

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the Clinton Presidential Library Staff.

Folder Title:

China WTO - Post Agreement Documents [4]

Staff Office-Individual:

National Economic Council-Lee, Malcolm

Original OA/ID Number:

CF 1177

Row:	Section:	Shelf:	Position:	Stack:
23	5	6	1	V

MORGAN STANLEY DEAN WITTER

China: Economics

Creating Demand for Reform

June 22, 1999

Andy Xie (852) 2848-5220

Key Points:

- The reform program of Deng Xiaoping was painless and popular because it retained the state sector and at the same time allowed the private sector to develop. The former provides a floor to the downside (e.g., free housing, pension and health care) while the latter offers upside in cash income.
- This parallel-systems approach causes deterioration in the banks because the over-burdened state-owned enterprises (SOEs) based on wrong incentives need financial support to stay afloat.
- Once consumers realize that the state sector cannot be maintained forever, the savings rate rises and deflation takes hold. Consumer confidence is unlikely to rebound until there is an improvement in enterprise performance. Only reforms can improve the prospects for enterprises and in turn revive consumer confidence.
- The state could bring about a speedy rebound in consumer confidence and eventually the economy by transferring state-owned assets to workers' social welfare funds, which would then be managed by a competitive fund management industry. This would prevent a rise in wealth inequality and a sudden shock to the political system from loss of state control over a large amount of assets. Consumption would rebound quickly due to the wealth effect and improving prospects for enterprises.

Detail:

I. Introduction

Deng's Painless Reform

A radical reform program is only possible if it has popular support, which is generally contingent upon tangible benefits for the majority of the people. Otherwise, reforms could degenerate into the country being robbed by a few, leading eventually to revolution. Deng Xiaoping's reforms were obviously popular because they produced few losers. The state sector was kept functioning and was financed by the state banks to protect precisely those who would have lost out from market-oriented reforms.

The first major reform by Deng was to give land back to peasants. This hurt virtually no one. The rise in peasants' productivity validated the efficacy of Deng's policy and created more enthusiasm for reform. The improving living standards of the farmers generated surplus labor and created demand for industrial goods, which laid the foundation for the development of township and village enterprises (TVEs).

Opening up the economy to foreign investors created exports and those consumer products that the people greatly desired such as TVs and refrigerators. As wages rose and the variety of consumer goods increased with growing FDI, policies to attract foreign investment continued to enjoy popular support.

But the Pain Was Just Postponed

Deng Xiaoping's reforms, unfortunately, tended to impair the financial system. By parking inefficiencies and welfare costs in the financial system, the pain of adjustment was in effect postponed. The dramatic rise in investment following Deng's tour of southern China led to massive capacity formation in real estate, heavy industries and infrastructure, which was not validated by rising consumption. Banks funded these investments. The level of non-performing loans (NPLs) rose sharply as a result.

Furthermore, many local governments managed to peddle the perception of sovereign guarantees on a large amount of foreign loans or FDI with return guarantees. The changing international perception of sovereign guarantees resulted in an abrupt cut-off of foreign funds to Chinese institutions. This situation is unlikely to be reversed in the near term as China does not have many credible vehicles that can borrow internationally without a sovereign guarantee.

Why is Radical Reform Now Inevitable?

Deng's gradualism hinged on consumers' willingness to believe that reform offers upside but the state sector puts a floor on the downside. The viability of the state sector was not questioned for two decades, because people believed that the government had the commitment and resources to maintain its scope and size. This perception was dispelled at the beginning of 1997. The state had to lay off workers

and close some SOEs. Employees suddenly realized that their future depended on the financial performance of their enterprises.

Lack of consumer confidence is considered the key factor in the economy's current weakness. There are various reasons for the loss of consumer confidence, including (1) a rising unemployment rate, (2) deflation and (3) the increasing private share of the social welfare cost. The most important factor, in our view, is the poor performance of enterprises.

Consumers can see that their companies are not doing well. State enterprises are not making money, not producing good products and need government assistance to stay afloat. A large number of TVEs and private enterprises profit from distortions in the system. Workers have doubts over the viability of the enterprises that they work for. They, therefore, save as much as they can to prepare for the worst. Consumer confidence can be revived only after a large number of healthy enterprises have been created or emerged from the existing ones. While putting an end to deflation would help, this would in the end require a fundamental restructuring of the economy. This is why the economy may not improve until enterprises turn around.

As consumers' view on the performance of enterprises determines their spending, the economy cannot improve until consumers are convinced by the reforms that enterprise performance will recover and their future income will rise. This is a classical case of the market forcing the introduction of reforms by refusing to underpin the economy in any other way.

To Reform Banks Is to Create Losers

The fundamental restructuring required is to revamp the capital allocation process to a market-based one and to level the tax-incentive playing field for the different kinds of enterprises. This process, however, would largely create losers for the following reasons.

- 1) As the financial system is tightened, state-owned enterprises (SOEs) cannot continue their dual roles of employment of last resort and providers of social welfare. Labor retrenchment creates losers who are usually middle-aged and have few alternative skills.
- 2) The social welfare cost is being shifted to the household sector from the SOEs. Spending by consumers, therefore, declines as they expect their share of welfare costs to rise. The resulting poor economic conditions reduce the ability of the household sector to improve their incomes.

- 3) As the government equalizes the tax treatment for SOEs and other enterprises, the non-state sector would have to pay considerably more taxes than they do now. Furthermore, as the SOEs are weaned off the funds from the state banks, they will not be an easy source of profits for the non-state sector.

This round of reform, while absolutely necessary for the sustainability of the country's development, does not create many winners in the short term. Without other measures to boost popular support, it would be hard to push through the necessary reforms.

Make Everyone a Winner

China does have the wherewithal to create winners, by transferring the state assets to the household sector. The most valuable assets that the state owns are telecoms, power, and urban land. A conservative estimate would put the value of these assets at 60% of GDP (or Rmb5 trillion). Furthermore, the current stock of public housing could be worth the equivalent of a further 100% of GDP. These numbers compare with 75% of GDP for household bank deposits, which account for the bulk of household wealth.

If the state wealth were to be transferred to the household sector, consumption would improve through the wealth effect and also through improved enterprise performance, if carried out correctly. There are two concerns on this issue:

- 1) The transfer of state assets to the household sector could increase the inequality of wealth distribution and destabilize the society. The inequality could arise if wealth is not fairly distributed or the recipients sell the assets with little understanding of their value or liquidity constraints.
- 2) The sudden loss of state control over a vast amount of assets could destabilize the current political system

We believe that the above concerns can be addressed through designing an appropriate structure for asset distribution and restrictions on asset disposal.

The Proposal

Our proposal is to shift state assets into social welfare funds (e.g., pension, housing, and health care), and the management of state assets to a competitive fund management industry. Part of the state assets would be listed in the market to gauge the performance of the fund managers. Beneficiaries would be able to withdraw money only after certain age or for special purposes (e.g., major health problems, purchase of housing).

This scheme would (1) improve enterprise performance through institutional supervision and (2) prevent concentration of wealth distribution after sales of state assets. Consumer confidence would revive immediately on the higher level of household wealth and improving enterprise performance. This would enable the government to undertake tough reforms while at the same time improving economic performance.

As mentioned above, household wealth is mostly in the form of bank deposits (75% of GDP), assets that generate the lowest return. Household wealth could be doubled immediately as the government transfers equity in the state enterprises to the social welfare fund. Household wealth would then become evenly split between equity and bank deposit. An effective fund management industry would be able to improve enterprise performance and lift household wealth on a faster trajectory.

The wealth effect of this scheme would be significant. If 5% of the wealth increase translates into immediate consumption, China's GDP could be lifted by 2.1% immediately, which would be sufficient to lift the economy out of deflation.

II. A Proposal for SOE Reform

Key Points:

- (1) Create a group of national and provincial welfare asset management funds and transfer the ownership of SOEs to these funds. These funds would be for welfare needs, i.e., pension, social security, health and life insurance, unemployment and education, and would be regulated so that they have a low turnover ratio. This would encourage long-term holding and rational behavior. Each manager would be compensated and evaluated based on the return and risk of the fund.
- (2) Distribute the ownership of these funds on a massive scale to all citizens based on a simple formula on a per-head basis, taking into account of the number of years of service. The public would not be allowed to cash out the fund until a specific need arises.
- (3) Distribute a small portion of the SOE ownership to management and employees of each company, with a restricted vesting period.
- (4) Allow the state to create and hold the "golden shares" to maintain control of strategically important companies, such as telecom, of M&A decisions and of other vital management decisions.

- (5) Take most of the SOEs public for a small percentage (10-15%) to determine a market price and to achieve a certain level of liquidity

Actions and Steps

We use tentative numbers to illustrate how the proposed scheme would work. All operations would be carried out with paper credit (not money) to ensure minimal disruption in the real economy.

- (1) Create at least 100 welfare mutual funds, with 3-4 funds in each province. This would ensure that the funds would be geographically diverse. All the fund managers would be compensated based on a formula, taking into account (i) good performance (ii) low risk (iii) low turnover ratio.
- (2) Give all these funds some paper credit, in the region of Rmb5 trillion in total (the total assets to be distributed).
- (3) For all SOEs and COEs (Collectively Owned Enterprises), create the number of shares so that each share corresponds to Rmb10. Distribute up to 15% of the shares to the management and insiders based on some formula. The state decides the number of shares to be retained.
- (4) Make the historical financial data for each company available to the public.
- (5) Allow all funds to bid for the shares based on paper credit and allocate the shares based on a certain scheme depending on the bidding outcome. Stocks that are traded would be valued at the cash price. No fund would be allowed to own more than 10% of the larger companies.
- (6) Based on a certain formula, the general public would have claims over these welfare funds. The claim rights for COEs would be distributed only to citizens in the corresponding geographical region.
- (7) Allow the public to bid for the funds based on the paper credit and allocate the shares according to a certain allocation scheme based on the bidding outcome. Also, create a super index fund to hold all top SOEs (similar to SP500 funds). This would prevent problems for unsophisticated investors.
- (8) The fund managers would be allowed to trade with each other either OTC or through stock exchanges. Some stock shares would not be available to individual investors until the company goes public, which could be a few years later.

- (9) The public holdings of the fund shares would be tradable only through paper credit. These paper credits would not be circulated in the economy.
- (10) Individuals would be able to borrow cash from state banks up to 50% of the funds valued by paper credit, using the shares as collateral. The state would be the guarantor. This would prevent the value of paper credit dropping too much and would encourage credit consumption.
- (11) Eventually, as all these companies go public, which could be years later, all shares would then be traded for cash. To discourage cashing out, the state may impose restrictions on liquidation, setting requirements to be met under the situations of pension, social security, insurance needs, unemployment and education needs. This would create a rational investing and holding mentality and encourage long-term behavior.

Rationale:

Starting from the mid-1980s, China has experimented with many creative solutions to reform the SOE sector while maintaining government control. However, the overall economic performance of SOEs continues to deteriorate. This is especially clear when compared with the high GNP growth rate. This experience is common in many different countries: there has been almost no instance of a successful industrial sector that has sustained long-term economic growth under direct government control, no matter what form the control takes. The large-scale layoffs by the SOEs in China in recent years, unfortunately, validated the prediction of many researchers: when the government subsidy has to be cut off eventually, unemployment will rise sharply.

The current deflationary environment is more a result of the poor performance of the SOEs rather than the effect of the worldwide financial crisis. The financial crisis exaggerates the situation. Without speedy, effective, and comprehensive reforms, the condition of SOEs will continue to deteriorate, leading to more massive layoffs in future, which would reduce consumption, and eventually drag down the private sector and national economic growth. The government's renewed attempts to restructure the SOEs would only delay the process, making the situation more difficult in the future.

The scheme that we propose centers on several issues. First, the government needs to distribute the accumulated wealth to the general public to create a wealth effect, which would then lead to more healthy consumption behavior. Second,

the government needs to facilitate the formation of an effective modern corporate governance system and exit from direct control of the SOEs. This would involve government-led restructuring and government-appointed corporate management. Third, the proposed scheme would remove the need for massive selling of SOEs, which would lead to severe underpricing of state-owned assets, and thus an unfair wealth transfer based on the status quo, and high insider ownership. The new scheme should also lead to a much more active capital market and a more content public.

1. Wealth Effect

A household increases its propensity to consume when its wealth rises. Economists have consistently found that consumers spend approximately 5% of an increase in their wealth. This result is confirmed by macroeconomic and microeconomic data. Since the end of 1994, the total value of shares owned by American households has swollen by almost US\$5 trillion – giving families the confidence to spend more. This is verified by the fact that US household saving has fallen from 6.2% of personal disposable income in 1992 to only 3.8% last year. For each of the last three years, the contribution of equity price gains to consumption growth accounted for about one-quarter of total consumption growth over the period. Similar wealth gains substantially boosted consumption growth in the UK during 1996-97, accounting for some 10% of the total growth in household spending.

A small increase in consumer spending usually leads to a much larger increase in economic growth. The effect is commonly known as the 'multiplier-accelerator effect' in macroeconomics.

The total capitalization of SOEs and COEs, including land property owned by SOEs, stood at more than Rmb5 trillion at the end of 1998. Assets of the collectively owned enterprises are about one quarter of the SOEs, or Rmb1.35 trillion. If valued in the stock market, some of the SOEs would have higher-than book value valuations, such as telecom companies, power companies, financial institutions; while some would have lower than book value valuations. Overall, the market capitalization would be roughly the same as book value. If we assume that 75% of these assets are distributed to all citizens, and that the wealth effect increases the total consumption by 5% of the value distributed, we would expect total consumption to increase by Rmb250 billion, or 3% of the GDP in 1998.

Total domestic savings at the end of 1998 were Rmb5.34 trillion. Total domestic stock holdings by households are approximately Rmb0.2 trillion. If 75% of the state and collectively owned assets are distributed to all citizens, the net distribution would increase average household's wealth by almost 70%.

2. Corporate Governance

During 1996, the overall after-tax profitability of all SOEs, as measured by return on equity, was less than 2%. Profitability deteriorated in 1997 and 1998 as the loss widened even though much of the social burden was taken away from these enterprises. An economy with such a low level of profitability is not sustainable in the long term, given a real interest rate (lending) of more than 7% in China currently. As a comparison, the return on equity of large companies in the US is roughly 10% per year with a current real interest rate (lending) of about 5%. Simply speaking, taking into account the cost of capital, China's SOEs are losing money at the rate of Rmb300 billion a year (given an equity value of Rmb5 trillion and a cost of capital of 8%). This is under a system where many SOEs have near monopolistic power. Assuming a 2% growth rate, without additional savings, China's SOEs would only be 50% larger. However, if the growth rate were 10%, they would be almost 600% larger. Low profitability is the greatest drain on state-owned assets.

The low profitability of the SOEs is the root of the financial crisis. The capital market in China will not be attractive if the performance of the SOEs does not improve. Eventually, without effective and speedy reforms, the national economy will be dragged down in a few years.

The current method of reform is based on restructuring. This may, at best, result in a one-time gain. Without a new and effective corporate governance system, it is unlikely that there will be any dynamic efficiency improvement. Government-led restructuring is often proved to be economically inefficient, and even worse, to delay the necessary change in the system.

Looking through literature on industrial reform, the most obvious fact is that few industries in which the government has been most heavily involved have sustainable long-term success internationally. Michael Porter (1998), after studying 10 nations and more than 100 industries, commented: "Government is indeed an actor in international competition, but rarely does it have the starring role."

Our proposal creates two mechanisms for improving corporate governance. By distributing a fraction (10-15%) to the corporate management and employees, the incentive system is well aligned. Empirical research based on US data showed that a company is valued the highest when the managerial ownership is between 5% and 20%.

Management often has different goals from the owners, which include the state and the general public. Since owners, as outsiders, typically do not observe the efforts of the management, managerial and employee ownership is necessary to align the interest of the insiders with the owners. However, a high percentage of insider ownership often leads to managerial entrenchment and worse performance. This phenomenon is best illustrated by the example of Russia. After the shock therapy, insiders in most Russian companies owned 60-70% of the companies. In this case, managers tend to be more interested in keeping their positions than improving efficiency by replacing themselves. Another piece of empirical research based on privatization in Poland showed that firms controlled by insiders also had greater difficulty in raising additional capital. Third, giving a large stake to insiders is also grossly unfair to the public.

Since the majority of the wealth would be distributed to the general public while managed by professional investors, both the public and the fund managers would have a strong incentive to monitor and ensure good performance by the companies. This arrangement has several advantages. First, the performance of the fund managers is public and can be evaluated easily. This puts them under clear public pressure to perform. Second, due to the sheer size of these funds, institutional fund managers could not simply sell underperforming stocks. Third, the pressure of fund managers on corporate management typically takes the form of establishing an effective and independent board of directors, efficient methods for linking management compensation to performance, important issues like management succession and merger and acquisition. Due to the nature of the asset management, it is difficult for fund managers to interfere in the day-to-day business or to solicit special favor from the corporate management, like government bodies or holding companies may. Due to the size of the funds and the publicity, fund managers can easily exert influence on, or even force a replacement of, corporate management when performance is bad.

Activism of the institutional investors is now considered to be the most effective method of corporate governance in the

US. Empirical examination of firm data has shown that higher levels of institutional ownership are associated with higher levels of corporate performance. See Hubbard et. al. (1999).

With more assets to be traded on the stock market and more professional managers, we could then expect the capital market to be more rational.

3. Avoid Unfairness in Wealth Transfer During Capitalization

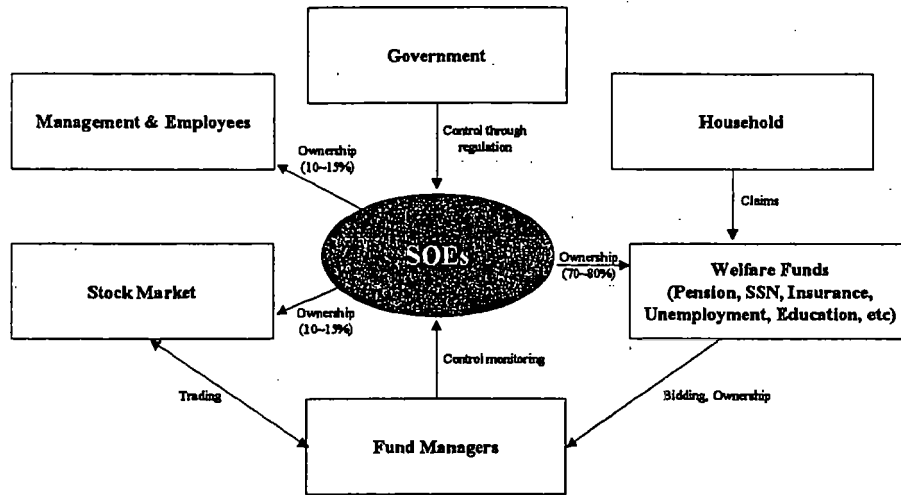
One major advantage of the proposed scheme is that it would improve the functioning of the SOEs while avoiding massively selling the state assets in a short period of time.

Privatization by massively selling the state assets has always been accompanied by enormous underpricing. In the case of Russia, *The Economist* (1994) called it 'sale of the century'. During that period, assets in Russia were priced at 0.5% of the price for comparable assets in U.S. (See Shleifer, 1996). The end results of underpricing are unfair wealth transfer to the status quo and undercutting the cash repaid to the government, which can be used to support government functions, such as regulation, for a few years. Such a massive selling would also interrupt the normal operation of the economy, leading to severe economic downturn in a short to intermediate period with irreversible results.

Appendix:

Figure 1

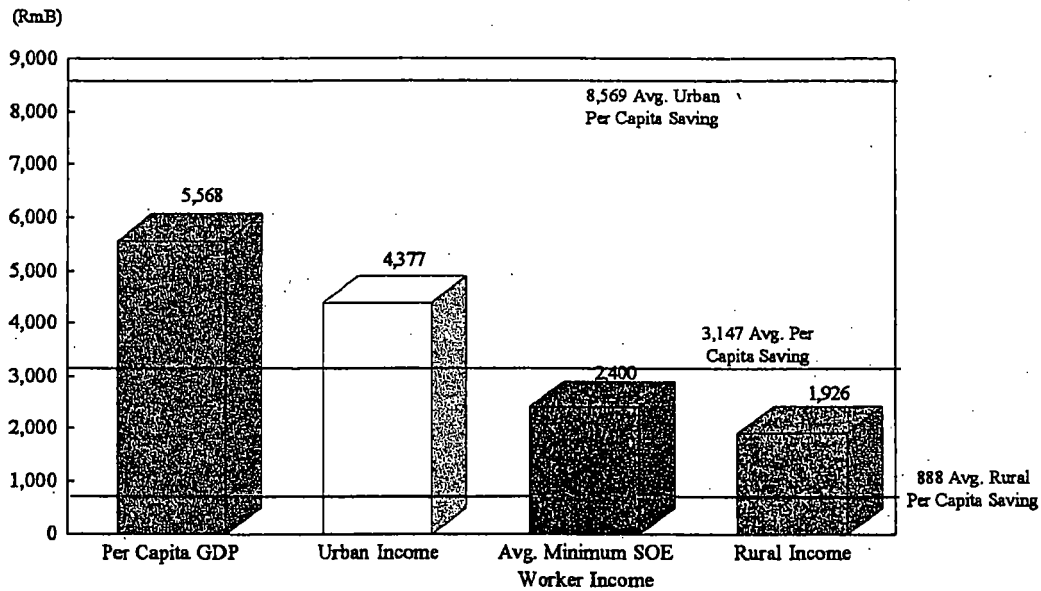
China SOE Reform Scheme



Source: Morgan Stanley Dean Witter Research

Figure 2

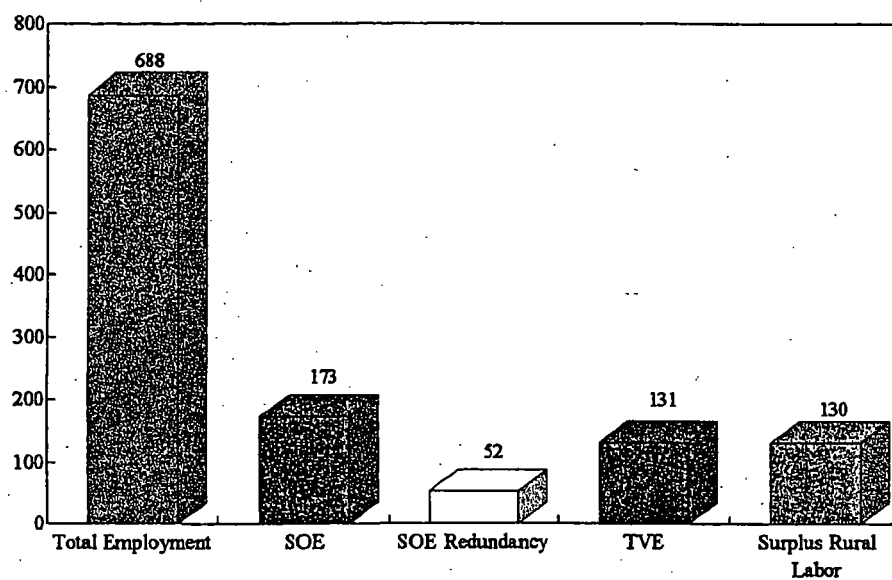
China Annual Per Capita Data, 1996



Note: (1) Urban population 360 million; rural population 864 million.
(2) China Statistical Yearbook

Sources: China Statistical Yearbook

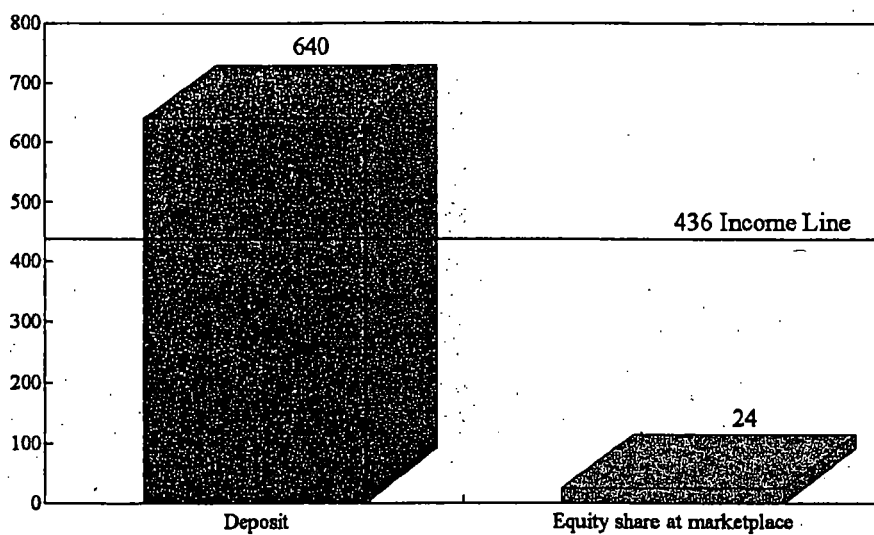
Figure 3
China Employment, 1996
 (Millions)



Source: Ministry of Labor of China

Figure 4
China Household Balance Sheet, 1998

(Billions USD)

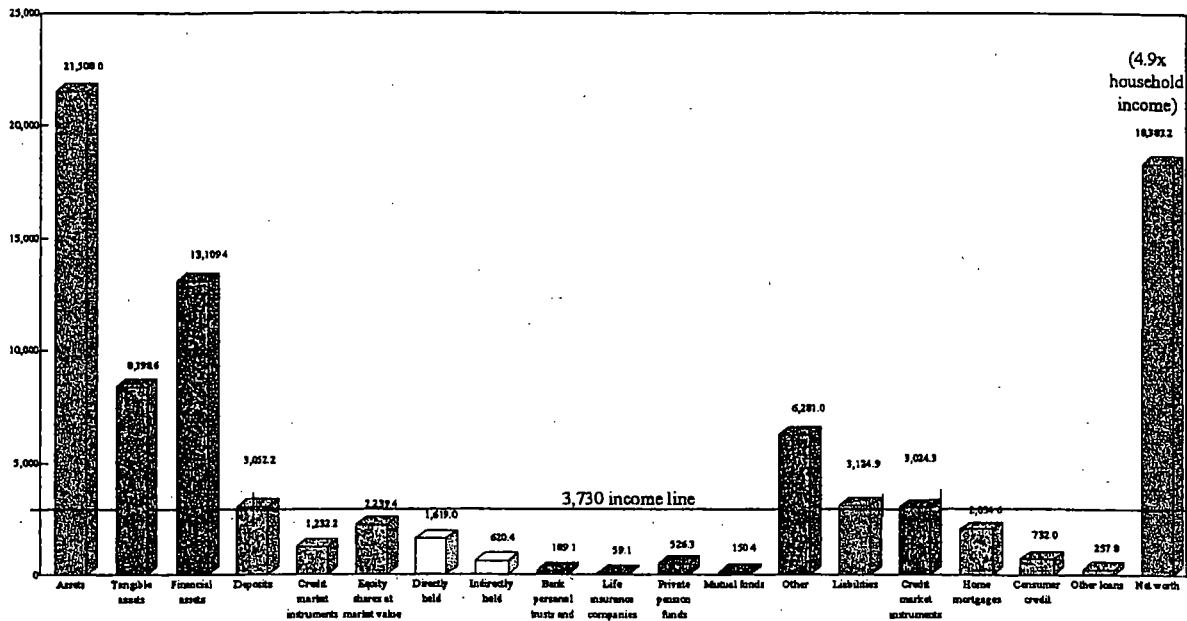


Source: China Statistical Yearbook

Figure 5

United States: Balance Sheet of Household & Non-profit Organizations with Equity Detail, 1988

(Billion USD)

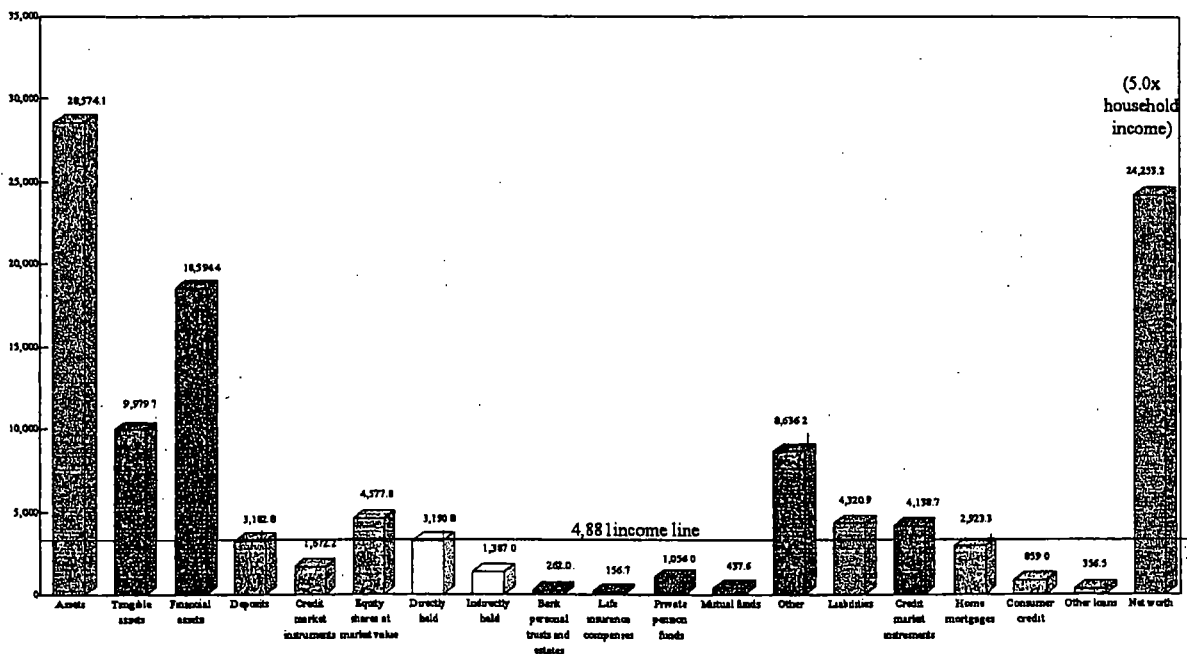


Source: United States Federal Reserve

Figure 6

United States: Balance Sheet of Household & Non-profit Organizations with Equity Detail, 1993

(Billion USD)

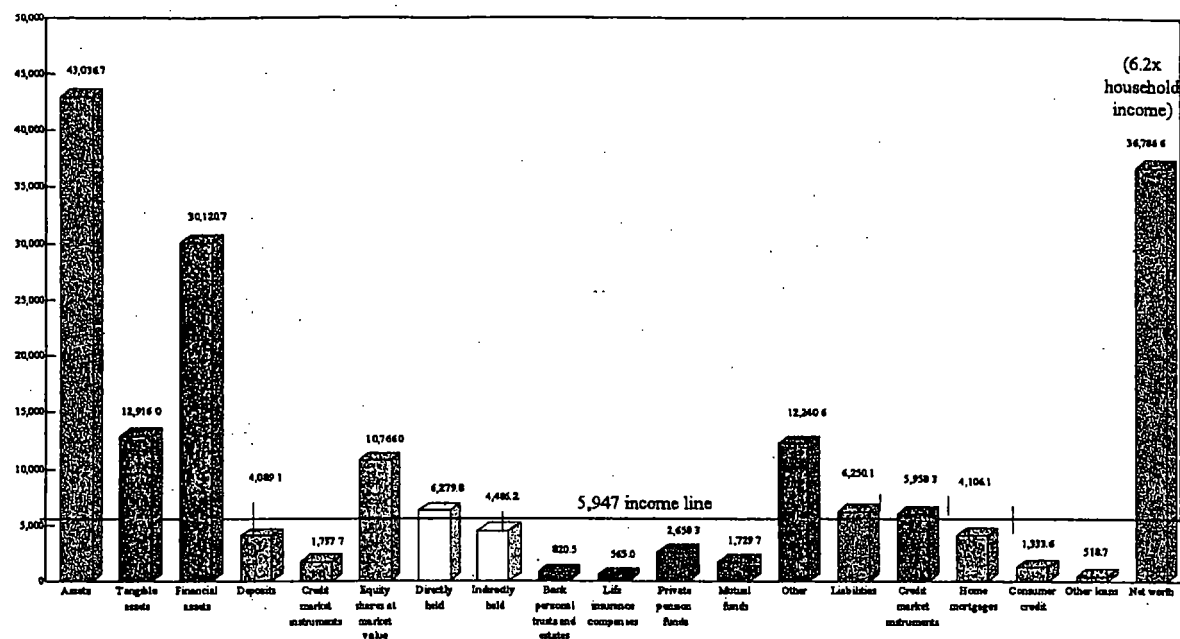


Source: United States Federal Reserve

Figure 7

United States, Balance Sheet of Household & Non-profit Organizations with Equity Detail, 1998

(Billion USD)



Source: United States Federal Reserve

A LITMUS TEST FOR CHINA'S ACCESSION TO WTO: REFORM OF ITS STATE-OWNED ENTERPRISES

Harry G. Broadman

Introduction

The progress the Chinese leadership makes in reforming the nation's state-owned enterprises (SOEs) is a prism through which to view China's readiness to assume the obligations of membership in the World Trade Organization (WTO). Most other countries in transition from socialism to a market system have turned to systemic, widespread privatization of large SOEs. In China, the State maintains ownership of key businesses, and government agencies carry out shareholder functions typically performed by private owners in market economies. Indeed a new "state asset management" regime, rather than ownership change, is the core feature of China's "socialist market economy." While market-oriented SOE incentives have been implemented since China began economic reform in 1978, today, Chinese SOEs still account for almost one-third of national production, over one-half of total assets, two-thirds of urban employment and almost three-quarters of investment. Preparing the way for subjecting China's generally inefficient SOEs to WTO's rule-based trade system poses a major challenge to the Chinese authorities.

This essay sheds light on this challenge by analyzing the incentives and constraints on China's SOE reform program. I begin with a description of the "SOE problem" currently confronting the Chinese leadership. This is followed by a brief outline of the country's industrial structure. I then turn to an assessment of how China's authorities are seeking to implement the modern corporate form as the centerpiece of their state asset management reform initiative for SOEs. Four aspects of the reform program are highlighted and evaluated against the backdrop of international experience in public enterprise restructuring: clarification of SOE property rights; holding companies and other new organizational structures; corporate governance; and financial accounting and auditing. The essay concludes with policy recommendations for Chinese officials to accelerate the modernization of the country's SOEs so as to improve their efficiency under the rigors of the international marketplace.

China's "SOE Problem"

President Jiang Zemin's widely reported speech during the 15th National Congress of the Communist Party in the fall of 1997 contained a more formal embrace of ownership diversification of SOEs than heretofore had been the case. When he declared that "even if the state-owned sector accounts for a smaller proportion of the economy, this will not affect the socialist nature of

HARRY G. BROADMAN is Principal Economist and Program Leader for Russia Operations at the World Bank in Washington, DC. From 1993-97 he was the Bank's Senior Economist for China Operations. This article draws from his *China's Management of Enterprise Assets: The State as Shareholder*, published by the World Bank in

1997. The views expressed here are the author's alone and do not necessarily reflect those of the World Bank Group, its member countries, or its board of directors.

our country", many observers concluded that China's leadership had turned to embrace privatization, marking a watershed shift of reform strategy for the largest transition economy in the world. But Jiang also announced in the same speech that public ownership of enterprises should retain the dominant position in the economy. Amid Western news reports in the summer of 1998 that China had turned its back on SOE reform, Jiang sought to clarify the leadership's position noting that "without a state-owned industrial sector, there can be no socialism."

China's experiments in state asset management reform have been wide-ranging.¹ They have included use of incentive contracting; giving SOE managers greater autonomy; "corporatization" of SOEs; and transforming SOEs into shareholding companies. A centerpiece of these experiments has been decentralization of governmental authority, with all but about 2-3,000 industrial SOEs placed under the supervision of local governments rather than under the central authorities in Beijing. Most recently, a multi-tiered organizational network of state asset management bureaus, state asset operating companies and state asset supervisory committees has begun to emerge. At the same time, large-scale national enterprise groups or holding companies, entrusted to manage directly state assets, are being established. These various entities are to be the representatives of the State as owner of SOEs, as sector line bureaus and ministries, which have been the traditional hallmarks of the planned economy, are either phased out or limited to carry out "trade association" or non-ownership, governmental regulatory functions. But the fact remains that of the 114,000 Chinese industrial SOEs, relatively few—between 2 and 5 percent—have been divested to the nonstate sector, and virtually all of these divestitures have involved small SOEs.

To be sure, there have been payoffs to China's strategy of SOE reform. Reforms have boosted SOE factor productivity growth rates, although the magnitude of the increase has been difficult to measure with precision.² Moreover, SOEs remain key drivers of China's industrial sector. SOEs still provide essential raw materials and dominate such capital-intensive sectors as power, steel, chemicals and machinery. Indeed, SOEs remain firmly entrenched despite an increase in the size of the "nonstate" sector, whose growth has been propelled by reforms that have liberalized market entry, removed price controls, eased investment restrictions, increased tax neutrality across enterprise forms, and exposed the domestic market to international competition.

But profits of SOEs have declined from 6 percent to below 1 percent of the gross domestic product (GDP) in recent years. Moreover, many of them continue to be technologically inefficient. Most remain obligated to provide "cradle-to-grave" social services to workers and their families. They also carry a rising proportion of redundant employees and retirees on their payrolls. The result is that an increasing proportion of China's SOEs are losing money: in the last two years about one-half of industrial SOEs incurred net losses -- up from one-third just two years earlier. These losses amount to more than 1 percent of GDP. Factory capacity utilization rates for major industrial products of SOEs have also fallen below 60 percent.

¹ For a history of China's SOE reforms see Broadman (1995).

² For the debate over the impact of Chinese SOE reform on total factor productivity see Groves, Hong, McMillan and Naughton (1994); Jefferson and Rawski (1996); and Woo, Hai, Jin and Fan (1994).

