

The Role of Firm Ownership in Transitional Economies: Recent Evidences from China

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Abstract

Marxists see firm ownership as an instrument for capitalists to exploit workers for "surplus value". Neo-classical economists treat capital and labour equally as factors of production, which generate wages for workers and profits for capital owners. Both "Surplus value" and profits should be, and indeed are, on average, positive in typical market economies. This paper proposes a theory to explain the role of state ownership in the transitional economies such as in China. The theory predicts that state ownership would lead on average to net losses and liabilities for the state sector as a whole due to the tendency toward "privatisation" (or "private-taking") of profits and assets and "socialisation" of losses and liabilities. The asymmetrical incentives in dealing with the assets and liabilities in the state-owned firms and banks can be traced back to the fact that the state as an owner of losses and liabilities would not go bankrupt unless it is overthrown politically. The paper then brings about aggregate and micro evidences to test the above theory. It constructs a consolidated balance sheet for China's state sector to explain the extent and implications of its asset-liability imbalance. It also compares the performance and the asset-liability conditions among Chinese enterprises of different ownership using recent firm-level data from industrial surveys.

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1. Introduction

This paper outlines a research agenda to examine how the state ownership in China actually functions or malfunctions during recent years of economic transition from plan to market. At the core of the debates on the reform of the state-owned enterprise reform is the question whether and why property rights are important and ownership reform necessary. An influential group of scholars in and outside of China have argued that the performance of state-owned enterprises could be improved through incentive contracts and competition without fundamental ownership reform. They have found support for their theories and viewpoints from many recent empirical studies at the firm level, which seems to show a robust relation between strengthened incentives and improved productivity in Chinese state-owned enterprises. On the other hand, other scholars have argued that property rights and ownership reform are essential to change the behaviour of the state-owned enterprises. This group of scholars point to the poor performance of the state-owned enterprises as shown by aggregate statistics and also to the significant gap between the state-owned and the better performing non-state enterprises in China.

This research contributes to the above debates by proposing a theory of the state ownership that would reconcile the evidences on the positive micro assessment and negative macro assessment of the performance of the state-owned enterprises in China. The study also intends to answer an important academic question for new institutional economists. How do non-private property rights and state ownership function or malfunction in a partially reformed planning economy? In spite of large amount of recent research on transitional economies, this question has not been studied and answered adequately.

Traditional Marxists see property as a source of positive surplus created by workers and exploited by capitalists. Modern mainstream economics sees property as simply factors of production that brings on average positive profits to its owners. The theory we proposed here claims that industrial assets owned fully by the state would be a source of losses and liabilities mainly because the state as an owner of liabilities could not go bankrupt unless it is overthrown politically. Our theory sees private property as an effective way to allocate risks, losses, and liabilities more than to enjoy returns, profits, and assets. Our theory also suggests that the danger of state ownership is in the system-wide risk it brings to the economy rather than in the inefficiency of specific state-owned enterprises. The birth and death of large amount of inefficient

private firms have not stopped the sustained growth of the Western market economies driven by efficient firms. But the survival of inefficient state-owned enterprises in transitional economies would hinder the development of private enterprises and threaten the sustained growth of the reforming economies. China's recent reform in enterprise ownership provides us with a unique opportunity to discover, test, and apply theories of ownership and control for the transitional economies.

Section 2 reviews the literature on China's enterprise reform. Section 3 lays out the basic analysis of the ownership problem in the contemporary Chinese economy. It discusses not only the logic of state ownership but also some policy implications. In particular, it argues that the government could increase the value of state assets by reducing the concentration of state ownership, e.g. becoming a passive minority shareholder. Section 4 produces a consolidated balance sheet of the state sector in China and discusses the actual extent of China's problem of "private-taking of assets and socialisation of liabilities". Section 5 concludes the paper by introducing an on-going research comparing the performance of China's large and medium-sized industrial enterprises across ownership categories using industrial census and survey data from 1995 to 1998.

2. The literature on China's enterprise reform

The improved performance of Chinese industrial state-owned enterprises has been well documented at the microeconomic level by Chen et al (1988), Dollar (1990), Gordon and Li (1991), Groves et al (1994 and 1995), Jefferson et al (1992, 1994, 1996) and Xiao (1991).

Based on this positive assessment of SOE performance, Lin et al (1997), McMillan and Naughton (1992), Naughton (1995) and Rawski (1994) have argued that China's SOEs can progress without privatization and they conclude that the entry of the non-state enterprises would create enough competition for the SOEs and hence property rights reform for SOEs is not important nor necessary.

The positive assessment of SOE performance at the micro level is however challenged by Woo et al (1994), Sachs and Woo 1997, and Bai et al (1997). The deteriorating SOEs performance at the aggregate level has also been well documented by Fan and Woo (1997), Sheng and Xiao (1995), and World Bank (1996 and 1997). Xiao (1991 and 1997) and others have documented the gap between the SOEs and non-state enterprises in both productivity and growth. Based on the negative assessment of China's SOE

performance and the reform experiences in other countries, Perkins (1994), Sachs and Woo (1994), Woo (1994), Sheng and Xiao (1995), World Bank (1997) and Xiao (1997) have emphasized the importance of property rights and ownership reform.

