



*OECD Working Group on Privatisation and Corporate Governance  
of State Owned Assets*

*Occasional Paper:*

**STATE OWNED ENTERPRISES IN CHINA:  
REVIEWING THE EVIDENCE**

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## **STATE OWNED ENTERPRISES IN CHINA: REVIEWING THE EVIDENCE**

### **1. Reforming the Chinese SOE sector**

The goals of SOE reform are not simply to enhance corporate productivity and financial performance, but to create an optimal institutional arrangement compatible with the reform of a market-oriented economy. Therefore, the role of SOEs in the Chinese economy cannot be fully understood with ignorance of the implications of SOE reform in broader context of economic reforms.

The primary goal of this report is to illustrate the evolving role of SOEs by showing the changing proportions of SOEs and their implication in overall economy. However, as it is widely acknowledged, one of the salient characteristics of Chinese corporate reform is gradualism, often referred to as “touching stones, crossing the river.” This gradual characteristic of the reform, in part, makes the definition of SOEs and their classifications complex, which to some extent has the effect of hampering a clear understanding of the nature of both the economic role and the reform of Chinese SOEs.

#### ***1.1 A slow start in SOE reform***

The reform on SOEs has historically lagged behind other economic reforms in China. This is because their paramount importance in the economy has requested a more gradual and cautious approach in reforming measures. Furthermore, SOE reform has significant implications on other political and economic issues, such as reforms on social welfare system, financial institutions and the labour market. In addition, SOEs are called for to function as stabilizers that help to alleviate potential adverse impacts on other economic and social reforms. In this context, the relative lower efficiency of SOEs can be assigned a lower priority for policy makers because their stability underlies the success of reforms in other sectors.

Before the mid 1990s, SOE reform was focused on revitalization through giving incentives and increased autonomy to individual enterprises. But these measures were limited in that they neither modified corporate governance nor significantly restructured business. As a result, the reformed SOEs remained intrinsically unchanged in their ownership and corporate structure.

#### ***1.2 Reinforced efforts since the mid-1990s***

##### ***1.2.1 Background and policy***

It was not until the financial performance of SOEs had deteriorated considerably that a need for imminent SOE reform became apparent to policymakers. Despite certain improvements in efficiency, SOEs' profitability had been deteriorating in the 1980s and the early 1990s. For example, in 1997 out of about 22,000 large and medium sized SOEs 6,599 companies recorded losses. This low profitability in public enterprises was largely attributable to deteriorating business environments such as sharper competition with private and foreign companies, unfavourable sales price due to excess supply stemming from the 1992-1994 investment boom and consequent over-capacity. Since the mid-1990s, SOE reform has been a priority area, with most practical measures focused on improving efficiency and to catching up with market-oriented changes that have taken place in other areas of the economy.

Even more importantly, the heightened pressure on reform came from the government policy stance known as “Socialist Market Economy.” In 1992, this new initiative was formally established as the governing principle for the new Chinese economy<sup>1</sup>. ‘Market’ became for the first time officially proposed as a major controlling mechanism on economic policy. As a result, SOEs needed to be transformed into economic entities suitable for such a market economy; to transform themselves into incorporated business entities rather than remaining as *de facto* state production units.

For these and other reasons the reforms since the mid-1990s have assumed a fundamentally different character than the restructurings previously attempted by Chinese policy makers. For the first time, measures such as financial support, layoffs,<sup>2</sup> buy-out and action against corporate insolvency were implemented. Restructuring policies were accelerated by premier Zhu Rongzhi’s Three Year Reform Plan of 1998, which focused on rehabilitating unprofitable SOEs. To enhance their financial performance within 3 years, strategies were implemented such as huge layoffs, debt reduction, debt-equity swap, and technology improvement support.

Following these radical measures, some important characteristics could be observed. First, as the major strategy of this round reforms was -- ‘attaining the larger, releasing the smaller (*juada, fangxiao*)’— which concentrated on revitalizing the larger SOEs, while smaller SOEs were dealt with aggressively through buy-outs or allowing bankruptcy. Second, the corporate restructuring was implemented along with the financial restructuring of state-owned commercial banks (SOCBs). To deal with the SOCBs’ bad loans against problematic SOEs, four Asset Management Corporations (AMCs) were created. By 1999, these four AMCs took over 1,394 billion RMB from the corresponding four SOCBs. In 580 large and core SOEs, a total of 404 billion RMB debts were swapped into equities. The three year plan was assessed as having had successfully handled SOEs’ financial difficulties. By the end of 2001, 4,000 out of 6,599 money-losing SOEs had become profitable.

### 1.2.2 Corporate governance reform

The main elements in Chinese reforms of the corporate governance of state-owned enterprises were the following:

1. *The “Modern Enterprise System”*. In addition to restructuring measures, corporate ownership had been newly established, modifying not only the internal management scheme, but also the relationship between the government and state companies. An essential reform for corporate governance was launched in 1994<sup>3</sup>, complying with the ‘Modern Enterprise System’. The system consists of four pillars: 1) clarification of property rights; 2) clarification of rights and responsibilities; 3) separation of bureaucracy and business; and 4) scientific management.
2. *Corporatization*. Most importantly, in a practical sense, Modern Enterprise System pursued a corporatization of SOEs with their ideal forms being limited share companies or share holding companies. All SOEs were strongly encouraged to transform themselves into a corporate entity. The System also asked the government authorities for a clear position with respect to SOEs as their business units. Based on the clarification of the government’s role such as, for instance, the

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<sup>1</sup> At the 14<sup>th</sup> National Congress of the communist party of China, “building up socialist market economy” was officially proposed, which was a milestone economic reform in the Chinese history.

<sup>2</sup> Since mid 1990s, number of layoffs has rapidly increased. Rawski(2002) argued that layoff policy was practiced since 1996. Cao et al. (1999) briefed that in 1996 total number of layoffs workers (*xiagang*) was about 8.9 million, of which 63% from SOEs and in 1997, 11.51 million workers were additionally laid off.

<sup>3</sup> At the 3<sup>rd</sup> plenary session of the 14<sup>th</sup> central committee, Modern Enterprise System was proposed as a corporate form compatible with the Socialist Market Economy.

separation between its bureaucratic role of managing the macro-economy and the corporate function of owning state assets, three main goals were proposed: 1) to search for a reasonable management scheme and supervision of state-owned assets; 2) to search for an incentive scheme compatible with both central and local government's role as the SOEs' owner and supervisor; and 3) search for a clear ownership scheme for SOEs.