Exacerbating these "real sector" inefficiencies, China's SOEs absorb more than three-fourths of domestic bank credit, and their borrowing comprises about 60 percent of the total nonfinancial public sector deficit.³ This demand on borrowing crowds out investment by nonstate firms, which have been the engines of China's growth. It also undermines a weak state-dominated banking system: 20 percent of China's bank portfolios contain nonperforming loans to SOEs.

As a result, despite some past progress, China's SOE reforms have not met the policy aspirations of the Chinese authorities. There is little question that many of the experiments carried out have been genuinely creative. But while some of the reforms have provided temporary relief, few are enduring successes. The fact is that few have fundamentally tackled the core problem of public enterprise reform. Worse still, some SOE reforms have been contradictory, engendering wholly new problems, including asset-stripping, the privatization of assets and socialization of liabilities, tax evasion, de-capitalization and wage manipulation.

By spilling over to the fiscal and financial sectors, China's 'SOE problem' jeopardizes other critical elements of the Government's economic reform program. Indeed it undermines overall resource allocation and macroeconomic stability. Of course, these problems are the product of, and are compounded by the complex transition process China's economy is undergoing.

China's Industrial Structure

The total number of firms in China's industrial sector is about 8 million. Of these 8 million firms, there are (i) 114,000 SOEs, (ii) 1.6 million urban "collectives" and rural "township and village" enterprises (TVEs), (iii) 6 million "individually owned" firms (with no more than seven employees), and (iv) 70,000 "other" firms (includes private firms with more than seven employees, joint ventures and fully foreign-funded businesses).⁴

China's SOEs account for 29 percent of the country's gross value of industrial output (GVIO). The GVIO share for collectives and TVEs is 39 percent, for "individually owned" it is 16 percent, and for "others" it is 17 percent.

In Chinese statistical terminology, "nonstate" enterprises include all ownership forms *other* than SOEs. Most collectives and TVEs are public enterprises. However, there are significant differences between these firms and SOEs in terms of property rights, fiscal subsidies, access to bank credit, social functions and other features such that they operate more similarly to private sector-oriented enterprises found in other economies around the world.

The Chinese Corporate Form

³ World Bank (1996).

⁴ In general these statistics come from State Statistical Bureau of China (1997).

China's authorities have called for establishing a "modern enterprise system" early in the next century. In many respects, the model for SOE reform that the Chinese program is based on is the modern corporation.⁵ Consequently, within the context of the "socialist market economy," the Chinese corporate form -- as set out in the 1994 Company Law⁶ -- has effectively become the vehicle for (i) "separating" governmental and business functions and (ii) "state asset preservation and increase." These are the two policy goals that lie at the heart of China's state asset management reforms.⁷

The universal problem of a modern corporation's owners -- whether in China or elsewhere -- is how to structure the enterprise *internally* to provide sufficient incentives for managers to attain owners' goals. At the same time, the firm should be exposed to various *external* incentives that discipline the conduct of managers in such a way to enhance firm performance.

Internal incentives generally involve the clarity of property rights, the nature of the firm's organizational structure that reflects owner-manager relations consistent with these property rights, and the institutional rules that allow for such rights to be exercised so as to bring about sound corporate governance. Decisions concerning internal incentives include such matters as election of the firm's board of directors; mergers/acquisitions; increases and decreases in share capital; disposal of assets; and determination and deployment of retained earnings and dividends.

External incentives include the extent of interfirm competition, such as entry by new rivals or exit by non-viable firms; an absence of fiscal subsidies; scrupulously fulfilling debt-service obligations; the competitiveness of the labor market; social service functions; and compliance with institutional obligations, such as monitoring of financial accounts through independent audits.

As Figure 1 illustrates, China's implementation of the modern corporate form is still evolving.

China's SOE Property Rights

One of the main thrusts of China's SOE reforms is to clarify property rights. This effort has focused on delineating the roles of the State and SOEs through introducing business autonomy; corporatizing SOEs; clarifying the role of the State as SOE owner; and defining the role of the State as regulator.

⁵ For a classic description of the modern corporation see Berle and Means (1932).

⁶ See Lichtenstein (1993).

⁷ For a more complete description of these objectives see World Bank (1997).

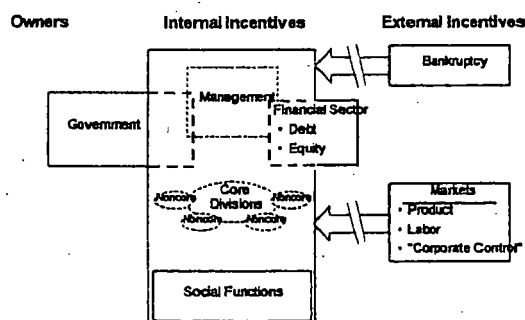
Management Autonomy. Some degree of business autonomy has been introduced. Beginning in 1992 a regulation was issued to cede to SOE managers *Fourteen Autonomous Management Rights*, such as the right to set prices, the right to hire and fire workers, and so on. To date, the implementation of the *Fourteen Autonomous Management Rights* is highly uneven. Few industrial SOEs enjoy all such rights.⁸

Corporatization. Corporatization of industrial SOEs is proceeding, but only gradually. The business license registration process illustrates why, absent policy changes, transforming Chinese SOEs into companies is likely to proceed slowly. Identification of an SOE's "investor," which must be specified in the articles of association under the Company Law, is often a difficult task. This is not simply a problem of tracing funds; it is a political economy problem of assigning property rights. The competing claimants—the various government departments and agencies, including line bureaus and ministries—often cannot reach consensus as to who is (or shall be) the "investor." This property rights assignment problem is compounded in most cases when an SOE has large (explicit and implicit) liabilities. Everybody wants the valuable assets, but nobody wants the liabilities. With the unclear assignment of property rights, this leads to an asymmetry in the allocation of rights and obligations for good and bad assets. Because assignment of the liabilities is difficult to implement, they are socialized.

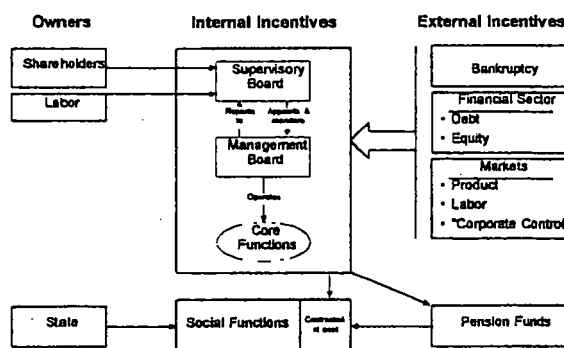
Role of State as Owner. Not only is it the case that government departments and agencies are still exercising *both* the shareholder and administrator roles, but there also are *multiple government departments* exercising the role of owner, often overlapping with one another. The result is that across agencies—both horizontally and vertically—there is fragmentation and partial exercise of the ownership function, with no single entity responsible for an SOE's "bottom line."

FIGURE 1: CHINA'S IMPLEMENTATION OF THE MODERN CORPORATION

In Chinese SOEs, internal and external incentives are blunted; social functions are integral to the firm.



... the modern corporation is disciplined by internal and external incentives; it has shared social responsibilities



⁸ See Broadman (1996).

Consequently SOE managers are *de-facto* enjoying more autonomy than otherwise formally indicated. But they are doing so in great part because of poorly defined property rights. To the extent that subsidies (from either the budget or hidden in the financial system) still make their way to SOEs, to the extent that the firms are protected from competition in product and factor markets by policy barriers to entry or similar institutional constraints, or to the extent that debt-service obligations can continue to go unmet (because the state-owned banks themselves do not yet operate according to commercial principles), managers can engage in opportunistic behavior.

State as Regulator. Not surprisingly in this environment, SOEs resist regulatory organs as they fear erosion of their rights. This gives rise to disputes between stakeholders. There are, however, no formal, transparent mechanisms to settle these disputes and build a body of case law to interpret the SOE legal framework. The resulting unchecked insider control leads to, in effect, the privatization of SOE assets and the socialization of their liabilities, with the State as owner assuming the unlimited liabilities of loss-making SOEs. The socialization of the liabilities, in turn, ultimately translates into greater national debt via further subsidies from the budget and the state banking system. Society as a whole thus bears not only the direct liabilities of the loss-making SOEs but also the extra costs of macroeconomic instability.

Of course China is not the only transition economy facing these SOE property rights problems. But in economies where there are well-defined and enforced private property rights, any particular shareholder's or stakeholder's attempt to escape their liabilities arising from the negative present value of a corporation's net assets would violate other shareholders' or stakeholders' property rights. The result is that *all* shareholders have incentives to monitor each others' fulfillment of their liabilities and obligations. By the same token, international experience shows that the mechanisms of self-enforcing contractual relations and internalization of liabilities are weakened or absent when the State is the dominant owner of enterprise assets and is an ultimate enforcer of contracts and property rights.⁹

The possibility of negative net asset values may not be a serious social problem in mature market economies if property rights over assets in the corporation include only claims on positive residual profits. When the present value of residual profit streams becomes negative or zero, the owners of the corporation's net assets would lose all of their investment but would not incur any more liabilities than their original investment in the corporation (the limited liability feature of the modern corporation). Any negative present value would have to be shared by other stakeholders, including banks, bondholders, suppliers, customers, and employees. This would likely trigger a process of bankruptcy where legal procedures would define how liabilities would be shared.

In principle, China's economic legal framework does provide an adequate basis to help define, separate and allocate the ownership, management and regulatory roles of government and SOEs. But, in practice, there is effectively little separation between the affairs of business and

⁹ See Broadman and Xiao (1997).

those of administration. Substantial progress is thus needed on mechanisms for the *implementation* of the economic legal framework and clear assignment of property rights. Several gaps in the law need to be addressed, including regulations regarding the transfer of state property and regulations further clarifying managers' autonomous rights. There is also a need for a comprehensive property law that defines and enforces property rights in all sectors of the economy and without regard to ownership or nationality. At the same time, accelerating the process of corporatization under the Company Law, regardless of an enterprise's financial performance, would be highly beneficial.

Organizational Reforms

Organizational changes have been the most visible aspects of China's state asset management reform process. The key structural manifestation of these changes is the emerging multi-tier network of dedicated state asset management institutions at the central and subcentral levels. At each level of government—national, provincial, municipal and district—there are typically three tiers: (a) an "upper-tier organization," which represents the State as owner, usually through an executive body; (b) an "intermediate organization," which is entrusted by the upper-tier institution to manage state-owned assets; and (c) the "operational enterprises," i.e., the SOEs. At the same time, the other significant organizational reform in the Chinese state asset management is the transformation of SOEs into large enterprise groups companies.

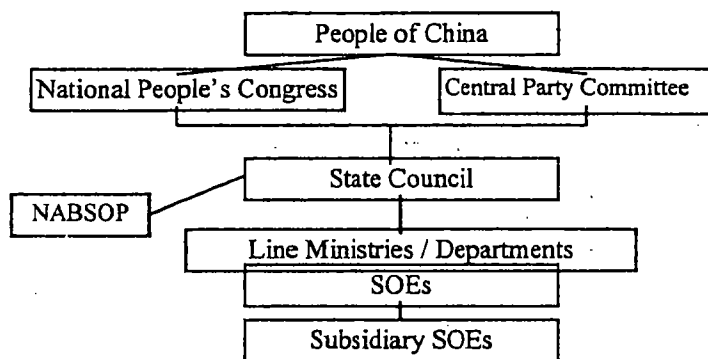
At the national level, the upper-tier institution is the State Council (or Cabinet), acting as the "ultimate owner" on behalf of the people of China. The administrative arm of the State Council to carry out its state ownership functions is the National Administrative Bureau of State Owned Property (NABSOP). Analogous to NABSOP, upper-tier executive bodies are also being established nationwide at subcentral levels of government, such as municipal-level state asset management bureaus (SAMBs). The main function of the upper-tier organs, regardless of their location, is to set out broad policy parameters and goals for asset management. The intermediate tier is generally comprised of provincial- and municipal-level State Asset Operating Companies (SAOCs), which are modeled on the concept of the modern holding company. Finally, there are the SOEs themselves. Figure 2 illustrates how China's state asset management system has evolved since the creation of NABSOP in 1988, the current phasing out of line bureaus and ministries, and the prospective objective of bringing in new stakeholders.

In general, the new multi-tiered state asset management organizational structures and holding companies lack clear internal lines of authority. The boards of directors and the senior executives are often the same people. In addition, board members are nominated not by a commercially-oriented owner's representative, but by governmental or Party bodies. To date, introducing individual shareholders through public listing has not effectively redefined the main organizational characteristics of ownership/management interests; on the other hand, ownership diversification by institutional investors has been an effective mechanism in some cases to discipline new corporate structures. With a few exceptions, sector line bureaus, existing group enterprises and existing large enterprises are transforming into SAOCs without introducing a modern corporate form or developing modern matrix management structures. In virtually all

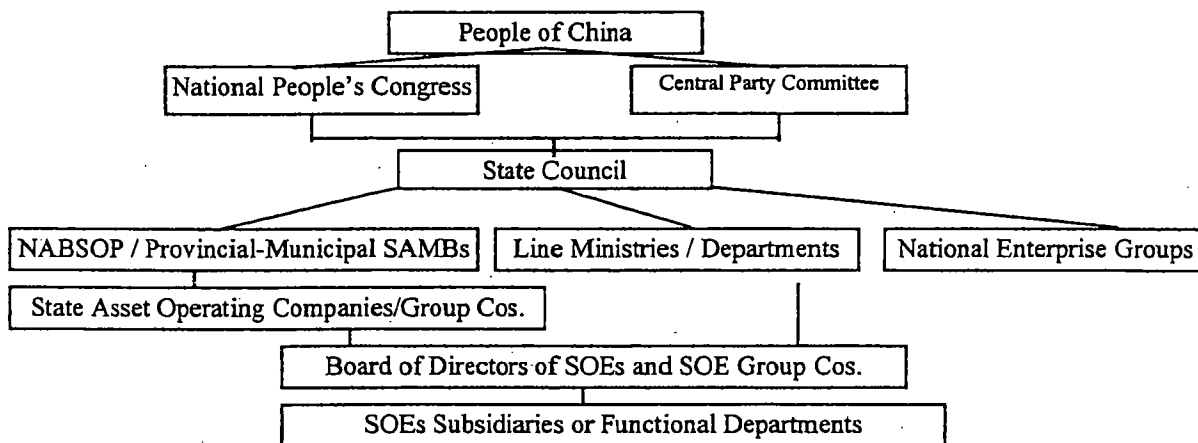
cases, SAOCs retain governmental as well as ownership functions. In fact, many of the underlying SOEs see no difference between the old line bureaus and the new SAOCs—other than a name change.

FIGURE 2: ORGANIZATIONAL STRUCTURES OF CHINA'S STATE ASSET MANAGEMENT SYSTEM

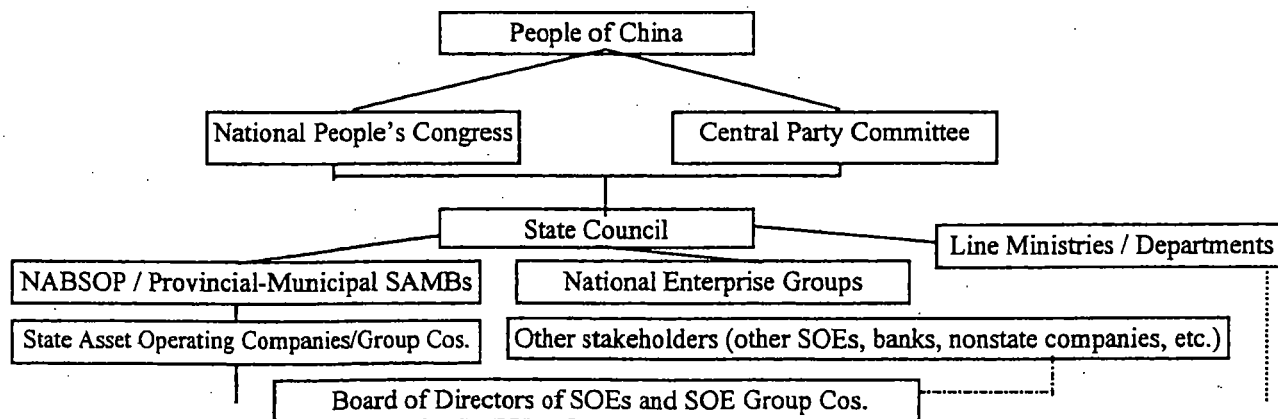
(a) In the past, line ministries/departments managed state assets in SOEs.



(b) At present, new state asset management organizations and enterprise groups are being introduced.



(c) In the future, line ministries/departments will be phased out; the new state asset management organizations, enterprise groups and other stakeholders will participate in SOE governance.



SOEs Subsidiaries or Functional Departments

The result is that the multi-tiered network is burdened with conflicts of interest that prevent the effective separation of business from government. The greatest success in meeting this objective has been at the enterprise level, where the Chinese corporate form is evolving towards the international model. But it is clear that, overall, China's present state asset management organizational structures and their component bodies need to be greatly simplified and their organizational layers eliminated. This is particularly true for the large enterprise groups being formed. The problems of Korea's *chaebols* provide a powerful lesson in this regard.

Indeed, at the intermediate and upper tiers, the Chinese approach has not taken advantage of international experience to reconcile contradictions between a State's governmental functions and enterprise ownership interests. In the more effective international models of state asset management—the French and New Zealand systems—these contradictions are present. Both the French and New Zealand authorities have come to realize that these inherent contradictions stand in the way of better SOE performance that match the results of private sector firms. As a result, they have been privatizing SOEs to lock in hard-won reforms and ensure superior business performance, especially in the competitive, manufacturing sector. But even where privatization has not been used, these systems employ bona fide market-based incentive structures to mitigate these contradictions. For example, use is made of “outsiders”—that is participation from the nonstate sector—in SOE decision-making. In China, nonstate participation could be increased through: (a) appointing nonstate representatives to SOE boards of directors; (b) diversifying SOE ownership through selling shares on national and international stock exchanges to bring on nonstate shareholders and create passive minority state ownership shares managed by independent advisors; and (c) contracting out the provision of services (e.g., transport, accounting, social services) to the nonstate sector. At the same time, measures should be taken so that SOE board members come from different regions and have diverse backgrounds. Cross-sectoral and cross-regional diversification of managers as well as of the shares held by SAOCs and the other state asset management organizations should also be instituted.

Chinese authorities recognize that SOE organizational reforms must include the transfer of many of the social service burdens SOEs carry—employee housing, hospitals, schools, administration of pension insurance, restaurants, among other facilities—to municipal or regional governments or to new or existing nongovernmental entities. Separating these social functions from SOEs' productive functions is critical because their continuance, especially enterprise-provided housing, which is the largest component of the typical SOE's social costs, hinders the mobility of workers and managers. As long as housing remains linked to jobs, agile labor markets, which are key to the establishment of a modern corporate system in China, cannot develop.

While reforms for de-linking social services from SOEs must be accelerated, work is underway.¹⁰ SOE housing subsidies are being reduced, for example, over a several-year period through either raising rental rates or by converting them into wages. Sales of apartments are also being conducted. Cross-firm municipal pooling of pension obligations and payroll taxes

¹⁰ See Hu in Broadman (1996).

earmarked for pension and health benefits are gaining prominence. By the same token, schools and hospitals are being slowly divested from SOEs to local governments. Even more so than the de-linking of social burdens from SOEs, appreciable progress is being made in enhancing labor flexibility. Whereas contracted (as opposed to permanent) workers and staff accounted for only 5 percent of the industrial SOE laborforce in 1985, by 1998 the proportion was more than 60 percent. Unemployment insurance schemes are also gaining prominence through municipality-based earmarked payroll taxes (collected from firms of all ownership forms).¹¹

Still, China's current policy regarding the disposition of surplus workers emphasizes maintaining social stability. In implementing reform measures, therefore, local governments carefully monitor the socially affordable level of unemployment in light of the strength of the local economy. Government policymakers recognize that this is inefficient, but the social security system is not yet adequately developed to handle significantly larger open unemployment rates. Nonetheless, developing a class of professional, commercial managers independent of the state is an imperative part of organizational reform. Compensation and job security of managers must be closely linked to enterprise performance. In short, China needs a robust "market for managers" to allow for efficient deployment of managers not only within a firm, but also across firms, across sectors, and across regions.

Corporate Governance

Operating a large modern corporation inevitably involves the separation of the firm's ownership from its management. The owners select managers to run the firm, and in the process the owners relinquish some of their control as they delegate some decision-making to managers. "Corporate governance" refers to the set of relationships that link ownership and control of an enterprise, the mechanisms through which these relationships are mediated (e.g., monitoring and evaluation controls), and the nature of incentives, risks and constraints that affect how the actions of a firm's owners, managers and workers as well as others (e.g., banks, suppliers and customers) influence the firm's conduct and performance.¹²

Providing systems for and exercising sound corporate governance is a challenge that all large modern corporations the world over must meet. It is difficult to ensure that the actions of a firm's managers (the "agents") are consistent with the interests of the firm's owners (the "principals"). When managers do not act in the interest of owners, "principal-agent problems" arise. The extent of this conflict depends on a number of factors, most importantly the degree of information available about the activities of the managers. Owners have dealt with principal-agent problems through a variety of means including: improved information incentives; more intense monitoring by owners and others (including banks) of managers' conduct and performance; and implementing mechanisms to better align the interests of managers and owners/shareholders (for example through performance contracts and stock options).

¹¹ For analysis of labor flexibility in Chinese SOEs see Lane, Broadman and Singh (1998).

¹² For a survey see Shleifer and Vishny (1997).

Different types of corporate governance systems have been used to solve the principal-agent problem. The United States and the United Kingdom rely heavily on shareholders' actions in stock markets. Japan utilizes a bank-based system. Germany's governance framework is centered on institutional investors (other companies and banks). There is no obvious ranking as to which of these three, or any other, corporate governance system is best for promoting efficient corporations in China. But there is a clear consensus worldwide that all of the most successful corporate governance systems make judicious use of commercially-based incentives.¹³

The Chinese State as owner—or its representative organs—has, in general, weak organizational structures to provide clear information about SOE managers' actions and enterprise performance. Effective corporate governance is difficult to exercise when few state asset management institutions regularly receive timely, accurate and useful information about the financial performance of the firms they control. The lack of clear ownership identification of SOEs also undermines corporate governance as it leaves open the issue of who exactly should be monitoring the managers. Clearly, the difficulty in identifying owners—and specifying who will be responsible for SOE liabilities—is typically a constraint on governance. The commingling of SOE commercial and social functions and the fact that the ultimate owner of SOEs—the State—is also the regulator of SOEs, give rise to conflicts of interest and unclear governance objectives.

Relatively few outside monitors, especially banks, exercise strong discipline on China's SOEs and this contributes to weak corporate governance. The four specialized banks are mainly other agents of the State, making the concept of "limited liability" of little relevance for SOEs, as the owner and creditor are one and the same. The banks are attempting to transform into commercial entities, as called for by the new Commercial Banking Law. But they have still a way to go in establishing their independence.¹⁴ In contrast, nonstate enterprises, either acting as legal-person institutional investors in SOEs or as their suppliers and customers, are providing for some degree of external SOE governance.

The bottom line is that without the fundamental reorientation in governance incentives toward market principles, China's SOEs will either continue to be ruled by the old procedures—which will undoubtedly retard enterprise restructuring—or they will continue to find themselves in a corporate governance vacuum. The result, as noted earlier, is that managers (and other insiders) end up with de-facto control over the enterprises. The evidence from many transition economies is that insider-dominated corporate control has many costs and risks: asset-stripping, poor investment decisions, decapitalization through excessive wage increases, and increases in other private benefits. This is not to suggest that insider-dominated firms cannot deliver efficient performance, as in the case of small firms with an owner-manager structure. But this is true only if certain conditions exist—in particular the firm does not receive any fiscal and financial system subsidies, it faces robust interfirm competition in product and factor markets, and it scrupulously fulfills its debt-service obligations.

¹³ See Aoki and Kim (1995).

¹⁴ For analysis of China's financial sector see Lardy (1998).

Fundamental reform of China's SOE corporate governance system will mainly stem from correcting underlying problems in the incentive framework. In particular reforms are needed to ensure that SOEs face "hard budget constraints"; that in product and factor markets there is robust inter-firm competition; that SOEs incorporate judiciously diversified ownership structures; and that there is a "market for corporate control", where the assets and liabilities of poorly performing firms can be rechanneled to higher values in use through market-based transactions. Putting in place these reforms is difficult and will take time.

Ending Fiscal and Financial Subsidies. The experience of other transition economies is that a key determinant of SOE restructuring is the application of hard budget constraints: that is, enterprises pay the full economic costs for all their inputs and charge market-determined prices for their outputs. In China, *fiscal (or budgetary)* subsidies to SOEs have in fact decreased steadily in recent years. In 1993, SOEs in all sectors received direct subsidies through the budget of Y 44.5 billion (equivalent to almost 2 percent of GDP), in 1995 such subsidies fell to Y 36.6 billion (equivalent to 1 percent of GDP), and in 1997 they were smaller still.

But dealing with subsidies provided through China's *financial system* has been more problematic. They are less transparent than fiscal subsidies and therefore are less easy to monitor and reduce. While some reduction has taken place, it has principally come through the tightening of credit under inflation control programs. However, the four main state-owned banks still often automatically roll-over unpaid credits (principal and interest) to SOEs. Interest rates also have not been liberalized enough for the banks to differentiate terms among enterprises according to credit risks, giving rise to cross-subsidies. Clearly the banks need to step up their governance involvement with SOEs, especially in calling on debt-service obligations. More specifically, the banks need to be empowered to obtain more frequent and better financial information from SOEs, including the requirement to request independent audits.

In cases where fiscal and financial system budget constraints have in fact "hardened", Chinese SOEs—like SOEs in other countries undergoing transition—have nonetheless been able to avoid needed governance restructuring by resorting to inter-enterprise arrears. Alternatively, they arrange for soft financing on nonmarket terms from public utilities or other enterprises. The State Statistical Bureau has estimated that in the past few years inter-enterprise debts were roughly equivalent to Y 1 trillion (about one-fifth of GDP), an increase from Y 600 billion at year-end 1994.

Inter-Enterprise Competition Another potent reform that the Chinese authorities are using to engender better SOE governance has been to increase the degree of product and factor market competition. In the aggregate, the national market share of industrial output of SOEs has been eroded by collectives, TVEs and other nonstate firms over the past two decades from about three-fourths to one-third. Still, as a result of the legacy of a planned economy and substantial decentralization, in some market niches (notably heavy industry), SOEs enjoy regional autarky and face few nonstate competitors. A recent World Bank survey¹⁵ of 156 industrial SOEs in five cities

¹⁵ The survey results are contained in World Bank (1996).'

reveals that the average provincial market share for each firm's principal product is 53 percent. The survey also suggests that on both the input and output sides of interfirm product sales and purchases, SOEs are interlocked with one another: the average share of inputs purchased from each SOE's largest supplier is 60 percent, and 78 percent of the surveyed SOEs said their largest supplier is another SOE. By the same token, the average share of sales made to each of the surveyed SOE's largest customer is 41 percent, and 60 percent of the surveyed SOEs indicated their largest customer is another SOE.

Implicit and explicit policy barriers to entry—especially among would-be rivals based in different regions of China—are being reduced. But they are still substantial. Business licensing procedures, for example, deter new entrants from “foreign” provinces. The result is that in key industrial sectors, such as electronics, petrochemicals and machinery, interprovincial market share patterns have not altered appreciably in the past several years, particularly at the wholesale level. In “downstream” industrial and commercial sectors, however, cross-market penetration is becoming more pronounced.

Exit, bankruptcy and liquidation of commercially nonviable SOEs is much less common. Many governmental authorities, enterprise managers, bankers and workers are reluctant to pursue bankruptcy or other forms of exit; instead, mergers and acquisitions are the preferred routes for dealing with money-losing SOEs (see below). Within 56 “experimental reform cities” there were 472 industrial SOEs identified for bankruptcy in 1997, but procedures had begun for only 161 of them, and only 58 firms had been declared bankrupt. More generally the picture that emerges is that exit of money-losing SOEs is not widely practiced in China, except in cases of small or (to a lesser extent) medium-size SOEs. Most locales report 15 to 25 SOE bankruptcy cases in the past five years, all confined to small and medium-size SOEs.

Ownership Diversification. China's experience in diversifying SOE ownership (to both individuals and legal-person institutional investors) suggests that ownership diversification could provide an important opportunity for improving governance. Partial divestiture to nonstate interests through minority shareholding is increasing in its frequency, mainly through Sino-foreign joint ventures and through ownership diversification on stock exchanges in China and elsewhere. In the World Bank's survey of 156 SOEs, among the 44 SOEs that had become companies under the Company Law, the average ownership share of the State was 53 percent, the average ownership share for nonstate interests (nonstate firms, employees, managers or other individuals) was 34 percent, and the average foreign investor share was 13 percent.¹⁶

It is not enough, however, simply to diversify ownership of SOEs. Without the proper institutional safeguards, ownership diversification may compound rather than help existing insider control problems and create perceptions of unfairness. Implementing and managing SOE ownership diversification should, therefore, be done with well-defined institutional responsibilities and through transparent and competitive procedures. In this regard, international experience suggests that the keys to success are to ensure ownership diversification is both cross-

¹⁶ Analysis of foreign direct investment in China is contained in Broadman and Sun (1997).

regional and cross-sectoral; that there is transferability of ownership shares; and, most importantly that investments on behalf of the State are supervised or managed by independent professionals—nonstate custodians or trustees—whose remuneration is incentive-linked to investment performance.

This point should be emphasized. Like other transition economies, China's authorities need to recognize that there is a trade-off between maintaining *control* of SOEs and enhancing their asset *values*. Fundamentally reorienting SOEs' incentives toward the market may well entail reducing the state's involvement in SOEs to passive minority ownership. The Government will have its hands full in trying to improve the performance and competitiveness of its chosen 1000 "priority" SOEs (see below). That job is complex, and government's resources in skills and budget are limited.

Mergers and a "Market for Corporate Control." The restructuring of large and medium industrial SOEs through mergers and acquisitions, through participation in domestic and foreign joint ventures, and through other forms of integration and consolidation is in full swing in China. These initiatives are important, in part, because they help solve the problem of duplication of facilities and suboptimal plant scale that exists as a result of the earlier decentralization drive, which engendered artificial regional self-sufficiency. Mergers and acquisitions of debt-ridden SOEs are being promoted by the granting of five-year suspensions on loan payments of interest to the acquiring firm (for the debts of the acquired entity). Conversion of inter-enterprise debts (payables and receivables) into equity shares is also resulting in increased mergers and consolidations of money-losing SOEs.

But these mergers are for the most part administratively arranged by government, which plays the key role in identifying the parties and arranging for the transaction. The Tianjin municipal government, for example, has taken the lead in trying to solve the city's SOE problems by issuing regulations that provide a one-year readjustment period for merged enterprises with surplus employees; during this period the municipal labor bureau will pay unemployment benefits to the surplus employees. Moreover, if an enterprise finds itself unable to pay off the debts of enterprises taken over, Tianjin authorities will mediate between the enterprise and banks to seek a solution. The city has sponsored the formation of several large conglomerate groups with sales volumes exceeding Y 10 billion.

In general, the increased attention being paid to SOE mergers, acquisitions and other forms of consolidation of operational enterprises is to be encouraged—to the extent that the resulting integration of SOEs serves to maximize economies of scale and scope. But because many of these mergers are administratively arranged, they do not necessarily lead to rationalization and lower average production costs. Instead, they become a device for saddling more efficient firms with the redundant workers and obsolete equipment of other less-efficient firms.

A "market for corporate control" could be fostered that would provide for SOE mergers and acquisitions to be transacted through freely functioning competitive forces (subject to the condition that a publicly provided social safety net is established to facilitate dealing with redundant workers.) Such a mechanism, which would serve to make the threat of potential

takeovers of inefficiently managed firms credible, helps strengthen external incentives and ensure that state-owned assets are being deployed to their highest value in use throughout the Chinese economy and help to create a unified economic space. In this regard, an emerging network of Property Transactions Centers could be enlarged and strengthened.

Accounting and Auditing of SOEs Financial Performance

Accounting and auditing reforms are prerequisites to provide SOE owners, boards of directors and managers with reliable information to monitor enterprise performance. Without accurate, transparent and commercially meaningful financial information on enterprise performance, all other aspects of Chinese SOE reform could be for naught. China's rules for financial accounting (issued in 1993) and International Accounting Standards (IAS) differ in several respects: on the policy basis of the accounting framework; the intended audience; and the definition and application of terms. Most other national accounting standards identify "investors and creditors" as the primary users of accounting information. China's accounting standards generally do not. China's standards give priority to administrative control, which conflicts with the goal of separating government and enterprises. Newly drafted Chinese accounting standards are more precise and comprehensive than the general principles embodied in the 1993 rules. If they are fully implemented, accounts prepared under Chinese and international standards will become more similar.

But even with the issuance of improved accounting standards, there are other barriers to implementing meaningful accounting practices. Many of China's SOEs lack the capacity to prepare such accounts. At the same time, tertiary businesses' assets, costs and implicit liabilities, especially social obligations, are unclear. Inconsistencies also exist within a single enterprise group. Moreover, costs are often determined arbitrarily. In many SOEs, different independent profit center workshops or production units still rely on an "internal banking system." Each unit writes checks and makes demands on the central finance department with little coordination. Most units and the "internal bank" lack sufficient information to plan or to deal with working capital shortages. Exacerbating the problem is that many SOEs are heavily indebted to other SOEs. Finally, and perhaps most importantly, in general SOE financial accounts are not subject to bona fide independent audits.

The fact is that most of the accounts and the financial control mechanisms in China's industrial SOEs are still aimed at counting rather than financial management. This does not create strong incentives for transparency and efficiency. Sound accounting standards and independent audits will enhance the system of checks and balances. Cash-flow forecasts also need to be issued on a semiannual or quarterly basis. Control systems to manage inter-enterprise debts also need to be strengthened.

Conclusion

China's state asset management initiatives for improving the performance of SOEs reflect a serious commitment to reform within the context of the "socialist market economy" framework. But in the medium term if China's SOEs are to operate competitively under WTO's

international trading system more than marginal adjustments to current policies are necessary. Most critically what is required is to:

- extensively diversify ownership, allowing for passive state minority shares managed on behalf of the state by independent professionals;
- simplify organizational structures, including enterprise groups and holding companies;
- integrate cross-regional and cross-sectoral shareholding;
- further develop property right/asset exchanges, and establish a “market for corporate control”;
- eliminate policy-induced barriers to entry and exit in inherently competitive sectors;
- intensify incentives so that bank-enterprise debt-service obligations are met;
- create a market for managerial talent; and
- require independent audits of financial accounts based on international standards and make them publicly available.

In important respects, President Jiang Zemin’s speech at the 15th National Congress began to lay the groundwork for such a reform agenda. Jiang’s pronouncement came on the heels of several earlier high-level SOE reform announcements. This includes the “10,000-1000-100-10 Experiment” initiated in 1994 (where the numbers refer to the count of enterprises and cities undergoing various reforms)¹⁷, and more importantly, the Ninth Five-Year Plan (1996-2000). The Ninth Five-Year Plan incorporates a decision to “grab and reinvigorate” 1,000 large “priority” SOEs selected by the central authorities while “letting go” all remaining SOEs. It calls for providing a special fund to them to encourage “reorganization, bankruptcy, debt write-offs, merger into partnerships, leasing, contractual operation or sales, as their specific circumstances permit.” Improvements in enterprise profitability engendered by such reforms will help to reduce public sector borrowing, thus adding to the country’s macroeconomic stability. At the same time, these policies are vital to completing the transformation of SOEs into modern corporations—the ultimate goal of the Chinese leadership.

But decisively reorienting enterprise incentives toward the market also means reducing the state’s fundamental involvement in SOEs. The authorities have already stated their intention to loosen controls on them. But the Government could go further and faster. It could do so by orchestrating a complete withdrawal of state involvement in inherently competitively structured industries. While the details of such a divestiture program will need to be worked out,

¹⁷ The “10,000-1000-100-10 Experiment” is described in Broadman (1995).

promulgating such a decision would make formal a process that is already emerging. It would signal a credible commitment by government for deeper SOE reform in a portion of the economy where state ownership brings few benefits and many costs; in fact, the divestiture process could yield significant state revenues. More important it would change expectations and behavior on the part of remaining SOE managers and the international community that the Government is more serious about embracing nonstate competition as a way of fostering stronger business performance in China.

Bibliography

- Aoki, Masahiko and H-K Kim, (eds.). 1995 (February). *Corporate Governance in Transitional Economies*, EDI Development Studies, The World Bank.
- Berle, A. and G. Means. 1932 (reprinted in 1967). *The Modern Corporation and Private Property*, New York: Harcourt, Brace and Jovanovich.
- Broadman, Harry G. 1995. *Meeting the Challenge of Chinese Enterprise Reform*. The World Bank, Washington, DC.
- Broadman, Harry G. (ed.). 1996. *Policy Options for Chinese Enterprise Reform*. The World Bank, Washington, DC.
- Broadman, Harry G. and Geng Xiao. 1997. *The Coincidence of Material Incentives and Moral Hazard: Labor Compensation and Enterprise Performance in China's Transitional Economy: 1980-94*, Harvard Institute for International Development.
- Broadman, Harry G. and Xiaolun Sun. 1997. "The Distribution of Foreign Direct Investment in China." *The World Economy*.
- Groves, T., Y. Hong, J. McMillan, and B. Naughton. 1994. "Autonomy and Incentives in Chinese State Enterprises," *Quarterly Journal of Economics*.
- Hu, X. 1996. "Reducing State Owned Enterprises' Social Burdens and Establishing a Social Insurance System" in Broadman (1996).
- Jefferson, G. and T. Rawski. 1996 (March). "Chinese Industrial Productivity: Trends, Measurement Issues and Recent Developments." Unpublished manuscript, Brandeis University.
- Lane, J., H. Broadman and I. Singh. 1998. "Labor Flexibility, Ownership and Firm Performance in China," *Review of Industrial Organization*.
- Lardy, Nicholas. 1998. *China's Unfinished Economic Revolution*. The Brookings Institution.
- Lichtenstein, Natalie. 1993. "Enterprise Reform in China: The Evolving Legal Framework." World Bank Working Paper Series 1198.
- Shleifer, Andrei and Robert W. Vishny. 1997. "A Survey of Corporate Governance," *Journal of Finance*.
- State Statistical Bureau of China. 1997. *Statistical Yearbook of China*.
- Woo, W.T., W. Hai, Y. Jin, and G. Fan. 1994. "How Successful Has Chinese Enterprise Reform Been?" *Journal of Comparative Economics*.

