentrated these efforts in revitalizing large SOEs, while small SOEs would be boldly restructured.

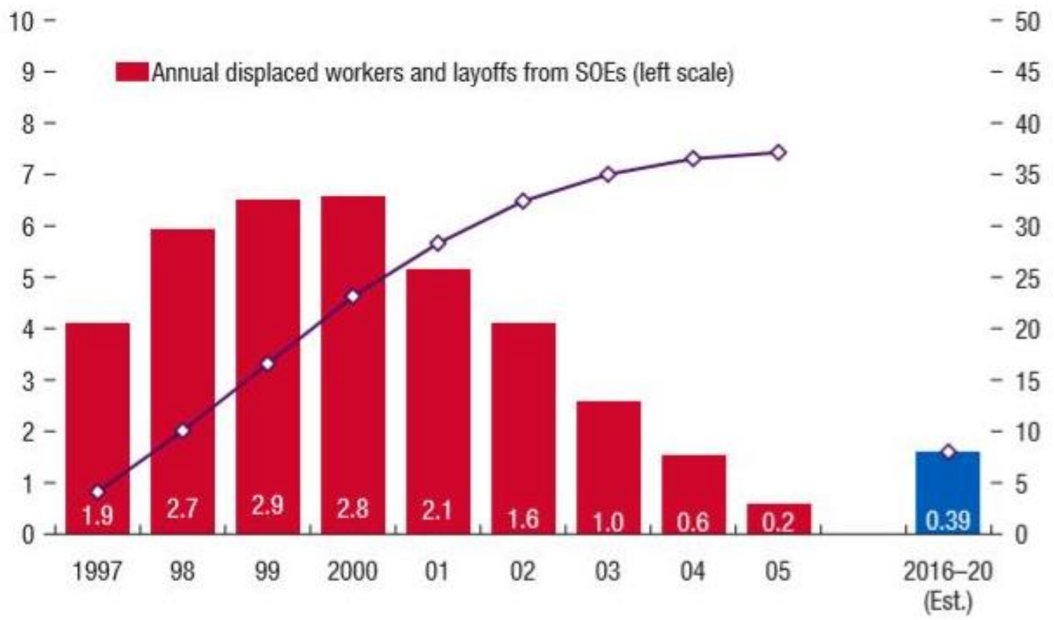
It was not until SOE finances had deteriorated markedly that policymakers took bold reform action. Although progress was made on ownership reforms during the mid-1990s, SOEs faced intense competition and one-third of them incurred severe losses. In 2001, the central government decided to resolve SOE difficulties. Restructuring policies were accelerated by then-Premier Zhu Rongji's reform plan in 1998. Measures such as financial support, layoffs, buyouts, debt-equity swaps, and corporate insolvency were implemented. Millions of SOE workers were laid

[20] The "modernization of the enterprise system" consisted of four main pillars, including the clarification of property rights, rights and responsibilities of SOE management, separation of political bureaucracy and business, and professional management.

off—with subsidies provided for some periods (Annex Figure 11.2.1; Cao, Qian, and Weingast 1999). Unemployment, by some estimates, rose to double-digit rates. Excess workers were quickly absorbed in the private sector, driven by strong growth from reform dividends and the accession to the World Trade Organization. Unprofitable SOEs were rehabilitated, with some nonviable ones eventually going bankrupt. A new agency, the State Administration of State-Owned Assets Commission, was established in 2003 to manage state assets and exercise ownership rights on behalf of the state.

While the SOE reform in late 1990s brought near-term costs, it has set China on a strong and sustained growth path for the next decade. The role of the SOEs was scaled back significantly following the reform (Figure 11.2.). The number of SOEs also declined from 262,000 in 1997 to 116,000 a decade later, even though the number of central SOEs was unchanged. As a result, the share of total industrial assets of SOEs dropped from 90 percent in 2000 to about 40 percent in 2006, of which central SOEs' asset share rose from 40 to 50 percent of all SOE assets. Although SOEs have a declining share in the economy, they still matter.

Annex Figure 2. Layoffs from the Previous SOE Reform (Millions of workers unless otherwise stated)



Sources: *Labor Statistics Yearbook*, National Bureau of Statistics; and IMF staff estimates.
Note: SOE = state-owned enterprise. Numbers in the chart are annual displaced workers in percent of urban employment.

C. Shades of Grey of State-owned Enterprises Reforms

Progress in SOE reforms has been limited. Some local governments have taken incremental steps to expand mixed-ownership (Chongqing from 47 percent to two-thirds and Guangdong to at least 70 percent by 2017) and transfer equity stakes to provincial social security fund (Shandong). Among local SOEs, some entered payment difficulties and began to enter restructuring through consolidation, while others diversified to noncore businesses.

Case Studies

Local SOEs in the coal industry. Longmay Group, a local SOE in Heilongjiang, is the largest coal company in northeast China. The group was formed by consolidating across four local areas with the legacies of these zombies, but incurred sizable losses (more than half of registered capital) when coal prices plummeted. It has a staggeringly large payroll of 0.24 million workers (60 percent of total cost) and fringe payments for another 0.18 million retired workers. The group has taken steps, including cutting wages by nearly half and restructuring debt by extending maturity and lowering interest rates. Plans to divert 30–40 percent of workers will be implemented in steps, first through vocational training; layoffs are not considered.