Che and Qian (1996), Li (1996), Weitzman and Xu 1994, Qian (forthcoming) and Xiao (1991) have used a property right approach to study Chinese enterprises. However these studies have emphasised the positive and/or negative effects of government control of the enterprises or principle-agency problems with little attention to the state ownership as a source of unlimited state liabilities. In general, they have focused on the micro, instead of the macro implications of mis-matched property rights and state ownership.

Fan and Woo (1996), Sheng and Xiao (1995), and Xiao (1997) have linked the poor incentive problems to the China's macroeconomic instability. Sheng and Xiao (1995) and Xiao (1997) have used explicitly a property rights approach and explored many issues related to property rights and ownership in the context of China's reform. These group of studies are consist with the theme of this paper. Broadman and Xiao (1997) is a preliminary study using similar argument but much earlier data.

3. The role of ownership in transitional economies

How property rights are clarified and enforced in market economies? Clear property rights are essential in order for efficient and voluntary exchange and production activities to take place in market economies. Clear property rights mean not only well-delineated ownership titles and the rights and obligations associated with them but also effective enforcement of these rights and obligations.

When the equity value of a private corporation falls to zero or below, the corporation becomes insolvent and the equity owners lose all their investment but incur no more liabilities. This is the limited liabilities feature of the modern corporation. When it is insolvent, a corporation's gross asset value is smaller than its gross liability value. The resulting asset deficit is a loss that has to be shared by stakeholders of the corporation, including banks, bond holders, suppliers, customers, and employees. The insolvency triggers a legal process of bankruptcy that determines how the loss will be shared among all the stakeholders. The shareholders and stakeholders, who suffer the legally delineated losses, then have to reduce their expenditures in response to their reduced income and wealth.

Since any attempt by shareholders or stakeholders to escape their legally delineated liabilities violates other shareholders or stakeholders' property rights, they have a strong incentive to monitor each other. They may create specific private contractual arrangements to guard their property rights if these arrangements are cheaper than resorting to an independent legal system for protection would be. The private and legal means for delineating, enforcing, and absorbing losses and liabilities discussed here have made property rights clear and enforceable in market economies.

China's experiences contradict Marx and show that capital may not bring surplus value but rather causes losses and liabilities as a result of unclear and unenforceable property rights under state ownership

Property rights over SOEs in China are unclear and unenforceable precisely because the institutional facilities for delineation, enforcement, and absorption of SOE losses and liabilities could not be established as long as the state was the sole or majority owner of enterprises, as will be argued in detail below. Because property rights have been unclear and unenforceable, private individuals have been benefiting from gains, while losses are borne by society as a whole. The state, as the sole or majority owner of SOEs, is obligated to assume basically unlimited liability. This is a new phenomenon that developed during the period of partial reform and that is contradictory to the Surplus Value Theory of Marx, with which all Chinese have been indoctrinated from the time they were very young.

Due to the influence of Marxist economic theory and ideology, Chinese officials and Chinese people in general have usually seen capital (or property) as a means of production that is certain to generate a positive surplus value for capitalists (or capital owners). The emphasis of the Marxist ideology is on redistribution of this surplus value from the capitalists to working class people through public ownership of capital. It has never occurred to most Chinese students of Marxist political economic theory that the surplus value associated with capital could be negative. That would mean that workers are exploiting capitalists. Is that possible? Indeed, that negative surplus value or negative net asset value would arise in market economies is unlikely. Unfortunately, that unlikely possibility became a reality in China under the state ownership of enterprises during the period of partial reforms.

As a result of China's past "reform without privatization" approach, private individuals have been benefiting from gains, while losses are borne by society

Instead of implementing fundamental reforms of ownership and property rights, the Chinese government adopted a Contract Responsibility System (CRS) for SOE reform in 1978. The CRS emphasizes material incentives through various links between performance and pay for managers and workers but overlooks the problems of moral hazard, whereby managers and workers could achieve a small personal gain at a large cost to the enterprise or to the economy.

When the economy is booming and enterprises are making profits, managers, workers, and the government all share in the gains. Any increased cost due to moral hazard could easily be hidden under their balance sheets during the boom, when it is easy to access state bank loans. However, when state banks start to tighten credit to reduce inflation, the cost of moral hazard at SOEs shows up as enterprise losses, bad loans at state banks, inter-firm debts, layoffs, and political instability.

The fact that private individuals are benefiting from gains while society bears losses has become a key problem for the state sector troika of state enterprises, state banks, and the state budget in China. China's SOEs have taken about two-thirds of capital, investment, bank credit, and urban employment but now produce only about one-third of industrial output value. The asset deficit in the state sector troika has led to cycles of inflation, rising national debts, rising non-performing loans, and deteriorating government fiscal conditions. In 1980 China's internal and external debts were zero. Now they amount to 20 to 30 percent of the GDP. The non-performing loans in the state banks are as high as 30 to 40 percent of total loans. The central government revenues as a share of the GDP fell from 30.9 percent in 1978 to 12.4 percent in 1995.

No one would be able and willing to bear the brunt of SOEs losses except the state as their sole or majority owner. No individual officials, managers, or workers would be able or willing to assume the responsibility for the loss of asset value at SOEs. The government could fire and even financially punish managers and workers. However, that would not assist in the recovery of the accumulated stock of losses, since none of the individual managers and workers owns any significant private property that could be used as a hostage or a collateral for the right to use and manage the state-owned assets under the Responsibility Contract. In most cases, the punishment would not be credible and would be difficult to implement. Even if it were credible and possible to implement, it is difficult to imagine that it would be severe enough to offset the private gains the managers and workers can derive from mismanaging the state's assets. The state, with

its ownership of enterprise assets, is the only party that would be able and willing to assume the accumulated stock of losses and liabilities.