3. *Supervisory system reform.* The corporatization reforms coincided with SOE managerial system reforms, and SOEs were evolved from obscure and overlapping bureaucratically controlled entities to more clearly defined forms modelled on incorporated forms of ownership.<sup>4</sup> Corporatization required a subsequent modification of the supervisory system on SOEs. Before these reforms, government had dual overlapping roles-- as an asset investor owning SOEs, and as an official ministry supervising SOEs. After implementing the Modern Enterprise System, indirect and three-tier ownership structures became emerged. That is to say, theoretically the ministries of the state, as a representative of central government, are located at the first level of the hierarchy, practicing their ownership right. At the second level lie the SOEs' direct shareholders -- the large conglomerates, state asset share holding companies or sometimes non-corporate organisations. At the third level of the hierarchy the SOEs themselves are placed.<sup>5</sup>
4. *Reform of large scale SOEs.* As to managerial division of central and local SOEs, we can see another peculiar characteristic of China' economic reform -- the dominant status of the Communist party in the economy as a whole. The party dominance has been implemented by means of bringing a few sectors strongly under the control of the central government. This tendency can be seen in the party's approach to prioritize companies according to their importance, such as the policy of 'attaining the larger, releasing the smaller', a classification built on recognizing inherent differences between central and local SOEs. Although 'the market' was, in 1992, acknowledged for the first time as a major principle of economic design, Chinese government did not intend to build an orthodox market economy, but rather a 'socialist' market economy. To a certain extent, this additional modification meant preserving a controlling power over the whole economy by the socialist government, while allowing the market system. Therefore, despite the market oriented reforms, the SOEs' role as a stabilizing mechanism in the Chinese economy is seen as inherently pre-determined. As such, the ownership forms and supervising systems are designed to achieve their original goals.

## 2. The economic role of SOEs

### 2.1 What is an SOE?

As for the classification of SOEs, "state-owned enterprises" and "state-owned and state-holding enterprises" have been used in official statistics. The term "state-owned enterprises" refers to business entities established by central and local governments, and whose supervisory officials are from the government. Most importantly, this definition of "state-owned enterprises" includes only wholly state-

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<sup>4</sup> As an example of the overlapping roles of SOEs, the Civil Aviation Administration of China (CAAC) was the supervising ministry of the aviation companies, but at the same time these major aviation companies were the business units of CACC. After corporatization reform in 2001, the companies were eventually divided into three major aviation companies; Air China, Eastern Air China and Southern Air China.

<sup>5</sup> But at the first level, local governments are also allowed as a representative of the central government, which possess ultimate ownership of local SOEs.

funded firms.<sup>6</sup> This narrow definition by and large implies a prior-reform ownership status of SOEs, in which corporatization and privatization reforms have not yet been fully implemented.

This classification of “state-owned enterprises” has statistical challenges. SOE statistics do not cover the ownership forms of share-holding cooperative enterprises, joint-operation enterprises, limited liability corporations, or shareholding corporations, whose majority shares are owned by the government, public organizations, or the SOEs themselves. Despite its obscurities and underestimation problems, this narrow definition of SOEs has been used for the following statistics on labor and state-owned assets between central and local SOEs.<sup>7</sup>

The term “state-owned and state-holding enterprises” has been used since the mid-1990s. State-owned and state-holding enterprises refer to state-owned enterprises plus state-holding enterprises, where state-owned enterprises are (as aforementioned) wholly state-funded firms and the definition of “state-holding enterprises” is such that they are those firms whose majority shares belong to the government. This broad and clear definition of SOEs, which fully reflects privatization reform since the mid-1990s and which is mainly used in the following statistics on industrial enterprises, as published by the *China Statistical Yearbook*, includes all state-owned and state-holding companies.<sup>8</sup>

## 2.2 Overall share of GDP

SOEs’ share in production performance has declined enormously compared to that in the early period of reform. It is reported that SOEs currently account for about one-third of the production in the Chinese economy. In 1978, it was reported that SOEs represented 77.63% of overall industrial production, with virtually the entire remaining portion of industrial production assigned to collective-owned enterprises, indicating that non-public entities were rare except a small number of self-employed individuals. But in 2004, the portion was estimated to be about 30%, as the speeches of Mr. Xiaochuan Zhou, president of the Peoples’ Bank of China, indicated. SOEs received 34.1% of the short-term loan issued by the state-owned commercial banks, which is approximately analogous percentage to their contribution of GDP.<sup>9</sup>

The data for the industrial sector cited in the below chapter 4 indicates that in 2006 SOEs contributed 35.8% per cent of industrial value-added. Based on a 43.3% contribution of industry to the GDP together with other sectoral data, it can be roughly estimated that SOEs’ share in the GDP was 29.7%.<sup>10</sup> Based on

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<sup>6</sup> These statistics are mainly distributed by the Chinese Ministry of Finance, which acts as a representative owner and supervisor of state-owned assets. As a result, the data primarily present balance sheet information such as asset statistics of local and central SOEs, as found in publications such as the *Finance Yearbook of China*.

<sup>7</sup> Such a narrow definition is also found in the *Statistical Yearbook of China* and the firm classification system issued by the Administration for Industry and Commerce, in which eight types of ownership are classified: state-owned enterprises, collectively owned enterprises, shareholding cooperative enterprises, joint-operation enterprises, limited liability corporations, shareholding corporations, private enterprises, and others.

<sup>8</sup> In this context, the listed companies whose majority shares belong to the government should be classified as “state-holding enterprises,” not “state-owned enterprises.” Their mother companies, however, which are usually wholly state-funded firms, could be classified as “state-owned enterprises.”

<sup>9</sup> Reported by Xinhuanet at 2004. 07.08.

<sup>10</sup> To estimate SOEs’ share in the GDP, the following statistics were additionally taken into account. In 2006, SOEs, proportion to the construction output value was 22.2%, and the *China Statistical Yearbook* reported the contribution of the construction industry to the GDP as 5.6%. The contribution of primary industries to the GDP was 11.7%, and it is assumed that the proportion of SOEs to primary industries was 0%, as individual farmers should produce most agricultural products. The contribution of primary industries to the GDP was 39.4%, and it is also assumed that the proportion of SOEs to tertiary industries was 0.33%, which ratio was

the same assumption, the SOEs' share in the GDP of 2002 and 1998 could be estimated at 34.5% and 37.6%, respectively. This also verifies the diminishing trend of SOEs' contribution in the Chinese economy.

### 2.3 *SOEs' share of labour*

One probable source to keep track of SOEs' changing portion is labour statistics. In the labour data section of the *China Statistical Yearbook*, state-owned units are given a similar definition to SOEs. The units registered according to the *Regulation of the People's Republic of China on the Registration of Enterprises and Corporations* include state institutions and social organisations at the central and local level.