World Bank. 1996. *China: Reform of State-Owned Enterprises*. Report No. 14924-CHA.

World Bank. 1997 *China's Management of Enterprise Assets: The State as Shareholder*.

Forging Reform in China

The Fate of State-Owned Industry

The greatest economic challenge facing China in the post-Deng era is the reform of sluggish, unprofitable, state-owned firms that threaten to drag down the rest of the economy. Banking reform, fiscal reform, and overall economic growth all turn on whether China can succeed in reorganizing and revitalizing its state industrial sector.

State-owned enterprises (SOEs), the foundation of China's industrial base, are the nation's steel makers, machine builders, auto and truck manufacturers, and petroleum producers. Despite an array of well-intentioned, market-oriented reform measures, these SOEs as a group have never truly been forced to face hard budgets, the pressure of a bottom line, or the threat of bankruptcy. *Forging Reform in China* explains how and why these measures have not been sweepingly successful to date, and what will be needed to achieve meaningful reform.

What constraints force some economic producers to shift to market-oriented behavior while others continue the patterns of the past? Edward Steinfeld answers these questions through an in-depth exploration of firm-level processes within the steel industry, an examination that reveals the institutional and systemic barriers to market-oriented performance in Chinese heavy industry.

While providing a penetrating analysis of the state sector of China's economy, Steinfeld also offers a more general framework for understanding the whole phenomenon of postsocialist reform. This book makes sense of the complex linkages between state actors, economic institutions, and enterprise performance in transitional economies. In the process, it challenges the two fundamental ideas that have shaped the debate over postsocialist transition: the belief that privatization can solve the problem of state enterprise restructuring, and the alternative view that painful economic restructuring can be avoided by maintaining high levels of national economic growth.

Edward S. Steinfeld is the Mitsubishi Assistant Professor of Management at Massachusetts Institute of Technology's Sloan School of Management.

Introduction: China's Ailing State Enterprises

CHINA'S economic awakening will undoubtedly go down as one of the great events of the twentieth century. In the course of just two decades, the country has undergone processes of social, economic, and industrial change that in the West spanned centuries. On so many fronts today, China is a country and society in revolution: an industrial revolution as hundreds of millions of peasants leave the land for factories, a social revolution as a primarily rural populace urbanizes, and an economic revolution as a self-proclaimed socialist nation negotiates its way from command planning to the market. China in so many ways is engaged in processes for which there is simply no historical precedent. While the nation's entire system of economic organization – an inheritance from twentieth-century Soviet Russia – transforms into another arguably twentieth-century creation, the market capitalism of the West, Chinese society simultaneously lurches through a phase of industrialization on par with that of eighteenth-century England and a wave of urbanization comparable with that of post-Medieval Europe. It is no wonder that this fusion of processes, at once intensely modern and anachronistically ancient, produces outcomes anticipated by not even the wisest of observers and participants. These are incredible times in China – times of euphoria, dislocation, and, beyond all else, uncertainty.

As China's phenomenal growth rates since the early 1980s suggest, many things are clearly going right. Between 1978 and 1996, the country grew at an average annual rate of 9.9 percent, a level impressive by any standard.¹ Indisputable to even the most casual observer in China is that living standards have soared in the past twenty years. With the demise of collectivized agriculture in the late 1970s and the subsequent rise of rural industry, extraordinary forces of entrepreneurship, initiative, and manpower have been unleashed in the Chinese countryside. Small manufacturing operations have not only proliferated, but particularly when coupled with overseas capital and manufacturing expertise, have flooded foreign markets with textiles, shoes, and toys. These firms – nimble, market-oriented collectives and TVEs (township and village

enterprises) – may operate on a small scale, but together they account for a significant portion of the employment growth and productivity gains experienced by China over the past fifteen years. They are, in a sense, the dynamos of Chinese development.

Yet, for all these achievements and for all the talk – both optimistic and apocalyptic – of China's emergence as an economic superpower, the Chinese economy remains beset by critical problems. Chief among them is the perennial and intensely frustrating issue of state enterprise restructuring. By Chinese policy makers' own admission, this is the single most important challenge facing the system today. It impacts not just broadly on domestic growth and social stability, but also on China's foreign relations, particularly with regard to trade issues, and even on elite party politics.² State industrial restructuring has become the proverbial albatross hanging around the Chinese leadership's collective neck. Certainly the leadership understands that as long as the issue remains unresolved, the question is not just whether China can become a superpower in the future, but rather whether the nation can even sustain the gains it has made up to the present.

China's state-owned enterprises (SOEs) once stood at the "commanding heights" of the planned economy. Today, they seem little more than relics of an industrial age gone by. These firms, however, still constitute virtually all of the nation's heavy industrial base. They are its steel makers, machine builders, auto and truck manufacturers, and petroleum producers, just to name a few. State-owned enterprises are the firms that even today still provide basic industrial inputs for the economy, employment and social welfare for the vast majority of China's urban workers, as well as the bulk of fiscal revenues for most governmental levels. Unfortunately, these are also the firms that still suffer from habitual overstaffing, notoriously low productivity, and ever-declining profit performance – all the traditional ills of socialist production.³ Despite the waves of reform measures directed toward them, China's SOEs have proven stubbornly resistant to market forces and frustratingly devoid of market-oriented behavior. It is upon precisely these dinosaurs of Chinese industry that this book focuses.

But why concentrate on dinosaurs when one could instead study dynamos? Why focus upon an industrial sector rooted in the past, rather than one holding promise for the future? Why, for that matter, does the state industrial sector attract so much attention in Chinese policy-making circles when China's phenomenal growth seems to depend on everything *but* state industry?⁴ In terms of establishing a functioning market economy, China's policy makers have got many things right, and certainly many things that neither they nor outside observers would have deemed possible fifteen years ago. The economy has

thrived, and millions of new nonstate firms have sprung up in the process. The question then is why not simply ignore traditional state industry – particularly when, as will be shown, it produces an ever-declining share of China's industrial output? Why can't China simply continue "growing beyond the plan" while the few remaining vestiges of command economics simply wither on the vine?⁵

The argument of this book is that China decidedly cannot continue sidestepping SOE reform. The situation surrounding the state industrial sector today, even a sector of diminished proportions, is economically unsustainable – not just for the sector itself, but for the economy as a whole. China today, for all the successes of the past fifteen years, stands at an economic crossroads and at the edge of a monumental economic crisis. The state sector is not simply dying; it also threatens to drag down the nation's entire economy along with it. China's policy makers have good reason to worry about SOE reform: it is arguably the single most important issue upon which China's economic future hinges.

For some two decades now, true enterprise restructuring in the state sector has been deferred.⁶ Despite a vast array of reform measures – many of them well-intentioned, innovative, and market-oriented – the toughest choices in state industry have always been avoided. Chinese SOEs as a group have never truly been forced to face hard budgets, the pressure of a bottom line, or the threat of bankruptcy and market exit.⁷ Indeed, as this study will show, many reform measures have actually exacerbated the situation. Meanwhile, just as the task of enterprise restructuring becomes ever more complex, the cost of deferring restructuring becomes ever more severe. A major goal of this book will be to explain just how and why this is so. Why has meaningful reform been deferred, and why have reform measures never had their desired impact? What exactly is the nature of the problem that makes it so difficult to solve? In what seems like a sweeping move toward privatization, Chinese policy makers have declared that 10,000 SOEs will be "corporatized," essentially transformed into joint stock companies whose shares trade publicly within China and abroad. What does this mean, and how likely is it to address the dilemmas of restructuring?

That the current condition of China's SOEs is economically unsustainable has been documented from the macro perspective by a number of recent studies.⁸ Although this general picture will be summarized in what follows, the aim of this book is to be decidedly micro in approach. In a sense, this book provides not a bird's-eye view of Chinese enterprise restructuring but rather a worm's-eye view. Macro studies have been excellent in identifying the extent to which state industry has lapsed but somewhat less effective in pinpointing causal linkages and firm-level processes. It is that latter task which is the aim of the following chapters.

Ultimately, what emerges from this micro-level exploration is a particular view of what ails China's large-scale industrial producers, a view that emphasizes systemwide, institutional barriers to market-oriented performance. The argument is that China today lacks the key institutional mechanisms needed to make corporate governance – and, by extension, property rights – function for complex producers in complex market settings. The problem for Chinese state firms is not that they are state-owned *per se*, but rather that ownership itself fails to function for these kinds of producers in this kind of system. For these firms, reform measures like decentralization, “corporatization,” and even outright privatization – measures that seek to encourage market behavior by transferring property rights – fail because property rights themselves do not exist in any real sense.⁹ They cannot exist because the basic institutions needed to *make* them exist – functioning capital markets, a stable regulatory environment, and enforceable accounting standards – are simply absent. Until those institutional factors are straightened out in China, or in any other transitional economy for that matter, no amount of managerial training, firm-level technical upgrading, directed investment, or even transfers of nominal property rights is going to make these production organizations behave like market actors.¹⁰

State-owned enterprises – generally among China's larger firms, and certainly its more capital-intensive ones – thoroughly dominate the country's modern industrial sector. Whether in China or anywhere else, these kinds of large industrial producers are not simple economic actors, simple “economic men” that naturally seek to augment their assets by following basic market incentives. Instead, they are complex organizations involving a multitude of individual actors and an almost implicit division between ownership and control. Given the capital requirements of modern industrial firms, ownership tends to be spread across a number of stakeholders, and given the complexities of modern industrial methods, control falls to professional managers and skilled workers.¹¹

This unavoidable division creates major challenges with respect to information and incentives. The individuals or agencies supplying the capital and bearing the risk do not possess the information needed to run the plant or even monitor the managers and workers who do. Those managers and workers, in turn, routinely control assets over which they have no direct ownership and for which they bear no direct financial risk. If the firm collapses, these employees can simply take their skills somewhere else.¹²

Clearly, the issue in any modern industrial economy, whether organized by plan or market, is not how to motivate some hypothetical unitary producer but rather how to manage the coordination and incentive problems of entire

production organizations. It is not enough just to create the proper environment – just to “get the prices right” – and expect these producers to respond to the invisible hand of the market. These producers, after all, are not single-minded actors but instead constellations of interests that must be aligned and directed through intricate governance mechanisms. In order to ensure that societal assets are put to their most productive use (i.e., to ensure that investors direct their assets toward the most productive firms and that managers effectively employ rather than squander those assets), institutions of governance are required both within and beyond the firm.¹³

Of these mechanisms, the internal variety tend to be the most obvious. In modern corporations, for example, boards of directors are appointed to monitor managers, set managerial pay, exercise veto power over key strategic decisions, and generally ensure that owner interests receive proper representation. Arguably more important, however, are the external governance measures that operate even when internal monitoring lapses. Functioning capital and equity markets, the outside bank auditing which those markets entail, credible threats of bankruptcy and liquidation, enforceable legal obligations – all these institutions ensure that, even in the absence of internal monitoring and effective management, efficient producers will be rewarded while the inefficient will be driven out of business.

The fascinating thing that emerges from a micro study of Chinese SOEs is the extent to which outside governance institutions in China not only malfunction but also distort the internal operations of the individual firm. As noted previously, Chinese decision makers have been remarkably successful in establishing the conditions for a basic market economy.¹⁴ They have been far less successful, however, in shaping the regulatory institutions needed to manage complex firms in an industrialized market economy. China's partially reformed state banking sector is an important example that will come up repeatedly in this book. State financial institutions in China today provide credit at ever-expanding levels, but rarely on market terms. Banks neither effectively select borrowers nor effectively monitor funds once dispersed. As a result, state firms end up with capital but with precious few incentives to direct that capital toward productive uses. Critical investment resources, basically the savings deposits of ordinary Chinese citizens, are routinely channeled into the black hole of state industry, never to be seen again. Financial intermediaries in China are simply not performing the external governance functions necessary for the operation of complex production organizations in market environments. The individual case studies in this book will illuminate, from the firm-level perspective, just why this is so. But the broader point is that, without such external governance

mechanisms, property-rights reform – and most other forms of internal enterprise restructuring – become essentially meaningless.

The other interesting thing emerging from case studies is the extent to which certain systemwide, ostensibly market-oriented reforms have actually exacerbated the governance and property-rights problems of state industry. Even the most pragmatic of policy measures, including some of those hailed for generating growth in the countryside, have had unintended consequences in the industrial sector. Governmental decentralization and the concomitant downward delegation of fiscal responsibilities, for example, have perhaps broken up the old command bureaucracy and infused local state actors with entrepreneurial spirit, but such reforms have also unleashed all sorts of predation upon both state financial intermediaries and state firms. The average SOE now faces a plethora of governmental actors, from the grass-roots right up to the center, all of whom exert some sort of extractive authority over firm assets. Money, in effect, comes in from the banking sector and is then pulled out by poorly coordinated agents of the state.

Partly in response to this problem, policy makers even early in the reform period began promulgating measures to demarcate more clearly the boundary between firm and state. A historical review of such policies is beyond the scope of this study, but suffice it to say that a variety of measures – from responsibility systems and profit contracting to directed investment programs and the codification of autonomous management rights – have been implemented, often to the detriment of effective corporate governance.¹⁵ Profit contracting, for example, has created incentives at the managerial level for overproduction and reckless investment in plant capacity. Shifts in accounting regulations, in addition to the codification of management “rights,” have further encouraged this form of behavior by granting managers greater control over enterprise funds. Misuse of this control – namely, through the diversion of working capital toward plant expansion or even outright consumption – becomes feasible as long as the state banks are willing to pump in new loans while rolling over old ones. In the confusion, funds often simply disappear or get eaten up in the provision of housing, pensions, wage bonuses, or other social welfare benefits. Autonomy extended to managers in the absence of a credible bankruptcy threat not only discourages productive behavior but also emasculates ownership. No owners, whether public or private, can exert effective control under such circumstances.

Yet, a key reason why bankruptcy threats are so ineffectual – and why actual bankruptcies are so incredibly rare in the Chinese state sector – is that bankruptcy proceedings depend on credible financial information, an increasingly scarce commodity given China’s current institutional environment. This

is perhaps the most serious issue that emerges from the micro-level case studies. In the Chinese state sector today, managers themselves have difficulty ascertaining the true financial status of their firms. Accounting standards frequently change, banking regulations remain constantly in flux, monitoring is lax, and exceptions tend to be the rule. Operating accounts are mixed with investment accounts, production costs become distorted, and firms surviving solely on state subsidies find ways to declare profits year after year. Meanwhile, the banking system continues to infuse SOEs with liquidity, for if the loans were to stop then workers would go unpaid.¹⁶ All of the firms discussed in this book’s case studies are indeed officially “profitable.” All, however, face serious financial problems. Several are essentially insolvent. Like many Chinese SOEs, year after year they amass tremendous liabilities, renege on obligations to creditors, and fail to generate enough income to cover even their most basic operating costs. Ultimately, many SOEs end up being net destroyers of assets; what they consume is of far greater value than what they produce. However, none of this is immediately apparent from the firms’ financial records. Under such circumstances, nobody really knows what percentage of state firms in China are losing money. Is it one third? Two thirds? More? Less? A main objective of the following chapters will be to describe how this situation has come about and why it is going to be so extraordinarily difficult to untangle, with or without privatization.

While focusing on a particular aspect of China’s contemporary economy, this book also aims to provide a more general framework for understanding the whole phenomenon of postsocialist reform. China is, of course, neither the only country trying to shed the legacy of socialist command planning nor the only one of these transitional countries encumbered with a troubled industrial sector. Quite understandably, many people – scholars, policy makers, and casual observers alike – view transitional reform as a process of liberation, a dismantling of suffocating institutions, and a freeing up of individual enterprise and initiative. The idea is that once the old order is swept away, all the positive energies of societal actors will somehow flower forth. With this assumption in mind, analysts of reform tend to focus on terms like “rights,” “liberalization,” and “autonomy.” Economic actors, whether local governments, firms, or entrepreneurs, must be given the “right” to enjoy the fruits of their labor. Managers must be given “autonomy” from the state. Firms must be “liberated” from state planning. The underlying idea is that as long as strictures are lifted and rights granted, then everything will work out, and producers – whether individuals, firms, or even government agencies – will act for the social good. From the analytical perspective, scholars then focus on questions of how rights

have been redistributed downward under reform, the degree to which power has been decentralized throughout the bureaucracy, and the extent to which old institutions of control have been eliminated.

The following study takes a decidedly skeptical view toward the whole assumption that positive behavior flows from the acquisition of such rights. The first reason for this skepticism concerns the way we view our own system. After all, in the developed economies of the West, we hardly expect producers naturally to maximize their own economic interests, let alone those of society. Just a glance at the volumes of law and regulation needed to facilitate economic exchanges in the United States drives home this point. With this in mind, why should we expect positive outcomes to evolve naturally in developing economies? Why should we expect that, with the granting of rights, local governments in transitional systems will promote business when such bureaucracies are hardly expected to do so in developed economies? Why should we expect newly "autonomous" managers to maximize return on capital in post-socialist firms when such behavior is hardly expected to occur naturally in Western corporations? Even in developed economies, actors do not always behave in market-oriented ways, and – as events like the U.S. savings and loan scandal suggest – it is a costly policy mistake to assume that they do. This is all the more true in the poorly institutionalized, poorly regulated environments of post-socialist systems. "Rights" can be expressed in all sorts of ways other than asset expansion, particularly in the weak legal environment of transitional systems.

The second source of skepticism involves the field of Chinese reform studies more directly. Scholars of the post-Mao reform period tend to place considerable emphasis on issues of decentralization, central-local tensions, and grass-roots noncompliance. The idea is that with the disintegration of the old system, new rights and liberties have flowed downward to economic actors, and then the key is to explain exactly what the new distribution of power looks like. It is over this issue that a tremendous amount of debate occurs. Meanwhile, the underlying assumption that the new distribution of power effectively explains market-oriented behavior goes unchallenged.

Why should these liberties and de facto rights really be considered new or unique to the reform period? One could just as easily view grass-roots autonomy and noncompliance as an historical constant, a common thread running across the prereform and reform eras. After all, we are well aware of the rampant local and firm-level noncompliance that plagued the command system, particularly in the Chinese context.¹⁷ Firms hoarded resources and manipulated information flows to planners. Commune leaders fabricated harvest estimates. Peasants hid grain. Factory workers shirked labor. Localities protected their

own interests. One need only look at Liu Shaoqi's complaints about renegade local investment behavior in the 1960s to get a sense that the issues today are not that much different.

What is different in the reform era, however, are the ways in which autonomy and noncompliance are expressed, and the range of economic activity over which autonomy can be exercised. In other words, the interesting questions are not whether rights have increased or just who has these rights, but rather *why*, in the general context of producer autonomy, the aims of economic actors either change or do not change over time. Why is it that some actors engage in rent-seeking behavior while others do not? Why in today's Chinese reform context do certain localities express their autonomy by promoting growth rather than squandering central resources or beating up on local firms? Why do some government actors start and foster firms while others simply prey on firms? Why is it that, in the reform context, certain kinds of firms seem to respond to the market while others do not? Assuming for the sake of argument that a high degree of de facto local and firm-level autonomy is constant in developing economies, what other kinds of changes in the institutional context lead to behavioral changes among economic producers? What really are the key changes that can be associated with reform and the growth-oriented outcomes of reform?

In light of such questions, this study adopts a somewhat unorthodox framework, one that diverges from rights-based explanations by instead focusing on the nature of economic *constraint*. The argument is that outcomes and causality become far clearer if reform is viewed as a "clamping down" rather than a "loosening up." In other words, instead of assuming that economic actors respond naturally to certain freedoms once those freedoms are granted, this study assumes that behavior is somewhat sticky, somewhat resistant to change in the absence of a clear "push" or a clear penalty. The idea then is to examine in part the opportunities, but more particularly the constraints, that flow from a given institutional environment. What are the constraints that make certain patterns of behavior costly and others relatively painless? How does one type of institutional setup lead to different costs and opportunities from another setup? How does the general granting of rights lead to different patterns of behavior across differing institutional environments? In short, how do constraints and opportunities shape the way actors use their newfound privileges in marketizing economies? If (again for the sake of argument) we acknowledge that local autonomy has always been an ingredient in policy outcomes in China, then what new constraints have developed in the reform era that lead either localities or firms to engage in market-oriented, growth-promoting behavior? What constraints *force* some economic producers – be they governments, firms, or

managers – to shift to market-oriented behavior even as other actors simply continue in the patterns of the past? How do constraints force some actors to translate their autonomy into productive activity? Can the absence of such constraints explain why other actors engage in easier, more directly lucrative patterns of rent seeking and corruption? In short, this study asserts that the real change in China today – the real driver of reform outcomes – has to do with new budget constraints rather than new rights, freedom, or autonomy.

Such an approach allows us to answer the kinds of questions that have generally eluded rights-based analyses. It allows us to understand why large state firms do not naturally respond to the market even after planning is lifted. It allows us to comprehend why such firms do not necessarily respond to privatization or other ownership restructuring efforts. Furthermore, it allows us to see clearly broader developmental patterns in China and beyond. It allows us to understand why rural industry has boomed in China while urban industry has fallen behind. It allows us to comprehend, within that overall pattern, exactly why some local governments promote business and entrepreneurship while others do not. It allows us to understand why even in the Chinese countryside, and even in resource-rich coastal areas, certain areas have lagged far behind others in the promotion and development of new firms. The constraints-based approach allows us to explain variation within the overall context of new rights, new freedoms, and new liberties. Such an approach allows us to understand just why, in transitional systems, many actors do not behave as they are “supposed to” while others actually do.

THE TERRAIN OF CHINESE INDUSTRIAL REFORM

One of the geniuses of Chinese economic reform has always been the tendency to blur semantic distinctions and sidestep inflammatory labels. China is a socialist nation, yet one with a vast nonstate sector. It is a nation with few “private” firms but millions of “nonstate” firms. The country maintains “public ownership” over industrial assets, but not necessarily “state ownership.” State firms are owned by “the people,” yet in many cases sell shares to individuals in Shanghai, Shenzhen, New York, and Hong Kong. Ambiguous language has been extremely useful for establishing continuity with the past and shrouding revolutionary change in a veil of normality. Such language, however, causes considerable confusion in the area of enterprise reform, even with regard to the most basic questions of firm-level categorization.

By official government count, there are currently 7,341,500 firms in China engaged in all manner of industrial activities.¹⁸ Of these firms, 118,000 are

classified as state owned (*guoyou gongye*), 1,475,000 as collectively owned (*jiti gongye*), 5,688,200 as individually owned (*geti gongye*), and 60,300 as simply “other economic categories” (*qita jingji leixing gongye*). These distinctions merit some explanation.

The 118,000 firms classified as “state owned” are the SOEs that are the subject of this book. Formally, they are owned “by all the people” (*quanmin suoyou*), a term that essentially means ownership is left unspecified. Every one of these firms, however, is affiliated with one of the four basic levels of government in China: central, provincial, prefectural, or county.¹⁹ State-owned enterprises are also assigned to municipalities, which are themselves treated as either provinces, prefectures, or counties.²⁰ Some 2,000–3,000 of the very largest state firms are assigned directly to the center, but even here the distinction is blurry.²¹ Most of these firms, regardless of under which category they fall, find themselves subject to control by a number of contending governmental agencies, regional authorities, central line ministries, and local ministerial branches.

State-owned enterprises share a number of other characteristics that distinguish them from their nonstate counterparts. Unlike other firms, China's 118,000 state enterprises are responsible for providing their employees with a wide range of social welfare benefits: housing, health care, child care, retirement income, disability insurance, and unemployment insurance, just to name a few. In the most basic sense, these firms provide lifetime employment and cradle-to-grave benefits.²² They cannot casually shed labor during cyclical downturns, manipulate benefits in order to cut costs, or even substantially control the basic wage scale. Particularly among the larger firms, responsibility for running hospitals, clinics, day-care centers, and housing bureaus is virtually unavoidable. In short, the business of SOEs is not simply production.

State-owned enterprises are also the type of firms most closely linked with the old system of command planning. Indeed, these were the firms that sat at the very peak of the old Soviet-style system. Their investment resources came from the plan, their inputs were delivered by the plan, their output was set and allocated by plan, and the prices they received were determined by the plan. These, in effect, are “traditional” SOEs, China's equivalent to the industrial behemoths of the former Soviet Union and its satellites. Today, “the plan” in China is essentially a thing of the past, but traditional SOEs remain and, as will be described, still play a pivotal role in the economy. These are the firms that still receive most of their investment resources from the state, still comprise the bulk of heavy industry, and still employ the largest portion of the nation's urban workforce. These firms are also the one type of enterprise in China not

generally subject to bankruptcy. Although mergers and acquisitions are becoming more frequent, it is rare indeed for an SOE to exit the market, and still rarer for the assets of an SOE to be liquidated.

China's 1.47 million collective firms, on the contrary, are not formally state-owned and do not generally behave like SOEs. Nevertheless, they are in fact "publicly owned." Collectives are formally owned not by "the whole people" but instead by specific local governments, whether at the county or village level in rural areas or at the municipal level in urban areas. An important subset of these collectives are the 228,800 township enterprises and the 689,900 village enterprises that together comprise the township and village enterprises (*xiangzhen qiye*) that have attracted so much attention in recent years. Undoubtedly, property rights over collectives are defined far more clearly than those over larger state-owned firms.²³ Also unlike SOEs, collectives tend to cluster around lighter, less capital-intensive industries, in part because collectives generally do not usually have access to central sources of credit, subsidization, and investment. Instead, operating and investment funds must come from retained earnings, overseas capital, or off-budget allocations by local governments. Credit constraints virtually ensure that collectives remain unable to challenge the state sector's monopoly over heavy industry.

Another key difference from SOEs is that collectives are not generally responsible for social welfare provision. Employees are usually hired on a contractual basis and paid little more than basic wages. They can, and frequently are, let go during business downturns. In the most general sense, the prime task of collectives is straightforward industrial production in accordance with straightforward financial objectives.

Perhaps not surprisingly, collectives behave far more like textbook market-oriented producers than do their counterparts in the traditional state sector. Indeed, unlike SOEs, collectives can (and frequently do) experience bankruptcy and market exit. The reason for the superior performance of collectives is the subject of some scholarly dispute, and has at various times and by various observers been attributed to clearer property rights, local governmental stewardship, lighter social welfare burdens, basic productivity gains in the shift from agriculture to industry, and harder budget constraints.²⁴ Certainly an implicit goal of the following chapters will be to shed some light on this debate.

It is worth noting, however, that although the number of collectives has increased dramatically in the last fifteen years, this sector pre-dates reform and has always shared a basic distinction from SOEs. Even in the prereform era, collectives were always, in effect, outside the plan. Frequently started by rural communes or brigades, these firms provided precisely the kind of basic inputs

(e.g., cement, fertilizer, chemicals) that could not be obtained at grass-roots levels through the plan. Even prior to reform, these firms were manifestations of local self-sufficiency, operating on the marketized fringes of the command economy. They were run by local agencies with virtually no access to capital, they acquired inputs through informal channels, they had to sell outputs on local markets, and they set prices accordingly. The point is that, even prior to the sweeping changes of the 1980s and 1990s, these firms faced hard budget constraints and, to some extent, behaved like free-market producers.²⁵ Those tendencies became only more pronounced with the onset of reform and with the enhanced access to domestic and foreign markets that reform brought. Just as the existence of the prereform collectives reflected the incomplete nature of the plan – they sprung up in those sectors where the plan did not function – the growth of those firms since reform reflects the tendency of the country as a whole to grow beyond the plan. Collectives, although publicly owned, neither share the same basic environment nor display the same sorts of pathologies as traditional socialist SOEs.²⁶ They are, and have always been, different creatures.

Of the remaining categories, individually owned enterprises are small operations run by individuals or households that by definition hire fewer than seven employees. These firms, in keeping with the ambiguity of Chinese classifications, are not officially designated "private," but in essence constitute a private sector that has been allowed to emerge since 1978. Also new since the early 1980s are the range of firms grouped as "others": private firms employing more than seven people, wholly foreign-owned firms, foreign-domestic joint ventures, other forms of domestic joint ventures, and joint stock firms.²⁷ These enterprises round out the rich tapestry of firms that today comprise China's industrial sector.

THE ROLE OF SOES IN CHINA'S CONTEMPORARY ECONOMY

It is absolutely clear that, over the past two decades of reform, the contribution of SOEs to China's total industrial output has declined significantly. In 1978, these firms accounted for over 75 percent of the nation's industrial output. By 1995, the portion had dropped to under 35 percent. In 1978, collectives accounted for approximately 22 percent of China's industrial output value. The other categories of nonstate firms did not yet even exist. By 1995, collectives of all types produced over 36 percent of the nation's industrial output, while individual and other nonstate firms produced an additional 16.6 percent. Nonstate firms as a group were producing more than 50 percent of the nation's industrial output. Clearly, while output on the whole has been expanding tremendously

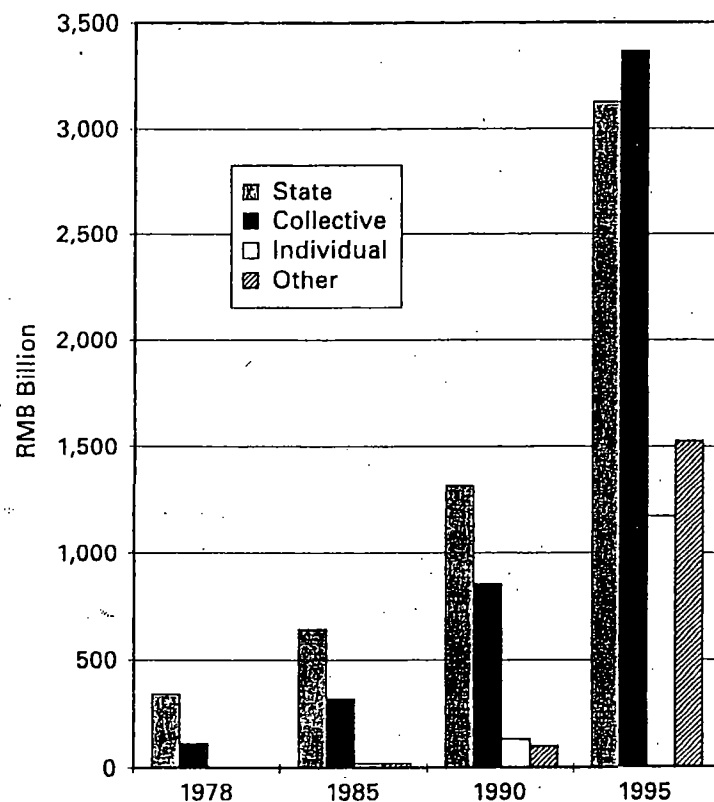


Figure 1.1. Output Value of Industry by Ownership, 1978–95

Sources: for 1978 data, Naughton (1995, p. 331); for 1985 and 1990 data, State Statistical Bureau (1994, p. 373); for 1995 data, State Statistical Bureau (1996, p. 401).

through the reform period, nonstate firms have been growing at a far greater rate than traditional SOEs²⁸ (see Figure 1.1).

In the broadest sense, these trends convey the success of Chinese reform efforts. A thriving, market-oriented nonstate sector has basically grown up and around the old economy, effectively dwarfing the plan. That this development was tolerated, let alone encouraged, is a credit to Chinese policy makers, for what it has ultimately meant is the end of command planning. Such developments have also undermined coordinated state control over the micro economy. Goods in all sectors are now basically allocated through market transactions, and prices for the most part have been liberalized. State-owned enterprises, in

Table 1.1. Industrial output by size of firm and ownership

	Percentage of total output		
	1978	1985	1991
Large-scale sector	41.5	42.3	43.6
[State]	[41.5]	[41.9]	[40.6]
[Other]	[0.0]	[0.4]	[3.0]
Urban medium/small	49.4	38.8	25.2
[State]	[35.8]	[22.9]	[12.2]
[Collective]	[13.6]	[15.9]	[13.0]
Rural medium/small	8.7	14.6	20.6
[Township]	[4.8]	[7.8]	[10.3]
[Village]	[3.9]	[6.8]	[10.3]
Very small scale	0.4	3.4	7.8
[Urban]	[0.0]	[0.3]	[0.7]
[Rural]	[0.4]	[3.1]	[7.1]
Other medium/small	0	0.8	2.8

Source: Naughton (1995, p. 164).

the broadest sense of having to acquire their own inputs and dispose of their own outputs, have essentially been forced to operate on the same terms as nonstate firms. These are truly remarkable changes, achieved with equally remarkable speed and social stability.

However, it would be a tremendous error to think that SOEs have been peripheralized. The data charted in Figure 1.1 give a highly distorted picture, one that deserves some explanation. Despite all the changes that have swept China in the last twenty years, heavy industry still remains thoroughly dominated by the state sector. No other ownership form has penetrated large-scale, capital-intensive sectors in any significant sense. State-owned enterprises are still providing the basic inputs upon which all other sectors depend, and for that reason alone can still be considered the backbone of Chinese manufacturing. Interestingly, where state-sector output share does seem to have declined is among medium and small-scale urban firms²⁹ (see Table 1.1). These smaller state firms, urban units engaged in light manufacturing, have clearly been edged out in the last two decades by rural nonstate enterprises. In a sense, the rise of the TVE has come at the expense of the small urban SOE. China's most

Table 1.2. *Urban workforce employed by state-owned firms, 1978–95 (millions of persons)*

Year	Total urban workforce	SOE employment	SOE portion of total
1978	95.1	74.5	78.3%
1980	105.3	80.2	76.2%
1985	128.1	89.9	70.2%
1990	147.3	103.5	70.3%
1991	152.7	106.6	69.8%
1992	156.3	108.9	69.7%
1993	159.6	109.2	68.4%
1994	168.2	112.1	66.6%
1995	173.5	112.6	64.9%

Source: State Statistical Bureau (1996, p. 90).

impressive output gains since reform have come in the area of light industry, gains that have witnessed a supplanting of small-scale urban manufacturers by newly created rural firms. The thousands upon thousands of textile producers, sneaker manufacturers, and toy makers that today dot the Chinese countryside have thoroughly changed the competitive environment for small urban SOEs. Small urban state enterprises have proven rather incapable of competing against their rural cousins, firms that are frequently favored by Taiwanese or Hong Kong investors. The SOE monopoly over more capital-intensive industries, however, remains unchallenged.³⁰ Overall, therefore, while SOEs are producing a smaller share of China's national industrial output than in the past, that remaining share has become even more concentrated in such core heavy industries as coal mining, petroleum extraction, metallurgy, and machine building.

Employment levels are another indication both of the continued significance of SOEs in the economy and of the general tendency of policy makers to defer any serious restructuring of the sector. China's total labor force in 1995 amounted to approximately 623.9 million persons, 173.5 million of whom were classified as urban workers³¹ (see Table 1.2). Sixty-five percent of those workers, even in 1995, were still employed in state firms.³² In short, about seven out of ten urban workers in China are employed by state firms. That portion, interestingly, has not declined significantly during the reform period, and stands in stark contrast to the far more dramatic decline in the state sector's share of national industrial output. On the eve of reform in 1978, SOEs employed

Table 1.3. *Government revenue from state-owned firms, 1978–95*

Year	Total government revenue	Government revenue from state firms	State-firm portion of total
1978	113.23	98.48	87.0%
1980	115.99	100.73	86.8%
1982	121.23	103.29	85.2%
1984	164.29	136.03	82.8%
1986	212.2	166.2	78.3%
1988	235.72	168.8	71.6%
1990	293.71	209.51	71.3%
1992	348.34	248.3	71.3%
1994	521.81	372.74	71.4%
1995	624.22	444.1	71.1%

Source: State Statistical Bureau (1996, p. 226). Units: RMB billion.

78 percent of the urban workforce. By 1990, the portion still hovered around 70 percent, and even by 1995 the number had crept down only five more percentage points. In essence, employment growth in the state sector has not slowed to match the sector's declining share of national output. In terms of production, the traditional state sector may no longer dominate, but in terms of urban employment, SOEs – by an overwhelming margin – are still the primary game in town.

The Chinese government's continued dependence upon SOEs for fiscal revenue is equally striking; see Table 1.3. State-owned enterprises may constitute the slowest growing industrial sector in China, but they are still (again by an overwhelming margin) the primary sources of tax revenue for all government levels in China, from the center right down to the urban localities.³³ In 1995, SOEs produced only 35 percent of China's industrial output value but still contributed 71 percent of the government's revenue.³⁴ This incongruous situation reflects the persistence of prereform patterns of governmental revenue mobilization. Under the old command economy, prices were set so as to channel financial surpluses upward from the agricultural into the modern industrial sector.³⁵ Prices for basic agricultural and industrial inputs were set at extremely low levels, while prices for finished industrial goods were set at high levels. Financial surpluses – “profits,” in a sense – were thereby intentionally concentrated in a relatively small number of downstream, state-owned industrial producers. Those surpluses could then easily be extracted as governmental revenue. The

system allowed a bureaucratically stretched government to capture a tremendous share of national income and at the same time obviated the need for a complex tax-collection apparatus.

The command economy may be gone, as are most state-set prices, but the old pattern of revenue generation persists. Despite significant tax reforms in 1994 and a substantial restructuring of the revenue mobilization process, state industry still remains the only sector that the government can tax with any substantial effect. This situation has many implications for policy, but certainly one of the clearest is that unless SOEs in the transitional context are revitalized, the state's capacity to generate revenue will continue to erode.