Unlike private owners, the state can print and borrow money to handle the unlimited losses of SOEs before it is overthrown politically. Unlike private owners, whose capacity to assume losses and liabilities is limited by the amount of assets they own, the state's capacity to do the same is not limited by the amount of state-owned assets. The state itself is not subject to bankruptcy unless it is overthrown politically. Its ability to assume unlimited liability before it is overthrown politically greatly weakens its incentive to monitor the managers and workers at SOEs and state-owned banks.

In addition, the state as a sole or majority owner of SOEs is fundamentally different from private small shareholders with diffusely held shares. To be sure, private small shareholders have much weaker incentives to monitor managers than do private large shareholders with concentrated shares, but the small shareholders assume the full cost of their failure to monitor with their limited share value. The state, when it is absent or ineffective at monitoring managers, assumes the losses and liabilities not with its limited share value but with its power and willingness to tax, to print money, to borrow domestically and externally, and to sell the resources it owns. The taking of losses and liabilities by the state does not usually lead to a direct reduction of expenditures in the state sector. The society as a whole often has to bear indirectly the immediate losses and liabilities incurred by the SOEs as well as the additional costs of inflation, of an inefficient financial system, and of other system-wide inefficiencies caused by the SOE losses. Only the privileged few benefit from the accumulation of assets.

It is impossible to effectively separate the government from enterprises when the state is their sole or majority owner

One of the key problems with wholly or majority state-owned enterprises in China is the difficulty in identifying their real owners. Their nominal owners are the people of China as a whole, who are legally represented by the State Council. The acting owners who actually make decisions on the use of SOE assets are somewhere in the government hierarchy. As a result, decision-making by these acting owners is likely to be constrained by government bureaucracy. Property rights over the SOE assets are likely to be fragmented and intentionally distributed among various government departments to ensure adequate checks and balances. Also, the real objective of the acting owners may not be to maximize profits and asset value.

Moreover, as part of the government hierarchy, the acting owners are likely to impose obligations on enterprises and on their stakeholders. When it is impossible to separate the acting owners from the government, it is not possible to achieve truly limited liabilities for wholly or majority state-owned enterprises. When the acting owners are part of the government hierarchy, the managers appointed by them will also be part of the government. Other stakeholders in the SOEs, such as workers, suppliers, banks, and customers, will also see SOEs and their managers as part of the government.

It is impossible to turn SOEs into truly limited liability companies when the state is their sole or majority owner. Chinese policy makers have gradually come to recognize the SOEs' unlimited liabilities problem. The government has thus determined to transform SOEs into modern corporations with limited liabilities. The People's Congress passed a company law on 29 December 1993 and put it into effect on 1 July 1994. The company law is similar to laws in market economies except that it contains a special section dealing with wholly state-owned companies. The implementation of the company law has proven difficult. For example, more than 80 of the 100 SOEs selected nationwide to experiment with the corporation system have so far chosen to register as wholly state-owned limited liabilities companies. Is it possible for wholly state-owned enterprises to become truly limited liabilities companies? Twenty years of SOE reforms in China suggests that the answer is no. In 1978, SOEs' first goal was to become responsible for their own losses and profits. That goal has not yet been reached. China's own experiences show that it is too difficult, if not impossible, to effectively separate the government from enterprises for wholly or majority state-owned enterprises.

Privatization or ownership reforms with the state as non-majority shareholder are necessary to turn SOEs into truly limited liability companies and to separate them effectively from the government. Conclusions and policy recommendations based on the above analysis are clear. China needs to privatize SOEs or at least to turn the state into a non-majority shareholder of the reformed enterprises in order to effectively separate the government from enterprises and to achieve truly limited liabilities for them. It is crucial that the majority of the owners of the reformed SOEs be profit-maximizing individuals who are investing voluntarily in the reformed enterprises.

The Chinese authorities prefer to use the term "controlling shares," which in principle could mean shareholdings of more than 50 percent but more often means shareholdings of less than 50 percent

according to my own discussions with various Chinese officials. To emphasize the influence of public ownership, “state holding of controlling shares” sounds much better than does “state holding of non-majority shares” or “state holding of passive minority shares.” To avoid confusion, I will use the term “majority shares” for all shareholdings of more than 50 percent and “controlling shares” only for shareholdings of less than 50 percent.

In the ownership reforms recommended here, it is fine for the state to maintain controlling but non-majority shares of reformed SOEs. In market economies, the percentage of controlling shares, e.g., the concentrated shares owners need to win votes in shareholders’ meetings, could be as low as 10 percent or even 5 percent, since most minority shareholders with diversely held shares are not interested in voting at shareholders’ meetings. The state could also control a large corporation with concentrated shares of much less than 50 percent. However, this would happen only when the state as a controlling shareholder is making good or at least acceptable decisions for the corporation. When the state as a controlling shareholder is making what seem to be poor decisions, private minority shareholders with diversely held shares are likely to show up to vote and to defeat the controlling but non-majority state shareholder. If private minority shareholders choose not to confront the poor decisions made by non-majority state shareholders, they expose their share value to expected risks that these decisions raise. Once the expected losses are realized, they have to reduce their consumption.