There are two types of labour data; one is urban employees and the other is urban workers and staffs. The data of urban staffs and workers seem to be more appropriate in representing the employees of the SOEs, in that it doesn't include re-employed retirees and teachers in the schools. However, the number of urban staffs and workers needs to be modified because it also doesn't include following employees: workers and staffs employed in private enterprises; workers and staffs urban self-employed persons; other workers and staffs not to be included by relevant regulations.

The *China Statistical Yearbook* presents consistent data available concerning SOE labour statistics in urban area, the details of which are summarized below (see table 1). The available statistical evidence may overestimate the real number of employees in SOEs by including employees in non-corporate organisations, but may also underestimate it by excluding those in the state-holding enterprises<sup>11</sup> Corporatization reforms have strongly encouraged transforming state enterprises to limited share companies and share holding companies, further complicating the difficulties of SOE classification.<sup>12</sup>

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attained based on the assumption that SOEs account for more than half of financial and transport services, while non-SOEs largely create the value-added of retail trade and small businesses.

<sup>11</sup> The critical problem of this traditional SOE definition is that it only includes wholly state-funded enterprises, not state-holding companies, in the ownership forms of limited share companies and share holding companies.

<sup>12</sup> It was reported by the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC) that by the end of 2003, 2,514 firms among 4,223 state-owned medium and large sized enterprises were corporatized.

**Table 1. SOEs' share of urban salary and wage earners (%)**

| <b>Year</b> | <b>Proportions in urban workers and staffs<sup>1</sup></b> | <b>Proportions in urban employees<sup>2</sup></b> |
|-------------|--|---|
| 1994        | 66.4   | 60.9  |
| 1998        | 56.6   | 43.8  |
| 2002        | 46.7   | 28.9  |
| 2006        | 34.0   | 22.7  |

Source: China Statistical Yearbook

Note: (1) modified labour proportions of state-owned units among urban workers and staffs. (2) unmodified labour proportions of state-owned units among urban employees, in which total number of employees include re-employed retirees and teachers in the schools run by the local people and this will underestimate the proportion of employees in SOEs.

Despite these obscurities, it is reasonable to assume that the SOE proportion of the labour force among urban area employment is about 30%, which is almost consistent with the official announcement that SOEs contribution is 1/3 to GDP.

#### **2.4 Central and local SOEs' relative weight**

The classification of central and local SOEs is another way of representing the SOEs' role in the Chinese economy. State-owned assets are by definition divided into business working assets and non-business operating assets, with business operating assets being designated as SOEs. These assets are again split into central SOEs and local SOEs, according to the level of government which manages them.

According to a broader definition, there are three kinds of central SOEs: the first type includes firms managed by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC). The second type includes state-owned financial institutions, and their supervisory authorities are in the China Banking Regulatory Commission (CBRC), China Insurance Regulatory Commission (CIRC), and China Securities Regulatory Commission (CSRC). The third type includes SOEs whose supervisory authorities are in individual central government ministries, except for SASAC, such as the Ministry of Commerce, Ministry of Education, Ministry of Science and Technology, and others excluding the SASAC.

By July of 2008, the number of central SOEs managed by SASAC is 149 and by the end of 2010, Chinese government aims to reduce the number of central SOEs by 80 to 100, but when their subsidiary companies and holding companies are included, the total number of central SOEs managed by SASAC is about 10,000. Below are the figures representing central SOEs as a proportion of total SOEs (see table 2).

In 2006, the number of central SOEs as of the broad definition was reported as about 21,000, representing 18.1% of all SOEs, but their proportion of asset, revenue and total profit represents 51.7%, 51.2% and 64.0% respectively of all SOEs. These proportions concerning central SOEs have increased significantly, and the increases are mainly due to restructuring policies focusing on the large number of buy-outs of small and medium sized SOEs since mid 1990s, effected by implementing the "attaining the



larger, releasing the smaller” policy, where central SOEs were typically larger than local SOEs and local SOEs were typically in inferior financial condition than central SOEs. These restructuring trends are readily shown in the changing number of SOEs. That is to say, the number of all SOEs has reduced from 262,000 in 1997 to 116,000 in 2006, with the number of central SOEs being unchanged. As a result, central SOEs have increased in importance to the Chinese economy.

**Table 2. Proportion of central SOEs among all SOEs (%)**

| <b>Year</b> | <b>Number</b> | <b>Asset</b> | <b>Revenue</b> | <b>Total profits</b> |
|-------------|---------------|--------------|----------------|----------------------|
| 1997        | 9.9           | 38.9         | n.a..          | n.a..                |
| 2000        | 7.9           | 42.1         | n.a..          | n.a..                |
| 2003        | 13.0          | 49.2         | n.a..          | n.a..                |
| 2006        | 18.1          | 51.7         | 51.2           | 64.0                 |

Source: Finance Yearbook of China

### **3. SOEs’ role in internalisation**

#### **3.1 *Going-global strategy***

SOEs actively started internationalisation when the “Going-global strategy (*zouchuqu*)” was proposed at the 5<sup>th</sup> plenary session of the 15<sup>th</sup> central committee in 2000. The “going-global strategy” means in a practical sense that government supports and encourages globalisation of enterprises, but at a political level, it means that government economic policy takes into account international issues like regional free trade agreements and natural resource development projects abroad, such as funding oil exploration in Africa.

To promote Chinese companies’ going abroad, the Chinese government launched several policies. In 2004, the Ministry of Finance and Ministry of Commerce collaborated to support start-up funds for overseas investments. National Development and Reform Commission (NDRC) and the Bank of Export and Import drafted policies to support key overseas economic developments by creating loan programs by and streamlining overseas investment procedures.

#### **3.2 *Major goals of internationalisation***

Major goals of “going global” include enlarging global markets, exploiting natural resources abroad, attaining higher technologies, and enhancing the corporate brand values of Chinese enterprises. These goals are closely related to changes in the Chinese economic environments. First, the larger the exports by Chinese enterprises, the higher would be the trade barriers against Chinese products. The barriers against “made in china” goods encouraged Chinese companies to build up a multi-national production system in order to avoid trade conflicts. Second, as the Chinese economy grows, accessibility to and feasibility of resources have been a critical issue for the sustainability of the Chinese economy. Resource scarcity has been a growing concern for the Chinese government, and has led to developing natural resources in foreign countries. Third, despite their significant growth, Chinese companies have fallen behind in terms of global competitiveness due to lacking high technology and corporate brand power and recognition.