THE PERFORMANCE OF THE STATE SECTOR

Erosion of the government's tax base leads to the next issue, the overall financial performance of state industry since the inception of reform. It would hardly be an overstatement to say that Chinese SOEs, particularly since the early 1990s, have been locked in a downward economic spiral, a spiral only partially reflected in the rising number of firms that officially declare losses. In 1985, 9.6 percent of all "within budget" industrial SOEs declared losses, losses amounting to RMB 2.7 billion.³⁶ Ten years later, 44 percent of such firms were declaring losses, losses that had risen to RMB 40.9 billion.³⁷ In 1996, China officially acknowledged that the state industrial sector as a whole had posted net losses for the year, the first time this had happened since 1949.³⁸

Of course, some of these losses can be attributed to structural factors such as the gradual liberalization of input prices, and others pertain to accounting shifts involving more realistic assessments of certain production costs. Nevertheless, these figures on losses actually *understate* the severity of the crisis in state industry today. Many (and arguably the vast majority) of nominally profitable SOEs in China today teeter on the brink of insolvency. In other words, even the approximately 50 percent of industrial SOEs that do declare profits are beset by problems. These firms are currently consuming monumental amounts of investment capital and amassing extraordinary liabilities, liabilities that probably exceed the true value of firm-level assets.

Again, because of the unreliability of firm-level profit declarations, statements regarding the number of SOEs that formally declare losses fail to convey the magnitude of the problem. A much better picture comes from data on the dramatically rising levels of subsidization being directed toward the state sector. Even here, though, the situation is confusing because in recent years the government has shifted the manner in which funds are channeled into SOEs.

Early in the reform era, subsidies to state firms generally came in the form of direct allocations from the central budget. These subsidies or directed investments constituted state expenditures, and would appear as such in the government's overall fiscal balance. Over time, however, the government slowed the growth of these on-budget subsidies, and instead encouraged funds to move through the state banking system. Subsidies would increasingly take the form of interest-bearing loans extended by the major state banks.

The change, coinciding with an overall effort to marketize the nation's financial system, was at least partly well-intentioned. The theory was that subsidies in the form of quasicommercial loans would force borrowers – namely, state firms – to bear some cost for capital, use that capital in more efficient ways, and generally operate on a more market-oriented footing. Furthermore, channeling investment funds through a commercially oriented banking sector would encourage financial deepening throughout the system and lead to a more efficient, market-determined allocation of capital nationwide. The theory works, however, only if subsidies truly cease being subsidies. In other words, in terms of changing firm-level behavior, the issue is not from whence the infusions of capital come (the state budget or the banks) but rather under what terms the capital is extended. The capital must come at a cost, and it must be extended to those most likely able to repay. The capital, in effect, would have to be the opposite of a subsidy. Of course, for such an outcome actually to obtain, several conditions would have to be met. First, credit would truly have to mean something – borrowers would have to face the threat of bankruptcy in the event they could not meet their financial obligations. Second, for lending to move forward on a commercial basis, banks too would have to be given autonomy over lending decisions and then be forced to pay a price if those decisions resulted in losses and an accumulation of bad debt. Unfortunately, for reasons that will become clearer in the case studies, neither of these conditions has been met in China.

Once again, given the complex institutional requirements of the modern industrial sector, half-way reforms can be extremely dangerous. By shifting the manner in which capital flows into state industry, the government has essentially decided to avoid fiscal deficits by increasing public-sector borrowing from the state banking system.³⁹ This change is clearly reflected in the data. Since 1990, the sum of explicit and implicit subsidies going directly from the central budget to loss-making SOEs has declined slightly as a percentage of gross domestic product (GDP),⁴⁰ a trend that makes sense given the overall decline in government revenue vis-à-vis GDP.⁴¹ At the same time, lending by the state banking system, especially to SOEs, has skyrocketed in relation to GDP.⁴² The banking sector's total outstanding loans on an annual basis grew from approximately

50 percent of GDP in 1978 to approximately 90 percent in 1996.⁴³ Clearly, lending was up nationwide.

Unfortunately, the vast bulk of this lending has been directed toward the least productive and slowest growing portion of the economy: the state industrial sector. By the end of 1995, outstanding loans to state industry amounted to approximately RMB 3.36 trillion, 83 percent of all outstanding bank loans that year.⁴⁴ In other words, by the mid-1990s, lending was way up in relation to GDP, and state firms were absorbing the overwhelming majority of that lending. The accumulated liabilities of SOEs (again, not surprisingly) have surged during this period. In 1988, the external liabilities of industrial SOEs stood at approximately 45 percent of those firms' book-value assets.⁴⁵ By 1994, that figure had increased to 79 percent.⁴⁶ This number is understated, however, given the tendency of Chinese firms to inflate the value of both their fixed and liquid assets.⁴⁷ Total debt in the SOE sector – whether owed to banks or other firms – had climbed by the end of 1995 to approximately RMB 800 billion, a 20-percent increase over the previous year.⁴⁸

The problem lies not only in the fact that state industry is absorbing tremendous amounts of capital, but also in what is being done with that capital. As the case studies will illustrate, a significant portion of SOE borrowing ends up directed toward working-capital needs. In other words, a large portion of this capital is not going toward long-term productive investment – the sort of projects or modernization efforts that might yield returns in the future – but is instead being used simply to cover firms' current production costs. Even nominally profitable firms are amassing liabilities just so that they can sustain production processes that bring in no cash. In a sense, firms are decapitalizing themselves in order to stay afloat, a pattern that is increasingly showing up in sectoral liquidity reports. In the steel industry, for example, more than one third of the nation's integrated mills by the mid-1990s were running current ratios (current assets divided by current liabilities) of under 1.0, and several of those firms were reporting ratios under 0.50.⁴⁹ Without routine infusions of short-term loans, many firms simply cannot pay workers or maintain basic production. Indeed, in the tight-credit atmosphere of 1995, some 60 to 70 percent of the firms in China's industrial Northeast simply ceased production, and millions of workers went unpaid for months on end.⁵⁰ Meanwhile, firms with better connections to the banking system and easier access to credit were directing short-term loans toward ill-advised expansion projects, all as part of an effort to increase output and profits.⁵¹

The obvious outcome of either form of behavior is an inability on the firm's part to service its mounting debts. Since capital is devoted to uses for which

there are no productive returns, firms can pay neither the interest nor principal on their escalating debts. The banks simply keep rolling the loans over, often taking the unpaid interest from one year and tacking it on to the principal for the next year's loan. As state-sector borrowing increases, therefore, so too does the level of bad debt in the banking system. Owing to a number of factors – the flexibility of Chinese accounting standards, quotas for the number of loans that banks can classify as nonperforming, and uncertainty in the classification standards themselves – estimates of the magnitude of this bad debt are admittedly rough. Nevertheless, statements by Chinese banking officials suggest that nonperforming loans in the nation's four major banks amount to approximately RMB 860 billion.⁵² Other estimates have placed that figure at RMB 1.27 trillion or higher.⁵³ Even the more conservative of those estimates, however, implies that China's four major state banks are technically insolvent. The corollary, of course, is that a large number of the SOE borrowers are also insolvent.

Banks continue lending under such circumstances for several reasons. First, banks in many cases are expressly directed by the central government to extend "policy loans" to specific failing enterprises, loans which are themselves supported through credit from China's central bank, the People's Bank of China (PBC). Estimates in the mid-1990s suggested that such policy lending accounted for 60 to 80 percent of the loans extended by the central bank to the nation's financial system.⁵⁴ Second, banks frequently receive pressure from local governmental agencies to extend preferential loans to favored firms. Governmental decentralization and the diffusion of state authority has bolstered this trend. Third, in the overall context of financial system reform, new financial intermediaries have emerged, some of which have ties to specific SOEs or state industrial groups.⁵⁵ These ostensibly commercial banks accept regular household deposits, but in several well-publicized cases have engaged in irregular lending to their parent organizations. In other words, some of these banks have on occasion served as conduits for channeling household savings into their parent industrial organizations.

The combined data showing rising levels of loss-making SOEs, rising levels of bank lending to the state sector, and rising levels of nonperforming debt present a fairly persuasive picture. The state sector is being kept afloat through vast amounts of subsidization, whether from the central budget or the financial system. Yet, the government's decision to transfer to the financial system the burden of supporting loss-making SOEs actually has serious implications. Subsidies to SOEs continue just as they have in the past, but now the vectors for delivering those subsidies have grown far more numerous and far more

difficult to control. Furthermore, the ties of those vectors to household savings are now far more direct. The central state may still be bailing out firms, but now a whole new range of actors – local governments, local branches of national banks, banks tied to specific industrial groups – have become engaged in the process, sometimes in accord with national policy but sometimes simply on their own.

The problem now is not just that the government still bails out failing SOEs. Rather, the problem is that half-way reforms in the modern industrial sector's institutional environment have actually increased the extent to which stagnating state firms capture societal resources and simultaneously decreased the extent to which policy makers can control or even monitor the flow. In 1996, over 50 percent of China's SOEs were declaring losses, but the state sector was still capturing more than three fourths of the nation's domestic credit.⁵⁶ The ultimate tragedy is that the savings deposits of ordinary citizens have become increasingly tied up in this process, and the banking sector as a whole has been effectively undermined. It is no wonder that, within Chinese policy circles, an air of utter crisis surrounds discussions of the SOE problem.

Over the short term, a number of parties suffer from this situation. Workers suffer when the government periodically cuts bank lending and leaves firms unable to issue wages. Nonstate firms suffer since they cannot easily access domestic capital. Citizens suffer when they defray banking inefficiencies by enduring negative real rates of interest on savings deposits. In the event of an immediate crisis such as a run on the banks, household depositors will certainly bear the cost. Over the long term, however, it is the whole country that suffers through the misallocation of capital. When so much of the nation's resources flow into failing state industry – in other words, when capital is forced to move from high- to low-growth regions and from faster growing industrial sectors to slower ones – there is only one logical outcome: slower growth overall.

THE SEARCH FOR EXPLANATIONS

The foregoing discussion outlined in general terms how partial reforms in the financial system and partial reforms in the modern industrial sector have combined to create an economic situation in China that is both unsustainable and potentially volatile. Untangling this situation in policy terms represents the greatest challenge facing Chinese decision makers today. Untangling this situation in analytical terms represents the challenge of the following chapters.

Chinese decision makers, like their counterparts in other transitional systems, face crucial choices: in the ways they can tackle SOE restructuring and

in the sequence by which they can stage reform measures. Choices, of course, are made for a variety of reasons and in response to a variety of pressures. At least in some sense, however, choices reflect implicit assumptions about the way things work, implicit visions about the nature of causation.

For Chinese policy makers today, the prevailing assumption seems to be that what really counts in SOE reform is "ownership." More precisely, in this view what really counts in driving enterprise performance is the placement of property rights in appropriate hands. Because this view is accepted, reform debates usually revolve around more instrumental issues of how to separate the firm from the state, how to extend autonomy to managers, and how to "clarify" property rights. Exactly who should hold these rights – private citizens, foreigners, state holding companies, mutual funds – is of course an unresolved and sensitive issue. That sensitivity, however, frequently overshadows the broader underlying consensus in Chinese reform circles that "who should own" is the right question to ask.

Today, we are witnessing the culmination of those ideas as China's senior leaders publicly contemplate the corporatization of 10,000 major state firms.⁵⁷ Ironically, the conclusion seems to be that state industry can be saved by increasingly turning it over to individual investors, whether they happen to be in Hong Kong, New York, or anywhere else. In one sense, these strikingly radical measures are driven by a pragmatic issue, the dire financial condition of the state sector. State-owned enterprises are hemorrhaging money, and if the banking system can no longer be relied upon to pump in capital then private investors will have to pick up the slack. In another sense, however, the turn toward "corporatization" signifies the power of ideas. Chinese leaders may steadfastly proclaim their loyalty to socialism and state ownership. Yet their actions reflect a tacit acceptance, if not of outright privatization, then at least of the causal assumptions underpinning privatization efforts.

The chapters to follow take issue with those assumptions and offer a decidedly different framework for comprehending SOE reform in postcommand economies. Chapters 2 and 3 tend toward the more conceptual side, examining competing frameworks for addressing the nature of ownership and property rights in modern industrial firms. They argue that the problem with Chinese SOEs today is not that ownership is in the wrong hands but rather that ownership simply does not function. Ownership fails to function because the external market mechanisms needed to make it function in large production organizations are at best deeply flawed in the Chinese context.

Chapters 4–6 illustrate these ideas through the stories of three very different firms in a single, extremely important Chinese industry: the steel sector.

Introduction

The firms are drawn from the steel sector not because this is a book about steel *per se* but rather because that particular industry has been targeted by virtually every major industrial reform effort in China. Steel, in a sense, serves as a bell-wether for Chinese enterprise reform writ large. Each firm discussed in this book reflects a particular style of property-rights restructuring. When taken together, these firms represent the full spectrum of reform policies in the Chinese industrial sector. As a result, they allow us to examine in micro detail exactly how transfers of property rights impact upon complex producers in transitional economies. Indeed, the firm discussed in Chapter 5, Ma'anshan Iron and Steel, has already been corporatized and currently lists its shares in Hong Kong. As an experimental test run for the more widespread corporatizations promised by Chinese leaders, it offers us a view into China's future.

In a more general sense, these case studies illustrate the firm-level behavior underlying the macro data described earlier. In doing so, they allow us to understand better some of the causal relationships driving the macro-level outcomes. At the very least, they allow us to understand just how intensely complex the task of state-sector restructuring really is. The three firms discussed in the case studies are admittedly exceptionally large by Chinese standards; in fact, they are among the largest in China. Although atypical in size, they are thoroughly typical in the behavioral patterns that they display. In short, their micro-level behavior remains quite consistent with China's macro-level outcomes.

The final two chapters delve into some of the broader ramifications of the framework introduced to study SOE reform. Chapter 7 examines the general pattern of Chinese economic reform, particularly the stark contrast between rural industrial growth and urban industrial stagnation, and attempts to provide a unified institutional explanation. Chapter 8 concludes the study with some remarks about future reform trends in China and the role of the state in managing enterprise restructuring. All of the following chapters are unified by a common desire to flesh out the complexities of state industrial reform in transitional systems. In the area of industrial reform, there have been a large number of simple, seemingly logical policy solutions put forward. Few, if any, have worked. The following chapters attempt to explain why. In the most general sense, this is a book not about how to solve SOE restructuring but rather about how to understand SOE restructuring.

Extending the Argument: Budget Constraints and Patterns of Growth in China

IN previous chapters, a constraints-based approach – the nested problems dynamic – was used to explain the particular problem of urban SOE restructuring. In this chapter, we will explore the broader implications of the nested problems dynamic. What can the constraints-based approach tell us about reform beyond the SOE sector? Can the same concepts used to illuminate patterns of urban industrial stagnation also help us understand the phenomenal growth of Chinese rural industry? More broadly, to what extent can a constraints-based approach change our perspective on the overall drivers of growth in postcommand economies? How might our sense of the “appropriate” package of reform policies to adopt change as a result?

TRADITIONAL APPROACHES TO CHINESE REFORM

Like China itself, Western sinology over the past fifteen years has undergone an extraordinary transformation. Long-held perspectives have given way to novel approaches, approaches themselves made possible by unprecedented research opportunities. China’s “opening” to the West, although focused mainly on foreign trade and business, has certainly had its academic research component as well. Scholars both within China and abroad have moved aggressively to grasp these new opportunities and to develop new modes for understanding an ever-changing social, political, and economic landscape.

Nevertheless, for all its variety and creativity, recent work on China has been rather circumscribed – somewhat confined within narrow intellectual parameters. Despite their differences and disagreements, scholars of reform generally speak the same language of “property rights,” “decentralization,” “liberalization,” and “autonomy.” There is an almost universally held assumption that productive economic behavior is somehow innate, something natural that can be freed up through the dissemination of power and rights. Reform, therefore, becomes viewed as the process by which this unleashing of economic dynamism occurs. What drives changes in behavior are new freedoms from

constraint and new powers of independent decision making for economic actors. Reform is understood as an "opening," a dismantling of old strictures and a dissemination of new freedoms. It is defined, in effect, as a blossoming forth.

Of course, there is nothing intrinsically wrong with this view. Anybody who has spent time in China over the past decade knows perfectly well that the country truly has changed, that living standards have improved dramatically, and that all sorts of unprecedented freedoms and opportunities now exist in society. Nevertheless, by viewing reform almost exclusively as a blossoming forth, and by viewing economic behavior as driven almost exclusively by freedom from constraint, scholars end up focusing on only particular kinds of questions. In other words, scholars tend to assume that economic reform – and, by extension, economic growth – entails the dissemination of rights and autonomy to key actors in the system. The significance of rights or of freedom from constraint as the driver of economic behavior is accepted *a priori*. The main academic arguments then revolve primarily around determining who possesses these rights and where power actually resides in the system.

Of course, plenty of disagreement exists even within these established parameters. Some scholars underscore the importance of provincial power.¹ Other scholars assert that the real change lies in the rights accorded village-level governments.² Still others assert that, in fact, the center actually continues to hold key rights and that maintenance of central control actually furthers reform.³ Finally, there are those who focus on the ability of basic economic producers to achieve freedom by operating outside the existing system.⁴

Does the center rule, or do the provinces? Are village-level governments or rather individual firms the key actors? Is it centrally mandated policy that sets economic actors free, or are those actors simply moving beyond the system and gaining freedom on their own? Is it perhaps a combination of the two? Has entrepreneurship really developed in the reform era, and if it has then who are the entrepreneurs? Who are the market actors and why?

Almost inextricably linked with these descriptive questions of "who actually does rule" are more normative questions of "who should rule." What is the optimal distribution of rights for achieving economic growth? How can entrepreneurial behavior be promoted? Should property rights be granted wholesale to private owners, or can those rights reside in the hands of state actors? Which level of the state should be empowered? Is it the center or instead the grass-roots level that should maintain control rights?

That China scholars tend to confine themselves to these types of questions, and to rights-based analyses in general, is in part reflective of broader developments outside the China field. Much scholarship on China takes on a

rather reactive and derivative quality. Always lurking in the background is the neoclassical assertion that growth requires private property rights and that effective postcommunist reform requires "big-bang" privatization.⁵ Just as the collapse of the Soviet bloc pushed China off the front pages of the popular media, neoclassical policy programs in Eastern Europe captured the academic limelight once associated with Chinese-style reform. Chinese reform went from being viewed as impressively progressive to suspiciously conservative or even downright recalcitrant. Why bother studying China when the real action, and the economically significant change, is in Eastern Europe and the Soviet Union?

The "China side," scholars whose careers are deeply invested in the relevance of Chinese reform, gamely counters by showing not only that growth is possible without privatization but also that gradualism is actually an optimal policy for a variety of social, political, and economic reasons. In effect, much academic literature on China either explicitly or implicitly attempts to weigh in on the "gradualism versus shock therapy" question. The problem, however, is that by letting other people set the terms of debate, China scholars have been steered down only the most well-trod paths of explanation and analysis. They argue assiduously that property-rights reform can substitute for outright privatization, or that governmental decentralization can substitute for nonintervention in the economy, yet nobody challenges the fundamental neoclassical notions of causation and behavior.⁶ Few scholars seriously entertain the possibility that rights, freedom, and autonomy are *not* the driving forces behind successful postsocialist reform or economic behavior in general. Few scholars challenge the dominant view of reform as a dismantling of constraints, an opening of new opportunities, and an unleashing of innate energies. The "China side," by trying so hard to counter the "big bang," has in a broader sense been co-opted by it.

The preceding chapters on SOE reform have attempted to explore reform through a decidedly different lens – one that is different from that adopted by advocates of gradualism and shock therapy alike. This work has attempted to move away from rights-based frameworks by focusing instead on the significance of *constraint* in shaping economic change. Reform is defined not so much as an opening up but rather as a tightening up or even a clamping down. Behavioral change is viewed not as a spontaneous response to new freedom but rather as a forced response to new pressures and strictures. Indeed, autonomy is viewed as somewhat of a constant, something that existed as much in the command economy as in the reform era. However, autonomy was in the past expressed through rent seeking or other nonproductive behavior. Industrial

managers used their power to hoard inputs. Commune officials manipulated harvest estimates.⁷ Farmers hid rice.⁸ Factory workers shirked labor. The list goes on and on. "Eating from the big pot" or skimming off "iron rice bowl" systems of lifetime employment are just as much expressions of producer autonomy and entrepreneurial behavior as are more productive, market-oriented activities. One focus of the constraints-based approach, though, is to ask how autonomy in any system is channeled toward either asset-expanding or asset-squandering behavior. The approach assumes that, from the producer's or entrepreneur's perspective, neither form of behavior is necessarily optimal and neither is simply chosen spontaneously. Rather, changes are made in the face of pressure. It is not choice but rather lack of choice that brings about change. The engine of causation is constraint, not opportunity or "rights."

Of course, the argument here is not over truth per se. In a sense, the constraints-based approach is to the rights-based perspective what the Copernican view of planetary motion was to the Ptolemaic. "Rights" can be viewed as the focus of reform, just as Earth can be viewed as the center of the solar system. In both cases, though, the calculations become decidedly more complicated and the explanations more convoluted. The real question is which analytical framework – which representation of reality and causation – carries us further in understanding the phenomena at hand. Which offers us the better vantage point for understanding observed past outcomes and potential future ones? Which can explain variations across time and geographical space? Postcommand reform undoubtedly involves simultaneous and deeply interwoven shifts in autonomy and constraint, freedom and responsibility, and power and authority. The facts themselves can support a variety of analytical frameworks. The issue at hand is which analytical approach gives us more explanatory power, more analytical bang for the buck.

The constraints-based perspective clearly shows that, in the SOE sector, the "rights" associated with reform have led to a whole range of possible economic behaviors, both positive and negative. Under certain institutional circumstances in the reform environment, power and rights translate into more rent-seeking opportunities and further rent-seeking behavior. In the urban industrial sector, access to soft lending from the banking system vitiates budget constraints for enterprises and governmental agencies alike. In such a situation, rent seeking clearly pays for a number of economic actors, while incentives for value-expanding economic behavior are few and far between. The increasing autonomy afforded by reform simply allows more rent seeking, on a grander scale, and with less immediate risk of getting caught. In essence, what develops are rights without accountability and freedom without responsibility. Reform

becomes indeed a process of opening up, but opening up to behavior that is anything but growth-promoting. As the cases of Angang, Magang, and even Shougang suggest, the economic outcomes can be dismal indeed.

Alternatively, even within the state sector, positive outcomes are possible and market-oriented behavior has been observed. But as suggested by Shougang's decade of success, the key is not the dissemination of rights but rather the establishment of strict and clearly defined constraints. Of course, not all forms of constraint are useful. The command system was full of constraints and targets, particularly constraints upon managerial authority and targets for material output. Ironically, one problem with those constraints was that they did not effectively impinge on key aspects of producer autonomy. The command economy's restrictions on producers were both misdirected and fairly weak. Producers were left myriad opportunities, mostly through their control over information, to squirrel away assets and capture rents in the economy.

What counts in SOE reform is not the imposition of just any constraint at all, but rather the imposition of a hard budget constraint. Producers, to some extent, can elect to behave as they wish in any economy. They can behave in accordance with the law, or they can behave in egregious violation. Similarly, entrepreneurial actors can seek financial gain through value-expanding or value-subtracting activities. From the policy perspective, the key is to ensure that clear costs apply to value-subtracting behavior. It is precisely these costs that hard budget constraints impose.

In a sense, the key to growth-promoting reform is not the dissemination of freedom to do anything but rather the imposition of constraints against doing many things. When policy makers are committed to *not* bailing out unproductive, money-losing firms, managers are forced for their own survival to seek growth-promoting strategies. Similarly, when bailout financing no longer cascades upon the firm, local governments are forced to curtail predatory taxation. Excessive taxation in the absence of bailout loans undermines the firm, and once the firm is gone, so too is the locality's tax base.

The imposition of hard budgets does not mean that every economic actor will behave intelligently or appropriately. Some Chinese managers, like their counterparts everywhere else in the world, will still adopt inappropriate strategies, even when the viability of their firm is at stake. Similarly, some governmental actors, even when their long-term revenue base hangs in the balance, will still tax firms to death. Information is never perfect, those interpreting information are never perfect, and mistakes are inevitably made. Reform that truly clamps down, however, ensures at the very least that those who make the mistakes are identified and perhaps even weeded out. Poorly managed firms go

out of business. Poorly managed localities run out of money, fail to attract additional business, and (it is hoped) have their leadership replaced. At least accountability in such circumstances can be traced. More important, at least the basis is provided upon which efficient allocation of scarce societal capital can be achieved. The basis is created upon which financial institutions can channel investment into firms that are well run. By extension, then, wealth will flow toward regions or localities whose governments promote business rather than prey upon it. Scarce resources, in effect, end up moving toward those who can expand those resources and make them less scarce.

The point here is not to suggest what might occur in a hypothetical, ideal situation. Rather, this is what *does* occur in the Chinese SOE sector. Where reform has taken on the quality of a clamping down, and where decision makers have made the extremely difficult choice of restricting firm-level access to resources, managerial behavior has shown signs of shifting toward growth promotion. Alternatively, for cases in which reform has involved solely an "opening up," a "spreading of power," and an "expansion of freedom," behavior has often tended toward rent seeking – not necessarily in a criminal sense, but as a purely rational strategy for coping with chaotic economic circumstances. In essence, pursuing reform solely via "liberalization" is the easiest step decision makers can take. The far harder step, but the one upon which successful SOE restructuring depends, involves the pursuit of reform as the imposition of costs and constraints, the kind of constraints that push actors to adopt market-oriented, value-expanding strategies for their very survival.

An interesting question, however, is the extent to which this notion of reform as a "clamping down" can explain patterns outside the state sector. How does the constraints-based view stack up against the rights-based view in explaining phenomena such as TVE growth or broad regional income disparities in China? Can either view single-handedly, with one unified explanation, illuminate both why urban SOEs have stagnated and why rural TVEs have boomed? Can either view explain why rapid rural industrialization has been a primarily regional phenomenon, one certainly more associated with the coastal South than the North and one virtually absent in the industrial Northeast? Why do some local governments promote business while others do not?

In essence, what we are looking for is a "Copernican" framework for reform. We have one approach, the constraints-based view, that seems to explain phenomena in the urban sector. We have an entirely different approach, the rights-based view, which (as will be shown in what follows) supplies a sophisticated explanation for rural growth. As with the Ptolemaic notion of Earth's position in the universe, each view can explain one thing and explain it well.

Which, however, can explain many things? Which can be the equivalent in reform studies to an idea that explains not only the Earth's motion vis-à-vis the Sun but also the motion of all the planets?

EXTENDING THE ARGUMENT: THE FACTUAL TERRAIN OF CHINESE REFORM

Any broad explanation of Chinese reform, particularly the kind of explanations that result in sweeping policy recommendations, must avoid focusing on only specific, disaggregated elements of the reform experience. In other words, it is not enough to explain only the rapid expansion of rural enterprises, or just the growth of exports as a portion of GNP, or only the relative stagnation of urban industry. These specific phenomena must be seen as part of some broader whole, a broader web of connections constituting the entire rich tapestry of Chinese reform.

What, exactly, are the main attributes of this tapestry? Unquestionably, a prime attribute involves impressive macroeconomic growth. From 1979 to 1991, China's GNP grew 8.6 percent annually, or 7.2 percent on a per-capita basis.⁹ In 1992, GNP growth shot up to 12.8 percent.¹⁰ Meanwhile, exports as a portion of GNP rose from around 5 percent in 1978 to nearly 20 percent in 1991.¹¹ Clearly, China was getting considerably richer than in the past, considerably quicker, and with far more reliance on exports. China, in its own way and whether intentionally or not, was shifting from extreme strategies of import substitution to the sort of export-promoting strategies pursued in the rest of East Asia.

Within this broad pattern of growth, several interesting things were happening. First, the nonstate sector (perhaps "nontraditional" would be more accurate) began to outstrip the state sector in terms of total contribution to national industrial growth.¹² Whereas in 1978 the nonstate sector accounted for only 22 percent of China's total industrial output value, that share had risen to well over 50 percent by the mid-1990s. Between 1978 and 1991, not only had employment grown much faster in the nonstate sector than in the state sector, but also total factor productivity (TFP) growth remained consistently higher in the former than in the latter.¹³ China's economy was undergoing tremendous transformations in the area of ownership. The absolute number of nonstate firms was shooting upward, and the firms themselves were producing far more efficiently than their state-owned counterparts. As indicated throughout the earlier chapters of this study, the urban state sector, though enjoying some productivity gains of its own, was sinking deeper and deeper into financial distress.

The nonstate sector had, in effect, become the locomotive of China's export-oriented growth, slowly but surely dragging the urban industrial sector along with it.

The second interesting fact is that, within this overall pattern of nontraditional sector growth, the most impressive gains were made in the countryside. Between 1978 and 1990, the total output value of China's locally owned rural collective enterprises grew at a spectacular annual rate of 26.7 percent.¹⁴ That the national average for all firms during the period was somewhere around 13 percent shows just how significant the contribution was from rural industry. From 1978 to 1991, the sheer number of people employed in rural industry shot upward from 28.3 million people to 96.1 million.¹⁵ Meanwhile, between 1986 and 1990, exports from the TVE sector expanded 65.6 percent annually. China's countryside during the reform era has been engaged in an extraordinary transformation, a veritable industrial revolution as peasants leave the land for jobs in industry.

The third interesting feature is that the pace of reform has varied not only by sector but also geographically. It is not that rural collective industry has surged past the urban SOE sector in every province and autonomous region, but rather that the phenomenon has been concentrated in only certain areas. This is a critical point for understanding both the specific causes of rural industrialization and the more general drivers of economic growth in transitional systems.

Even a quick survey of the data serves to illustrate this point.¹⁶ The stark income disparities between China's coastal East and inland West are well known, and they are as old perhaps as Chinese history itself. Far more variable and less understood, however, are the economic disparities within China's coastal provinces. Clearly, important shifts have taken place over the past two decades. From 1953 to 1978, China's era of command planning, the basic trend was that the industrial North and Shanghai grew relatively rapidly, while the rural South grew relatively slowly. During that period, areas like Shanghai, Beijing, Liaoning, and Heilongjiang – centers of heavy industry – experienced annual GNP growth rates at or above 9 percent. At the bottom of the list, at 5.2 percent, was the primarily rural (or, at most, light industrial) Guangdong. Absolute income disparities during this period simply mirrored the growth trends. In 1978, at the very start of reform, rural southern provinces like Fujian and Guangdong were ranked as low-income and lower-middle-income areas (respectively), while northeastern industrial giants like Jilin, Heilongjiang, and Liaoning ranked among China's highest-income areas.

However, during the first decade and a half of post-Mao reforms, the trends reversed in important ways. The high-growth areas shifted to the South, with

Guangdong leading the pack with 13.3 percent annual growth and with Zhejiang at 12.5 percent, Hainan at 12 percent, and Fujian at 11.6 percent. These were precisely the areas that had, in a sense, been marginalized during the command era, for they simply were not major centers of heavy industry and thus were not big targets for central investment. Ironically, the areas once privileged during that earlier era, the northeastern industrial centers, have experienced the slowest growth levels nationwide during the reform years. Heilongjiang sits at the bottom of the list with a 6-percent growth rate, while Liaoning and Jilin are close behind at 7.8 percent and 8.2 percent, respectively.

Meanwhile, significant shifts have also occurred in absolute levels of wealth. Guangdong, previously ranked among the lower-middle-income areas, is now among China's five wealthiest provinces. Fujian has followed close behind, moving from the absolute bottom low-income category before reform to the upper-middle-income group by the 1990s. Conversely, Jilin has dropped from the upper-middle to the lower-middle group, and Heilongjiang has dropped from the high-income classification to the upper-middle group.

The point is simply that rural-led industrialization and TVE-led economic growth cannot properly be cast as "national" phenomena in China. It is somewhat of a distortion to suggest that China's story writ large has been one of the growth in the countryside surrounding and ultimately bolstering the cities. Rather, the story has been one of a particular sort of rural-led growth – growth not in every rural area of China, but rather rapid development in areas neglected during the command period. The Chinese experience has been one not so much of growth in the countryside surrounding the cities as of growth in the South surrounding, and ultimately stimulating, the North. Today, however, while northern areas like Shandong finally boom, industrial northeastern provinces – even the large rural expanses of the Manchurian plain – remain relatively dormant.

Any comprehensive analysis of reform must account for these patterns. It is not enough just to explain successful TVE growth. Nor is it enough just to explain SOE stagnation. Rather, explanations for one must be reconcilable with explanations for the other, and all must account for the regional disparities evident to even the most casual observer of China.

LOCAL STATE CORPORATISM: A RIGHTS-BASED APPROACH TO TVE GROWTH

In this section we will examine how one particular property-rights-based approach – the "local state corporatism" perspective – copes with the patterns of reform just described.¹⁷ The local state corporatism view is chosen not in the

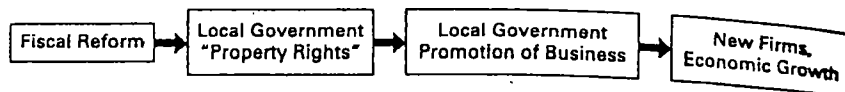


Figure 7.1. The Local-State Corporatism Argument

hope that it can serve as a straw man but rather because it reflects – through its linking of property-rights analyses with notions of state-led development – a set of ideas that have gained tremendous currency both within China and abroad. Furthermore, as will be discussed later, the local state corporatism view has significantly different policy implications from the constraints-based approach.

The local state corporatism (LSC) view sets out broadly to explain China's economic growth during the reform era and, more specifically, the tremendous growth of collective enterprises in the Chinese countryside.¹⁸ The argument suggests that China's system of fiscal contracting, by granting local governments the right to collect and keep tax revenue, motivated these local governments to promote business.¹⁹ In other words, reform – defined in this case as fiscal reform – reassigned property rights, or "control over assets," downward to local governments.²⁰ Village-level governments, the theory asserts, were given unprecedented rights to engage in economic activity – rights, essentially, to be free from outside intervention and control. What they did with those rights was to pursue industrial development, and the more secure the rights they enjoyed, the more aggressively they pursued growth. In other words, because local governments enjoyed control and cash-flow rights over local assets, officials had a clear incentive to seek long-term expansion of those assets by starting new firms. The local government, in the LSC view, served as a sort of company headquarters, coordinating the various component firms of what, in essence, became a diversified business corporation.²¹

The causal argument is illustrated in Figure 7.1. Fiscal reform leads to local governmental property rights, which in turn lead governments to promote business, which in turn leads to economic growth. Furthermore, the closer the ties between government and business, and the more nearly unilateral governmental decision-making power actually is, the more local business will develop.²² Local state intervention is seen as a positive force for the efficient allocation of resources, where efficiency is defined in economic rather than social welfare terms. The key to TVE success is considered to be state control over assets – state control that mirrors, in a sense, the behavior once attributed on a grander scale to Japan's Ministry of International Trade and Industry.²³ The evidence

cited to support this point is the fact that TVEs, which are owned by specific localities, perform better than larger SOEs, which are "owned" by the undifferentiated population as a whole.²⁴ Again, the closer the tie to the state – a state that can control assets, move those assets between its various enterprise holdings, and thereby pick winners and losers in the local business environment – the more robust the observed economic growth.

Of course, lurking behind this argument is a fundamental assumption that fiscal reform has not only granted localities the power to retain revenue, but has also cut localities off from central subsidies. In other words, there is a key assumption that hard budget constraints actually apply to the local governments involved. Only if hard budget constraints actually apply to local governments does it become imperative for these governments to seek expansion of the local tax base. Otherwise, these governments could accrue wealth simply by encouraging more central subsidization. Proponents of the LSC view mention this condition only in passing, assume that it applies to rural local governments nationwide, and then move on to underscore state intervention (made possible by property rights) as the key to successful economic growth.²⁵ Local governmental property rights to allocate resources and intervene in firms are pinpointed not only as the drivers of growth but also as the means by which states can potentially transcend markets in the developmental process.²⁶ Only with the hard budget assumption, then, does it make sense to say that the closer the ties between local state and firm, the higher the realized growth levels.

THE CONSTRAINTS-BASED RESPONSE

Constraints-based approaches are decidedly skeptical of the LSC explanation for TVE growth. First, they do not understand how any conclusions at all can be drawn from the study of only successful cases of development. By examining only situations in which TVEs have thrived, LSC approaches commit the error of selecting on the dependent variable, to use social science terminology. By trying to explain what they themselves define as a constant (TVE growth) and then by selecting only successful TVEs, LSC proponents have no way of proving that state intervention is the key. After all, the key might just as well be in other factors found across successful TVE environments: functioning labor markets, foreign investment, export orientation, or a host of other variables. There is just no way to produce anything beyond bare assertions if one's cases all include state intervention and all include successful TVE promotion.

Even worse, by restricting their study to only successful cases, LSC advocates run the risk of drawing spurious correlations between state intervention

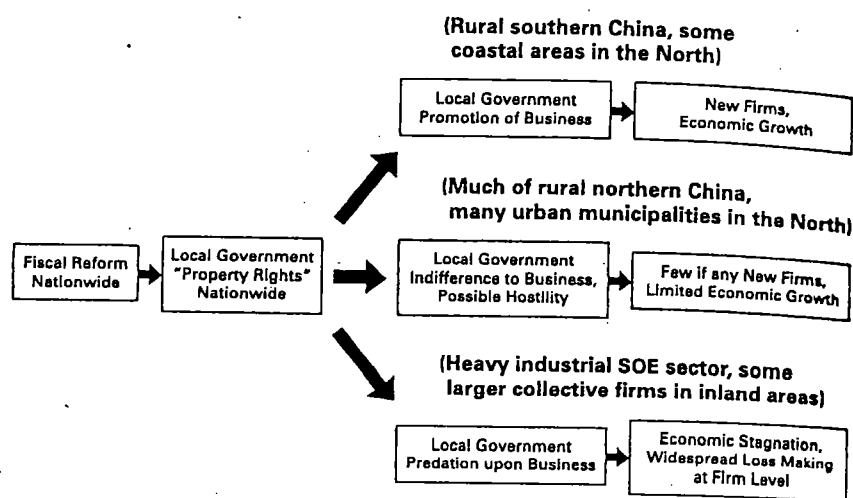


Figure 7.2. The Constraints-Based Perspective

and growth. Indeed, if they extended the study to rural areas in which TVEs have *not* been successful (i.e., the Northeast), then they would likely find plenty of state intervention but not much growth. More generally, LSC theory cannot explain why fiscal reform and the resulting reassignment of property rights to local governments, essentially national phenomena, have failed to bring about a proliferation of successful firms in most of northern and northeastern China. Why are positive economic outcomes restricted to the South and selected northern provinces like Shandong? Why have municipal governments in urban areas, governments with full rights to start their own firms, been slow to take advantage of these powers, particularly in the Northeast? Why do they seem to behave differently from certain grass-roots agencies in rural areas?