In addition to establishing the state as a non-majority shareholder, some basic rules and points for running reformed SOEs will have to change according to the internationally recognized corporate institutions as reflected in modern company laws of all nations.

- First of all, shares of reformed enterprises should be freely tradable so that all private shareholders are voluntary equity investors and can sell their shares if they wish. For most private minority shareholders with diversely held shares, the right to sell their shares is their most cost-effective way of protecting their investment.
- Second, the mixed state-private shareholders need to follow a one share-one vote rule or similar rules of democracy on capital to decide on important enterprise governance issues such as the selection of

the board of directors and top managers, mergers and acquisitions, and major investment plans. This is the most important institutionalized mechanism for rational and cost-effective decision-making.

- Third, the top managers of the corporation must be hired by the mixed state-private shareholders from the market through a voluntary contract rather than being transferred from the government hierarchy under the supervision of the party personnel department. They are hired only to maximize the value of the corporation, which would in the end benefit not only themselves and the mixed owners of the corporation but also other stakeholders of the corporation. This rule is particularly relevant in China because of the pervasive influence of the Party on the appointment of managers. It should be emphasized that the non-economic and even the economic objectives of the Party could be achieved much better through other political or legal channels than by distorting the time-tested basic institutions of the modern corporation system.
- Fourth, mixed state-private shareholders and stakeholders of the corporation, including minority shareholders and workers, have to realize or to be made to understand that there is a possibility that the corporation may not honor its contractual obligations and that they will have to bear the losses of their investment if the corporation becomes insolvent. This is a particularly relevant point for China, since many people are not familiar with true market economies and often base their job and investment decisions on their experiences in partially reformed or even unreformed economies.

The above points are essential for establishing clear and enforceable property rights and the principle of truly limited liabilities for reformed SOEs, which are to have mixed state-private ownership with the state acting as non-majority shareholder. All the rules and points discussed here are already part of China's company law, which was promulgated in 1994 but which could not be effectively implemented without requiring the state to be the non-majority shareholder of the reformed SOEs.

Capital gains for the state are possible if it become a minority shareholder

There are many good reasons for why China will not only endorse but will also fully implement the reform discussed above that will turn the state into a non-majority shareholder. In addition to achieving truly limited liabilities, the ownership reform could in principle bring in more revenue for the government.

Suppose a large SOE is worth \$100 million on the market. The government could sell 80 percent of it and use the \$80 million in revenue to buy 20 percent shares in four private corporations of the same size. After this ownership diversification has taken place the total amount of state-owned assets is still \$100 million, but it is spread over five corporations of mixed state-private ownership. Clearly, all the five corporations are now non-state companies with 80 percent shares owned by private investors. It is hard to imagine that the five corporations would not be more profitable altogether than was the original wholly state-owned enterprise. It is most likely that the government could sit back and watch the market value of the much more diversely held state-owned portfolios rise. This capital gain is the fruits of ownership reform and could be used to finance many one-time costs of China's transition from plan to market.

Ironically, according to the above analysis, an aggressive approach that concentrates investment in wholly state-owned enterprises may end up creating unlimited liabilities for the state. On the other hand, a passive approach to limiting and diversifying state investments may increase the total market value of state-owned assets. The Chinese government should have learned this from experience. The central government invested little and passively in the sector of township and village enterprises (TVEs) but reaped huge returns in employment, taxes for central government, and profits for local governments. The Chinese government has also tasted the fruits of being a passive minority shareholder in private corporations in Hong Kong.

Ownership reform with the state as a non-majority shareholder is a practical solution given China's present ideological, political, and economic conditions

The state's transformation into a non-majority shareholder could also help to resolve dilemmas over privatization of SOEs in China. It is widely understood that privatization can make enterprises responsible for their own losses and profits, but it faces several ideological, political, and economic challenges in China:

First, the Chinese government has been tightly controlled by the Communist Party, which, because of its communist ideology, has always insisted on public ownership as a mainstay for the economy. The Party has made significant progress in modernizing its interpretation of public ownership. According to the fifteenth Party Congress, in addition to state ownership, public ownership now includes all collective ownership and the state and collective elements of the mixed state-collective-private ownership in

shareholding enterprises. However, the Party also insists that it would not allow full-fledged privatization, especially in the strategically important sectors. For ideological reasons, it is much easier to turn the state into a non-majority but controlling shareholder than it is to implement full privatization without seriously compromising the substantial benefits of privatization.

Since, as has already been shown, the ownership reform with the state as non-majority shareholder could result in maintaining or increasing the total value of state-owned assets, it is entirely consistent with China's commitment to public ownership as it was interpreted by the fifteenth Party Congress. The opening report of the Party Congress points out explicitly that public ownership as a mainstay of the economy means that the total value, quality, and influence of the assets owned collectively and by the state are dominant. The report also points out that the decline of state ownership in some individual sectors, regions, and enterprises would not affect China's socialist nature.

Second, privatizing net assets is easy. The real difficulty is in privatizing net liabilities. No private investor would buy net liabilities from the government. But in Russia and in the Eastern European transition economies, state liabilities or government promises are on average much less valuable than are those in China, since the former governments and economies are on average much weaker than the latter. The much stronger Chinese government with its growing economy is considered far more reliable when it comes to meeting its financial obligations than are the Russian and the Eastern European governments.