Three characteristics can be identified regarding China’s internalization. First, because of the large scale of overseas resource development, this pursuit is attainable largely by large scale SOEs. Second,

although developing high technology is also a stated objective of these overseas investments, investments in the high-tech sector also are undertaken primarily by large companies, but not necessarily SOEs. Third, although trade barriers are an issue in attempting to open larger markets for Chinese products, they are not often constraints faced by large SOEs, which operate under conditions of monopoly. Indeed, smaller companies in more labour intensive sectors feel pressure from the barriers. The recent aggressive efforts of the Chinese government to negotiate free trade agreements around the world are an indication of its commitment to enlarge the market for Chinese products.

### **3.3 SOEs' role in outward FDI**

The statistics show a trend of strengthened overseas investment since 2000. During the 10<sup>th</sup> Five Year Economic Development Plan period from 2001 to 2005, the amount of outbound Foreign Direct Investment was 22.3 billion U.S. dollars, nearly half of aggregate amount of 57.2 billion made by 2005. In 2006 and 2007, the outbound FDI<sup>13</sup> was 13.4 billion and 18.7 billion dollars, respectively, which shows more strengthened overseas investment boom.

The largest proportion of overseas investments has come from large scale SOEs.<sup>14</sup> In 2006, 81% of FDI comes from SOEs, and among those SOEs 82% of FDI was made by central SOEs. The fact that SOEs are dominant players in overseas investments seems to be related to the main goals of internalisation within Chinese companies. The investments for acquiring high technologies and corporate brand recognitions is largely focused on large scale SOEs, while the overseas resource development is done solely by large scale SOEs.

There are many cases which illustrate the large amount of overseas investment made by SOEs. In terms of overseas resource development, China Petroleum & Chemical Corporation (SINOPEC) acquired an Angolan oil well in 2006 for \$692 million. China National Petroleum Corporation (CNPC) acquired Petro Kazakhstan, and China National Offshore Oil Corporation (CNOOC) acquired 45% of shares in a Nigerian ACPO oil well for \$229 million. In terms of the acquisition of high technology and corporate brand, one famous case was the acquisition of IBM's PC division by high-tech state owned enterprise LENOVO for \$175 million in 2004. In 2003, the large state owned enterprise TCL acquired one of the largest TV producers in the world, the French company Thomson, and in 2002 they acquired German company, Schneider Electronics.

### **3.4 SOEs' role in international trade**

In contrast with lively outbound investments of industrial SOEs, their contribution to foreign trade is continuously dwindling compared to the increased participation of foreign and private companies (see table 3). This trend is clearly seen in SOEs' annual growth rate of export. In 2002, the overall growth rate of export was 22.3%, but SOEs' export growth rate was only 8.5%. Again, in 2007 the overall growth rate of export was 25.7%, but SOEs' export growth rate was 17.5%. As a result, the proportion of SOEs in overall export has continuously decreased from 37.7% in 2002 to 18.5% in 2007, a dwindling role which seems to

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<sup>13</sup> In 2006, the largest destination countries or regions for China's outbound FDI were the Cayman Islands, Hong Kong, the British Virgin Islands, Russia, and the U.S., in that order. Much of the investment to offshore financial centres is obviously "flow-through" transactions with an ultimate destination in third countries.

<sup>14</sup> However, SOEs themselves represent only a small proportion of number in investing enterprises. For example, in 2005, SOEs comprised 29% of number of enterprises achieving outbound FDI, which was a decrease from 35% in 2004. This means more and more non-SOEs are participating in overseas investments. And even though the number of SOEs participating overseas investment is small but its individual investment volume is very large.

be related to their decreasing portion in the overall economy and especially their decreasing portion in labour intensive industries.

**Table 3. Export by ownership of enterprise (US\$ billion)**

| Year | Total              | SOEs              | Foreign           | Collective      | Private           |
|------|--------------------|-------------------|-------------------|-----------------|-------------------|
| 2002 | 3,255.7<br>(22.3)  | 1,228.6<br>(8.5)  | 1,699.4<br>(27.6) | 188.6<br>(32.6) | 137.8<br>(159.5)  |
| 2004 | 5,933.7<br>(35.4)  | 1,535.9<br>(11.4) | 3,386.1<br>(40.9) | 317.9<br>(26.5) | 692.5<br>(99.3)   |
| 2006 | 9,690.7<br>(27.2)  | 1,913.4<br>(13.4) | 5,638.3<br>(26.9) | 410.9<br>(12.5) | 1,707.7<br>(52.1) |
| 2007 | 12,180.1<br>(25.7) | 2,248.1<br>(17.5) | 6,955.2<br>(23.4) | 468.9<br>(14.1) | 2,474.9<br>(44.9) |

Source: China Customs

Note: number in parenthesis is annual growth rate of export (%). The definition of SOEs here is state wholly funded SOEs.

#### **4. SOEs in the industrial sector**

Consistent data on SOEs could be attained for “industrial” companies that encompass a slightly larger sector than manufacturing companies. Here, the definition of industry refers to the materials production sector, which includes companies that (1) extract natural resources, such as mining and salt-producing companies (but not including hunting and fishing companies); (2) process and reprocess farm and sideline produce, such as rice-husking, flour-milling, wine-making, oil-pressing, silk-reeling, spinning-and-weaving, and leather-making companies; (3) manufacture industrial products, such as steel-making, iron-smelting, chemicals-manufacturing, petroleum-processing, machine-building, timber-processing; water and gas production, and electricity generation and supply companies; and (4) repair industrial products such as machinery and means of transport.<sup>15</sup>

The statistics from the SOEs in the Industrial sector, published by the *China Statistical Yearbook*, includes all the state-owned and state-holding companies. The definition of state holding industrial companies comprises the ones whose majority shares belong to governments. This definition is distinguished from the widely-used term SOE that only consists of wholly state funded enterprises. For private and foreign companies, statistics are only included for companies whose total revenue is over 5 million RMB, which defined as “large-scale companies”. Even though the data for industrial companies do

<sup>15</sup>Source: *Statistical Yearbook of China*.

not include all industrial companies, those companies included do represent a considerable portion of the entire industry.<sup>16</sup>

#### 4.1 Proportion of SOEs in the industrial sector

Despite difficulties in data availability, the proportion of SOEs in overall economy assessed to be continuously decreased in view of the employees statistics or several official statements by the high level officers, which was presented in chapter B. The declining trend of SOEs is verified in the statistics of industrial SOEs. Note that the overall industrial sector represented 40.4% of GDP in 1998 and 43.3% in 2006.