As indicated by Figure 7.1, LSC looks out at the Chinese reform experience and observes fiscal reform leading to local promotion of business. The constraints-based approach takes a distinctly different view. It sees a fiscal contracting system applied – at least until 1994 – nationwide, but with a range of observed economic outcomes (see Figure 7.2). Rights are reassigned to local governments throughout the land, but those governments do not all use their rights in the same way. Some areas, no doubt, do promote business and successfully manage a number of enterprises. Other areas, however, appear somewhat indifferent to business. Time and again one observes municipal or even rural governments that have been less than responsive to the needs of local

business.²⁷ Indeed, in some northern locales, small firms have simply picked up and moved to more hospitable environments in the South. Finally, there is the heavy industrial SOE sector, one in which local governments have acquired property rights yet seem to use those rights to prey upon the firm. These microeconomic patterns are then reflected in the regional income disparities and differential rates of regional growth cited earlier. In both absolute and relative terms, the Northeast is growing far more slowly than the coastal South. Clearly something beyond the constants of fiscal reform and governmental decentralization is driving the observed patterns of variation. A constant simply cannot explain the varying outcomes described in Figure 7.2.

Nonetheless, what can explain the variation in a unified manner is the degree to which hard or soft budget constraints obtain at the local level. Rights devolve to every locality, but what differs across localities is access to soft lending and subsidization. In other words, what differs is the hardness of the budget constraint, and these differences then explain the range of observed behavioral outcomes. The constraints-based approach zeros in on a variable that LSC assumed away as already resolved – the flexibility or “softness” of local governmental budget constraints – and in so doing develops a unified explanation for a range of reform outcomes.

The hypothesis is that fiscal reform imposed severe restrictions and financial constraints on certain localities while leaving others essentially untouched. The areas most affected in the constraints-based sense were those (in the rural South) that had been essentially neglected during the command era. With the onset of reform, these areas, like every other in the country, lost the bulk of their direct fiscal subsidies from the center. Like every other region, they were told, in effect, to fend for themselves. What was different about these areas, though, was that they were not blessed with any existing large industrial firms, the kind of firms that would continue to receive subsidies and soft loans from the state banking system. Most southern areas, simply because of historical fate and their second-tier role in the earlier command era, did not have the option of using existing traditional industrial firms as conduits for central subsidies. Southern governments were instead faced with a situation of “reform or die,” “promote business or go hungry,” or at least “engage in entrepreneurship or stay poor.”²⁸ If they wanted to climb out of poverty, they had little choice but to start their own firms or, at the very least, create environments conducive for other people to come in and start firms. In essence, selected areas in the South enjoyed the benefits of backwardness.

At least as important, firms in these areas also faced hard budget constraints. Particularly for smaller firms, there were no easy “policy loans” from the central

banking system, no soft subsidies to fund inefficient operations. Again, the situation was one of "produce efficiently or go out of business." Not surprisingly, tremendous levels of market exit have gone hand-in-hand with like levels of market entry for firms in the TVE sector. It is also possible to observe that, for those few TVEs that actually grow large enough to attract central bank loans, performance often declines and the firms then start to look decidedly like traditional SOEs.²⁹ Local state intervention persists, but in an environment of softened budget constraints. The pressure for growth promotion evaporates as the opportunities for rent seeking materialize. The point is that, for firms and local governments alike, the key to behavioral change – and the key to understanding a range of performance outcomes – is not the dissemination of rights or freedom per se but rather the exact opposite: the degree to which unyielding budget constraints are actually imposed.

The point is more than a semantic one, as becomes clear when behavior is observed in newly empowered localities that do not face the burden of hard budget constraints. Consider counties in the industrial Northeast that happen to have major large-scale factories within their boundaries. Why should the local governments in these areas promote new business? Direct fiscal subsidies from the center may have dried up, but the locality can still extract from existing traditional firms. Those firms, because they are repeatedly bailed out by the banking system and thus face no real threat of bankruptcy, make a prime target for income extraction. Local governments have every incentive to use their newly acquired autonomy to prey upon the firm. More subtly, these governments are under no pressure to adopt entrepreneurial attitudes, and can instead afford to maintain perspectives associated with the old system. It is hardly surprising that urban officials in cities like Anshan or Harbin consider it "beneath their positions" to involve themselves in promoting collective firms.³⁰ It is hardly surprising that Harbin Municipality essentially drove important collectives to relocate in the South, and is only now trying to lure them back – in part, perhaps, because SOEs are in such distress that they no longer serve as effective conduits of central funds. The fundamental empirical fact is that many municipal and rural governments in China have been empowered with all sorts of new rights, but these bureaucracies, even the very lowest grass-roots ones, frequently resist expressing these rights via business promotion.

In the industrial Northeast and in many other parts of China, soft money remains available and budget constraints remain flexible. Growth remains slow at the regional level precisely because there is no tremendous pressure to change, no bitter financial constraints that necessitate behavioral adaptation. Over the past years, there has been no "reform or die" set of strictures, and – again, not

surprisingly – there have been no corresponding "reform or die" attitudes at the local level. Only now that localities can see the impressive growth achieved in the South (and their own relative poverty) are attitudes changing. More important, only now that the SOEs really appear to be collapsing, and only now that indirect subsidies from the center really might disappear, are northeastern localities seeming to become even remotely interested in small-scale business promotion. Unfortunately, they now face a long march up the learning curve in an increasingly competitive domestic and international environment.

The general point for transitional economies is that, where there exist considerable amounts of "traditional" industry (big state firms), there also exist plenty of opportunities to soften budget constraints. Incentives for economic actors up and down the line – from enterprise managers to top government officials – suffer as a result. Rights, power, and authority spread down the line, but what does not necessarily spread is any corresponding pressure to engage in asset-expanding behavior. Where such pressures do exist – where hard budgets have been imposed, either by design or default – market-oriented, growth-promoting behavior can indeed be observed. As noted earlier, not all actors respond positively; at least some do, though, and the rest are ultimately weeded out. The rights, however, remain constant. It is the degree of restraint that varies, and it is the degree of restraint that explains varying outcomes. By implication, successful reform must be viewed not as a freeing up but instead, at least in the economic sense, as a clamping down.

WHY DOES THE DISTINCTION MATTER?

Beyond the rather important issue of analytical coherence, why should we really care whether local growth is explained negatively in terms of budget constraints or positively in terms of state intervention? What if we simply acknowledge that both are involved? After all, both are clearly observed to some degree. Why not compromise and say that the LSC view is correct, state intervention is the key to growth, but only in those areas where hard budget constraints already apply?

Unfortunately, the differences between the two approaches cannot be finessed so easily. Indeed, they are more nearly mutually exclusive than one might think, for they embody vastly different analytical views of what drives growth as well as vastly different normative recommendations for which policies should be adopted to achieve such growth.

Through their identification of local state intervention as the driver of Chinese growth, LSC advocates end up backing the general notion that states can

transcend markets. In other words, LSC focuses on the question of "who should own," and the answer it provides is "the local state." The theory, through its description of local governments as "corporate headquarters" and firms as "corporate divisions," implies the superiority of local ownership not only to central ownership but also to private ownership.³¹ After all, if one accepts the government-enterprise corporation analogy, then it makes no more sense to say that individual firms should be privatized than it does to say that the constituent divisions of an integrated corporation should be spun off and forced to operate independently. Certainly in the business world, the notion of "corporation" implies some distinct advantage over dispersal of the constituent parts. Otherwise, there would be no point in having a corporation. Similarly, the notion of "local state corporatism" as an engine of growth implies that state organization of firms is somehow superior to the dispersal of firms to separate owners. This notion is reinforced by the LSC assertion that the more centralized and tightly integrated the local corporation, the better.³² Local control is good, and tighter local control is better. The basic idea is that the corporate headquarters, the local government, knows better than the constituent divisions what entails an efficient (from the growth perspective) allocation of resources. There is no point letting the "divisions" battle out their respective notions of efficient allocation through intense free-market competition. Instead, the local government, the "board of directors," can move assets from bad firms to good, pick winners and losers, and avoid the duplication and waste of resources brought on by cutthroat competition. The local state becomes the engine for change and development, transcending the market by achieving growth faster and more efficiently.³³

The policy implications of these assertions are clear. Any policy maker who believes the logic behind LSC should do everything in his or her power to reassign ownership rights to local governments. Local governments should be empowered in every way possible to intervene in firms and promote growth. Emphasis should be placed on disseminating rights, freedom, and authority, especially to local governments. Meanwhile, proper skepticism should be maintained toward competitive markets, and privatization should be avoided. Because corporate systems are better than competitive systems, every effort should be made to create business-government partnerships for growth. The state should be organized to take advantage of its ability to transcend markets, and the way to do this is to empower local governments.

The constraints-based approach, by focusing on the systemic conditions under which ownership is exercised rather than on the specific issue of "who owns," unequivocally rejects the logic of LSC. Even at the purely abstract level,

it finds LSC's equating of state intervention with corporate business management highly problematic. In general, internalizing the activities of many business units into one single corporate enterprise makes sense if the additional costs incurred are outweighed by higher realized profits.³⁴ In other words, by merging disparate businesses into one single corporation, one creates added administrative costs and all sorts of organizational costs. Purely in administrative terms, managing a large corporation is far more costly than managing a small firm. At least in theory, it makes sense to tolerate these costs only if they are outweighed by gains from the increasing volume of business activity.³⁵ That is, firms should group together if there are economies of scale and scope to be realized. Perhaps by producing in great quantities, the firms together can save money. Alternatively, by specializing in specific aspects of the production process, the firms when grouped together can realize greater efficiency and productivity. Corporatization should lead to some sort of observable vertical or horizontal integration of business operations. The point is that, unless these benefits from integration clearly exist and are utilized, it makes no sense to replace market coordination of independent firms with corporate coordination of linked firms.

In the case of Chinese TVEs, it is hard to see how government control over firms is actually achieving any benefits of integration. Certainly, LSC advocates have yet to show that locally controlled TVEs actually group their production in such a way as to achieve economies of scale or scope. Indeed, it has yet to be shown that these firms actually group or coordinate their productive activities at all. Can vertical integration be observed? Is there horizontal integration? It hardly seems so. The only clear thing is that the government controls both personnel appointments and the flow of assets between firms. Yet, if control over personnel and assets is all that is involved, why should local government officials be able to make better decisions than firm-level managers? If anything, because they are more distant from the locus of production, political officials have even less of the information necessary to assign the disposition of firm-level assets. All sorts of transaction costs and administrative complexities are added by allowing governments to determine the disposition of assets, but none of the coordinated production that might lead to higher profitability seems evident.

Under such circumstances, the absolute best that local state corporatism could hope to achieve are outcomes equal to what the competitive market would produce. In other words, the best that can be expected from this sort of intervention is an outcome no worse than if the government just stayed out and left the firms alone. This is a fairly low payoff, and hardly the sort of thing that one would want to underscore as an engine of growth.

The policy implication, however, is not that Chinese firms should be privatized. Rather, the constraints-based approach asserts that concern over "who owns" – whether private individuals, the central government, or local agencies – is at most a second-order issue. The approach moves away from issues of ownership and instead hypothesizes (1) that productivity is low in transitional economies because budget constraints are soft, and (2) that productivity varies with the increasing hardness of the constraint. When budget constraints are absent, no owners of any kind have incentives to engage in asset-expanding activity; there is simply no pressure to do so. Indeed, immediate survival and enrichment is secured by pulling assets out of productive use and expending them. Alternatively, growth-promoting behavior – whether by governments, firms, or individuals – develops regardless of ownership in response to new financial pressures: the cutting of externally provided subsidies. Behavioral change is forced through the imposition of extremely tough, unyielding financial pressures.

If this perspective is accurate, policy makers should concentrate first and foremost on imposing hard budget constraints upon firms and localities alike. Who owns the assets is far less important than the circumstances under which ownership of any kind is exercised. While the government should certainly get out of the business of allocating resources, it should also cease viewing its own activities in terms of the reassignment of rights, freedoms, and autonomy. Indeed, expanding freedom under soft-budget conditions, particularly to lower-level governmental agencies, actually threatens to impede economic growth. Similarly, privatization in an environment of readily available soft credit can so increase rent seeking and hence impede growth.

Government policy should instead focus on issues like commercializing the banking sector and regaining control over central-local financial transfers. Other lending should be cut off entirely, or banks should be made truly responsible for their balance sheets. If the government feels the need to issue subsidies, it should certainly avoid doing so through the ostensibly commercial banks. Banks could then reasonably be held responsible for their losses and ultimately be forced to exit the market if losses became habitual. Similarly with central-local financial transfers, business loans should be permitted only on a commercial basis. If the center itself does not have the ability to make commercial lending decisions, then let foreign investors fund local business development. The center absolutely should fund social welfare and education, and should do whatever is necessary to encourage local saving. Yet, if it wants to spur local business growth, the way to do this is not simply to let out authority coupled with subsidies. Money intended for business growth

should be supplied only on hard-budget, commercial conditions. Only when an environment embodying those conditions has been established does it make sense to begin worrying about who owns, who has rights, and who has freedom. Furthermore, even at that point, it hardly makes sense to be concerned about transcending the market. Policy makers undertake a Herculean task in simply trying to achieve basic market conditions, let alone transcending them.

The constraints-based versus rights-based debate raises one final issue regarding the role of investment in China's development. Advocates of LSC could conceivably argue that TVE development has occurred mainly in the South because that is where investment is available. Because of sheer geographical proximity, these are the areas that have enjoyed the bulk of overseas Chinese investment from Hong Kong, Taiwan, and Southeast Asia. Fiscal reform and local state property rights would still stand as the drivers of growth, but outside investment would be recognized for its role in fueling and enabling the process. If only investment would flow into the rest of rural China, where local state property rights also hold, growth would be achieved.

Ironically, this view melds with another school of thought prevalent in China today, the "neoauthoritarian" perspective on development. Neoauthoritarians assiduously oppose the sort of local autonomy measures advocated by LSC theory.³⁶ Nevertheless, both approaches dovetail along the idea that state intervention can transcend market forces. Neoauthoritarians place their hopes on the central state while local state corporatists focus on grass-roots activity, but the schools are linked by their faith in the potentially salutary nature of state intervention in the economy. Neoauthoritarians, though, place particular emphasis on the role of investment, especially state-controlled investment, in spurring economic growth. The central government should do all it can, in this perspective, to redistribute wealth in China and overcome the regional disparities that have become prevalent under reform. In other words, investment is the key to even the market-oriented growth promoted by local governments. Regional disparities exist precisely because many localities have had no access to investment resources. It should be a prime objective of the center, therefore, to transfer resources from richer areas to poorer in an overall effort to spur nationwide growth.

The constraints-based perspective takes a decidedly different view of the role of investment. Instead of focusing on levels of investment, it focuses on the differential conditions under which investment is made. As it does with regard to "autonomy," the constraints-based approach hypothesizes that investment can be viewed as a relative constant in China. Certainly the South during the reform era has enjoyed a disproportionate share of overseas – mostly "overseas

Chinese" – investment. The North and Northeast, however, have also enjoyed tremendous amounts of investment in the form of central subsidies to heavy industrial SOEs. Over 70 percent of domestic lending in China goes to the state sector. The rural collective sector, particularly in Guangdong and Fujian, enjoys investment from abroad; the state sector enjoys tremendous investment from the central government. The former develops rapidly, though, while the latter stagnates. Of interest then is not the level of investment but rather the conditions under which investment is made. In the state sector, soft budgets for firm and bank alike mean that no clear return is demanded on investment. Future investment can be obtained by the recipient regardless of how efficiently current investment is used. Even if lenders realize no returns at all, funds continue to flow. In the rural sector, however, hard-budget conditions exist. Foreigners, or even local governments, have no compunction about pulling investment out of firms that achieve no returns, and such firms ultimately must exit the market. In one way or another, investment migrates toward those who use it efficiently. Not surprisingly, the returns in this sector are far higher than in the state sector.

The lesson is actually the same as that learned during the command era. Growth is only partially driven by levels of investment. Ultimately, what counts more are the conditions that can increase the efficiency and productivity of investment. The problem with the command system was that it failed on precisely this score. More and more investment was required over time to achieve the same levels of output. An analogous problem exists in the state sector today. The broader lesson, one consistent with the constraints-based approach, is that simply throwing money at the problem of low growth will not make the problem go away. Simply pumping in more investment will not solve anything. Rather, the real issue of concern is what type of investment is pumped in, from what source, and under what conditions.

Similarly, it is hard to see how transferring resources from high-productivity regions to low-productivity regions will lead to overall gains in national wealth. Rather, such action is likely to result in depressed rates of growth. From the policy perspective, the key is to change not the level of investment but rather the conditions under which investment is used. Hard budget constraints must be imposed and commercial standards established. If such constraints are not imposed then those who use investment will face no pressure to realize returns. Under such conditions, foreigners will eventually leave the market, for although such investors have acknowledged an impressively long time horizon with regard to China, they are not in the business of dispensing either subsidies or charity. The government will then be left with the task of funding investment, albeit investment that carries no likelihood of achieving positive returns.

Regardless of the origin or level of investment, growth depends on an efficient allocation of resources, and an efficient allocation of resources requires investment under hard-budget conditions. *The imposition of hard budget constraints should be the prime goal of transitional reform.*

SUMMARY

This chapter has attempted to reinterpret transitional reform in terms of the specific propositions that emerged from our study of SOE performance. The same variables that explain SOE stagnation – soft budget constraints and access to soft lending – serve by their very absence to explain successful TVE development. A unified explanation was put forward to explain the complex and highly interrelated patterns of Chinese development. Reform was recast as a process of clamping down rather than loosening up, and significant policy implications were drawn out.

The point of this analysis is not to suggest that property rights are necessarily a bad way to understand the incentives of economic actors. Rather, the point is that only in the presence of appropriate constraints – hard budget constraints – do the property rights accorded through reform even begin to resemble "rights" as described by economic theory. This is all the more true in complex production organizations, organizations in which property rights are (by definition) dispersed.

In general, true property rights in the economic sense imply not only the freedom to use assets and the power to enjoy the benefits accruing from that use, but also responsibility to absorb any losses that result. When power devolves to lower governmental levels or individual economic producers through reform, that change does not, at least in any formal sense, constitute a reassignment of "rights." The real reassignment of rights takes place only when devolution of financial power is matched by devolution of financial responsibility. Only at that point can the recipients of these powers be considered to hold property "rights." Moreover, only at that point do incentives against value-subtracting, rent-seeking behavior truly develop. It is for this reason that the constraints outlined in this chapter, at least with regard to understanding behavioral outcomes, take causal precedence over the dissemination of "freedom" or "power."

Through the reform process, many actors have acquired power, but only some have actually acquired property rights in any real sense of the term. Some rural governments operate with these rights, as do some large state firms. Many do not, however, and incentives become skewed as a result. The key causal variable is the nature of constraint, the degree to which reform has been able

to impose the kind of financial accountability that leads to value-enhancing behavior.

Although the causal variable may be clear in the constraints-based approach, other issues may appear somewhat opaque. The analysis has simultaneously advocated some forms of state intervention and condemned others; there has likewise been support for some forms of unfettered market activity but skepticism toward others. There has been discussion of state agencies stepping in and "carving out" property rights, yet dismissal of the local state's role in coordinating business. What then should be the proper role of the state in transitional systems? That the state plays a crucial role in such systems is indisputable. The question, however, is: What types of state action lead to growth, and what types impede growth? What should the proper role for the state be in what is not so much a developing market economy as an economy attempting to develop a market?

Conclusion

THE preceding chapters have been motivated by two rather different objectives. In one sense, they have sought – particularly through the case studies – to further our understanding of a major policy issue facing contemporary China: the reform of the state industrial sector. By illustrating the depth and complexity of the problem, the analysis has attempted to present a somewhat different face of China – neither the rising economic giant nor potential economic competitor often portrayed in the West, but rather a troubled transitional nation confronting absolutely awesome obstacles in its path to development. In a second sense, these chapters have sought to provide an alternative conceptual framework for understanding postsocialist reform in general, an approach that challenges popular notions of privatization and property-rights restructuring. Yet, what really are the implications of the theoretical and descriptive threads of the study? How do they change our broader understanding of East Asian development, and our specific image of China?

THE CONSTRAINTS-BASED APPROACH

This study has made some general assumptions about economic behavior; it has assumed that, given the certain degree of freedom and autonomy that exists in any system, entrepreneurs will always rise up to capture opportunities to amass wealth and benefits. The interesting question, however, involves determining how the combination of constraints and incentives in any given system influences the form that this entrepreneurial behavior takes. Do economic producers, particularly the most entrepreneurial ones, seek personal gain through value-enhancing or, alternatively, value-subtracting means? What is the nature of constraint that inclines producers to follow one strategy instead of the other?

What has changed with the collapse of command planning in countries like China is not the degree of individual economic autonomy or "rights" per se. What has changed are the ways that autonomy or noncompliance is expressed and the types of economic activity over which autonomy can be exercised.

These changes, as the case studies of Chapters 4–6 have illustrated, take their most complicated form in large industrial producers, complex production organizations that by definition involve ambiguous property-rights arrangements. The constraints-based approach provides a sense of why these large firms do not naturally respond to the market even after planning is lifted, and why they do not behave as predicted when confronted with ownership restructuring efforts. Indeed, the new approach allows us to understand why ownership itself fails to function in the transitional context. Finally, the constraints-based approach outlines a series of roles that the state plays in shaping producer behavior, roles that range from being decidedly positive to decidedly negative with regard to encouraging economic growth. In transitional, marketizing economies, only some economic producers behave as they are “supposed to”; many do not. To a great extent, the actual behavior of producers reflects incentive structures that have been established (wittingly or unwittingly) by the state.

But what really is the role of the state in transitional systems, and what *should* its role be? In discussions of the sources of economic growth, the state frequently takes on an almost mystical quality, demonized by some and lionized by others. At different times and in different contexts, the state has been identified both as the source for all economic disaster and as the wellspring for all economic salvation. However, the constraints-based approach attempts to explore a middle ground. Earlier chapters have suggested that, in China’s SOE sector, renegade state agencies contribute to the softening of firm-level budget constraints. Yet at the same time, the constraints-based view asserts that, in an environment of malfunctioning regulatory institutions, the state itself becomes the only organization capable of insulating large industrial producers and establishing hard budget constraints.

Between advocating intervention in some sectors and retreat in others, can the constraints-based approach be considered consistent in its view of the state’s role in postsocialist reform? The approach clearly links a particular variable (hard budget constraints) to the success or failure of transitional reform, but does the theory provide us with any consistent notion of the state’s role in these systems? Perhaps the best way to begin understanding what a theory *is* is to understand expressly what it is *not*. The constraints-based approach is not another model of the state-centric variety used to explain growth in the newly industrializing countries of East Asia. This work’s advocacy for limited intervention in the postcommand SOE sector is decidedly different from the “developmental state” notions associated with Japan, Korea, and Taiwan.¹ Explanations of East Asian growth often begin from the premise that successful development in the twentieth century – whether in Europe, China, or anywhere else – entails a

process by which state actors strategically and aggressively manipulate domestic and international markets to serve national interests.² The state is described as a unitary force, a unidimensional actor that can either help or hinder development. In its most positive light, the state – through its massive concentration of power and human capital – is the only body capable of pushing modernization through in a competitive and potentially hostile world.³ By directly intervening at both the macro and micro levels, state actors are presumed to achieve economic growth beyond what the market alone could produce.

The means by which the state actually achieves these outcomes is subject to some dispute among scholars. For some observers of East Asian patterns, developmentally minded state actors are important to the extent that they concentrate and direct capital into areas where private investors are unwilling to venture.⁴ In other words, the state, by deliberately raising incentives and lowering risks for investors, encourages capital flow into economically transformative projects from which private entrepreneurs would normally shy away.⁵

Other scholars have suggested that, in successful late developers, the state acts more directly by deliberately attempting to distort relative market prices in order to stimulate economic growth.⁶ The state uses subsidies to directly discipline large industrial firms and to encourage those firms to pursue outward-looking, export-oriented patterns of growth. In the case of South Korea, Alice Amsden asserts that the state intentionally “got prices wrong” by using a combination of selective tariffs, quotas, export subsidies, and subsidized credit.⁷ Infant industries were protected from foreign competition and were simultaneously provided clear financial incentives to export.⁸ Conversely, firms that performed poorly in healthy industries were deliberately penalized by the government, deprived of bailout loans, and often allowed to founder. In a general sense, the state is portrayed as the great mediator, transcending the market in order to achieve growth of unprecedented magnitude with unprecedented speed.

Perhaps the most popularized embodiment of the developmental state concept is Japan’s Ministry of International Trade and Industry (MITI), a model that has clearly influenced interpreters of Chinese rural development.⁹ This ministry was described in its peak years as meticulously using powers over credit provision and taxation to select key industries as the locomotives of national, export-oriented growth. The agency was the ultimate autonomous bureaucracy, the “greatest concentration of brainpower in Japan,” and the mechanism by which Japan achieved an ultra-efficient, growth-oriented mode of economic coordination unimaginable on the free market.¹⁰ According to this view, objective and highly skilled government bureaucrats were in charge, working directly with individual firms in order to plot a course of national development.¹¹ Whether

or not MITI actually lived up to its legendary status, the ministry has become a powerful role model internationally, leading to similar organizations in nations as diverse as Korea and Hungary.

Indeed, the idea has spawned powerful imitators not only in the academic world, and not only among China's local rural cadres, but also at the very centers of power in Beijing. That alone is reason enough to focus on just how the role of the state should be interpreted in conceptual terms. One need not probe deeply in Beijing to come across central policy makers feverishly "picking" the key industry that will serve as the locomotive of Chinese growth for the twenty-first century. Yesterday it was steel, today automobiles, and tomorrow perhaps aerospace. Whether analytically supported or not, the developmental state idea attracts politicians like spotlights attract moths.

Even in the most sober academic circles, the East Asian "developmental state" notion has been kept alive – albeit in a somewhat understated fashion – by the influential World Bank publication, *The East Asian Miracle*.¹² The view presented in *The East Asian Miracle* builds upon the neoclassical emphasis on markets for guiding efficient resource allocation, but acknowledges that state intervention may be needed in cases of market failure. The basic idea is that successful developers pursue "market-friendly" strategies of maintaining macro-economic stability, investing appropriately in human capital, ensuring a competitive climate for private enterprise, and promoting openness to international trade.¹³ Interventions beyond these fundamental market-facilitating measures – in other words, interventions that attempt to go one step further by directly guiding resource allocation – are viewed with suspicion.

Certainly, most of the East Asian developmental states did make some effort to guide resource allocation directly, primarily through policies that targeted specific industries for growth. Nevertheless, the World Bank report finds little evidence that these interventions produced anything beyond market-conforming results.¹⁴ In short, the direct interventions produced outcomes that markets would likely have produced on their own.

However, the World Bank showers praise on East Asian governments for actively intervening to keep markets open, inflation under control, and currencies properly valued – all in the context of privatized, nonsocialist systems. Clearly, the more conservative World Bank view emphasizes the facilitation of markets rather than the transcendence of markets, but the state is still portrayed as a key actor. The basic notion of a developmental state is left untrammelled.

On the surface, the developmental state idea bears a certain resemblance to the forms of SOE intervention advocated by the nested problems approach. After all, in both cases the state becomes an agent for promoting positive economic

outcomes. In both, the state deals directly with the firm, intervening (for better or worse) in the micro economy. That, though, is the extent of the similarity. In reality, it is hard to imagine two models that could be more dissimilar. In the developmental state model, the government is seen as a unitary actor, somehow facilitating or transcending markets in a fashion that promotes growth and industrialization. The state is the solution, and the market is the vehicle. In transitional systems, however, particularly with respect to large SOEs, the state constitutes a large part of the problem, and there is no functioning market to serve as a vehicle. There is no functioning market at least in part because the state fails to act in a unitary fashion. The state, rather than being an "it," is more aptly described as a "they," and "they" already intervene extensively at the firm level. "They" are not the brilliant constellations of talent attributed by Chalmers Johnson to MITI but are instead massive bureaucracies devoid of any clear mission or coordinating mechanism. They are the banks, the local governments, the central tax agencies, the every other agency searching for a mission after the collapse of command planning. When opportunities arise – namely, when soft budget constraints prevail – plenty of these state actors opt for rent seeking over growth promotion. The transitional agencies are barely capable of getting prices right or keeping their hands off the items being sold, much less of taking a giant step further and deliberately getting prices wrong for the good of the national economy.

Furthermore, that transitional systems face an SOE restructuring problem of greater magnitude than anything found in the rest of the developing world cannot be overstated. *Transitional systems are not developing market economies; they are economies trying to develop markets.* Moreover, they are industrialized economies built atop (and structured by) a system that for several decades operated as the complete antithesis of free markets. The result is a collection of the most complex economic actors possible: highly integrated companies with a host of potential agency problems but no market selection mechanisms for governing those actors. Under these circumstances, the immediate task in post-socialist transitions is not to do better than the market, or somehow to correct the market, but rather to create the bare essentials for a market.

As the constraints-based approach suggests, it hardly makes sense to worry about who owns these economic actors when ownership itself does not function. Until governance over complex economic actors has been established – in other words, until credit is tightened and market selection processes made to work – ownership, in any meaningful sense of the term, will fail to function. In a situation of nonfunctioning ownership, it makes little sense to worry about who holds the nonfunctioning ownership rights.

In concrete terms, the constraints-based approach does say something very specific with regard to policy sequencing. For large industrial producers, ownership restructuring within the firm cannot precede reform in external regulatory mechanisms. Privatization, corporatization, and other property-rights restructuring efforts will be to no avail in large firms if governance cannot function. Unless financial markets, accounting standards, and other key institutions of governance are made to operate on a commercially oriented basis, market reforms at the producer level will not result in value-enhancing behavior. Over the long term, real reform must occur in the regulatory environment, reform that has never quite materialized in contemporary China. Over the short term, policy makers must act decisively to insulate the firm from its external environment, which includes a malfunctioning banking system and a poorly coordinated fiscal system.

In a more general sense, however, the state cannot be viewed as some sort of magic bullet. Quite to the contrary, state intervention in transitional systems is for the most part counterproductive and, unfortunately, rampant. However, truly reform-minded state actors in such an environment will focus on devoting all their energies toward creating absolute baseline market conditions, the kind of market conditions that offer the possibility of sustained future growth. A key prerequisite for market ownership is the establishment of a functioning system of property rights – rights not in a “producer empowerment” sense but rights in the sense of linked power and accountability. The point is not that private ownership must be created, but rather that the basic grounds for ownership *itself* must be established. Economic producers must be required to face hard budgets. They must be permitted to reap the benefits of asset-expanding activity and be forced to absorb the costs of asset-destroying activity. In other words, the bare essentials for market-oriented interaction must be established where they have not arisen naturally or historically. In China’s rural sectors, market conditions obtain today for a number of reasons relating to both history and the nature and size of the economic producers involved. In the urban state sector, populated primarily by complex industrial producers, barriers toward market operations are both substantially different and tremendously higher.

It is precisely in the SOE sector where state intervention is required. This is not market-facilitating intervention but rather market-creating intervention – intervention against fundamental obstacles to market activity. Until soft lending is curtailed and renegade agencies of the state are driven off, hard-budget conditions cannot prevail over the complex producers that constitute the urban industrial sector. Unless hard budget constraints prevail, corporate governance will fail to function, thus undermining ownership of any kind, public or private.

As long as ownership is undermined, value-enhancing behavior at the firm level will fail to evolve. In short, key actors in the central state must identify the problem and bring all their power to bear against a host of societal interests – interests that have been empowered by reform and have been presented with a host of rent-seeking opportunities. Intervention is needed neither to supersede the market nor to expand economic autonomy, but rather to impose the fundamental marketlike constraints that promote growth and establish “rights” in any economically meaningful sense of the term. Positive, growth-promoting state intervention must be directed against pervasive negative state intervention. In the SOE sector, the state must be brought in for the short term so that it can ultimately be moved out in the long term. There are no lofty goals here other than the most basic goal of all, the creation of a functioning market economy.

However, where basic marketlike constraints already exist, state intervention – particularly in the area of resource allocation – becomes either superfluous or patently destructive. In the Chinese TVE sector, economic producers and governments alike face hard-budget conditions, essentially by default. Because soft credit is generally unavailable, market selection operates. Those firms that perform well attract capital, and those that do not are driven from the market. There is no magical state intervention driving these processes forward. Indeed, predatory extraction is punished through the decapitalization and ultimate insolvency of the firm. Ownership works because most producers themselves are small. Agency problems are therefore either barely extant or decidedly minor, and market selection is allowed to function. Just as plenty of new entrants hit the market each year, plenty exit through bankruptcy. Given that markets essentially function and ownership essentially works in these rural environments, the likelihood of state intervention or ownership bringing added benefits becomes highly dubious. Hence the constraints-based approach, for the same minimalist reasons it advocates intervention in the SOE sector, assiduously rejects intervention in the TVE sector.

THE CONSTRAINTS-BASED APPROACH AND NEOCLASSICAL NOTIONS OF THE STATE

Oddly enough, the bare-bones objectives for intervention just described suggest that, if anything, the constraints-based approach should be equated with neoclassical perspectives on growth. The neoclassical view of development stresses “getting the basics right.”¹⁵ In order for sustained growth to occur, in this view, markets must be permitted to function – nothing more, and nothing less. For markets to function, there must be macroeconomic stability and a

consistent legal code to guide economic transactions. There must be extensive domestic and international competition, unhampered by price controls or relative price distortions. Governments must get out of the business of directly running firms and instead focus on providing a stable environment for investment.

The constraints-based model subscribes unconditionally to these broad goals, but objects strenuously to the neoclassical emphasis on private ownership as both a vehicle for and measure of economic success. Neoclassical perspectives identify markets as the drivers of growth and private ownership as the driver of markets.¹⁶ This connection between the question of "who owns" and the viability of growth may be pertinent to developed market economies or even to developing market economies (though even there, room for argument exists). What cannot be emphasized enough, however, is that transitional systems are *not* developing market economies. Again, they are economies, and often already industrialized economies, trying desperately to develop markets. In other words, they are – at least with regard to the modern industrial sector – pre-existing systems, on pre-existing trajectories, facing the historically unprecedented task of reversing course and shifting over to an entirely new mode of economic allocation.

Certainly, it would be nice if politicians could be summarily chased out of the firm in transitional environments. It would be nice if all the problems of SOE reform could be wished away through rapid privatization. The problem, though, is that the anti-state-ownership, pro-privatization views of the neoclassical school actually assume a level of coherent state intervention well beyond what currently exists in countries like China. As a result, these scholars focus on the question of "who owns" before the institution of ownership itself has been established. Advocates of privatization seem to take for granted the existence of governments that can provide laws to protect property rights, rules to regulate property transfers, and mechanisms to ensure proper effective corporate governance in complex producers. In modern capitalist systems, such institutions and mechanisms flow virtually unnoticed from the state. A basic but actually quite complex degree of governmental intervention is tolerated – indeed, taken for granted – simply to make the market economy function.

Unfortunately, even this minimalist degree of *regulatory* intervention is well beyond what transitional countries like China currently enjoy. It is well beyond what transitional governments in general are capable of providing. Of course, in transitional systems there is no lack of state intervention, but there is precious little of the coherent, subtle, coordinated government action that makes modern industrial economy work. With so many renegade agencies and so little coordinated government regulation, the Chinese state industrial sector takes

on something of a "Dodge City" atmosphere. There are few rules, few responsibilities, many cases of the strong preying upon the weak, and a tremendous amount of waste. You can privatize under these circumstances, but doing so will neither get the government out of the firm nor yield a functioning market.

The purpose of relinking the complex urban firm to the state under these circumstances is neither to move backward toward the old system nor to leap forward toward some highly interventionist model characteristic of Japan or Korea. Rather, the goal is to move the Chinese state sector from Dodge City to the bare-bones market that neoclassical approaches advocate. To reach the neoclassical objective, direct state intervention into individual SOEs is needed, and is needed quickly.¹⁷ To meet the challenge of SOE reform in transitional systems, one must bring the state in to get the state out.

In effect, the real question involves determining how to create market outcomes in systems that have neither the institutional nor legal mechanisms essential for market operations in a developed economy. What advocates of rapid privatization end up doing is simply wishing the problem away. They hope that, by passing a few regulations and declaring firms "private," state intervention will disappear and firms will behave just as textbook capitalist businesses do. As the cases of China's corporatized SOEs suggest, the real world unfortunately does not work this way. Neither state intervention nor producer rent seeking goes away simply because one wants them to or because laws are passed against them. Particularly in a pre-existing complex industrial economy – as opposed to an industrializing rural environment – markets and market-oriented behavior do not arise spontaneously but instead must be actively created, and created against stiff opposition. The complex, urban industrial sector must be made, through state intervention, to face the same budget constraints that bear down almost naturally (or at least by historical accident) on many rural industrializing areas. In transitional systems, there is only one organization with enough power to undertake this task: the very state that was causing so much trouble in the first place.

Yet, even the limited type of intervention advocated by the constraints-based approach can serve only as a temporary measure. It is a stop-gap attempt to restore hard budgets and the basic preconditions for market selection to the urban industrialized sector, those portions of the economy inherited from the days of command planning. In the long run, though, countries like China will struggle to develop the institutional, regulatory, and legal mechanisms that make markets function in a stable and standardized fashion. As the recent financial debacle at Shougang suggests, China, even in its more progressive experiments, has yet to realize fully the corporate governance mechanisms – particularly

with regard to functioning financial markets – that are needed to regulate large enterprises in an industrial economy. The country still has many obstacles to overcome in its transition to the market.