Even if the Chinese government sells all its assets, the revenue they bring may not be sufficient to meet all its committed liabilities. What should the government do with a huge sum of net liabilities? The reform that turns the state into a non-majority shareholder can at least in principle regain some capital for the government, as is shown above. The capital gains could be used to pay for the net liabilities accumulated during the transitional period.

The recent stock market responses to red chip companies in Hong Kong shows that the capital gains for government shareholders could come very quickly if the reform policies develop in the right direction given Hong Kong's advanced capital market institutions. However, whether or not the red chip companies will be able to sustain their already high share prices, which have come about largely because of market participants' high expectations for the local government reform initiatives, depends crucially on the performance of these companies in the future. It is the large-scale ownership reforms, that transform most

SOEs into private firms or corporations of mixed ownership with the state as non-majority shareholder, that are likely to create reliable capital gains in the long run.

Third, privatization of small and medium-sized SOEs is much easier to achieve than is that of large SOEs.

The Chinese leaders and many Chinese people still maintain strong patriotic feelings towards building China's own large and modern corporations like America's IBM, Japan's Toyota, and Korea's Samsung. It has proved difficult to convince Chinese officials and managers that the large group companies in the United States, Japan, and Korea may not be the best model for China to imitate now, considering the high organizational costs and inflexibility associated with any large organization. The large Chinese group and holding companies organized through administrative means simply do not have the productivity level necessary to cover the high costs of a large organization.

It would be much better for companies to grow in an environment of clear and enforceable property rights and competitive markets. The mixed state-private ownership structure with the state as non-majority share-holder could provide a practical institutional base upon which companies can grow.

Economies of scale backed by private investment are much more solid than are those administered by the government with funding from the state.

The mixed ownership structure could also accommodate some of the reasonable career development demands being made by incumbent SOE officials and managers without seriously compromising the objective of separating the government from the enterprises. On the other hand, it is difficult for China to imitate the insider privatization implemented in Russia for reasons of fairness. With a strong government keen to win the support of a large peasant population, any large-scale insider privatization of large SOEs would endanger China's political and social stability.

The Party's latest reform initiatives show clearly that the pragmatism of Deng Xiaoping has now been firmly cemented in China's economic policies. China's future economic and even political reforms are likely to be neither gradual nor radical but rather rational and practical.

Much-needed ownership reforms proposed by the fifteenth Party Congress are not guaranteed to turn around loss-making SOEs but will form the institutional foundation and building blocks upon which China can establish a competitive modern corporate sector in the twenty-first century. The discussions presented here have shown why reforms in property rights and ownership in Chinese SOEs are necessary

and could benefit the government and society. Fortunately, the fifteenth Party Congress has demonstrated that the Chinese leadership has finally responded decisively and constructively to the challenge of SOE ownership reform. The new policy effectively removes the Party's insistence on the full or majority state ownership of SOEs and opens the door for the state to become a non-majority shareholder. As has been explained, this will allow SOEs to be reformed into truly limited liabilities companies and to be separated effectively from the government.

But institutional reforms cannot ensure that individual enterprises will perform well. Most enterprises in market economies fail. The government and the public should not expect to turn loss-making SOEs around through ownership reforms. There are simply too many reasons for an enterprise to lose money. No country has solved the complicated problem of corporate governance (motivating and monitoring managers by shareholders and stakeholders). It is unreasonable to ask the Chinese government to find a solution to the corporate governance problem of its SOEs and to make reformed SOEs profitable. The government should let private investors deal with corporate governance problems.

Ownership reform should be seen as a process by which to shift the economic risks currently concentrated in the central government to the society at large so that the private sector can deal with them more efficiently. It should also be seen as a necessary step towards establishing clear and enforceable property rights. Although China still has a long way to go in making property rights as clear and enforceable as they need to be to make its economy competitive, the ownership reforms proposed at the fifteenth Party Congress will form the institutional foundation and building blocks upon which China can establish a competitive modern corporate sector in the twenty-first century. Individual firms, whether they are large or small and whether they are privately or publicly owned, may live or die. But the Chinese economy as a whole is bound to become much more efficient once the ownership reforms proposed by the fifteenth Chinese Communist Party Congress are fully implemented.

4. The asset-liability imbalance in China's state sector

In the last section, I have discussed the asset-liability problem of China's state sector, including state enterprises, state banks and state budget without looking at the actual numbers of their balance sheets. In this section I construct a consolidated balance sheet for the whole state sector in 1996. In the following

tables, I have divided all the accounting numbers by China's GDP so that the readers can see the scale of each accounting term in the balance sheets.

Table 1 shows that in 1996 China's state-owned enterprises have, at book value, gross assets of 163% of GDP, total liabilities of 99% of GDP, and owner's equity of 64% of GDP.

Table 2 is a briefly balance sheet of the state banks. It shows that the state banks takes deposits at 102% of GDP and extends loans at 91% of GDP. I have not been able to derive owner's equity for the state banks. But, by looking at the numbers in the brief balance sheet, even the book value of the owner's equity much be very small for the state banks.