The proportion of SOEs in the industrial sector has been continuously decreasing (see table 4). Between 1998 and 2006, the proportion of industrial output has decreased from 49.6% to 31.2%, the proportion of value added has decreased from 57.0% to 35.8%, and the proportion of total assets has diminished from 68.8% to 46.4%. There are two main causes for the dwindling proportion of SOEs: one being restructuring policies implemented since the mid 1990s; the other being the rapid growth of other companies modelled in other forms of ownership.

The dwindling role of SOE in the overall economy is clearly shown by their relatively large reduction in employees. As for the rapid growth of non-SOEs, this is clearly shown by their proportions relative to SOEs. In 1998, the number of large-scale private companies was only 16.5% compared to the total number of SOEs, but this increased six times by 2006. In terms of industrial output, measured by value added and assets, the relative proportions of private and foreign companies to SOEs had also been increasing dramatically. Also, the contribution of non-SOEs to the entire economy is shown clearly by their fast growing increase in their proportion of the labour force, suggesting that they have absorbed the large number of employees laid off as a result of the SOE restructuring program.

**Table 4. Proportions of industrial SOEs**

| <b>SOEs as share of industrial enterprises (%)</b>                   |         |                   |             |       |           |
|--|---------|-------------------|-------------|-------|-----------|
| Year   | Numbers | Industrial output | Value added | Asset | Employees |
| 1998   | 39.2    | 49.6              | 57.0        | 68.8  | 60.5      |
| 2002   | 22.7    | 40.8              | 48.3        | 60.9  | 43.9      |
| 2006   | 8.3     | 31.2              | 35.8        | 46.4  | 24.5      |
| <b>Privately-owned enterprises relative to SOEs' (SOEs=100)</b>      |         |                   |             |       |           |
| Year   | Numbers | Industrial output | Value added | Asset | Employees |
| 1998   | 16.5    | 6.2               | 4.6         | 2.0   | 4.3       |
| 2002   | 119.6   | 28.7              | 20.4        | 9.8   | 30.2      |
| 2006   | 599.9   | 68.0              | 57.5        | 30.0  | 109.3     |
| <b>Foreign enterprises' proportions relative to SOEs' (SOEs=100)</b> |         |                   |             |       |           |
| Year   | Numbers | Industrial output | Value added | Asset | Employees |
| 1998   | 40.8    | 49.8              | 36.6        | 2.0   | 20.7      |
| 2002   | 83.8    | 71.8              | 53.8        | 9.8   | 43.5      |
| 2006   | 243.9   | 101.2             | 78.4        | 30.0  | 117.4     |

Source: China Statistical Yearbook

<sup>16</sup> For example, in Guangzhou, the capital city of Guangdong province, the number of all industrial companies is 46,417, of which 5,188 are large-scale industrial companies. These large-scale companies create an industrial output of 72,820,546 RMB, which represents 85% of the entire industrial output of 81,123,964 RMB.

## 4.2 Business characteristics of SOEs

Most importantly, even though SOEs' diminishing proportions in individual sectors, SOEs still play a dominant role in core industries, such as petroleum, coking, nuclear fuel, raw chemical material, transport equipment, mining and supply of electric and heat power, gas and water. SOEs appears to have retreated from the more competitive and more labour intensive industries, maintaining less than 10% of industrial output in sectors such as textiles, leather, fur, timber, wood, furniture, paper, and printing. Below is summarized the SOEs' proportions as determined by their role as core industries (see table 5).

**Table 5. SOEs' proportion in individual industries (%)**

| Sector   | Year | Number of firms | Gross industrial output value | Value added of industry | Total assets | Revenue | Labour |
|--|------|-----------------|-------------------------------|-------------------------|--------------|---------|--------|
| Mining   | 2000 | 47.3            | 82.5                          | 87.0                    | 93.0         | 84.5    | n.a.   |
|  | 2003 | 27.5            | 76.0                          | 83.2                    | 89.5         | 78.4    | 77.8   |
|  | 2006 | 12.0            | 71.0                          | 79.2                    | 82.1         | 72.1    | 67.9   |
| Manufacture of food and beverages                      | 2000 | 47.0            | 37.5                          | 40.4                    | 51.5         | 38.2    | n.a.   |
|  | 2003 | 22.1            | 21.9                          | 23.7                    | 34.0         | 22.6    | 28.4   |
|  | 2006 | 8.0             | 11.8                          | 12.5                    | 19.5         | 12.7    | 13.5   |
| Manufacture of tobacco                                 | 2000 | 87.2            | 98.3                          | 99.1                    | 98.2         | 98.3    | n.a.   |
|  | 2003 | 82.4            | 98.7                          | 99.3                    | 98.7         | 98.8    | 94.1   |
|  | 2006 | 79.9            | 99.3                          | 99.7                    | 99.2         | 99.3    | 94.6   |
| Textile, leather, fur, feather                         | 2000 | 17.0            | 21.1                          | 22.9                    | 35.6         | 21.8    | n.a.   |
|  | 2003 | 6.7             | 10.1                          | 10.4                    | 19.5         | 10.8    | 15.7   |
|  | 2006 | 2.2             | 4.1                           | 4.1                     | 7.9          | 4.3     | 6.1    |
| Timber, wood, furniture                                | 2000 | 21.7            | 12.2                          | 13.9                    | 30.3         | 12.0    | n.a.   |
|  | 2003 | 9.1             | 8.4                           | 9.7                     | 20.6         | 8.5     | 14.1   |
|  | 2006 | 3.0             | 5.9                           | 5.7                     | 12.0         | 6.0     | 5.9    |
| Paper, printing, article for culture and education     | 2000 | 33.6            | 24.8                          | 29.3                    | 42.8         | 25.8    | n.a.   |
|  | 2003 | 17.6            | 18.3                          | 21.5                    | 33.0         | 18.7    | 19.0   |
|  | 2006 | 8.2             | 9.9                           | 11.5                    | 18.8         | 11.0    | 9.8    |
| Petroleum, coking, nuclear fuel, raw chemical material | 2000 | 32.0            | 68.1                          | 63.5%                   | 75.8         | 69.4    | n.a.   |
|  | 2003 | 16.6            | 57.6                          | 52.3                    | 62.0         | 59.0    | 48.7   |
|  | 2006 | 7.7             | 48.9                          | 36.0                    | 48.8         | 49.6    | 33.3   |
| Medicines  | 2000 | 45.3            | 49.6                          | 50.6                    | 60.8         | 52.5    | n.a.   |
|  | 2003 | 24.6            | 36.8                          | 36.8                    | 46.8         | 40.6    | 41.7   |
|  | 2006 | 11.0            | 19.9                          | 19.0                    | 29.5         | 21.9    | 24.2   |
| Chemical fibres, plastics, rubber                      | 2000 | 17.8            | 29.9                          | 30.4                    | 46.0         | 30.3    | n.a.   |
|  | 2003 | 7.9             | 16.1                          | 15.7                    | 27.4         | 16.6    | 16.8   |
|  | 2006 | 3.3             | 10.9                          | 9.2                     | 17.1         | 11.5    | 10.6   |
| Ferrous and non-ferrous metals                         | 2000 | 24.7            | 46.2                          | 49.9                    | 65.6         | 48.4    | n.a.   |
|  | 2003 | 12.7            | 38.2                          | 42.4                    | 53.9         | 40.1    | 36.3   |
|  | 2006 | 5.9             | 29.4                          | 32.1                    | 43.0         | 31.0    | 23.5   |
| Machinery  | 2000 | 34.2            | 39.6                          | 40.3                    | 61.8         | 40.8    | n.a.   |
|  | 2003 | 18.3            | 33.8                          | 33.2                    | 50.5         | 34.6    | 42.7   |
|  | 2006 | 7.4             | 23.3                          | 21.9                    | 34.1         | 23.3    | 23.2   |
| Transport equipment                                    | 2000 | 40.1            | 67.0                          | 67.2                    | 78.2         | 68.3    | n.a.   |
|  | 2003 | 23.9            | 62.1                          | 64.3                    | 70.4         | 63.4    | 54.6   |
|  | 2006 | 12.7            | 50.2                          | 48.4                    | 58.2         | 51.4    | 39.6   |
| Electric and communication, computer, office equipment | 2000 | 26.3            | 30.0                          | 32.5                    | 44.9         | 30.5    | n.a.   |
|  | 2003 | 16.5            | 31.7                          | 34.7                    | 44.5         | 31.8    | 31.8   |
|  | 2006 | 6.6             | 8.8                           | 9.4                     | 15.9         | 8.8     | 9.2    |
| Supply of heating, power, gas and water                | 2000 | 87.8            | 85.1                          | 87.1                    | 89.3         | 90.4    | n.a.   |
|  | 2003 | 81.4            | 83.2                          | 85.5                    | 88.9         | 89.5    | 90.4   |
|  | 2006 | 69.7            | 88.2                          | 86.0                    | 87.3         | 89.0    | 87.1   |