SOE RESTRUCTURING AND IMAGES OF CHINA

The preceding chapters on SOE reform, while partly attempting to address theoretical debates, have also attempted to speak to popular images of China, particularly images held in the West. Increasingly through the 1990s, China has come to be viewed as both a wonderful economic prize and a rising international menace, a country that offers tremendous markets for foreign business but one that also refuses to play by commonly accepted rules of the game. On almost every front – human rights, trade policy, arms control, intellectual property-rights protection, birth-control policies, environmental protection – China is portrayed as a country that not only flouts the rules, but flouts them with unbridled malevolence. Perhaps clearest of all, as China grows phenomenally rich it forbids foreign competitors from enjoying the fruits of its market. Horror stories abound from foreigners doing business in China. That foreign business concerns repeatedly lose money in an environment of impressive national growth is seen as another indicator of China's intrinsic recalcitrance.

The growing hostility toward China is not entirely without reason, nor has China always adopted the most cooperative of stances with regard to the outside world. Like many countries, China has a host of problems in many of the areas most frequently cited, including human rights, political expression, environmental protection, and market access. Furthermore, extremely sensitive to intrusions upon national sovereignty, Chinese leaders have frequently met foreign criticism with either stony silence or utter denial. China does have problems, and many of those problems are legitimately the concern of the international community.

However, the preceding chapters on China's collapsing SOE sector should inject, at the very least, a note of caution. China is a growing nation but one beset by colossal economic problems. It is a country whose banking system and modern industrial sector are on the verge of collapse, and one that is contemplating the ever-growing possibility of widespread urban unemployment and industrial stagnation. Meanwhile, it is a country whose government is less and less equipped to cope with these mounting problems. Revenues have become increasingly difficult to collect, economic information has become increasingly distorted, and the state bureaucracy has become increasingly discredited. Although the integrity of the nation is not in doubt, the ability of the

government to cope with its mounting economic troubles definitely is. China today is a country whose biggest problems, in some respects, stem more from lack of regulation than from excessive regulation.

In such an environment, it is not entirely surprising that foreigners have had trouble making money in China. As the preceding case studies have illustrated, many of the problems about which foreigners complain – and frequently attribute to unfair rules of the game – also afflict Chinese domestic producers. The rules continually change, state agencies frequently place themselves above the rules, and many economic actors simply ignore the rules altogether. When major SOEs like Angang can force neither creditors to pay nor local agencies to obey firm-level boundaries nor distributors to deliver goods, it is no wonder that foreign firms attempting to operate in China's modern industrial sector face the same problems. Interestingly, the one area that has grown substantially, the rural industrial sector, avoids most of these problems entirely by exporting a large share of its output. As best as it can, it avoids the problems of the domestic market by locating near the coast and simply shipping its goods out to foreign markets. In fact, China's prime export sector happens to be its least regulated, least subsidized, and least politically connected; it is precisely the sector that has been cut off from a banking system preoccupied with supporting state industry.

There are numerous lessons to be learned from this situation, not the least of which is that China may be a tremendously overrated market for Western industrial goods. When Western firms fail to earn money in China, perhaps the first assumption should not be that the cause involves Chinese malevolence and market protection. Protectionism obviously exists, but perhaps the first area to which we should turn for understanding is the experience of Chinese domestic firms. There is no reason to believe that outsiders should be any more successful negotiating the Chinese market than their counterparts in Chinese domestic industry (e.g., Shougang, Angang, Magang). The situation in China today is chaotic for a whole range of economic producers, foreign and domestic. As this study has tried to suggest, the problems stem as much from lack of control as from excessive control, and as much from governmental incapacity as from malevolence. Foreign business seems to operate under the assumption that, because China has experienced economic growth, the nation's domestic market must be raring to absorb almost every good imaginable, from consumer products to capital machinery. When problems arise, the first reaction is to blame trade barriers. Interestingly, foreign business concerns rarely seem to step back and reconsider whether their initial assessment of the Chinese market was accurate. Perhaps a more realistic view would be that China's market

is intrinsically uncertain, extremely undeveloped, and possibly ill-equipped to absorb the capital-intensive goods and services offered by many foreign concerns. Perhaps this is not a country that can or should be purchasing airplanes, automobiles, power plants, and heavy machinery in great quantity. Given the financial morass surrounding the prime purchasers of these goods – state-owned firms and state agencies – how long should we expect the buying to continue, and how wronged should we feel when the buying tails off?

Certainly the most immediate lesson of this study is that, when confronting China and its national policy makers, the outside world should be willing to accept a dose of humility. China is a nation with monumental economic problems, problems for which nobody has clear solutions. As the history of SOE reform suggests, Chinese policy makers in the reform era have made serious mistakes, but they have also shown extraordinary flexibility, pragmatism, and ingenuity. Many Chinese policy makers, for all the newfound wealth of their nation, still perceive the country as teetering on the edge of catastrophic poverty. In some respects, their perception is correct. As they wrestle with unprecedented problems, many policy makers truly do seek to improve the lot of the average Chinese citizen. If nothing else, this period of great uncertainty and looming economic crisis warrants from outsiders a stance more of cooperation and caution than outright confrontation. It warrants cooperation not because China's emergence as a great power is in the world's interest but rather because China's utter collapse, and all the problems associated with that collapse – widespread urban poverty, potential social unrest, and increased environmental depredation – is decidedly not.

Notes

CHAPTER 1

1. For a detailed discussion of growth data, see World Bank (1996a).
2. This was singled out as the key issue at the Fifteenth Party Congress, and was subject of Jiang Zemin's keynote address.
3. For a discussion of firm-level behavior in socialist command economies, see Kornai (1980, 1992).
4. State enterprise restructuring, particularly the opening up of 10,000 of the largest SOEs to joint stock ownership, was a major focus of China's Fifteenth Party Congress in September of 1997. See Jiang Zemin, "Holding High the Great Banner of Deng Xiaoping Theory, Carrying the Cause of Building Socialism With Chinese Characteristics to the 21st Century," Report to the Fifteenth CPC National Congress (12 September 1997), Xinhua Domestic Service (21 September 1997), in FBIS document no. CHI-97-264.
5. For a comprehensive account of the whole process of "growing beyond the plan," see Naughton (1995).
6. For a more detailed discussion of the costs of deferring state-sector reform, see Lardy (forthcoming).
7. The notion of a "hard" versus a "soft" budget constraint was developed by János Kornai; see Kornai (1980; 1992, pp. 140–5). A firm's budget constraint is said to be "soft" when the long-term viability of the firm becomes unrelated to the firm's profitability or liquidity. In other words, no matter how much money the firm loses, it can continue to count on subsidies or credit to maintain operations.
8. See Broadman (1995), World Bank (1997), and Lardy (forthcoming, Chapters 1 and 3).
9. Corporatization refers to the transformation of the firm into a modern joint stock corporation, with shares issued to a wide range of public and private holders.
10. Market behavior in this sense implies efforts by actors to expand the value of their assets by responding to market forces of supply and demand. Market-oriented firms attempt to produce goods whose value exceeds that of the inputs needed to make those goods. Of course, associated with this are efforts to increase profits by cutting costs or increasing sales, as well as meeting financial obligations – to creditors, investors, workers, and other stakeholders – within an assigned period.
11. Chandler (1977, pp. 9–10). See also Berle and Means (1968, pp. 112–16).

- from MMI internal publications. Table 6.8 is drawn from MMI internal investigatory reports.
78. Ministry of Metallurgical Industry (1995a, p. 2).
 79. Ministry of Metallurgical Industry (1995a, p. 5).
 80. The Qilu mill would be "greenfield" in the sense that it was to be constructed from scratch instead of being built from existing facilities on site. Qilu would be comparable to the Baoshan Iron and Steel Company in Shanghai, China's last greenfield steel plant.
 81. Interview, retired MMI official.
 82. Beginning in the mid-1980s, China permitted the emergence of two national comprehensive banks (the Bank of Communications and the CITIC Industrial Bank) as well as three smaller comprehensive banks (the Everbright Bank, the Minsheng Bank, and the Huaxia Bank). See Lardy (forthcoming, Chapter 3).
 83. A detailed discussion of Huaxia Bank's financial irregularities can be found in Lardy (forthcoming, Chapter 3).
 84. Lardy (forthcoming, Chapter 3).
 85. As indicated by Table 6.7, owner equity spiked upward in Shougang in 1995. This seems to have been the result of a direct infusion of capital on an equity basis by the state.
 36. The sentence was suspended for two years, and is likely to be commuted to life in prison. See "Zhou Beifang Reportedly Sentenced to Death with Reprieve," *Tung fang jih pao* (30 October 1996), in FBIS document no. CHI-96-211 (31 October 1996).
 17. Several Shougang economists and retired advisors commented bitterly to this author in 1994 about Zhou Beifang's behavior and the fact that nothing was being done about it while other Shougang employees were held to such high standards.
 8. Shougang managers and economists bristle at the notion of corporatization in China. Most are true believers in contracting, at least over the short term, and in a sense they see corporatization as a favorite of the state bureaucracy that seeks to retain its grip over the firm (interviews, Shougang).
 9. Interview, retired MMI official.
 0. Interviews, Shougang Research and Development Company.
 1. Even in late 1994, Shougang economists were unaware that their company had already started to receive emergency bailout loans from the state banks. Apparently, those loans were done quietly – kept secret even from the company's internal think-tanks – and not revealed until 1995.
 2. Interviews, Shougang economist.
 3. Ma Daying, "On Unified Financial Authority and Concentrated Finance Resources," *Caijing wenti yanjiu* (January 1982), pp. 6–12; cited and translated in Shirk (1993, p. 237).

CHAPTER 7

1. For example, see Shirk (1993).
2. See Oi (1992).

3. See Huang (1996).
4. See Naughton (1995).
5. Though in fairness to the historical record, it should be noted that "big bang" or "shock therapy" reform packages in Eastern Europe applied primarily to the issue of monetary stabilization and only secondarily to firm-level privatization. Nevertheless, privatization was seen as a crucial (albeit second-order) component of the program.
6. For a clear presentation of the property-rights reform argument, see Walder (1994).
7. See Bernstein (1984).
8. See Oi (1989).
9. Qian and Xu (1993, p. 135); data from China Statistical Yearbooks.
10. Ibid.
11. Ibid.
12. The "state sector" applies to firms that are officially "owned by the people" (*quan-min suoyoude*) and supervised by either central, provincial, prefectural, or county governments. These were the firms that in the command era were basically "on the plan." They also include all of the major heavy industrial producers that form today's urban SOE sector. "Nonstate" or "nontraditional" firms include those that are privately owned or, more commonly, those that are owned directly by district or village-level governments. Such firms, which would include TVEs and urban collectives, are owned not by the "whole people of the nation" but rather by specific grass-roots-level governments representing specific local populations. For an excellent explanation, see Qian and Xu (1993, pp. 138–40).
13. Qian and Xu (1993, p. 140).
14. Oi (1992, p. 99).
15. Qian and Xu (1993, p. 141).
16. The following data on longitudinal and cross-sectional regional income disparities in China are taken from Hu and Wang (1996).
17. The term "local state corporatism" is used by Oi (1992). For similar statements of the view, see Walder (1994) and Nee (1992).
18. Oi (1992, pp. 99–100).
19. Oi (1992, p. 102).
20. Walder (1994, p. 53).
21. Oi (1992, pp. 100–1).
22. Walder (1994, p. 62).
23. Oi (1992, note, p. 119).
24. Of course, a better test of the hypothesis would be to compare a successful set of TVEs with an unsuccessful set. Is the government–enterprise tie closer in the former group than the latter? That this author doubts so is not really the point. Rather, the issue is that a comparison between TVEs and SOEs offers no real test of the hypothesis that state intervention is the key behind TVE growth.
25. Walder (1994, p. 62).
26. Walder (1994, p. 63); Oi (1992, pp. 121–5).
27. Stories like this abound with regard to the city of Nanjing. Researchers at the CASS Institute for Industrial Economics report the same phenomenon in Northeastern

- municipalities like Harbin (interviews, Chinese Academy of Social Sciences Institute of Industrial Economics).
28. There is clearly an analog to this pattern in the story of rural decollectivization and the adoption of the responsibility system for peasant producers. Decollectivization began in some of the poorest areas of China – Anhui and Sichuan – and only then spread outward across the country. Granted, that the responsibility system was adopted depended on the existence of creative decision makers – namely, Wan Li in Anhui and Zhao Ziyang in Sichuan. But the more general point is that the impulse behind the adoption of responsibility systems in either the post–Great Leap Forward period or the early reform era was extreme poverty and economic collapse. Constraints limited freedom of choice and necessitated the encouragement of behavioral modes that ran counter to accepted ideology and practice.
 29. This hypothesis is based solely on the author's own limited contact with larger rural collectives in China. A good example of a rural collective that got into big trouble through excessive lending is the Shangqiu Fuyuan Meatpacking Company, a 2,300-employee firm in rural Henan Province (author's visit).
 30. Indeed, in Anshan City, the municipality has been so uninterested in promoting its own business that Southerners have moved in on their own to try to provide consumer goods and services to the population. Strolling the streets in these environments, one is hard-pressed to find the numerous restaurants, shops, or markets that proliferate in the South, or even now in cities like Beijing. This author in his own visits to Anshan encountered officials who proudly stated that they have no reason to engage in small-scale, export-oriented business: "Angang is one of the nation's largest and most important firms; we don't need to worry about the market, or attracting foreigners, or promoting exports" (author's interviews, November 1994).
 31. Walder (1994, p. 62).
 32. Walder (1994, p. 62).
 33. Oi (1992, p. 119).
 34. For a profound discussion of the phenomenon, see Chandler (1977, pp. 6–12).
 35. Chandler (1977, p. 8).
 36. For a clear statement of this perspective, particularly with regard to fiscal power, see Wang Shaoguang, "The Rise of the Regions: Fiscal Reform and the Decline of Central State Capacity in China," in Walder (1995, pp. 87–113); see also Wang and Hu (1993).

CHAPTER 8

1. Evans (1992, p. 151).
2. Gordon White and Robert Wade, "Developmental States and Markets in East Asia," in White (1988). For seminal works on the theory of "late" development, see Gerschenkron (1962) and Hirschman (1958).
3. Evans (1992, p. 142).
4. Hirschman (1958, p. 35); Evans (1992, pp. 147–8).
5. Evans (1992, p. 148).
6. Amsden (1989, p. 8). See also Wade (1990).

7. Amsden (1989, p. 10).
8. For example, Amsden points out that in the Korean cotton textiles industry during the 1960s, tariffs were waived on imported cotton for those textile manufacturers exporting finished goods.
9. See Johnson (1982).
10. Johnson (1982, p. 26); Evans (1992, p. 152).
11. Scholars have debated whether MITI was actually "autonomous" in the Weberian sense or rather "embedded" in the firm-level environment in which it was operating. Evans suggests that MITI's success was due to the fact that MITI officials, rather than being totally removed from industry, actually could use a series of informal connections with industry-level managers in order to implement policy. In other words, bonds between government agents and private power holders were reinforced by old school ties, industry associations, and a maze of quasigovernmental organizations. In this sense, MITI's success is attributed to its "embedded autonomy" (Evans 1992, pp. 153–4).
12. World Bank (1993).
13. World Bank (1993, p. 10).
14. World Bank (1993, p. 21).
15. World Bank (1993, p. 9).
16. Neoclassical recommendations for postsocialist transition are clearly stated in Sachs (1993) and Boycko et al. (1995).
17. The notion that some forms of direct government intervention are needed to restore markets is by no means an entirely original one. Frank, Kim, and Westphal (1975) have essentially described such a process, albeit at the macro level and involving currency valuation, with regard to the South Korean case.

The Razor's Edge: Distortions and Incremental Reform in the People's Republic of China*

"Sages say the path [to salvation]
is narrow and difficult to tread,
narrow as the edge of a razor."**

Alwyn Young
Graduate School of Business
University of Chicago
This version: August 1999.

(*) Paper to be presented at the Nobel Symposium *The Economics of Transition*. This research was supported by the Canadian Institute for Advanced Research and a Sloan Foundation Fellowship. I am grateful for the valuable comments I have received from countless seminar participants, as well as the editors and referees of the QJE. Him Chung, Mary Ann Connolly and Jean Hung provided long suffering research assistance. As always, my greatest debt is to Ho Veng-Si, whose comments guided this project from the very beginning.

(**) From the Katha-Upanishad, as translated by Mascaro (1965). A similar message appears in the New Testament: "Enter ye in at the strait gate: for wide is the gate, and broad is the way, that leadeth to destruction, and many there be which go in thereat: Because strait is the gate, and narrow is the way, which leadeth unto life, and few there be that find it." Matthew 7: 13-14.

I Introduction

Analyses of the transition to market in centrally planned economies have identified two potential pitfalls in the process of incremental economic reform. First, the removal of government mandated controls in one part of the economy, in the context of continued distortions elsewhere, can, for standard second best reasons, lead to a fall in output (Murphy, Shleifer and Vishny 1992). Second, political opposition may develop along the path of reform, stalling the reform process or reversing it altogether (Dewatripont & Roland 1995, Martinelli & Tommasi 1994). In this paper I use the reform experience of the People's Republic of China to highlight a third potential pitfall. Incremental reform leads to the creation of rental opportunities which, due to the gradual nature of the reform process, are fairly long lasting. This allows for a prolonged battle to capture, and then protect, these rents, leading to the creation of new distortions in the economy. In this sense, the reform process can be derailed; while some distortions are eliminated, moving the "train" of the economy to market, others are added, drawing it off on unexpected tangents.

As early as 1986, the government of Zhejiang province began to restrict the sale of silk cocoons to other parts of China. Each harvest season the government bureaucracy, from the provincial level all the way down to village units, and including police and militia forces, was mobilized to ensure that Zhejiang's silk farmers sold their silk cocoons locally, for local processing or direct export. Under the plan, the prices of raw materials such as silk were kept artificially low while the prices of final goods, such as silk fabric, were kept high. During the 1980s, with the relaxation of central controls on rural industry, locally controlled silk processing industries developed rapidly in Zhejiang, a traditional producer of silk cocoons, to capture the rents implied by the artificial price wedge. The trade embargos of the mid 1980s onwards appeared as other provinces tried to purchase silk cocoons, at above planned procurement prices, directly from Zhejiang farmers, bidding away the rents the Zhejiang government could acquire from local pro-

cessing or direct export.¹ In the first half of 1988 silk factories in Shanghai, located next door to Zhejiang and Jiangsu, the principal domestic producers of silk, received only 40 tonnes of their planned allocation of 2000 tonnes of raw silk. In a country which, all by itself, accounted for 60% of world production and 90% of world exports of raw silk, Shanghai found itself in the surprising position of using valuable foreign exchange to import silk for its factories.²

The "silkworm cocoon war" described above was just one of the many interregional trade conflicts, in both raw materials and finished manufactured goods, which appeared in the People's Republic during the 1980s and 1990s. While a full description of the factors behind this interregional conflict will be given further below, it is worth outlining the main features of the argument at this stage. Under the central plan raw material prices were kept low and final goods prices high, generating substantial surpluses in manufacturing and processing industries, which funded the government budget. As central controls over factor and material allocations were relaxed, local governments throughout the country moved to develop manufacturing industries and restrict the outward movement of raw materials, in an attempt to capture the rents implicit in centrally mandated price wedges. Growing overcapacity in a number of industries, combined with the elimination of central controls over prices and the growth of interregional free marketing, threatened industrial profit margins and led to burgeoning trade conflicts as local governments tried to control prices and limit "foreign" competition using a variety of administrative and physical barriers to interregional trade. Having developed financial and political interests in a particular industrial and price structure, local governments continued to defend those interests, even after the original motivating factors (i.e. centrally mandated distortions) had largely disappeared. The removal of these new distortions posed an additional challenge to reformers intent upon moving the economy toward free market institutions.

¹ See Chen (1994), preface pp. 1-2 and text pp. 7-8.

² Far Eastern Economic Review (hereafter, FEER), "In a spin" (23 March 1989).

This paper proceeds as follows: Section II below, "Stories," develops a fuller description of how incremental reforms in the People's Republic devolved power to local governments and led to the development of competitive local industrial policies and interregional barriers to trade. Section III, "Data", leavens the argument with data on the interregional dispersion of output and prices. I find that the dominant trend during the reform period was for convergence in the structure of output, as the different provinces duplicated each other's industries. Regarding prices, using poor quality data, I observe a divergence in regional prices in the late 1980s, which was followed by fluctuating rounds of convergence and divergence (without overall trend) during the 1990s. These data are supportive of the anecdotal narrative. They are not, however, decisive. Given the difficulty in evaluating the distortions in place at the end of planning, and all of the extraordinary developments in patterns of productivity and comparative advantage that must have taken place during the reform period, any evolution of prices and outputs since 1978 is potentially consistent with a "movement to market". To establish the argument that the reform process led to the creation of new distortions, one needs to provide direct evidence of increasingly irrational factor allocations. To this end, Section III also presents data on the relationship between weather conditions and factor allocations in agriculture. I find that while good weather conditions favoured the increased application of productive factors early in the reform period, this relationship increasingly turned negative, i.e. perverse, so that by the mid-1990s good weather conditions actually led to the application of less factors in agriculture. This is consistent with a movement toward regional autarky.

Section IV, "Transport Constraints", considers an alternative explanation of the data. While a movement to regional autarky might be caused by regional industrial policies, it might just as easily be driven by a rise in the relative cost of internal transport. Anecdotal accounts of an overstrained transport structure and a rapid fall in the domestic movement of goods relative to GDP during the reform period support this hypothesis. However, there is little statistical evidence of increasing transport delays, which one would expect in an environment with worsening

capacity constraints. Most fundamentally, I find that the decline in internal transport has been greatest in the coastal areas, which have access to coastal shipping but have nevertheless chosen to use a rising fraction of port capacity for international trade. These data suggest that the falloff in internal transport is less driven by supply constraints than by a decrease in demand. Overall, the data of Sections III and IV are consistent with the view of an economy that has expanded its international linkages while reducing the degree of interregional specialization in its own internal market. Section V concludes the paper.³

³This is not the first paper on interregional trade conflict in the People's Republic, which has received a great deal of attention in the Chinese media and scholarly journals (see Section II below, as well as the translated articles in Chinese Economic Studies, Fall 1993). A World Bank study led by Kumar (1994a,b) represents the best attempt to move beyond anecdotes and present statistical evidence of aggregate effects. Kumar compared the degree of industrial dispersion in China, the United States and the European Community, breaking each political unit into 12 regions, and found that China's production structure was substantially more diversified. It is difficult to evaluate this comparison, however, given differences in stages of development and the size of the economic units involved. Kumar also used data provided by the State Statistical Bureau to examine trends in interprovincial retail purchases, finding evidence of a decline in interprovincial trade. However, unbeknownst to the World Bank mission, the data provided by the SSB (aside from containing numerous errors and mixed data types) included the value of interprovincial trade transactions with non state commercial departments in the value of intraprovincial purchases (i.e. excluded them from the measure of interprovincial trade). This makes interpretation of the declining "trade ratio" problematic. In an appendix, under preparation, I provide a complete discussion of the statistical definitions and develop a consistent data series of these measures of commercial transactions.

Other statistical studies of this issue have been of lesser quality. For example, a team from the Chinese Academy of Social Sciences (1993) presents a variety of data on the interprovincial trade of six provinces. The tables in the paper are mutually contradictory and the article concludes, at different points, that for most of these provinces the relative role of interprovincial trade was both rising and falling (during the same time period).

II Stories

Any review of the reform period must, perforce, take as its starting point the legacies of 30 years of central planning. Three aspects of the planning system, in particular, had a profound influence on the development of local policy during the 1980s. First, as shown in Table I, revenue collection under the plan was concentrated in the industrial sector which, by the mid-1960s, accounted for three quarters of the consolidated budgetary revenue of the central and local governments.⁴ With the prices of raw materials kept artificially low relative to the prices of final industrial goods, industrial processing enterprises reaped unusually high returns, which were then handed over to the government, either in the form of turnover (indirect) taxes or through the direct remittance of profits. Wong (1992) explains that this system was patterned after the Soviet

⁴ Government revenue by sector is computed net of enterprise losses. Historically, price subsidies were counted as negative revenue, while debt issues and payments were counted as part of revenue and expenditure, respectively. Price subsidies were shifted from revenue to expenditure in 1986. Beginning in 1994, debt and interest were no longer included under revenue and expenditure. Further, in that year, all capital construction financed by foreign borrowing was removed from expenditure. Using the data on various budgetary items in the China Statistical Yearbook (hereafter, CSY) and the China Public Finance Yearbook I have been able to construct a consistent historical series, which forms the basis of the data presented in Table I and Figure I below. I use the following definitions: (1) Price subsidies are counted as part of expenditure, not as negative revenue; (2) Debt issues and interest payments are excluded from revenue and expenditure (I could not separate out interest payments alone); (3) Capital formation financed by foreign borrowing is included in expenditure; and (4) Revenue by sector continues to be computed net of enterprise losses.

An important issue is the treatment of "extra-budgetary" revenue, which grew from 31% of revenue (using my series, which matches the most recent official definition of revenue) in 1978 to 111% in 1992. Until 1992 the definition of extra-budgetary revenue included the various surcharges and levies raised by governmental departments as well as the many funds retained by enterprises but earmarked for specific use, e.g. welfare, bonus, and capital construction and technical updating funds. While it is true that local governments tap the extra-budgetary funds of enterprises (Wong 1991a), it seems excessive to consider the full value of these funds as being under government budgetary control (this is almost equivalent to considering the depreciation allowances or investment tax credits of U.S. firms as being part of the U.S. government budget). In 1993 Chinese statistics stopped counting the funds of state-owned enterprises and agencies as part of extra-budgetary revenue, lowering extra-budgetary revenue to 33% of the value of budgetary revenue in that year. If one similarly excludes state enterprises from the 1978 data, the value of extra-budgetary revenue as a percent of budgetary revenue falls to 8%. With regards to this paper, since extra-budgetary funds are not reported by sector of origin and, furthermore, since there is no historical breakdown of non-state enterprise extra-budgetary funds into local and central categories, I cannot adjust the earlier data and, hence, do not include extra-budgetary revenue in the data reported below.

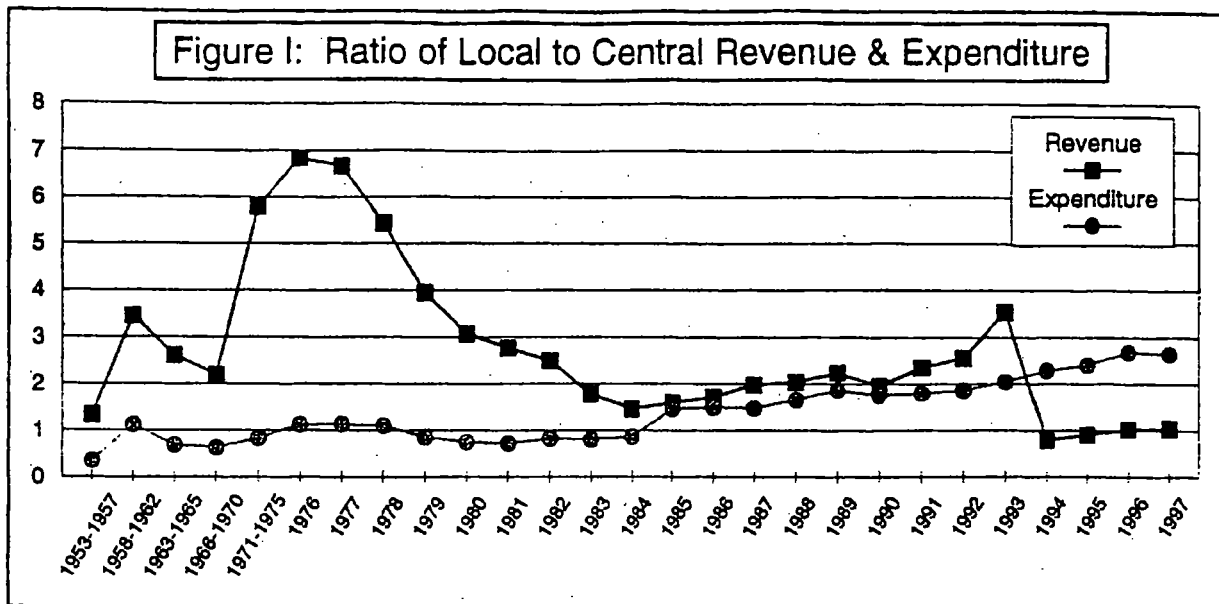
Table I: Distribution of Government Budgetary Revenue by Sector						
	Industry	Agriculture	Commerce	Transportation	Construction	Other
1952	0.36	0.21	0.24	0.05	0.00	0.13
1965	0.73	0.07	0.07	0.09	0.00	0.04
1978	0.75	0.03	0.12	0.07	0.00	0.03
1995	0.44	0.06	0.33	0.04	0.02	0.12

model of the 1920s, in which "price scissors" generated large industrial surpluses which could then be used to fund the development of industry. In the context of government control of most economic sectors, this motivation is peculiar. Presumably, profits could just as easily have been concentrated in raw material sectors such as agriculture or final sales sectors such as commerce, and then used to finance the development of industry.⁵ It could be the case that these rents and price wedges simply represented the combination of ideological bias (e.g. frivolous consumer goods such as watches and fans should be expensive while valuable raw materials such as coal should be available to all at low cost; industry is important and hence industry, and not agriculture or commerce, should generate revenue) and practical expediency (e.g., it is easier to collect the revenues of a few silk processing centres than to tax the incomes of thousands of silk growing collectives). For whatever reason, industry was paramount as a source of revenue. During the reform period, with the rise of raw material prices and the introduction of contracting/incentive profit retention systems, the role of industry in revenue collection declined.

Nevertheless, the sector still accounted for almost half of all budgetary revenue in 1995.

Second, as shown in Figure I, historically most of government revenue was nominally "local revenue", collected by local government authorities and then handed over to the central government. In the mid-1970s, just prior to the reforms, local revenue amounted to almost seven times central revenue. As the figure shows, during the 1980s the ratio of local to central revenue

⁵ For example, the large turnover taxes, which were included in the factory sales price of manufactures and therefore collected from industry, could just as easily have been levied after goods were shipped to distributors, and hence been collected from the commercial sector.



collection declined rapidly as the central government increased its share of revenue collection. These figures, however, conceal the fact that, with the exception of some centrally-controlled enterprises, most of so-called "central" revenue has actually always been collected by local authorities, simply because the central government has never possessed a nationwide tax bureaucracy.⁶ Thus, under the plan, and even during the reform period, most revenue was collected by local governments, designated as "local" or "central", and then transferred from local coffers to central coffers and, frequently, back again. The obfuscation inherent in the bilateral transfers of this system should not blind one, however, to the crucial fact that it was local governments, and not the central government, that had the long standing fiscal ties with enterprises throughout the economy.

⁶Wong (1991a). In 1989 China's State Tax Administration had a total staff of 450 persons in Beijing and another 150 persons nationwide. The remaining half a million tax collection officials were appointed by local governments. In 1994 separate central tax bureaus were established, with some fanfare, in the various provinces. Early foreign press reports, however, indicated that these new bureaus possessed "two name plates but one staff," i.e. were still part of the local bureaucracy. See FEER, "Fiscal feudalism" (6 April 1989) and "The Grip Slips" (May 11 1995).

A third legacy of the pre-reform era was the duplication of industries across provinces and the active involvement of provincial and local authorities in economic planning. Enjoying, by the mid-1960s, hostile relations with its neighbours in almost every direction, the People's Republic began a conscious attempt to develop duplicate sets of industries in each region and province, so as to be better able to sustain economic activity in the event of a foreign invasion. This policy extended beyond the duplication of key military industries to a general programme of promoting local self-sufficiency in most areas of industrial production. Pressed by the complexity of directing the growing number of small local enterprises, and probably dislocated by the political events of the time, the central planning apparatus during the Cultural Revolution (1966-1976) increasingly relinquished control of detailed planning to provincial authorities, focusing, instead, on managing the interprovincial transfer of key materials and products.⁷ With material supplies only ensured when one actually produced them oneself, and with the central regime actively encouraging and funding the local development of industries, each province, county, city and locality tried to develop its own duplicate set of industries.⁸ It is important to note, however, that despite the widespread industrial diversification, central controls over entry into high margin industrial sectors were maintained (Wong 1988) and, consequently, industrial

⁷ See Naughton (1991) and Wong (1985, 1991b). The description above sounds more coherent than the system actually was. For example, almost all enterprises were decentralized to local control but, when their management proved too complex for provincial authorities, put under the planning of central ministries (while remaining locally "controlled" enterprises). At the same time, the staff of the central planning agencies (material supply, statistics, etc.) was liquidated, falling to a total of 610 employees in 1970. In the words of no less an expert than Perkins (1988): "By some mechanism, inputs and outputs and their allocation between enterprises were coordinated in a way that avoided the chaos of the Great Leap Forward, and this coordination was in no sense achieved through a revived market mechanism...It is not clear just who in the bureaucracy did much of the planning and control of enterprises, but planning and control through the bureaucracy did take place."

⁸ Wong (1985) recounts how in Huangshi city (Hubei) there were four iron and steel mills: one setup by and beholden to the central government, one established by the provincial authorities to meet their needs, one setup (near the other two mills) by the municipal government to meet its requirements, and one established by the suburban county, which, needing only 3000 tons of pig iron a year, could not get its requirements satisfied by allocations from other producers.

rents remained concentrated in a few select regions. Thus, in 1981, Shanghai, with its important processing industries, earned budgetary revenues equal to 10 times total expenditures and, while producing only 7% of GDP, accounted for 45% of the total net local to centre transfer of budgetary funds in the economy.⁹

With this background in mind, I now turn to a review of developments during the reform period. From almost the very beginning, the central government sought to improve the efficiency of industrial production and public administration by hardening the budget constraints of both state enterprises and local governments. Beginning in 1979, the historical system of full remission of enterprise surpluses (and central coverage of losses) was replaced with contracts specifying the division of profits between the government and enterprises, with incentives for exceeding historical values. Unfortunately, each enterprise, in each locality, operated under unique historical circumstances. Some enterprises had unusually large or small capital stocks, others produced goods where profits were high or low because of distortions in state prices, whereas still others were engaged in the difficult production of goods in unusual locations (as mandated by the pre-reform policy of industrial diversification). Consequently, contracts had to be negotiated on an enterprise by enterprise basis, with opportunities for renegotiation and renegement (by both sides).¹⁰ Similarly, beginning in 1980, under the policy of *fenzao chifan* ("eating in different kitchens"), the central government attempted to separate the central and local budgets by establishing revenue contracts with the local authorities. As in the case of

⁹ I calculate Shanghai's net transfer as the difference between its revenues and expenditures since the provinces are not supposed to engage in debt finance and, with the exception of the rollover of small surpluses and deficits, appear to maintain budget balance on an annual basis. Estimated from China's Government Finance Statistics 1950-1985, pp. 54 & 92.

¹⁰ The *li gai shui* (tax-for-profit) system, advanced in 1982-1985, sought to limit the need for detailed bargaining by introducing a complex set of interlocking and compensating universal tax rates which, varying by product, assets, etc., would compensate for all of the pre and post-plan distortions. However, the *li gai shui* initiative met with strong opposition and by 1986 was abandoned in favour of a return to enterprise by enterprise contracting.

industrial enterprises, each province's circumstances were unique, requiring a different contracting system. Thus, some provinces remitted a lump sum tax, others remitted a proportion of total revenue, while, in still other cases, revenue sources were divided between central, local, shared and "adjustment" (subject to yet another formula for sharing). Budgetary contracts, while often "established" for five year periods, were, again much like enterprise contracts, subject to frequent renegotiation as circumstances and policies changed.

For all its imperfections, the contracting system undoubtedly hardened local and enterprise budget constraints and improved fiscal and industrial efficiency by providing an objective function (albeit moving) with marginal rates of central taxation well below 100%. In the process, however, it inadvertently devolved power to local authorities and strengthened the ties between local governments and state enterprises. Enterprise contracting shifted power from the centre to local governments since these, with their historical tax and administrative ties with enterprises and detailed knowledge of local circumstances, were best positioned to negotiate and monitor contracts for themselves and the central government. The hardening of local budgets increased the interest of local authorities in industrial enterprises, where the main revenue surpluses were to be found. Local governments could control input prices and costs, minimizing reported "profits" (which might have to be shared with the centre), while still maximizing the surpluses available for local coffers. While local governments could draw revenue from industry, their broader interest centred around the financial well-being of state enterprises as these traditionally provided housing and a wide variety of social services (e.g. health, retirement, disability, burial, recreation, etc.) to their workers. In sum, in attempting to harden budget constraints, in the context of continued price distortions and no attempt to clarify the residual ownership of enterprises or separate their social from their industrial functions, the central government merely transferred enterprise control, and the responsibility for sustaining enterprise well-being, down to the local

level.¹¹

A second, critical, reform initiative focused on the development of rural industry as a means of absorbing surplus resources (i.e. labour) in the countryside. Beginning in 1977, the decline in central procurement of farm products and capital equipment and the introduction of rural labour responsibility systems freed material, capital and labour resources for use by rural enterprises. While rural industry, as it developed during the Cultural Revolution, had previously been restricted to sectors with small margins, such as agricultural machinery repair and farm tools, these restrictions were now removed. Further, the central government actively encouraged the development of rural industry by instructing the Agricultural Bank of China to provide low-interest loans, requiring that half of state budgetary allocations to communes be used for rural enterprise development, and instructing central and local authorities to incorporate the supply of rural enterprises into their plans.¹² Most importantly, three year tax holidays were granted to particular industries (e.g. cement plants) and to all enterprises which might have some initial difficulty in paying taxes, which, in practice, ended up granting exemption, on all income and turnover taxes, to all new enterprises. With turnover/indirect taxes as high as 66% in some sectors, tax exemptions were crucial, allowing rural enterprises, even inefficient rural enterprises, to capture the rents implicit in the margins enjoyed by firms in the urban processing centres. Local governments, spurred on by central initiatives aimed at hardening their budget constraints, naturally supported this shifting of rents which, in the absence of well developed private capital markets to support investment, was mostly undertaken by collective organizations. While tax

¹¹ For a history of reforms in enterprise taxation and how these enlarged local power, see Naughton (1985) and Wong (1987, 1992). *FEER*, "The Grip Slips" (May 11, 1995) provides a recent review of the degree to which central government control over finance has devolved into the hands of local authorities. Song (1992) and Wong (1992) review the different types of central-local contracting systems.