Table 3 establishes a "quasi" balance sheet for the Ministry of Finance. The Ministry of Finance does not usually have any balance sheet and the state budget is simply an account of the flow of fiscal revenues (14% of GDP) and expenditures (14% of GDP). In table 3, I construct the balance sheet for the Ministry of Finance by adding some assets and liabilities terms to the budget equation. On the left-hand side of the budget, I add net assets in SOEs (64% of GDP), which is the same as the owner's equity in table 1. On the right hand side of the budget, I add outstanding domestic debts (6% of GDP), outstanding foreign debts (14% of GDP) and estimated implicit commitments to SOE workers by the government (29% of GDP). China's outstanding foreign debts amount to 116.3 billion USD in 1996. At an exchange rate of 8.3 yuan per dollar, the outstanding foreign debt in 1996 would be 965 billion yuan or about 14% of GDP. The rough estimation of the implicit commitments to SOE workers is based on a presentation by Mr. Gao Shangquan, a former Vice Minister of the State Economic System Reform Commission (see table 4 for details). To balance the newly added stock terms, I create a new term, the net assets for the state budget (15% of GDP).

Table 4 is the consolidated balance sheet. We could look at the state enterprises, state banks and the Ministry of Finance as three major divisions of China's state sector. The internal financial transactions among the three divisions should offset each other. Specifically, the SOE liabilities in table 1 should offset the state bank loans in table 2. I also drop the flow of revenues and expenditures in the consolidated balance sheet. Then I consolidate the gap between loans and SOE liabilities, other uses of fund, and other sources of fund into other assets on the left-hand side of the consolidated balance sheet (3% of GDP).

If we look at the right-hand side of table 4, we find out all the liability items including deposits (102% of GDP), domestic debts (6% of GDP) and foreign debts (14% of GDP), and implicit commitments to SOE workers (29% of GDP), are very “hard” liabilities of the government. The market value of the liabilities could hardly be reduced if the government still wants to keep in power. The left-hand side of table 4 consists mainly of SOE assets (163% of GDP). As explained in the last section, the market value of these assets could easily shrink under the state ownership. When there is no market for these assets, their true value will not be revealed. But the pressure from depreciation of assets will remain the same. Shrinking asset value would lead to shrinking profits and incomes, which would then reduce the capacity to pay back depositors, bondholders, and workers. Looking from the perspective of our consolidated balance sheet, the only way to maintain the capacity to pay liabilities is to increase the value of the SOE assets. Under this perspective, borrowing would only change the identities of the liability holders and time structure of the liabilities but not the total amount of state sector liabilities. As a short-term emergence measure, adjustment in the liability structure for the state sector could be very useful. For example, increase in domestic debts from 6% to 16% of GDP could reduce implicit commitments to SOE workers by about one third. Making the implicit commitments to workers transparent is essential for privatizing SOEs but is also very costly to the government.

In table 4, the net assets for the state budget is still as high as 15% of GDP given the assumption that the market value of the SOE assets would not be less than their book value. But few people in China believes this assumption. Most people, including the policy-makers, believe that the bad assets in the SOEs would be ranging from 15% to 30% of the total assets or from 25% to 50% of the total liabilities in the state owned enterprises. In 1997, at the IMF-World Bank meetings in Hong Kong, the governor of China’s central bank, Dai Xiangron, claimed that China need about 1600 billion yuan to reform the financial problems in the SOEs, which is roughly equal to 14% of the total state sector asset in table 4 and 25% of total SOE liabilities in table 1.

In table 5, I have written off the assets in SOEs by 1676 billion yuan or 14% of total assets in table 4 and 25% of the total SOE liabilities in table 1. Since it is almost impossible to write off liabilities, I have to adjust the net assets for state budget in the table 5 to balance the balance sheet in table 5. As a result, the net assets for the state budget reduced from 15% of GDP in table 4 to -11% of GDP in table 5. The negative

net assets for the state sector does not mean that the state sector of China is insolvent. As I have argued in the previous section, the state is different from private companies, it would be go bankrupt when its net assets turn negative. The state will go bankrupt only if it is overthrown politically. A country like China could easily maintain a net asset position of -11% of GDP for many years due to its strong potential for sustainable high growth. But if the quality of SOE assets continue to deteriorate, the asset-liability imbalance in China's state sector could explode.

In table 6, I have recalculated the net assets for China's state sector under the alternative assumption that 3353 billion yuan of the assets in the SOEs are bad and should be written off. This doubles the amount of bad assets assumed in table 5. Under this assumption, the net assets for the state sector becomes -34% of GDP. This seems still an acceptable position for a country like China. However, the analysis here shows clearly that China is at a crossroad. Slow or no ownership reform in the state-owned enterprises would risk rising liabilities and shrinking assets for the state sector. Alternatively, there is an option for China to increase the net assets of the state sector through ownership reform that either privatizes the SOEs or turns the state into a passive minority shareholder in modern corporations with mixed ownership.

Note for the following tables:

The unit for the number in the following tables is either billion yuan or % of GDP. China's GDP in 1996 is 6756 billion yuan. The data used in the table are drawn from the Statistical Yearbook of China, 1997.