Source: China Statistical Yearbook

Compared to the other type ownerships, several distinctive features of SOEs could be observed through the period of 1998 to 2006 (see table 6). Firstly, in terms of the relative size of assets and employed labour, industrial SOEs are larger than private and foreign counterparts. As for the per capita

asset size, SOEs are located in more capital intensive area and, more interestingly, the higher capital intensity has been remarkably strengthened since 1998.

Secondly, it appeared that SOEs' corporate performance has been continuously improved. Even though profitability measured by ROA has been lower than that of private enterprises and foreign enterprises, ROA of SOEs has increased from 0.7% in 1998 to 6.3% in 2006. Enhanced corporate performance of SOEs has clearly shown from their per capita value added, which was lowest in 1998 but remarkably higher compared to private and foreign enterprises in 2006.

**Table 6. Industrial SOEs' performances**

| <b>Industrial State-Owned Enterprises</b> |                                   |                             |         |                           |                               |                         |
|---|-----------------------------------|-----------------------------|---------|---------------------------|-------------------------------|-------------------------|
| Year                                      | Average Asset size (million yuan) | Average number of employees | ROA (%) | Asset Liability Ratio (%) | Per Capita Value added (yuan) | Per Capita Asset (yuan) |
| 1998                                      | 115.7                             | 578.9                       | 0.7     | 47.6                      | 29,555.9                      | 199,895.1               |
| 2002                                      | 216.6                             | 589.3                       | 3.0     | 59.3                      | 65,748.6                      | 367,608.1               |
| 2006                                      | 541.5                             | 722.7                       | 6.3     | 56.2                      | 180,647.5                     | 749,187.1               |
| <b>Industrial Private Enterprises</b>     |                                   |                             |         |                           |                               |                         |
| 1998                                      | 13.9                              | 150.7                       | 4.5     | 61.2                      | 31,693.4                      | 92,473.9                |
| 2002                                      | 17.8                              | 149.0                       | 5.6     | 59.3                      | 44,423.9                      | 119,520.0               |
| 2006                                      | 27.1                              | 131.6                       | 7.9     | 59.1                      | 95,057.2                      | 205,553.7               |
| <b>Industrial Foreign Enterprises</b>     |                                   |                             |         |                           |                               |                         |
| 1998                                      | 80.7                              | 293.2                       | 2.0     | 58.5                      | 52,310.7                      | 275,119.0               |
| 2002                                      | 91.4                              | 305.9                       | 6.0     | 54.4                      | 81,312.5                      | 298,895.6               |
| 2006                                      | 126.7                             | 348.0                       | 7.0     | 56.3                      | 120,607.1                     | 364,046.3               |

Source: China Statistical Yearbook

## 5. Publicly listed SOEs<sup>17</sup>

### 5.1 Characteristics of listed SOEs

Initial Public Offerings (IPO) of SOEs were considered as an effective measure to support SOE reform. As implied in the reform toward a "Modern Enterprise System," SOEs were forced to transform into incorporated entities. Parts of important companies were allowed to be listed so as to have more transparent ownership and efficient supervising mechanism.<sup>18</sup> In fact, IPOs of several crucial companies have had positive influences on promoting overall SOE reform. However, even though the transformation to listed companies has improved ownership structures and transparency, there are imperfections inherent in the reform policies themselves.

#### 5.1.1 Concentrated ownership structures

One of the flawed features of listed SOEs is their highly concentrated ownership structure. This is related to the nature of gradual SOE reform. For many years, state shares and state legal entity shares, which comprised two thirds of total shares, had not been permitted to be traded in the stock market (see table 7). The restrictions placed on non-tradable shares were transitory measures, contrived to avoid the controversies over whether state assets should or should not be publicly traded in the early years of the

<sup>17</sup> Here only A-type listed companies are included, which have absolutely majority shares in the Chinese Stock Market.

<sup>18</sup> In 1995, the report to the 15<sup>th</sup> National Congress of the Community Party of China stressed more SOEs should be transformed into share-holding companies.

stock market. It was not until 2005 that a reform of non-tradable shares for state and legal entity shares was launched. However, shares listed SOEs were still overly concentrated on state ownership, which enabled them to exercise continued monopolistic control as the largest share holder. Hence it is hardly surprising that monitoring and supervision by individual shareholders are still ineffective in listed SOEs.