¹² As with all Chinese policies, there were zigs and zags. In 1981-1982 rural entry into some sectors was restricted and some rural enterprises were forcibly shut down. By 1984, however, these policies had been reversed in favour of further bank lending and the removal of most restrictions on entry.

exemptions denied the central government any share of the captured rents, informal local levies could determine their distribution between the collective organizations and local government coffers. In 1984 contributions for local social expenditure and other levies amounted to 44% of the nationwide after-tax profits of rural enterprises (Wong 1988).

The growth of rural industry as the arbitrager of artificial price wedges inevitably led to the development of interregional trade barriers. Local governments in regions which traditionally produced raw materials moved downstream into processing, diverting outward bound raw material shipments, at low planned prices, to their own factories. Traditional processors, starved of material inputs, responded by sending buyers to raw material districts, offering above plan prices directly to raw material producers such as farmers. Since their financial interests were linked to processing, and not raw material production, governments in raw material producing districts moved to prevent these sales, using trade barriers to turn themselves into monopsony buyers of raw materials at low prices. This led to the development of "wars" over coal, cotton, jute, silk-worm cocoons, and tobacco, among other materials.¹³ In the area of finished goods, such as high margin light industrial consumer products, the duplication of production throughout the country led, reportedly, to growing overcapacity. As central controls over prices were relaxed and private marketing channels developed, rural producers found themselves in competition with each other and with the traditional, more efficient, producers of finished products. To protect their

¹³ In the Chinese press, coverage of the battles to control resources, the diversion of planned allocations to local industry, the interpretation of local motivations as an attempt to capture the rents implicit in price wedges, and the role the hardening of local budget constraints played in spurring official intervention can be found in: Beijing Domestic Service 1100 GMT 24 May 86; Beijing Xinhua Domestic Service 1133 GMT 6 Dec. 1994; China Daily (Beijing, Business Weekly) 10 Dec. 1990 p. 4.; *Jingji Cankao* (Beijing) 4 June 1990 p. 1, 27 April 1990 p. 1, 24 June 1990 p. 1, and 20 July 1990 p. 1; *Jingji Guanli* (Beijing) No. 12 (Dec. 1989) pp. 18-21; *Jingji Ribao* (Beijing) 11 Nov. 1989 p. 2; *Jingjixue Zhoubao* 30 April 1989 p. 1; *Renmin Ribao* 11 June 1990 p. 6; *Zhongguo Tongxun She* 0355 GMT 11 Aug. 1989; and *Zhongguo Wujia* No. 2 (Feb 95) pp. 13-17; See also FEER, "Trouble at mill" (7 March 1991) and "Protection Has a Price" (August 29 1996). With the exception of the FEER, all Chinese and Hong Kong news services cited in this section are as reported and translated in the Foreign Broadcasting Information Service.

industrial interests, provincial, county and, even, city governments found it expedient to erect barriers to trade so as to maintain high local final industrial goods prices. Aside from tariff barriers (i.e. special charges levied at road blocks), non-tariff methods such as physical barriers, outright prohibition, low interest loans and other financial benefits for commercial establishments marketing local goods, fines for commercial establishments marketing non-local goods, legal restrictions on price differences between local and non-local goods sold in commercial establishments, local purchasing quotas, and administrative trivia (e.g. medical, sanitation, epidemic prevention, product quality, measurement and other such licences and certificates) were used to hamper trade in products as varied as textiles, automobiles, trucks, perfumes, beverages, plastics, matches, household electrical appliances, electrical machinery, bicycles, pens, alcohol, washing powders and soaps, tires, tractors, engines, processed foods, and food flavourings.¹⁴ The legal system was also subverted, as enterprises were encouraged not to pay non-local bills, the courts ignored non-local pleas, rulings and fines were issued against non-local producers, and judges who ruled in favour of non-local firms were punished.¹⁵

While the central regime railed, in a number of circulars, against interprovincial trade

¹⁴ For coverage of the trade barriers, reference to the growing overcapacity of a number of industries brought about by excessive duplication, and interpretation of the interventions of local governments as stemming from their financial relations with industrial enterprises, see *China Daily* (Beijing) 9 June 1990 p. 1; *Ching Chi Tao Pao* (Hong Kong) No. 9 (5 March 1990) pp. 8-9 and No. 37-38 (28 Sept. 92) pp. 12-15; *Fazhi Ribao* 19 April 1993 p. 1; *Guangming Ribao* 3 Nov. 1990 p. 3; *Guangxi Ribao* 3 Feb. 1994; Hangzhou-Zhejiang Provincial Broadcast Service 1000 GMT 21 Dec. 1990; *Jingji Cankao* (Beijing) 24 June 1990 p. 1 and 4 June 1990 p. 1; *Jingji Ribao* (Beijing) 14 July 1990 p. 2; *Liaowang* (Beijing) No. 45 (6 Nov. 1989) pp. 18-20; *Qunyan* (Beijing) No. 2 (7 Feb. 1991) pp. 22-23; *Renmin Ribao* 30 July 1990 p. 2 and 5 June 1990 p. 5; *Shanxi Ribao* 1 Dec. 1995 p. 1; *Ta Kung Pao* (Hong Kong) 22 June 1990 p. 2; *Tangtai* (Hong Kong) No. 41 (8 Sep. 1990) pp. 13-14; *Wen Wei Po* (Hong Kong) 24 Jan. 1991 p. 6; *Xinhua Domestic Service* 0133 GMT 18 July 1984, 0815 GMT 8 May 1990, 1031 GMT 10 April 1990, and 0400 GMT 29 March 1992; and *Zhongguo Tongxun She* (Hong Kong) 0909 GMT 11 Feb. 1990. See also *Economist*, "China's feuding regions" (20 April 1996) and *FEER*, "Opening doors" (2 April 1992).

¹⁵ On the use of the legal system, see *Jingji Cankao* (Beijing) 1 April 1990 p. 4.; *Renmin Ribao* 10 Dec. 1991 p. 5; and *Tangtai* (Hong Kong) No. 41, 8 Sep. 1990 pp. 13-14.

wars, sent down task forces to mediate conflicts at provincial borders and even went so far as establishing a separate ministry, the Ministry of Internal Trade, whose main purpose was to enliven "circulation" and distribution, its other policies inadvertently encouraged interregional conflict.¹⁶ Thus, for example, the allocation of special trading rights on a regional basis, in particular to the Special Economic Zones and Guangdong province, led to conflict as other regions tried to prevent the loss of export earnings brought about by the diversion of their exports to these gateways to the international market.¹⁷ Perhaps the most destructive element, however, was the central regime's policy on price controls. During the Cultural Revolution, in recognition of the fact that the policy of forced industrial diversification led to inefficient production, the central regime allowed localities to set their own, higher, final goods prices (Wong 1987). This policy was maintained, and apparently expanded, during the reform period. With each round of price liberalization, while the central government reduced the number of centrally mandated price controls it simultaneously acquiesced to, explicitly allowed or, in some cases, even vig-

¹⁶ Chen (1994, pp. 2, 33-36) indicates that central task forces were sent down, on an annual basis, to mediate disputes at Zhejiang's borders. He also notes that circulars and directives against interregional trade barriers were issued by the State Council, Party Congress, People's Congress, etc. in 1980, 1981, 1982, 1984, 1985, 1987, 1988, 1989, and 1990. The establishment of the Ministry of Internal Trade and its mission are highlighted in Beijing Central Television Program One Network 1100 GMT 10 April 1993; China Daily 29 July 1993 p. 1; and *Renmin Ribao* 2 August 1993 p. 2.

¹⁷ While most regions were only allowed to retain about a quarter of the foreign exchange generated by their exports, Shenzhen SEZ (in Guangdong) was allowed to retain 100%. In 1988, Hunan and Guangxi were reported to be patrolling their border with Guangdong province, restricting the movement of goods to their neighbour. Senior officials in both provinces complained that goods shipped to Guangdong for subsequent export as "Guangdong" goods robbed them of valuable foreign exchange. *FEER*, "Beggar thy neighbour" (12 January 1989). See also China Daily 4 April 1989 p. 4 and *Zhongguo Xinwen She* 1344 GMT 2 April 1992.

orously mandated, the local maintenance of price controls.¹⁸ In a planned economy, where state organs controlled the interregional movement of goods, price differentials could easily be maintained. In a market economy, however, with atomistic private arbitragers hard at work, large interregional differentials in the prices of traded goods could only be maintained with barriers to trade. Thus, in the area of prices and the interregional movement of goods, the central regime's "reforms" ultimately degenerated, as they did in so many other areas, into a general devolution of power into the hands of provincial and sub-provincial governmental authorities.

By 1991, according to some estimates, somewhat less than one-third of enterprise transactions took place at centrally fixed prices (Gelb, Jefferson & Singh 1993). Since centrally mandated price distortions are gradually disappearing, what force, one might wonder, serves to prevent local governments from reverting to free market principles? The answer to this question

¹⁸ The nationwide decontrol of grain prices in 1992-1993 provides a wonderful example of policies working at cross purposes. While the price of grain was supposed to move to market levels, government pronouncements, at both the national and local level, stressed the importance of provinces, prefectures and even localities keeping adequate grain reserves so as to manage the price of grain in their jurisdiction. Similarly, localities were urged to improve "price inspection" (for what purpose?) and to switch from mandatory grain procurement "quotas" to voluntary purchase "contracts", which would ensure that prices did not rise too high or fall too low. One wonders how any of this could be accomplished without barriers to trade. See Jiangsu People's Radio Network 1015 GMT 23 March 1993; *Liaowang* Overseas Edition (Chinese, Beijing) No. 51 (21 Dec. 1992) p. 2; *Xinhua* Domestic Service 0734 GMT 2 April 1993 and 2102 GMT 22 April 1993; and *Zhongguo Xinwen She* (in English) 0844 GMT 3 Oct. 1992.

Explicit reference to the rights of local authorities (even below the provincial level) to set their own prices is made in *Jingji Ribao* (Beijing) 8 June 1990 p. 3; *Xinhua* (Domestic Service) 0830 GMT 24 Feb. 1993 and 0531 GMT 13 March 1994; *Xinhua* (English) 1435 GMT 2 Sep. 1989; *Zhongguo Wujia* No. 8 (Aug. 1995) pp. 16-18; and *Zhongguo Xinwen She* 0915 GMT 4 Sep. 1993 and 1228 GMT 19 Oct. 1994. Examples of general reports on provincial price controls and subsidies are given by Changsha Hunan Provincial Service 2300 GMT 24 Jan 1990; China Daily (Business Weekly) 10 Jan. 1993 p. 3; Harbin Heilongjiang People's Radio Network 1000 GMT 8 April 1994; Hefei Anhui Provincial Service 1100 GMT 30 Dec. 1988; *Nanfang Ribao* (Guangzhou) 19 March 1991 p. 1; Nanjing Jiangsu People's Radio Network 2300 GMT 23 July 1993; *Renmin Ribao* 6 Aug. 1990 p. 2 and 6 Oct. 1990 pp. 1 & 4; Shanghai City Service 0900 GMT 13 Sep. 1989; Wuhan Hubei People's Radio Network 1000 GMT 12 May 1994; *Xinhua* (English) 1103 GMT 30 Dec. 1988, 1507 GMT 20 Jan. 1990 and 0946 GMT 30 Nov. 1992; and *Zhejiang Ribao* 27 July 1994 p. 1. The *FEER* ("The power of the purse," 18 June 1987) reports that central attempts to free (and rationalize) the prices faced by industrial enterprises were often undermined by localities and government departments, which simply imposed new controls.

is as old as the history of protectionism itself: local governments now find their financial and political interests embedded in a particular industrial structure. These interests can be defended using a variety of mechanisms. In raw material producing areas, export barriers convert processing factories into monopsony buyers and, thereby, maintain the price distortions of the pre-reform era. Elsewhere, import barriers, while impoverishing the local economy as a whole, can induce artificially high returns in particular industrial sectors (just as in the import substitution industries of so many other countries). Finally, when trade barriers cannot be fruitfully enforced, or are viewed as being too costly to other local interests, there is always the banking system which can be repeatedly pressured into extending credit to enterprises, providing local revenue and employment at the expense of national inflation.¹⁹ Thus, while it is probably the case that efficiency considerations, the demands of other social and political groups, and interregional competition for factors of production all place constraints on the distortionary activities of local governments, it is also not unreasonable to argue that there is considerable hysteresis in public finance and political relations. As the next section shows, the duplication of industrial structure and perversion of the link between factor allocations and measures of comparative advantage, both forceful trends of the 1980s, may, by the mid-1990s, have come to a stop. They show, however, little tendency to reverse themselves.

¹⁹ On the ability of regional officials to force lending from branches of the state banking system and their successful resistance to attempts to centralize control of the banking system, see FEER, "At your service" (July 7 1994) and "Vital Signs" (March 30 1995).

III Data

While colorful anecdotes about interregional trade wars and complex descriptions of the precise pattern of arbitrage opportunities created by central policies make for interesting reading, in the context of China's economy, where policy switches back and forth, where contradictory policies coexist side-by-side and where, to confound everything, almost every policy is "adjusted" to suit local circumstances, they are hardly compelling. For every anecdote on interregional conflict, one can bring out five on growing interregional cooperation, and of course vice versa. Similarly, accounts of the distorted objectives and motivations of local governments easily become, when viewed through different lenses, fine examples of beneficial local intervention, helping entrepreneurial collective enterprises use their innate skills and resources to develop efficient and competitive industrial enterprises.²⁰ In this section I move beyond anecdotes and stories to the analysis of aggregate data.²¹

²⁰ As strange as it may seem to readers, it is not uncommon for different observers to hold completely opposite views on the meaning of almost any Chinese policy initiative, and even the general thrust of government policy. For example, Jefferson and Rawski (1994, p. 62) describe the 1992 State Council Regulations on Transforming the Management Mechanisms of State Owned Industrial Enterprises as part of "an unprecedented and virtually unrestrained push toward the market" during the 1990s. In contrast, Li (1996) views the 1990-1993 period as one in which government control was reasserted, seeing the Regulations, in particular, as part of a government attempt to "consolidate their strategic control rights over enterprises."

²¹ The analysis of the following sections is based upon information drawn from the annual issues of the China Statistical Yearbook, the individual provincial statistical yearbooks, and the China Price Statistics Yearbook, and the monthly issues of China Price (magazine), as well as Hsueh, Li and Liu (1993) and A Compilation of Historical Statistics (State Statistical Bureau 1990). I hope to post the data at my website (gsbwww.uchicago.edu/fac/alwyn.young) in the fall of 1999.

A) Outputs

Figure II below presents the sum across 28 Chinese provinces of the absolute and squared deviations of the output shares of the different provincial economic sectors from the group average.²² The longer time series, based upon the socialist measure of "national income", which excludes non-material sectors such as finance and government administration, divides output into five sectors: agriculture, industry, construction, transport and commerce. This series indicates a fairly stable degree of dispersion during the 1950s and 1960s, with a secular downward trend appearing around 1969 (i.e. during the Cultural Revolution, when the central government promoted industrial diversification). Between 1969 and 1978 the sum of absolute deviations, panel (a), fell 18%. Surprisingly, during the reform period convergence continued apace, with the sum of absolute and squared deviations falling an additional 16% from 1978 to 1992. The more conventional GDP series, which divides output into primary, secondary, and tertiary sectors, shows yet more convergence, with the sum of absolute deviations falling 28% by 1992. After 1992, the series flattens, attaining a minimum in 1993, but thereafter returning to the levels of 1992. As panel (b) shows, measures based upon the squared deviations from the average structure indicate

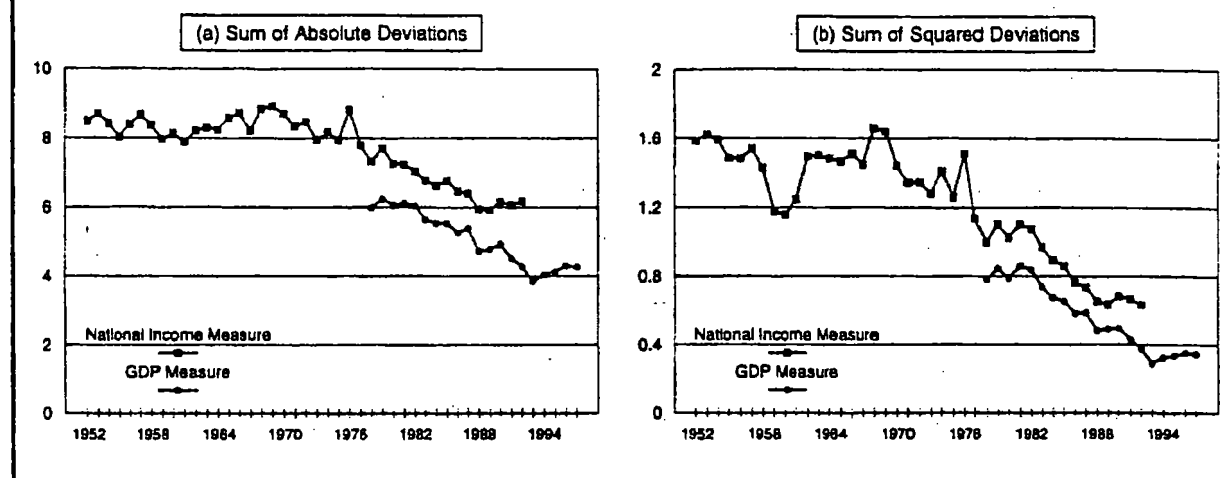
²² Specifically, the absolute and squared deviations equal

$$\sum_i \sum_j |S_{ij} - \bar{S}_j| \quad \sum_i \sum_j (S_{ij} - \bar{S}_j)^2,$$

respectively, where S_{ij} denotes the share of sector j in province i 's output and $\bar{S}_j$ equals the average, across i , of S_{ij} . Since this measure is influenced by the number of sectors and provinces used in its construction, the reader should not make too much of the differences between the levels of the different series.

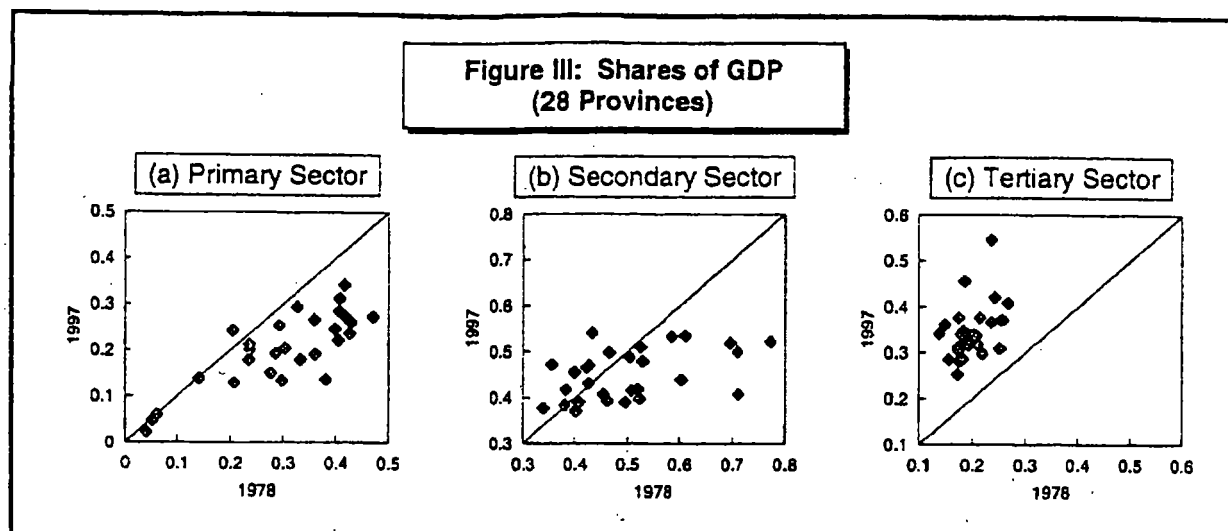
Until 1988 China was divided administratively and statistically into 29 provinces and provincial level cities and autonomous territories. In 1988 Hainan, formerly a part of Guangdong, became a separate province, while in 1997 Chongqing city was separated from Sichuan. Coherent historical data separating Chongqing and Sichuan are not yet available so, to maintain consistency, I add Chongqing back into Sichuan in 1997. For Tibet and Hainan, the national income data do not extend back before 1979. This leaves 28 provinces. To maintain consistency with the national income measures, I exclude Tibet and Hainan from the post-1978 GDP measures as well. Together these two provinces accounted for only 0.6% of aggregate provincial GDP in 1997 (CSY 1998, table 3-9). The GDP results, including these two provinces, are substantially the same.

**Figure II: Convergence in the Structure of Output
(28 Provinces - Current Prices)**



even greater convergence, with the sum of squared deviations falling 39% between 1969 and 1978 (national income measure) and then a further 56% by 1997 (GDP measure).

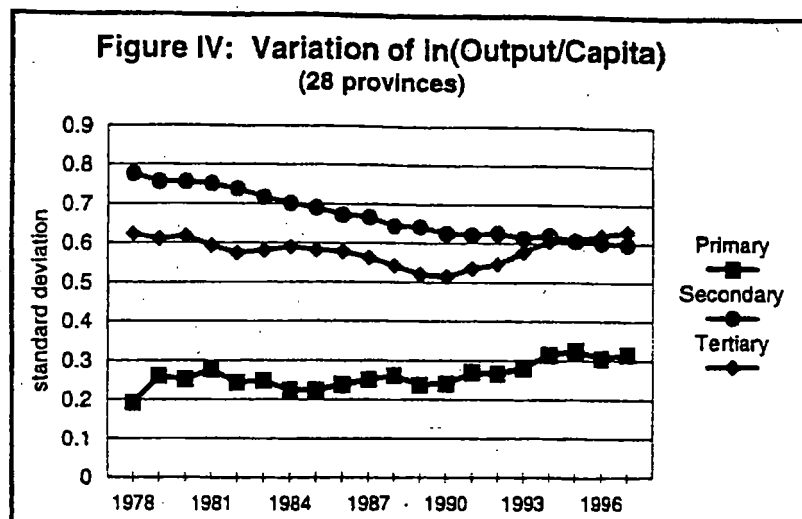
Figure III below graphs the shares of primary, secondary and tertiary industry in the GDP of each province in 1978 against the corresponding share in 1997, providing a more immediate visual illustration of the convergence in the structure of production during the reform period. Panel (b) shows the enormous compression in the variation in the share of secondary industry (manufacturing and construction) between 1978 and 1995. While the share of secondary industry varied between 34% and 77% in 1978, by 1997 the range of variation was reduced to between 37% and 54%. As highlighted by the 45 degree line, provinces with low initial secondary shares increased the share of that sector, while provinces with high initial secondary shares witnessed a decline in its contribution to GDP. As regards primary industry (agriculture, forestry and fishing), panel (a), most provinces witnessed a decrease in the share of that sector but the overall distribution was compressed as by far the largest reductions occurred in those provinces with high initial shares. Finally, as shown in panel (c), all provinces increased the share of services in



total production and, due to the appearance of outliers such as Beijing, Shanghai and Tianjin, the degree of dispersion rose. The disproportionate growth of service output in the urban centres most likely reflects the fact that both the development and measurement²³ of this natural urban activity were neglected under socialist planning.

It is important to distinguish between convergence in the structure of production, which is predicted by a rise in interregional trade barriers, and convergence in absolute levels of output, which is not. Figure IV graphs the standard deviation of the provincial GDPs per capita of primary, secondary and tertiary industry. As the Figure shows, while the variation of output per capita of secondary industry has fallen steadily, this is not true for primary and tertiary output. In particular, despite the convergence in the shares of primary industry (Figure III above), the standard deviation of output per capita of primary products actually increased 64% between 1978

²³ Since most services involved "non-material production", they were not measured in the Socialist concepts of National Income or Total Product of Society. The 1991-1992 Census of Services led to a dramatic upward revision of the estimated volume of service activity. In the national and provincial statistical series, it was assumed that virtually all of this (previously unmeasured) activity had developed since 1978 (compare, for example, CSY 1994 table 2-10 and CSY 1995 table 2-11). It seems likely, however, that some of the newly discovered output existed prior to the reform era.



and 1997. Trade barriers tend to lower the internal prices and real outputs of products in which a region has a comparative advantage. This leads to a convergence in the nominal output shares of different sectors. The impact of this convergence in structure on the variation of output per capita is, however, ambiguous and depends upon the correlation between patterns of comparative and absolute advantage. For example, consider a poor region, with an absolute disadvantage in both agriculture and industry, and a comparative advantage in the former. With the imposition of barriers to trade, the region's output of industrial products will rise, while its output per capita of agricultural products, already below the national average, will fall. This will decrease the interregional variation of industrial output per capita, while increasing the variation of agricultural output per capita. Furthermore, putting aside trade barriers, the evolution of patterns of absolute advantage during the reform period will have influenced the interregional dispersion of absolute output levels. The imposition of trade barriers has clear implications for the interregional variation in output shares; it has no prediction regarding the variation in the absolute output levels.

B) Prices

Ceteris paribus, trade barriers, which segment markets, will increase the variation of prices across those markets. Consequently, in this section I examine time trends in the standard deviation of the ln of regional goods prices.

While price indices for the different regions of the Chinese economy are widely published and easily available, data on the actual prices of goods are more sparse and problematic. Using public sources, I have been able to collect four different data sets on regional prices, specifically: (1) Annual data on the retail prices of 304 consumer goods in 30 cities for the period 1986-1993; (2) Annual data on the prices of 129 agricultural goods purchased by commercial establishments in the 30 provinces during the period 1986-1993; (3) Monthly data on the market prices of 49 industrial materials in 36 cities for the period 3/90 to 5/99; and (4) Monthly data on the market prices of 33 agricultural products in 36 cities for the period 6/93 to 5/99. While the figures listed above outline the full range of products and locations covered by the data, it is important to note that there are numerous gaps. Products enter and leave the published series, while numerous cities/provinces report no data, and the locales omitted in this fashion vary from product to product and period to period.²⁴ The annual data form the basis of the decades old retail price and farm products purchasing price indices. While the reported locales are fairly stable, the number of products present varies considerably. Overwhelmed by the number of new products appearing in the economy, the State Statistical Bureau completely abandoned the collection of this data in 1994.²⁵ The monthly price data represent a new effort, begun at the turn of the decade, by the China Price Information Centre, a division of the Planning Committee. There is little change over time in the reported products, but there is great (although seemingly random) month to

²⁴ All of which provides some insight into what lies behind the ubiquitous price indices.

²⁵ However, the various price indices continued to be published. According to officials at the SSB, each locale was instructed to compile the index in the manner it saw fit and report to the SSB, which would then combine the local price indices to form the published series.

Table II: Summary of Price Data				
	Retail Prices	Agricultural Purchase Prices	Industrial Materials Prices	Agricultural Market Prices
# of Products	304	129	49	33
# of Time Periods	8	8	110	71
# Prod. x Time Combinations	1663	704	3883	1988
# of Price Reports [*]	45500	10420	79929	46191
(*) Total number of non-zero city/provincial price observations.				

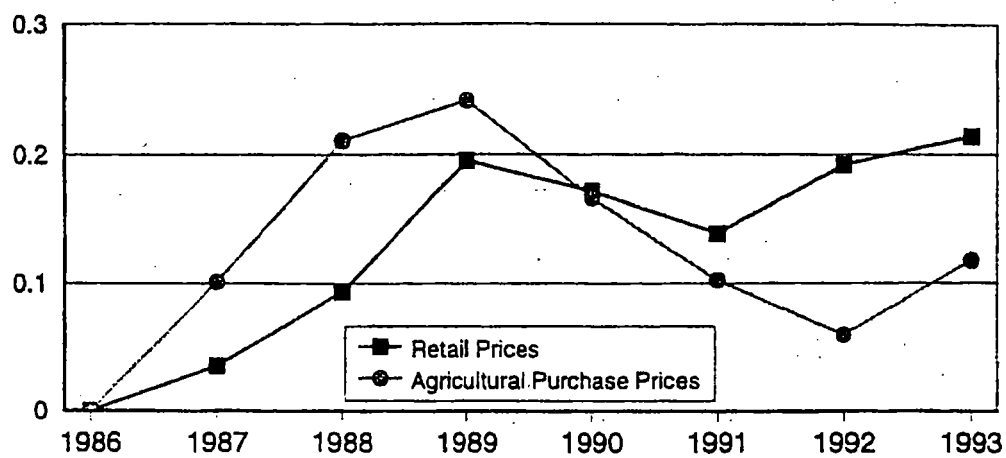
month variation in the reporting cities. Table II above summarizes the different series.

I take the simplest approach to the analysis of these unbalanced panels, regressing the ln of the standard deviation of the ln prices of each product in each time period on a complete set of product and time dummies, using the repeated observations of the product standard deviations to infer trends in the overall dispersion of prices.²⁶ In Figure V I report the value of the time dummies, relative to a base period of zero. Panel (a) examines the dispersion of the annual data, using 1986 as the base period. As the Figure shows, the dispersion of both retail and agricultural prices rose rapidly between 1986 and 1989, after which it fell, and then rose again. Overall, there was a highly significant upward trend in retail price dispersion of about 2.5% per annum, while agricultural price dispersion showed no significant trend. Panel (b) extends the analysis to the monthly data, taking as the base period 6/93, the initial period of the agricultural market price data and approximately the endpoint of the annual estimates in panel (a). As the reader can see,

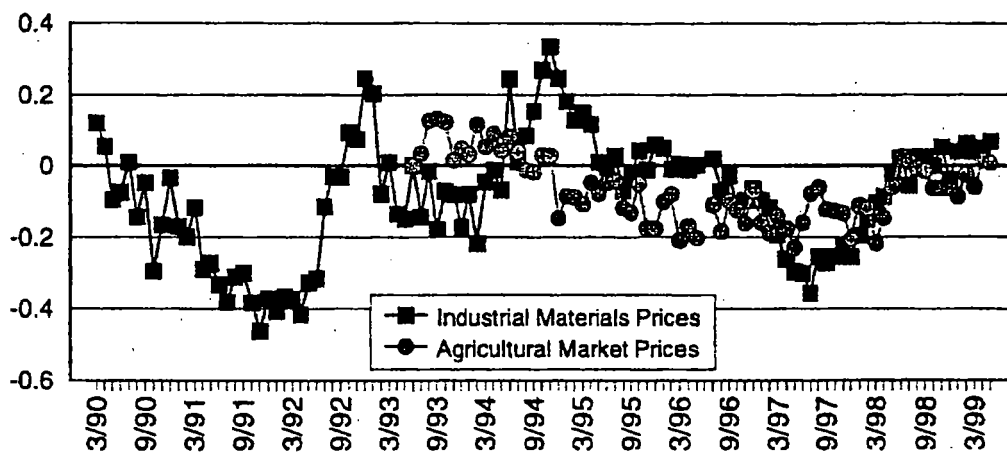
²⁶In essence, I ignore the variation in the locales used to compute each standard deviation, under the assumption that they vary randomly. I have experimented with other approaches, e.g. regressing the ln of the squared residuals from a regression of ln prices on time x product dummies (i.e. from the time x product mean) on sets of product, time *and* locale dummies, to search for time related patterns of heteroskedasticity. This approach is not without its problems (see Green 1993, p. 400), as the time x product means depend upon the locales present in the computation of each coefficient (time x product mean). The results are similar, so I report the simpler approach above. I should note that any attempt to balance the panels, by using consistent products and locales, eliminates virtually all of the observations.

Figure V: Trends in the Standard Deviation of In Product Prices

(a) Annual (base = 1986)



(b) Monthly (base = 6/93)



the monthly price data have gone through bouts of falling and rising dispersion. These fluctuations mirror the patterns in the overlapping period of the annual data, with a reduction in dispersion in 1990-1991 followed by rising dispersion in 1991-1993, but the movements are considerably grosser, with the mean monthly industrial materials price dispersion rising 23% from 1991 to 1993. These bouts of falling and rising dispersion are consistent with trade wars which are periodically interrupted and suppressed by the central government, only to resume once again, when central attention focuses on other matters.²⁷ In any case, regardless of the interpretation, there is no indication of any trend toward reduced price dispersion in the 1990s.²⁸

To summarize, the quality of Chinese price data is extremely poor. The data, such as they are, indicate a rise in dispersion during the late 1980s. During the 1990s, price dispersion has waxed and waned, but shows no clear tendency to reverse the increases of the previous decade.

²⁷ Alternatively, one could argue that these movements are driven by changes in the overall rate of price inflation. However, with the exception of the dispersion of industrial materials prices, none of the measures is significantly correlated with the overall rate of inflation. I intend to pursue this hypothesis further, examining rates of inflation in particular products, but it seems unlikely that inflation changes could explain the extraordinary movements in price dispersion (e.g. an increase of 60% in a few months in 1992) found in the data.

I should also note that it is unlikely that measurement error explains these fluctuations. Measurement error is included in the estimates of the standard deviation of $\ln$ prices. For it to generate the pattern in the Figure, it would be necessary that the quantity of measurement error cycled up and down, in a serially correlated fashion. The only information I have on this is that, according to officials in Price Information Centre, with the introduction of computer coding in the past two years they have made attempts to weed out errors, e.g. asking for confirmation of numbers which deviate excessively from figures reported in earlier months. Yet, during 1998 and 1999 the estimated standard deviations rose rapidly, as part of a new upswing.

²⁸ Actually, the industrial materials price standard deviations have a significant positive trend (.09% per month), while the agricultural market price standard deviations have a significant negative trend (-.2% per month), but anyone glancing at the sinusoidal pattern of panel (b) can see that these coefficients might easily be eliminated with the addition of a few more months of data.

C) Agriculture and the Weather

Panel (a) in Figure VI below plots the average yield of land sown with grain against the overall labour intensity of agricultural production in 27 Chinese provinces in 1978.²⁹ The typical economist would not find the positive association depicted in the Figure surprising. The greater the quantity of inputs applied per hectare of agricultural land, the greater should be the yield per unit of that land. With grain, the principal agricultural product, accounting for the lion's share of hectares sown, it is not surprising that the yield of land sown with grain rises with the overall labour intensity of agricultural activity in a province.³⁰ Unfortunately, by 1997, as shown in panel (b), this "natural" positive association had completely disappeared. This development forces one to reexamine the logic of panel (a).

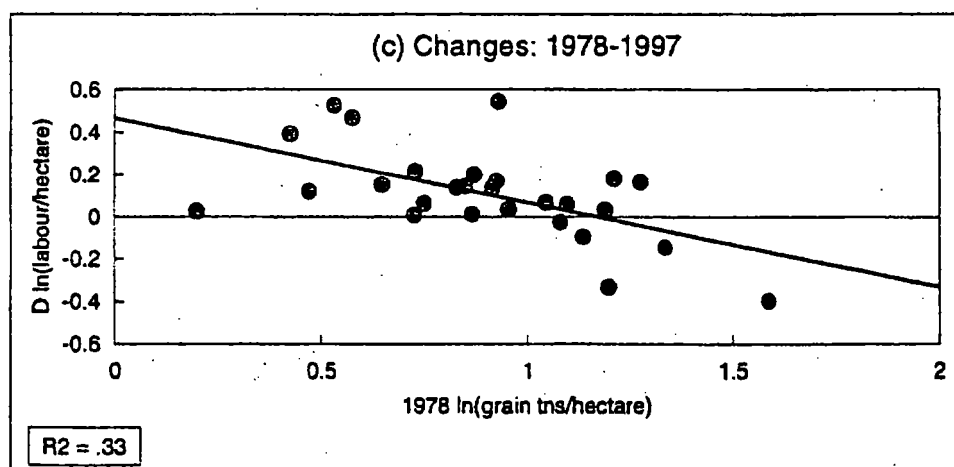
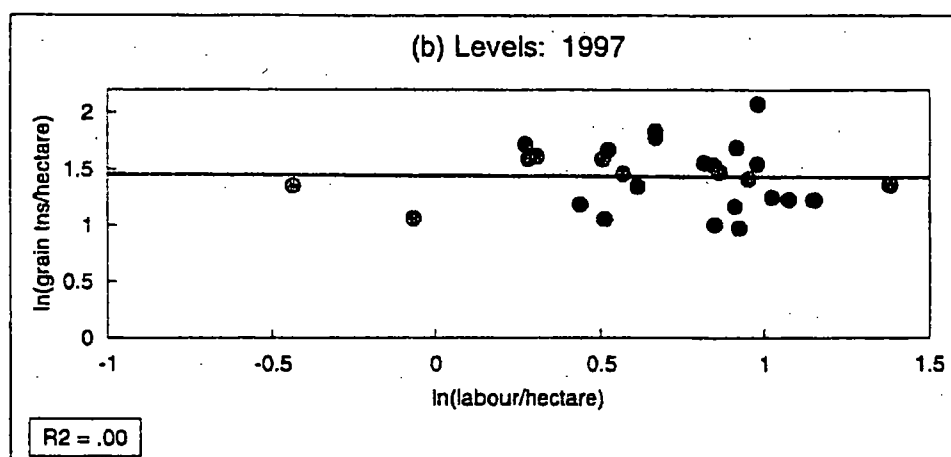
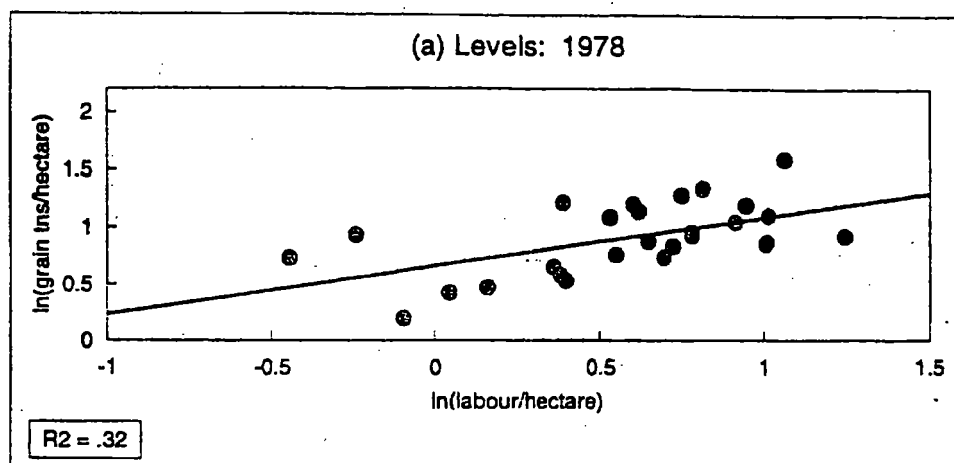
A positive association between labour per hectare and yield per hectare might reflect causality running from the x axis to the y axis, but it can also reflect causality running from the y axis to the x axis. If one thinks of all provinces as having the same agricultural "technology", then the causality runs exclusively from x to y, as greater labour inputs per hectare result in greater yields per hectare. However, there are likely to be substantial differences across

²⁹ Following the data I will use in Table III below, I use the provincial boundaries in place in 1985, including Hainan under Guangdong and Chongqing under Sichuan. With data on primary employment in Tianjin and Zhejiang in 1978 unavailable, this leaves the 27 provinces depicted in the Figure.