Steel industry.

• Local SOE. The Dongbei Special Steel Company allowed several debt defaults since 2015. Initial debt restructuring attempts through debt-equity swaps failed to reach a broad agreement among creditors and shareholders and the company has filed for bankruptcy procedures. It is likely to be a lengthy process and creditors are less certain of the recovery rate on claims.

• Central SOEs. Sinosteel Company has delayed the redemption of claims since October 2015. The latest debt restructuring consists of refinancing through lower interest rates and extending maturity, as well as a debt-equity swap of 30–90 percent of claims. The ratio varies depending on the nature of the claims. At the same time, the merger between Baosteel Group and Wuhan Steel is underway and it is uncertain to what degree the merger will significantly improve efficiency.

Local SOE in the textiles industry. A medium-sized textile SOE in Hebei has faced headwinds in its core business on cotton yard and textile cloth. The company employed about 8,000 workers in 2014, down from the peak of 30,000 in 2010. The local SOE bears social responsibility for its workers, guided by local governments. Employees were made redundant with a lump-sum package (about one-third of the total workforce), reemployed in nearby services with comparable wages, and offered a buy-out package (80 percent of the minimum wage for five years). The SOE also holds sizable land resources (with substantial unrealized gains), which were pledged to finance losses, leased, or sold to generate revenue.

D. Growth Impact of SOE Reforms

SOE reforms can improve growth broadly through two channels: better resource allocation and catching up productivity with the private sector. The following illustrates a simple two-sector production model to examine the efficiency gains associated with SOE reforms based on Dollar and Wei (2007).

Model

Assume the output in a given year is the sum of value-added from the SOEs and private firms. A standard Cobb-Douglas production function will imply: $Y = Y_s + Y_p = A_s K_s^{\alpha} L_s^{1-\alpha} + A_p K_p^{\alpha} K_p^{1-\alpha}$ in which Y is the GDP output, A is the total factor productivity (TFP), K and L are capital and labor inputs, and s and p denote SOEs and private firms. Narrowing the productivity gap between SOEs and private firms will mean the difference between As and Ap becomes smaller. A reallocation of resources of capital from SOEs to private firms (leaving the labor input fixed), would result in a change of GDP by

$$Y' - Y = \left(A_s' \left(K_s - X \right)_s^{\alpha} L_s^{1-\alpha} + A_p \left(K_p + X \right)_p^{\alpha} L_p^{1-\alpha} \right) - \left(A_s K_s^{\alpha} L_s^{1-\alpha} + A_p K_p^{\alpha} L_p^{1-\alpha} \right)$$

in which A’s is larger than As and X is positive representing the resource reallocated from SOEs to private firms. The optimal reallocation of capital will satisfy the marginal equilibrium conditions that the marginal returns to capital will be identical across state and private firms. As a result, using the representation in Dollar and Wei (2007), the increment in GDP (in percent) will become the following with dp and ds representing the output to capital ratios for respective firms:

$$\%\Delta GDP = \frac{(1 + \frac{K_p}{K_s})^{\alpha} \left[1 + (\frac{K_p}{K_s})^{1-\alpha} (\frac{d_p}{d_s})^{\frac{1}{1-\alpha}}\right]}{1 + \frac{K_p}{K_s}(\frac{d_p}{d_s})}$$

This is a one-off improvement of GDP in level terms. Under the assumption that the benefits are gradually (and linearly) released over a decade, one could infer the annual increase of the growth rate each year through geometric means.

Annex Table 1. SOE Reforms to Unleash New Sources of Growth (Percent)

	State-Owned Enterprises			Private Enterprises		
	2000–07	2013–15	Direction	2000–07	2013–15	Direction
	(Share of total in percent unless otherwise indicated)					
Industrial Sector						
Total assets	54	38	Down	46	62	Up
Urban employment	35	16	Down	65	84	Up
Gross industrial output	37	22	Down	63	78	Up
Loss-making enterprises (amount)	46	52	Up	54	48	Down
Fixed asset investment	51	33	Down	49	67	Up
Bank credit to nonfinancial corporate	62	51	Down	38	49	Up
Leverage (percent of owners' equity)	125	192	Up	144	101	Down
Return on equity (percent)	8.4	6.6	Weaken	10.3	12.7	Improve
Efficiency relative to private enterprise (measured by gross output by each unit of credit)	54	43	Weaken	...		
Total factor productivity in percent	1.6			4.5		
Total factor productivity of SOEs relative to private enterprises	35.6			...		

Sources: CEIC; Ministry of Finance; National Bureau of Statistics; People's Bank of China; WIND database; and IMF staff estimates.

[1] Some data are not available for the whole sample period. Estimates are based on where data are available.

Parameterization

Data suggest that capital ratios between state and private firms are about 38 percent (based on total industrial assets). This uses parameters of 20, 33, and 40 as illustration. One cannot directly observe the capital reallocated (X) and improvement of TFP (A's) but it can be inferred from the equilibrium condition of marginal returns of capital between SOEs and private firms. As illustrated previously, credit cost for SOEs are lower due to implicit support. With SOE reforms, the credit spreads are likely to narrow as capital reallocated and implicit guarantees being resolved. It uses the parameters of reduction of credit spreads by 1.5, 2.0, and 2.5 percent, respectively.