**Table 7. Proportion of shares by type of shareholders**

| Year | Number of shares (100,000,000) | Proportion of shares(%) |             |              |                      |           |        |                 |       |      |       |
|------|--------------------------------|-------------------------|-------------|--------------|----------------------|-----------|--------|-----------------|-------|------|-------|
|      |                                | Non-tradable shares     |             |              |                      |           |        | Tradable shares |       |      |       |
|      |                                | Sum                     | State share | Legal entity | Foreign Legal entity | Employees | others | Sum             | A     | B    | H     |
| 1994 | 684.54                         | 66.98                   | 43.31       | 21.43        | 1.10                 | 0.98      | 0.16   | 33.02           | 21.00 | 6.06 | 5.96  |
| 1998 | 2,526.79                       | 65.89                   | 34.25       | 26.93        | 1.42                 | 2.05      | 1.25   | 34.11           | 24.06 | 5.30 | 4.75  |
| 2002 | 5,875.45                       | 65.34                   | 47.22       | 16.49        | 0.91                 | 0.25      | 0.47   | 34.66           | 25.69 | 2.85 | 6.13  |
| 2006 | 18,801.25                      | 61.23                   | 20.30       | 15.61        | 0.65                 | 0.02      | 24.65  | 39.83           | 26.02 | 2.02 | 11.79 |

Source: China Securities Regulation Commission

### 5.1.2 Core and shell company relationships

The second important issue is about the strong and complicated relationships between owners (local and central government) and SOEs. Listed SOEs have been considered as scarce and valuable assets from the viewpoint of their owners, especially local governments. By the end of 2004, over 900 SOEs were listed, but because of underdevelopment of the corporate financing market, the listed SOEs were treated, by local governments, as a method of accessing direct financing. Consequently, there has been serious competition among local governments to obtain a share of the limited number of listing licenses.<sup>19</sup>

These competitions were heightened by the process known as the “State Assets Optimisation Plan”. Most listed SOEs are not independent business entities, but merely arms of higher corporate groups in related production processes. The Asset Optimization Plan was implemented to ensure that one financially superior company is selected to be a core company and most valuable assets of the same group are transferred to this core company.

As a result, the superior company has sufficient qualifications to meet listing requirements, while the other companies remain empty shell companies with inferior assets and hence resulting in inferior performance. Therefore, behind most listed SOEs there exist similar related companies that have been sacrificed for the benefits of the listed companies. Core and shell companies have intrinsically close relationships and are practically managed by the same owner. Their corporate performances are easily manipulated. This is the main reason that large numbers of internal trades and acts of window dressing are reported in the Chinese stock market.<sup>20</sup>

### 5.1.3 Ownership classification issues

The third issue lies in the classification of SOEs among listed companies. There are several types of shares among listed companies, such as state shares, legal entity shares, individually owned shares and foreign shares. The legal entity shares are divided into state and non-state legal entity shares, but are often

<sup>19</sup> The Chinese government had maintained a strict bureaucratic screening system for a long time. It has rigorously constrained the total volume of stock market shares, treating it as a kind of monetary credit plan. In 2001, although the mitigated licensing system was introduced, it was retreated again to the strict volume constraining system because of serious IPO boom.

<sup>20</sup> Jian and Wong(2006) argued that internal trades were more frequent in local SOEs, which has more close relationship between core and shell companies.

difficult to make a distinction.<sup>21</sup> More critically, it is hard to find consistent data sets which distinguish state shares from non-state legal entity ones; the data only reports total legal entity shares.

Therefore, one method of distinguishing ownership of listed companies involves tracking ownership hierarchy of the largest shareholders to identify a real owner. For example, among 1,342 listed companies of 2004<sup>22</sup>, 864 companies-- based on the requirement that state shares comprise a proportion of greater than 10% (without considering hidden state shares in the overall legal entity shares)--, were classified as SOEs but 942 companies were classified as SOEs if the actual owner of the largest shareholder was tracked and revealed in their ownership hierarchy of the annual report (see table 8).

**Table 8. Number of listed companies by ownership types**

|                        | 1998 | 1999 | 2000  | 2001  | 2002  | 2003  | 2004  |
|------------------------|------|------|-------|-------|-------|-------|-------|
| Private                | 85   | 109  | 141   | 159   | 201   | 270   | 351   |
| Foreign                | 14   | 11   | 14    | 14    | 14    | 13    | 15    |
| Collective             | 21   | 29   | 32    | 32    | 32    | 30    | 34    |
| SOEs                   | 701  | 769  | 867   | 931   | 945   | 942   | 942   |
| Central SOEs           | 111  | 131  | 152   | 168   | 174   | 186   | 198   |
| Local SOEs             | 562  | 602  | 664   | 704   | 704   | 685   | 674   |
| Direct local SOEs      | 108  | 95   | 95    | 92    | 75    | 60    | 54    |
| Indirect local SOEs    | 454  | 507  | 569   | 612   | 629   | 625   | 620   |
| Public SOEs            | 9    | 12   | 17    | 20    | 21    | 20    | 21    |
| Other SOEs             | 19   | 24   | 34    | 39    | 46    | 51    | 49    |
| Total listed companies | 821  | 918  | 1,054 | 1,136 | 1,192 | 1,255 | 1,342 |

Source: CSMAR database, classified by author.

Note: Financial companies are excluded in this statistics.

If listed companies are classified by actual ownership, four ownership types would emerge (see table 8): private companies; foreign companies; collective-owned companies; and state-owned companies. State-owned companies would be further divided into local SOEs (owned by local government), central SOEs (owned by SASAC representing central government), public SOEs (owned by public institutions) and others (owned by the state but unclassifiable). Lastly, most SOEs have multi-hierarchical ownership structures, but there are a few which are directly owned by their actual owner. This is only seen in the local SOEs, whose incorporated reforms have lagged behind other forms of ownership, and which still remain directly owned by local government.<sup>23</sup>

## 5.2 *The relative weight of SOEs*

### 5.2.1 *Share of SOEs in the overall stock market*

Based on their classification, SOEs' with a state share of more than 10% have continuously increased its share in the market capitalization of the Chinese stock market. And more importantly, SOEs have

<sup>21</sup> The main difference between state shares and state legal entity shares lies in the proportion owned by the governments. When asset optimization procedures are practiced, state shares in the newly restructured company are appreciated. If the government invests in shares equal to 50% or more, these shares would be classified as "state shares." If the investment is less than 50%, the shares are classified as "state legal entity shares."

<sup>22</sup> Because of accounting differences, financial companies were excluded in this classification.