³⁰ I take the yield in grain, the principal agricultural product, as a summary measure of overall land yields. In 1978 grain accounted for 80% of total hectares sown. In 1997 the share of grain was 73%. Within grains, the shares of rice, wheat, corn and tubers in total hectares sown was 29%, 24%, 17% and 10%, respectively, in 1978, and 28%, 27%, 21% and 9%, respectively, in 1997. It is hard to believe that these small changes in the overall role of grain and its composition account for the results which follow.

More problematic, perhaps, is my use of the labour in primary industry (not, I should emphasize, the rural labour force, which includes labour engaged in non-primary activities) as a measure of the labour devoted to the cultivation of land. It is possible that an increasing share of primary sector labour is devoted to non-farming activities, e.g. forestry, animal husbandry and fishing. In this regard, however, I should note that in the analysis below (Table III) I use direct measures of inputs which are more exclusive to farming, e.g. irrigation and chemical fertilizers. The evolving relationship between these factors and measures of comparative advantage, which will be my main emphasis, is the same as that of primary labour.

Figure VI: Factor Intensity & Productivity
(27 provinces)



provinces, with some locales having land and weather conditions more suitable to the cultivation of grain and agricultural products in general. These provinces, endowed with a superior "technology", will have more productive land, raising the marginal product of labour on that land and drawing labour into the sector. In this case, the causality will run both from x to y and from y to x , as greater yields lead to a greater labour intensity of production.

To explain the orthogonality between factor intensities and yields apparent in panel (b), one merely has to pervert the causality running from yields to factor intensities by, say, introducing interregional barriers to trade. With barriers to trade, the tendency for factors to flow into more productive sectors can be weakened and, possibly, reversed. In a free market economy, provinces with better agricultural yields would experience a decline in the price of grain, which would reverse the flow of factors of production into that sector. In China, with the enduring national and local controls over the price of grain, price mechanisms such as this are unlikely to be at play. Nevertheless, the quantity restrictions implied by price controls and local procurement plans will generate the same effect, as in provinces with productive land, farm labour, faced with limited internal demand, migrates into industrial activity. Evidence in favour of a reversal of the link between yields and factor intensities is given by panel (c) of Figure VI, which shows that the provinces with the most productive agricultural sectors in 1978 were the ones that, relative to the mean change, experienced the greatest declines in the labour intensity of agricultural production. With a sufficient perversion of the causality running from yields to factor intensities (y to x), one can overcome the natural relation between factor intensities and yields (x to y), producing the orthogonal cloud of panel (b) in Figure VI.

To support the preceeding argument about perverse allocations, one would like to have a measure of the suitability of different regions for agricultural production and show that factor allocations have, over time, moved against that measure. Ideally, the measure should be time invariant, uninfluenced by all of the remarkable changes in regional comparative advantage that, most surely, have accompanied 20 years of reform and growth. As such a measure, I choose:

the weather. In Table III below I regress a panel of provincial grain yields during the period 1985 to 1997 on various measures of agricultural factor inputs and rainfall, with provincial dummies to control for mean effects on yields. Turning, first, to the weather, I find that grain yields rise with moderate (but not excessive) quantities of rainfall, and are negatively related to the monthly variation in that rainfall. This seems completely intuitive. Turning to the measures of other inputs, I find that grain yields rise with the share of agricultural land which is irrigated, and with the application of fertilizer. However, the total power of agricultural machinery and quantity of labour per hectare of agricultural land have no significant impact on yields. These results mirror panel (b) of Figure VI.³¹ I interpret them as reflecting the negative response of these factor allocations to omitted variables which, from year to year, favour yields in one region or another.

Using the coefficients from my regression of yields on rainfall, I derive a synthetic measure of the favourableness of the weather as the sum of the effects of precipitation, precipitation squared and the variation of precipitation. In columns (2) through (7), I then regress various measures of factor inputs on this measure, and the measure interacted with time. All of the regressions include provincial dummies, so the measured response is to an incremental change in the weather. As we see in column (2), in 1985 the share of agricultural land which was irrigated responded positively to good weather conditions. With each succeeding year, this positive relation deteriorated. Similar results hold for the application of fertilizer, power and labour. By 1997, the estimated relation between the weather and each of these factor inputs had turned decidedly negative (take the coefficient for "Weather" and add 12 times the coefficient for "Wtime"). In column (6) I regress the share of the total working population employed in

³¹ I should emphasize that, because of the absence of weather data for earlier years, the analysis in the Table begins in 1985. By that time, the relation between labour intensity and yields had already begun to deteriorate.

Table III: Productivity, Factor Allocations and the Weather
(Annual observations, 29 Provinces, 1985 to 1997)

	(1) Yield	(2) Irri	(3) Fert	(4) Power	(5) Labour	(6) Lshare	(7) OutputC	(8) Yield
Year	.009** (3.1)	.019** (9.8)	.087** (34.1)	.048** (21.3)	.005** (3.4)	-.005** (8.8)	.025** (11.6)	.025** (6.3)
Irri	.309** (6.3)							.241** (5.0)
Fert	.214** (6.2)							.139** (3.9)
Power	-.043 (1.0)							-.079* (1.9)
Labour	-.091 (1.5)							-.152* (2.6)
Prec	.021** (2.6)							
Prec2	-.001** (2.7)							
CVPrec	-.040* (1.9)							
Weather		1.54** (3.5)	3.82** (6.6)	1.09* (2.2)	.712* (2.1)	.527** (4.3)	4.05** (8.4)	2.51** (6.2)
Wtime		-.227** (5.7)	-.445** (8.4)	-.149** (3.2)	-.139** (4.4)	-.072** (6.4)	-.365** (8.2)	-.230** (5.7)
Provincial Dummies	Yes**	Yes**	Yes**	Yes**	Yes**	Yes**	Yes**	Yes**
N	374	375	375	374	375	375	375	374
R ²	.942	.965	.953	.970	.975	.984	.926	.947

Notes: Yield = $\ln(\text{grain output}/\text{grain sown area})$; Irri = $\ln(\text{irrigated area}/\text{total sown area})$; Fert = $\ln(\text{chemical fertilizers}/\text{total sown area})$; Power = $\ln(\text{total power of agricultural machinery (kw)}/\text{total sown area})$; Labour = $\ln(\text{employment in primary industry}/\text{total sown area})$; Prec = average monthly rainfall (cm); Prec2 = Prec squared; CVPrec = coefficient of variation of monthly rainfall; Lshare = primary employment/total employment; OutputC = $\ln(\text{grain output per capita})$; (*) Significant at the 10% level; (**) Significant at the 1% level.

agriculture on the weather variables and, once again, find a positive association in 1985 which turns negative over time. Finally, in column (7) I perform the same regression with provincial output per capita. In 1985, provinces, in the years in which they had unusually good weather, had unusually high grain output per capita. By 1997, however, with complementary inputs fleeing the sector during periods of good weather, this relationship had disappeared.³²

Column (8) of Table III reruns the regression of column (1) with my synthetic measure of the weather. As this column shows, while yields responded positively to the weather in 1985, this relation disappeared over time. This result is not particularly surprising. As columns 2-5 show, the relationship between the weather and all the factor inputs I have measured turned negative over time. It seems likely that the relationship between the weather and other, unmeasured, complementary inputs has also turned perverse. If so, the measured impact of the weather on yields would diminish over time. Column (8) does, however, highlight the weaknesses of the methodology I have pursued. Omitted factor inputs bias the coefficients on rainfall, while omitted measures of comparative advantage bias the coefficients on other factor inputs (e.g. power and labour), thereby further distorting the coefficients on rainfall. Consequently, my synthetic measure of the "weather" is subject to considerable error and bias. As a sensitivity test, I have reestimated column (1) using the data for 1985 alone or using the data for 1985-1989, and the results (for the whole table) are much the same. I have no means, with the data at my disposal, to even begin to address problems of endogeneity and bias, but the results do not seem

³² Strictly speaking, one would like to see the relationship remain somewhat positive and not turn negative by the end of the sample period, as seems to be the case if one adds 12 times the coefficient on *wtime* to the coefficient on *weather*. The final coefficient, however, is quite close to zero. In contrast, the magnitude of the final, negative, coefficient in columns (2) - (6) ($wtime * 12 + weather$) is a substantial fraction of the original coefficient (*weather*) and, in the case of labour, actually exceeds the magnitude of the original relation.

sensitive to reasonable re-specifications.³³

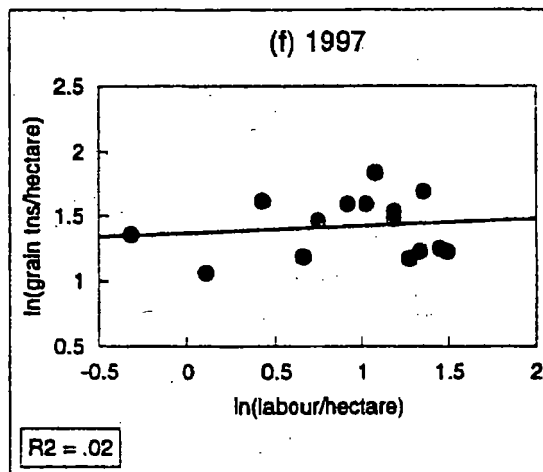
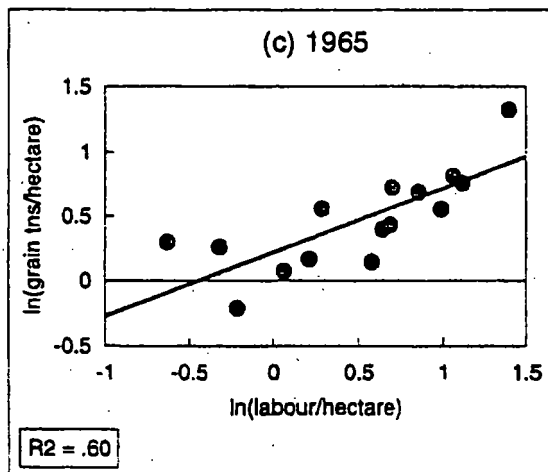
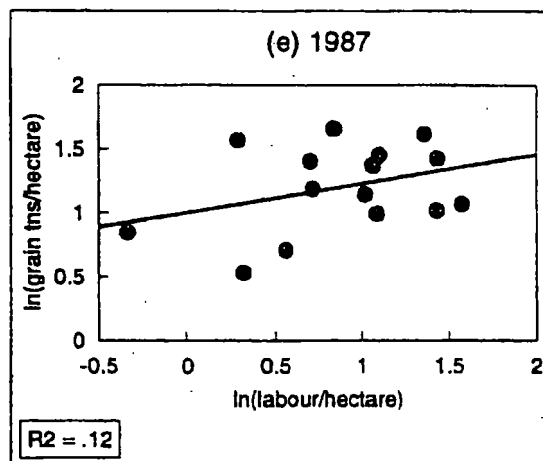
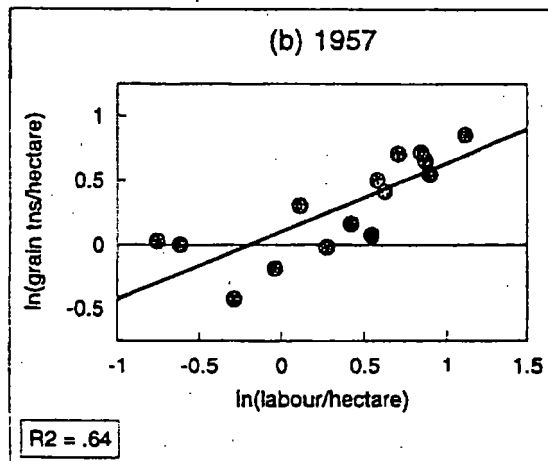
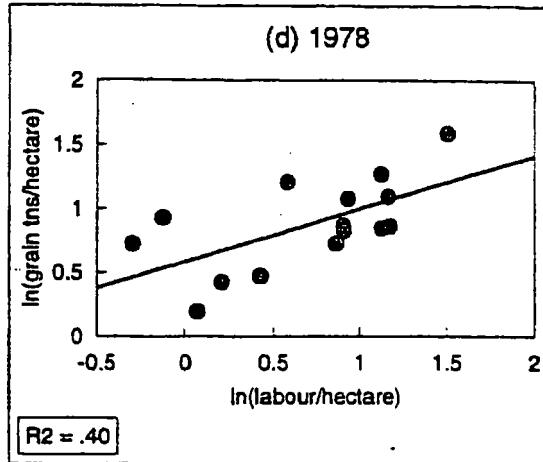
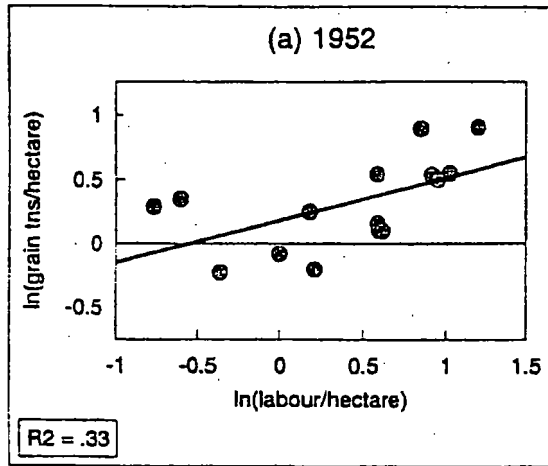
Figure VII below provides evidence on the relationship between grain yields and the labour intensity of agricultural production in 15 Chinese provinces during the post-war era. As the Figure shows, from 1952 to 1978 there was, consistently, a significant positive correlation between these two variables. By 1997 that correlation was gone. For almost thirty years, with all of the excesses and inefficiencies of central planning, there existed a completely sensible relation between labour inputs and land yields. During the reform period's "movement to market", this relation disappeared. It is difficult to argue that the complete elimination of a correlation between factor intensities and yields is consistent with the rationalization of production and factor allocations in response to market incentives. It is quite consistent, however, with an economy where the regional structure of production, through local bureaucratic control, has been distorted away from patterns of comparative advantage.³⁴

³³ I have found two variations which destroy the results: (1) Run regressions (2)-(7) without provincial dummies. The coefficient on *wtime* is then frequently insignificant, although its sign remains consistently negative. It seems reasonable, however, to recognize that there are mean provincial effects, which would be correlated with both the weather and factor inputs, and should be controlled for. For example, provinces with good weather would tend to have high populations per hectare (for historical, pre-modern, reasons), which would lead to high mean levels of labour per hectare. (2) Add measures of sunshine and the temperature to the rainfall measure of column (1) and use the combined coefficients to generate the synthetic measure of weather. The coefficient on *wtime* for this measure is positive in columns (2)-(7). I should note, however, that both sunshine and temperature are utterly insignificant in the first regression (a version of column 1). Furthermore, small changes in specification radically change the sign of their coefficients. In contrast, rainfall is significant, and of a consistent sign, regardless of what supplementary variables are included in the regression.

In developing this section, I first ran a number of regressions for yields of the form of (1) in the Table until I found a weather variable that was robust (rainfall), before running regressions (2)-(7). In the search for ways to destroy the results, I then ran a number of variations, whether I thought them sensible or not, and discovered the results noted in the preceeding paragraph.

³⁴ Interestingly, the breakdown of the relation between factor intensities and yields appears to have begun during the Cultural Revolution (compare the R2 of panels (c) and (d)). In this respect, these data mirror my earlier analysis of the convergence in the structure of production. Trends which first appeared during the Cultural Revolution, when central policy actively promoted regional autarky, continued with the devolution of the reform period.

Figure VII: Factor Intensity & Productivity
(15 provinces)

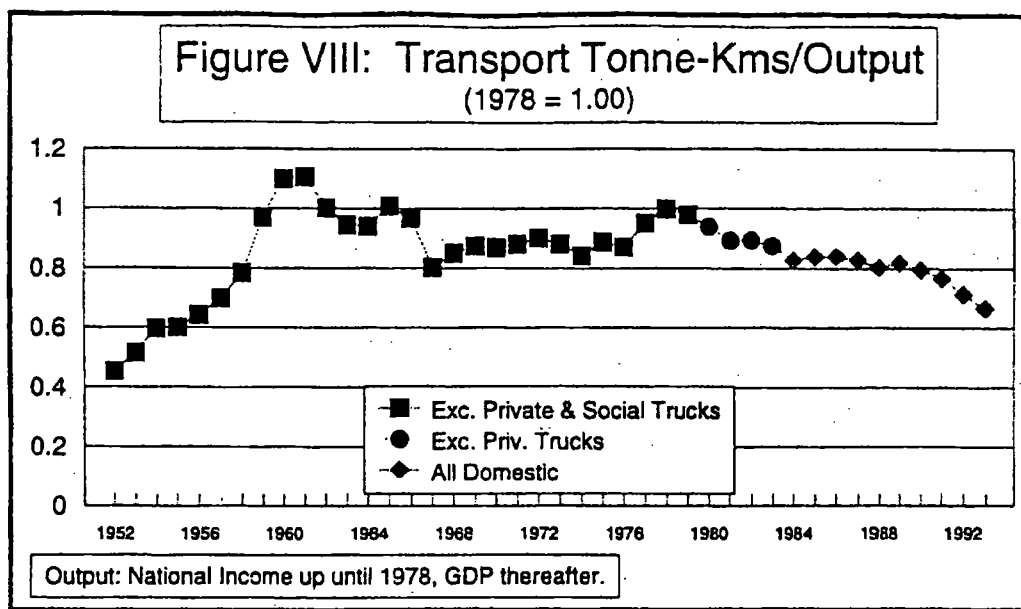


IV An Alternative Explanation: Transport Constraints

The preceeding section suggests that China's provinces may have become, at least vis-a-vis each other, increasingly autarkic. A movement to autarky, ascribed in this paper to the industrial arbitrage of the reform period and the trade wars it engendered, could, however, just as easily be explained by rising internal transport costs. A recurrent theme in popular press articles on China is the argument that the People's Republic is woefully short of transport infrastructure. It is possible that the extraordinary growth of output during the reform period has placed impossible demands on the nation's infrastructure, leading to a rising relative price of transport.

Figure VIII below presents data on the ratio of total tonne-kilometres of internal freight movement to output in the People's Republic.³⁵ As the reader can see, this ratio, which remained roughly constant from 1959 to 1978, went into decline during the reform period, reaching 63% of its 1978 value in 1993. Believers in the transport constraint hypothesis might find comfort in these data. Unfortunately, so could those who would argue that internal trade barriers have led to a collapse of interregional trading relations. Put differently, given the competing hypotheses, there is little one can infer about the relative price of transport from data on equilibrium quantities. Unfortunately, a direct examination of transport prices is not particularly informative. Most transport in the People's Republic is run by government authorities and their prices are not likely to reflect the true cost of using transport facilities, given a shadow price for shipping delays and

³⁵ In 1979 highway tonne-kms, previously covering the transport department alone, were expanded to include "social trucks" and in 1984 expanded again to include private trucking. I chain link the different series, as shown in the Figure. In constructing my index I exclude ocean shipping (shipped an average distance of 7300 kms in 1993) which in Chinese statistics is a category distinct from coastal shipping (see Chen and Niu 1989, p. 946). Hence, my use of the terminology "internal freight". Since I have not been able to separate out ocean shipping from the transport statistics of more recent years, I end the series with the data of 1993.



negotiations with government agencies.³⁶ Consequently, to address the issue of transport constraints, I will rely on a heuristic examination of transport capacity and the composition of transport demand.

Table IV below presents data on Chinese railway and waterway traffic and system assets. While trucking grew rapidly during the reform period, as late as 1993 these two modes of transport still accounted for 56% and 22%, respectively, of total tonne-kilometres of internal freight movement. As the reader can readily see, the growth of both tonne and passenger kilometres in railways and waterways far exceeds that of simple measures of transport capacity, such as kilometres of operational railways or inland waterways. The quality of infrastructure, however, has improved dramatically with the number of electrified stations and length of electric track, diesel

³⁶ For what its worth, between 1984 and 1993 railway freight revenue per tonne-km of freight movement rose 4.1% per annum, while passenger revenue per passenger-km of passenger transport rose 10.4% per annum. During the same period the overall GDP deflator rose 8.0% per annum. Between 1978 and 1993 the implicit GDP deflator for transportation, postal and telecommunications services rose 7.3% per annum, more than the overall GDP deflator (5.8%) and the deflator for industry (3.7%), but less than the deflator for construction (8.4%) and primary industry (7.7%) and roughly on par with the deflator for commerce (6.5%). CSY 1986, 1995 and 1998.

Table IV: Chinese Railway and Waterway Traffic and System Assets

Railways	1978	1993	% ↑	Waterways	1980	1993	% ↑
Tonne-kms (100 million)	5345	11955	5.4	Tonne-kms (100 million)	5053	13861	7.8
Passenger-kms (100 million)	1093	3483	7.7	Passenger-kms (100 million)	129	196	3.2
Operational Railways (km)	48618	53802	0.7	Inland Waterways (km)	108508	110174	0.1
% Double Track	15.7	26.6	4.2	Deeper than one metre.	53899	61395	1.0
% Electrified	2.1	16.6	14.4				
% Diesel Engine Routes	13.5	35.8	7.2				
% Automatic Switching	12.3	22.7	4.8				
Electrified Stations	1336	4194	7.6				
% of Stations	27.7	73.9	7.6				
Locomotives	10179	14781	2.5	Haulage Capacity (10,000 tn)	1994	4366	6.0
% Steam	79.0	36.3	-2.7	Motor Vessels	1279	3468	7.7
% Diesel	18.9	48.8	8.8	Barges	595	889	3.1
% Electric	2.2	14.9	15.3	Sailing Boats	120	8	-20.7
Freight Capacity (10,000 tn)	1230	2238	4.0				
Passenger Cars	14844	29395	4.6	Passenger Capacity (10,000)	65	117	4.6

Notes: Growth rates represent the ln annual growth of the absolute number in each category, even if the category is listed as a percent of a larger total. The data on waterways begin in 1980 because a 1979 census led to a dramatic downward revision of the length of navigable waterways, so a comparison of 1978 data with that of later years is misleading. Since the data on haulage capacity do not separate out ocean going vessels, I include ocean going shipments in the data on waterway tonne-kms. Source: CSY 1981 and 1994.

engine routes and automatic switching rising as fast, if not frequently faster, than total cargo shipped. Similarly, while the growth of the total number of locomotives was moderate, its composition has shifted away from steam to diesel and electric locomotives which, in 1993, on average moved twice as many tonne-kilometres of freight per day. In waterways, we see a rapid rise in total haulage capacity, with a substantial shift away from sail boats and barges to motorized vessels.

If demand has dramatically outpaced the growth of transport capacity, one would expect to find evidence of increasing delays in the shipment of goods. To this end, Table V below presents indicators of delays in railway transport. As the Table shows, there has been no significant decline in on-time starts and, with the exception of passenger trains, no fall off in the number of trains running on schedule. Travelling speeds have risen (even relative to technical speeds), as have daily distances travelled. The only negative data appear in the handling time of freight and transfer waiting time per carload of freight, measures of the time necessary to load freight cars

Table V: Technical Indicators of Railway Transportation			
		1984	1993
On-Time Starts (%):	Freight Trains	92.2	94.0
	Passenger Trains	99.2	99.0
Running on Schedule (%):	Freight Trains	90.1	93.1
	Passenger Trains	94.7	90.0
Running Speed (kms/hr):	Freight Trains	27.7	30.0
	Passenger Trains	43.2	48.1
% of technical speed	Freight Trains	64.7	67.4
	Passenger Trains	79.4	83.1
Daily Distance (kms):	Freight Locomotives	408	420
	Passenger Locomotives	445	493
Handling Time of Freight (hrs):		14.1	17.3
Transfer Waiting Time per Car (hrs):		3.9	4.3
Sources: CSY 1986 & 1994.			

and transfer them, en route, from one locomotive to another. Overall, these data do not seem suggestive of an economy strangled by infrastructural bottlenecks. While the growth of freight and passenger transport during the reform period has been rapid, the growth of the quality of infrastructural capital, as suggested by the data in Table IV, has also been quite rapid. It would seem that, on average, capacity has grown apace with actual usage.

The argument that transport constraints explain the decline of economic specialization in the People's Republic ignores a crucial geographical fact: 56% of China's GDP in 1993 was produced by its 11 coastal provinces. Figure IX below shows the rise of China's external trade to GDP ratio during the reform period. Starting at 10% in 1978, the ratio of merchandise trade to GDP had risen to 44% by 1994. The port capacity and carriers (international and domestic) used to service the growing volume of international trade

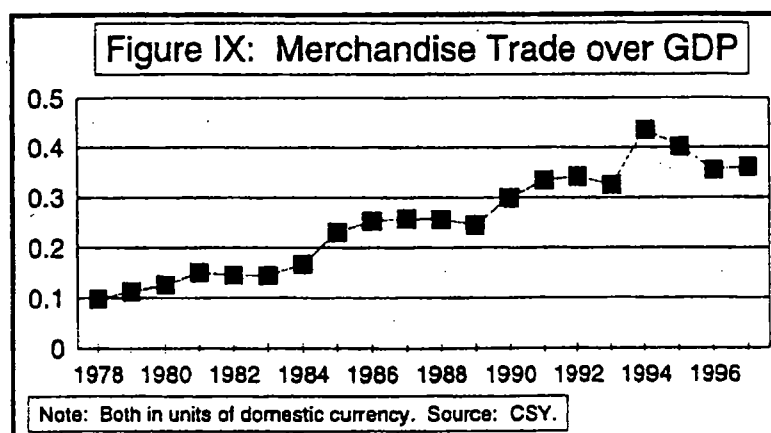


Table VI: Decline of Internal Tonne-Kms to National Income by Region												
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
National:	1.50	1.48	1.44	1.38	1.40	1.43	1.41	1.34	1.41	1.39	1.38	1.24
Coastal:	2.12	2.07	2.01	1.88	1.92	1.97	1.91	1.80	1.94	1.91	1.88	1.63
Inland:	0.94	0.95	0.94	0.91	0.91	0.92	0.92	0.88	0.90	0.89	0.87	0.81
C. Output Share:	0.47	0.47	0.47	0.48	0.49	0.49	0.49	0.50	0.50	0.49	0.51	0.53
Note: These data refer to railway and waterway transport alone. In a later draft I hope to adjust the coverage to include highway transport and use GDP measures of output.												

could easily have been used, via coastal shipping, to handle domestic trade between China's coastal provinces. Table VI presents data on tonne-kilometres of internal shipments per *yuan* of output (at 1992 prices) in the coastal provinces and the interior. While both the inland and coastal provinces experienced a decline in this ratio, by far the greater decline occurred in the coastal provinces, which (using divisia weights) accounted for 96% of the decline in the national average! Given the extraordinary growth of international trade, and the availability of the wide open ocean to carry their cargo, it is difficult to argue that transport constraints explain the decline in the freight intensity of output in the coastal economy and, by extension, the Chinese economy at large. More likely, the decline in internal tonne-kilometres over GDP reflects the diversion of trading activity away from the internal market to international partners, brought about by the removal of barriers to international trade, and aided and abetted, perhaps, by the growth of internal barriers to trade.

V Conclusion

The central proposition of this paper is, seemingly, unbelievable. One is asked to accept that 20 years of economic reform in the People's Republic, which have brought extraordinary economic growth and burgeoning international openness, have resulted in a fragmented internal market with fiefdoms controlled by local officials whose economic and political ties to protected industry resemble those of the Latin American economies of past decades. It seems plausible that the endogenous response of actors to the rental opportunities created by gradualist reform could give rise to new distortions, whose lifespan far exceeds that of the rents which motivated their arrival. Nevertheless, it seems hard to believe that this paper, drawing its inspiration from a broad reading of popular Chinese media, has hit upon a creditable example.

The central proposition of this paper is, surprisingly, supported by a wide variety of data. Anecdotal stories of industrial duplication are supported by data on the structure of GDP, which show widespread convergence in the structure of production during the reform period, despite what is reputed to have already been widespread, and presumably excess, diversification under the plan. The interregional variation of prices rose during the 1980s, and then fluctuated wildly during the 1990s, patterns compatible with anecdotes of interregional trade wars that are periodically suppressed by central intervention. The natural link between labour intensity and agricultural yields, present even under central planning, disappears during the reform period, while the correlation between factor allocations and measures of agricultural comparative advantage, such as the weather, turns from being positive to being negative. The ratio of internal transport to GDP, stable for decades, collapses in the decades of reform. While individual pieces of this evidence can be explained away, in their totality, they are difficult to dismiss. There is every indication that the economy of the People's Republic, while opening up internationally, has become fragmented internally.

Fundamentally, this paper argues that the so-called "liberalization" and "transformation" of

the People's Republic over the past 20 years is perhaps best characterized as a process of devolution. Although the central government has released control over prices, outputs and enterprise budgets, these functions have been taken up, albeit in a less systematic fashion, by local governments. Thus, China has moved from having one central plan to having many, mutually competitive, central plans. It is not hard to believe that the control and incentive problems that plague planning are more easily managed at the provincial and county level than they are at the continental level.³⁷ Consequently, whatever the welfare costs of the new distortions, it is not surprising that on *net* the devolution of power has greatly increased welfare, as witnessed by the extraordinary growth of the past two decades. An economic system characterized by government control, even local government control, over prices, output and investment is not, however, typically viewed as being conducive to long term prosperity. It remains to be seen whether the central government of the People's Republic can wrest back enough power from its regions, enforcing the moral equivalent of the interstate commerce clause of the U.S. Constitution, restricting the power of local governments to control the interregional movement of goods and factors, without, however, reestablishing inefficient central control over the same. This would allow it to bring out the most virtuous aspects of interregional local government competition, while restricting its more pernicious manifestations.

³⁷ Surprisingly, it is actually possible to argue that overall improvements in efficiency during the reform period have not been that high. Some quick back of the envelope TFP estimates (available upon request) indicate that productivity growth in the non-agricultural economy during the 1978-1994 period averaged 1.1% per annum, only slightly better than the 0.7% per annum attained during the Cultural Revolution. Rising participation rates, improved educational levels and the transfer of labour out of agriculture explain most of the pre and post reform growth in the non-agricultural sector. The moderate reform period TFP growth would suggest that, while expediting a movement of (possibly slack) resources out of agriculture and continuing to encourage valuable investment in physical and human capital, the reforms, and local government control, have not been that successful in raising the efficiency with which resources are used in the non-agricultural sector. This conclusion, however, requires that the reader accept an adjustment I make (using other Chinese price statistics) to the Chinese output deflators. If one accepts the officially reported deflators, then the post reform TFP growth is truly spectacular, i.e. on the order of 3.7% per annum.

VI Bibliography

- Chen, Dong and Niu, Zhili, eds. Practical Manual on Economic Statistics of China (Zhongguo Jingji Tongji Shiyong Daquan). Beijing: China People's University Publishers, 1989.
- Chen, Yong Jun. A Study of Interregional Market Blockades in China (Zhongguo Diqu jian Shichang Fengsuo Wenti Yanjiu). Fuzhou: Fujian People's Publishers, 1994.
- China Price (Zhongguo Wujia). Monthly issues.
- Chinese Academy of Social Sciences, "Research into the development of China's internal market," Finance and Trade Economics (Caimao Jingji) No. 7 (1993): 35-40. Institute of Finance and Trade Economics, Chinese Academy of Social Sciences.
- Chinese Economic Studies Vol. 26, No. 5 (Fall 1993).
- Dewatripont, Mathias and Roland, Gerard. "The Design of Reform Packages under Uncertainty." American Economic Review 85, No. 5 (December 1995): 1207-1223.
- Far Eastern Economic Review, various issues.
- Foreign Broadcasting Information Service, Daily Reports, People's Republic of China.
- Gelb, Alan; Jefferson, Gary and Singh, Inderjit. "Can Communist Economies Transform Incrementally? The Experience of China." In Olivier Jean Blanchard and Stanley Fischer, eds. NBER Macroeconomics Annual 1993. Cambridge, MA: MIT Press, 1993.
- Greene, William H. Econometric Analysis. Second Edition. New York: Macmillan Publishing Co, 1993.
- Hsueh, Tien-tung; Qiang Li and Shucheng Liu. China's Provincial Statistics, 1949-1989. Boulder: Westview Press, 1993.
- Jefferson, Gary H. and Rawski, Thomas G. "Enterprise Reform in Chinese Industry." Journal of Economic Perspectives 8, No. 2 (Spring 1994): 47-70.
- Kumar, Anjali. China: Internal Market Development and Regulation. Washington, D.C.: The World Bank, 1994a.
- Kumar, Anjali. "China's Reform, Internal Trade and Marketing." The Pacific Review Vol. 7, No. 3 (1994b): 323-339.
- Li, David. "Costs and Benefits of Government Control During the Transition: Evidence from China's State Enterprises." Manuscript, University of Michigan, 1996.
- Martinelli, Cesar and Tommasi, Mariano. "Sequencing of Economic Reforms in the Presence of Political Constraints." Working Paper No. 100. University of Maryland, Center for Institutional Reform and the Informal Sector, 1994.

- Mascaro, Juan. The Upanishads: Translations from the Sanskrit. England: Penguin Books, 1965.
- Murphy, Kevin, Andrei Shleifer and Robert W. Vishny. "The Transition to a Market Economy: Pitfalls of Partial Reform." Quarterly Journal of Economics (August 1992): 889-906.
- Naughton, Barry. "False Starts and Second Wind: Financial Reforms in China's Industrial System." In Elizabeth J. Perry and Christine Wong, eds. The Political Economy of Reform in Post-Mao China. Cambridge: Council on East Asian Studies, Harvard University, 1985.
- Naughton, Barry. "Industrial Policy during the Cultural Revolution: Military Preparation, Decentralization and Leaps Forward." In William A. Joseph, Christine P.W. Wong and David Zweig, eds. New Perspectives on the Cultural Revolution. Cambridge: Council on East Asian Studies, Harvard University (1991).
- People's Republic of China, China Public Finance Editorial Board. China Public Finance Yearbook (Zhongguo Caizheng Nianjian). Beijing: China Public Finance Magazine Agency, annual issues.
- People's Republic of China, Public Finance Department. China's Public Finance Statistics (Zhongguo Caizheng Tongji) 1950-1985. China Public Finance Economics Publishing House.
- People's Republic of China, State Statistical Bureau. A Compilation of Historical Statistical Material for the Provinces, Autonomous Territories and Directly Administered Cities 1949-1989 (Quanguo ge Sheng, Zizhiqu, Zhixiashi Lishi Tongji Ziliao Huibian). Beijing: China Statistical Publishing House, 1990.
- People's Republic of China, State Statistical Bureau. China Price Statistics Yearbook (Zhongguo Wujia Tongji Nianjian). Beijing: China Statistical Publishing House, annual issues.
- People's Republic of China, State Statistical Bureau. China Statistical Yearbook (Zhongguo Tongji Nianjian). Beijing: China Statistical Publishing House, annual issues.
- Perkins, Dwight Heald. "Reforming China's Economic System." Journal of Economic Literature Vol. 26, No. 2 (June 1988): 601-645.
- Song, Xinzhong, ed. Study of the Reform of China's Public Finance System (Zhongguo Caizheng Tizhi Gaige Yanjiu). Beijing: Zhongguo Caizheng Jingji Chubanshe, 1992.
- Wong, Christine P.W. "Material Allocation and Decentralization: Impact of the Local Sector on Industrial Reform." In Elizabeth J. Perry and Christine Wong, eds. The Political Economy of Reform in Post-Mao China. Cambridge: Council on East Asian Studies, Harvard University, 1985.
- Wong, Christine P.W. "Between Plan and Market: The Role of the Local Sector in Post-Mao China." Journal of Comparative Economics 11 (1987): 385-398.
- Wong, Christine P.W. "Interpreting Rural Industrial Growth in the Post-Mao Period." Modern China Vol. 14, No. 1 (January 1988): 3-30.

Wong, Christine P.W. "Central-Local Relations in an Era of Fiscal Decline: The Paradox of Fiscal Decentralization in Post-Mao China." China Quarterly 128 (December 1991a): 691-715.

Wong, Christine P.W. "The Maoist 'Model' Reconsidered: Local Self-Reliance and its Financing of Rural Industrialization." In William A. Joseph, Christine P.W. Wong and David Zweig, eds. New Perspectives on the Cultural Revolution. Cambridge: Council on East Asian Studies, Harvard University (1991b).

Wong, Christine P.W. "Fiscal Reform and Local Industrialization." Modern China Vol. 18, No. 2 (April 1992): 197-227.