Table 1. Balance sheet of China's state-owned enterprises, 1996

Assets	11029	163%	Liabilities	6704	99%
			Owner's Equity	4325	64%

Table 2. Balance sheet of China's state banks, 1996

Loans	6116	91%	Deposits	6860	102%
Other uses of fund	1787	26%	Other sources of fund	1043	15%

Table 3. Balance sheet of China's state budget, 1996

Current revenues	741	11%	Current expenditures	794	12%
Domestic debt revenues	197	3%	Domestic debt payment	131	2%
			Outstanding domestic debt	427	6%
			Outstanding foreign debt	965	14%
Net assets in SOEs	4325	64%	Implicit commitments in SOEs	1950	29%
			Net assets for state budget	1961	15%

Table 4. Consolidated balance sheet of China's state enterprises, banks, & budget, 1996

Assets in SOEs	11029	163%	Deposits	6860	102%
Other assets	169	3%	Outstanding domestic debt	427	6%
			Outstanding foreign debt	965	14%
			Implicit commitments in SOEs	1950	29%
			Net assets for state budget	1961	15%
Total	11198	166%	Total	11198	166%

Implicit commitments in SOEs:

24 m redundant workers, 25000 yuan each for termination costs	600	9%
100 m workers, 5000 yuan each for past pension contribution	500	7%
23 m retired workers, 10000 yuan each for past pension contribution	230	3%
Employee in-kind welfare including housing at 15% of fixed assets	620	9%
Total	1950	29%

Note: These estimations are made by Gao Shangquan, a former Vice Minister of the State System Reform Commission during a presentation at the conference "China Striding toward 2020," Huangshan, Anhui, China, June, 1998, organized by the State Development and Planning Commission.

**Table 5. Consolidated balance sheet of China's state enterprises, banks, & budget
after writing off bad assets at 1676 billion yuan, 1996**

1676 billion yuan = 14% of total assets in table 4 = 25% of total SOE liabilities in table 1.

Assets in SOEs	9353	138%	Deposits	6860	102%
Other assets	169	3%	Outstanding domestic debt	427	6%
			Outstanding foreign debt	965	14%
			Implicit commitments in SOEs	1950	29%
			Net assets for state budget	-680	-11%
Total	9522	141%	Total	9522	141%

**Table 6. Consolidated balance sheet of China's state enterprises, banks, & budget
after writing off bad assets at 3352 billion yuan, 1996**

3352 billion yuan = 29% of total assets in table 4 = 50% of total SOE liabilities in table 1.

Assets in SOEs	7677	114%	Deposits	6860	102%
Other assets	169	3%	Outstanding domestic debt	427	6%
			Outstanding foreign debt	965	14%
			Implicit commitments in SOEs	1950	29%
			Net assets for state budget	-2356	-34%
Total	7846	116%	Total	7846	116%

5. Enterprise performance across ownership groups

At the time of writing this draft, the preliminary statistical work on comparing the enterprise performance has just completed. I don't have time to write up the results and also to get clearance from the National Bureau of Statistics of China. I will therefore introduce briefly the data and general methodology of this work.

This work has been carried out collaboratively with the National Bureau of Statistics. Part of the work also overlaps with projects sponsored by the World Bank (Xiao, Xing, and He 1998). The data set we use have about 50 variables on input-output and financial statements of all large and medium-sized industrial enterprises in China. In particular, the data set covers enterprises of all kinds of ownership. Currently the data set has annual data from 1995 to 1998. For data security reasons, all statistical computations have to be carried out in Beijing jointly by the staff of the National Bureau of Statistics and myself.

We have developed three categories of performance indicators for each enterprise:

The first category of performance indicators is about total factor productivity (TFP). We estimated several versions of TFP and then rank and group the enterprises by TFP into well, average, and poor performing groups.

The second category of performance indicators is about profit and loss conditions. We separate enterprises into seven groups:

1. $VA \leq 0$; VA = value added;
2. $GP \leq 0$ & $VA > 0$; GP = gross profit = value added - wage;
3. $GCF \leq 0$ & $GP > 0$; GCF = gross cash flow = GP - financial charges;
4. $P \leq 0$ & $GCF > 0$; P = profit = GCF - depreciation;
5. $ATP \leq 0$ & $P > 0$; ATP = after tax profit = P - taxes;
6. $ATP > 0$ & $NROTA \leq 5\%$;

$NROTA$ = net return on total assets = ATP /total assets;

7. $15\% \geq NROTA > 5\%$;

8. NROTA>15%;

The third category of performance indicators is about solvency conditions. For the longer term solvency conditions, we look at the debt-equity ratios. For the short-run liquidity conditions, we use a ratio of quasi-cash inflow over outflow as defined below:

$$\text{QFLOW} = (\text{gross profits} + \text{liquid assets} - \text{liquid liabilities}) / (\text{taxes} + \text{financial charges} + 0.2 * \text{long-term liabilities});$$

With the above set of performance indicators, we can compare enterprise performance across ownership, industry, region, and time. Many interesting issues can be examined using the above indicators. For example, what is the difference between the state and non-state enterprises in TFP, profit and loss conditions, and solvency conditions? According to the analysis in the previous section, we would expect that the state-owned enterprises would have more serious solvency problems but may be ok in the total factor productivity.

We are in the process of helping the Chinese government to separate enterprises in to various groups for implementing different reform strategies. For example, there are many loss-making state-owned enterprises. The urgent question for policy-makers is which one to close and which one to restructure? According to our analysis of profit and loss conditions, those enterprises of group 1 and 2 should be closed immediately since they could not even pay their variable costs. On the other hand, enterprises of group 3 and 4 could be restructured since they can cover the variable costs of labor and intermediate inputs but could not recover the sunk cost of capital investment.