<sup>23</sup> In 2004, 54 companies among 942 listed SOEs were directly owned by local government.



overwhelmed market capitalization. In 2007, SOEs' share grew to 83.1% from 73.1% in 1995 (see Table 9).

**Table 9. SOEs' share of stock market capitalisation**

| Year | Volume of market capitalisation<br>(100 million yuan) |                  | SOEs' share<br>(%) |
|------|---|------------------|--------------------|
|      | Overall market  | SOEs             |                    |
| 1995 | 3,867<br>(311)  | 2,826<br>(211)   | 73.1               |
| 1999 | 27,974<br>(923)                                       | 19,421<br>(626)  | 69.4               |
| 2003 | 45,255<br>(1,266)                                     | 37,108<br>(928)  | 82.0               |
| 2007 | 400,409<br>(1,516)                                    | 332,769<br>(936) | 83.1               |

Source: CSMAR database

Note: In this table, all of the A-stock companies in the Chinese stock market are included. Figures in parentheses are the number of companies referred.

The rising trend in SOEs' share in stock capitalization is mainly attributed to the SOE reform policy. This encouraged SOEs to transform themselves into shareholding companies and further promote the listing of large scale and top-ranking SOEs (see the date of IPO in Table 10 and Table 11). For example, in the Shanghai stock exchange, eight SOEs were listed in the top 10 companies based on their market capitalization value in 2006 and 2007. These eight large-scale SOEs already accounted for 50% of the total market capitalization in the Shanghai stock exchange in 2007(see Table 10). As a result, the share of SOEs has recently seen a significant increase in the market capitalization of the Chinese stock market.

**Table 10. Top 10 companies by market capitalisation in Shanghai exchanges in 2007**

| Rank | Name                                    | Date of IPO | Ownership   | Market capitalization (100 million yuan) | Ratio to total market capitalization (%) |
|------|---|-------------|-------------|--|--|
| 1    | PETRO CHINA                             | 2007.11.05  | Central SOE | 50,131                                   | 18.6                                     |
| 2    | Industrial and Commercial Bank of China | 2006.10.27  | Central SOE | 20,403                                   | 7.6                                      |
| 3    | China Petroleum & Chemical              | 2001.08.08  | Central SOE | 16,382                                   | 6.1                                      |
| 4    | China Life Insurance                    | 2007.01.09  | Central SOE | 12,065                                   | 4.4                                      |
| 5    | Bank of China                           | 2006.07.05  | Central SOE | 11,753                                   | 4.4                                      |
| 6    | China SHENHUA Energy                    | 2007.10.09  | Central SOE | 10,819                                   | 4.0                                      |
| 7    | PingAn Insurance                        | 2007.03.01  | Foreign     | 5,078                                    | 1.9                                      |
| 8    | China Merchants Bank                    | 2002.04.09  | Central SOE | 4,772                                    | 1.8                                      |
| 9    | Bank of Communication                   | 2007.05.15  | Central SOE | 4,050                                    | 1.5                                      |
| 10   | China Pacific Insurance                 | 2007.12.25  | Central SOE | 3,807                                    | 1.4                                      |

Source: The Shanghai Stock Exchange

**Table 11. Top 10 companies by Market Capitalisation in Shanghai exchanges in 2002**

| Rank | Name                       | Date of IPO | Ownership   | Market capitalization (100 million yuan) | Ratio to total market capitalization (%) |
|------|----------------------------|-------------|-------------|--|--|
| 1    | China Petroleum & Chemical | 2001.08.08. | Central SOE | 2,105                                    | 8.3                                      |
| 2    | China Unicom               | 2002.10.09  | Central SOE | 530                                      | 2.1                                      |
| 3    | HUANENG Power              | 2001.12.06  | Central SOE | 518                                      | 2.0                                      |
| 4    | BAO Steel                  | 2000.12.12  | Central SOE | 516                                      | 2.0                                      |
| 5    | NINGHU Expressway          | 2001.01.16  | Local SOE   | 469                                      | 1.8                                      |
| 6    | China Merchants Bank       | 2002.04.09  | Central SOE | 465                                      | 1.8                                      |
| 7    | PUDONG Development bank    | 1999.11.10  | Local SOE   | 356                                      | 1.4                                      |
| 8    | MinSheng Bank              | 2000.12.19  | Private     | 238                                      | 0.9                                      |
| 9    | LUJIAZUI                   | 1993.06.28  | Local SOE   | 179                                      | 0.7                                      |
| 10   | SHENNENG (Group) Company   | 1993.04.16  | Local SOE   | 177                                      | 0.7                                      |

Source: The Shanghai Stock Exchange

## BIBLIOGRAPHY

- Cao, Y., Y. Qian, and B. Weingast, "From Federalism, Chinese Style, To Privatization, Chinese Style," *Economics of Transition*, Vol. 7, 1999, pp. 103-131.
- Chen, Kuan, Gary H. Jefferson, Thomas G. Rawski, Hongchang Wang, and Yuxin Zheng, "Productivity Changes in Chinese Industry: 1953—1985," *Journal of Comparative Economics*, Vol. 12, 1988, pp. 570—591.
- Groves, Theodore, Yongmiao Hong, John Mcmillan, and Barry Naughton, "Autonomy and Incentives in Chinese State Enterprises," *Quarterly Journal of Economics*, Vol. 109, 1994, pp. 183—209.
- Jefferson, Gary. H., Thomas G. Rawski, and Yuxin Zheng, "Growth, Efficiency and Convergence in China's State and Collective Industry." *Econ. Develop. Cult. Change*, Vol. 40, 1992, pp. 239—166.
- Jefferson, Gary, Albert G. Z. Hu, Xiaojing Guan, and Xiaoyun Yu, "Ownership, Performance, and Innovation in China's Large- and Medium-size Industrial Enterprise Sector," *China Economic Review*, Vol. 14, 2003, pp. 89-113.
- Jian, M., and T. J. Wong, "Earnings Management and Tunneling through Related Party Transactions: Evidence from Chinese Corporate Groups", *Working Paper*, 2006.
- Li, Wei, "The Impact of Economic Reform on the Performance of Chinese State Enterprises, 1980—1989," *Journal of Political Economy*, 105, 1997, pp. 1080—1106.
- National Bureau of Statistics of China, *China Statistical Yearbook*. 2007.
- Ministry of Finance, *Finance Yearbook of China*. 2007.
- Zhang, Anming, Yimin Zhang, and Ronald Zhao, "Profitability and Productivity of Chinese industrial firms measurement and ownership implications," *China Economic Review*, Vol. 13, 2002, pp. 65—88.