Reference

- Alchian, A. A. and Demsetz, H., 1972, "Production, Information Costs, and Economic Organization." American Economic Review.
- Bai, C.; Li, D.; and Wang, Y., 1997, "Why Can Productivity Analysis be Misleading for Gauging State Enterprise Performance?" forthcoming, Journal of Comparative Economics.
- Broadman, H. and Xiao, G., 1997, "The Co-occurrence of Material Incentives and Moral Hazard," forthcoming, Development Discussion Paper, Harvard Institute for International Development.
- Che, J. and Qian, Y., 1996, "Insecure Property Rights and Government Ownership of Firms," Economics Department, Stanford University.

- Chen, K.; Wang, H.; Zheng, Y.; Jefferson, G.; and Rawski, T., 1988, "Productivity Change in Chinese Industry: 1953-1985," *Journal of Comparative Economics*.
- Dollar, D., 1990, "Economic Reform and Allocative Efficiency in China's State-Owned Industry," *Economic Development and Cultural Change*.
- Fan, G. and Woo, W.T., 1996, "State Enterprise Reform as a Source of Macroeconomic Instability," *Asian Economic Journal*.
- Gordon, R. and Li, W., 1991, "Chinese Enterprises under the Reforms," *American Economic Review Papers and Proceedings*.
- Groves, T.; Hong Y.; McMillan, J.; and Naughton, B., 1994, "Autonomy and Incentives in Chinese State Enterprises," *Quarterly Journal of Economics*.
- Groves, T.; Hong, Y.; McMillan, J.; and Naughton, B., 1995, "China's Evolving Managerial Labor Market," *Journal of Political Economy*.
- Jefferson, G. and Rawski, T., 1994, "Enterprise Reform in Chinese Industry," *Journal of Economic Perspectives*.
- Jefferson, G.; Rawski, T.; and Zheng, Y., 1992, "Growth, Efficiency, and Convergence in China's State and Collective Industry," *Economic Development and Cultural Change*.
- Jefferson, G.; Rawski, T.; and Zheng, Y., 1996, "Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments," *Journal of Comparative Economics*.
- Li, D., 1996, "A Theory of Ambiguous Property Rights in Transition Economies: The Case of the Chinese Non-state Sector," *Journal of Comparative Economics*.
- Lin, J.; Cai F.; and Li, Z., 1996, *Sufficient Information and State-Owned Enterprise Reform*, in Chinese, Shanghai Joint Publisher.
- McMillan, J. and Naughton, B., 1992 "How to Reform a Planned Economy: Lessons from China." *Oxford Review of Economic Policy*.
- Naughton, B., 1995, *Growing Out of the Plan: Chinese Economic Reform, 1978-1993*, Cambridge University Press.
- Perkins, D., 1994, "Completing China's Move to the Market," *Journal of Economic Perspectives*.
- Qian, Y., forthcoming, "Enterprise Reform in China: Agency Problems and Political Control," *The Economics of Transition*.
- Rawski, T., 1994, "Progress without Privatization: The Reform of China's State Industries," in Vedat Milor (ed.), *The political economy of privatization and public enterprise in post-Communist and reforming-Communist states*.
- Sachs, J. and Woo, W.T. 1997, "Understanding China's Economic Performance," *Development Discussion Paper*, Harvard Institute for International Development.
- Sachs, J. and Woo, W.T., 1994, "Structural Factors in the Economic Reforms of China, Eastern Europe and the Former Soviet Union," *Economic Policy*.

- Sheng, A. and Xiao, G., 1995, "Property Rights and Economic Transition Revisited: The Case of China." Working Paper, HKMA and HKU, and presented at WEA Conference The Role of Knowledge in the Modern Global Economy, San Francisco, June 28-July 2, 1996.
- Weitzman, M. and Xu, C., 1994, "Chinese Township Village Enterprises as Vaguely Defined Cooperatives," *Journal of Comparative Economics*.
- Woo, W.T., 1994, "The Art of Reforming Centrally-Planned Economies: Comparing China, Poland and Russia", *Journal of Comparative Economics*.
- Woo, W.T.; Hai, W; Jin, Y.; and Fan, G., 1994, "How Successful Has Chinese Enterprise Reforms Been? Pitfalls in Opposite Biases and Focus," *Journal of Comparative Economics*.
- World Bank, 1996, *The Chinese Economy: Fighting Inflation, Deepening Reforms*.
- World Bank, 1997, *China's Management of Enterprise Assets: The State As Shareholder*.
- World Bank, 1999, *China: Weathering the Storm and Learning the Lessons*, Country Economic Memorandum, Washington, DC.
- Xiao, G., 1991, "Managerial Autonomy, Fringe Benefits and Ownership Structure: A Comparative Study of Chinese State and Collective Enterprises." *China Economic Review*.
- Xiao, G., 1997, *Property Rights and Economic Reform in China*, in Chinese, China Social Science Press.
- Xiao, G., 1998, "Reforming the governance structure of China's state-owned enterprises." *Public Administration and Development*, 18, 273-280.
- Xiao, G.; Xing, J; Yu, X.; and He, P., 1998, "Performance of China's core industrial enterprises during the period of structural and macroeconomic adjustments 1995-1997." Initial draft. China National Bureau of Statistics and World Bank, Beijing.