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22. FISCAL/MONETARY POLICY

China -- Fiscal Policy

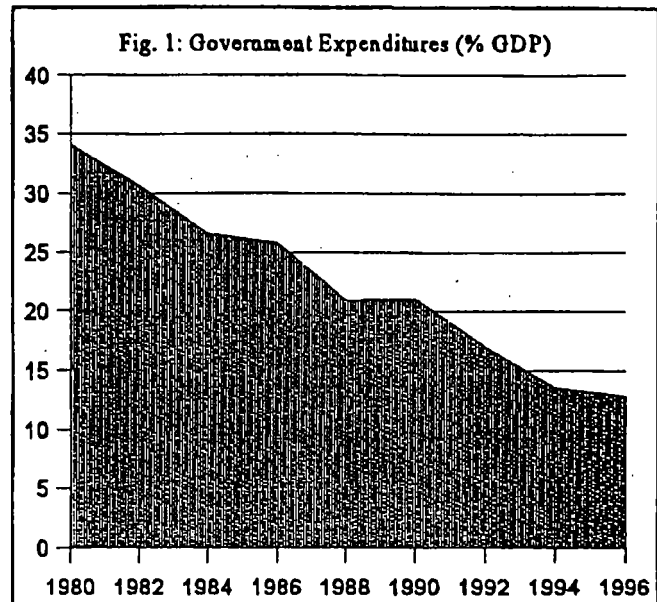
“Intergovernmental Fiscal Relations: The Chinese System in Perspective.” IMF

“Monetary Policy, the People’s Bank of China, and Prospects for Reform,” Internal Memo, Federal Reserve Board, April 22, 1998.

China – Fiscal Policy

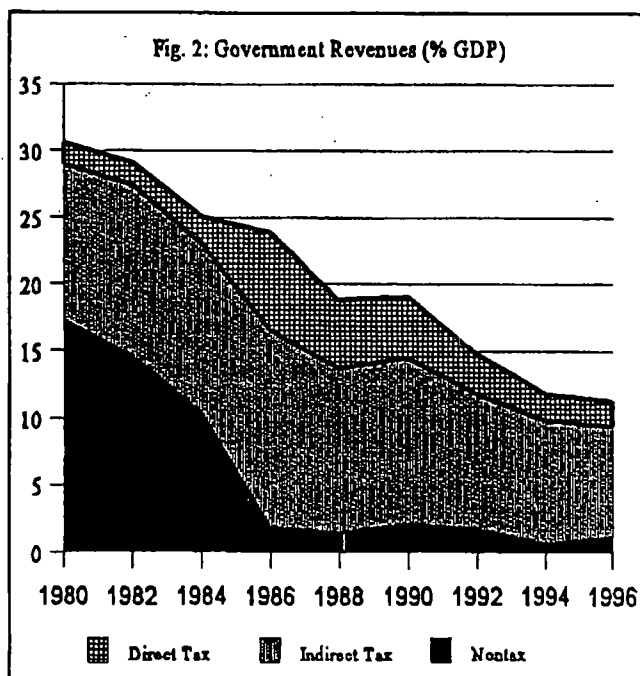
China's fiscal system has changed radically in the past few years, and is now taking on the characteristics of a normal public finance system. Steps have been taken on both the revenue and expenditure side, the most important being the separation of SOEs from the budget.

As a result of this separation, the size of the budget has declined sharply, with expenditures falling from 34% of GDP in 1980 to just under 13% in 1996 (see figure). These numbers are, however, somewhat misleading, since they exclude a number of non-budgetary funds. Five of these funds (pension, unemployment, medical, maternity and injury compensation) are large, believed to account for about 2% of GDP, and showing a small surplus. The other funds -- of which there may be more than 900 -- are sub-national, and data on them are scarce. It has been estimated that they accounted for 4% of GDP in 1994, and that they also show a small surplus. Policy lending by the banking system is also, of course, off budget.



I. Evolution of the Tax System in the 1980s

The current tax system began to emerge in the 1980s, in large part due to the need to replace SOE remittances, which had been as high as 15% of GDP, but which were falling as a result of declining profitability (fig. 2). In 1984-5 the SOE remittances were replaced with profit-based taxation, using a system of contracts. The contracts, of up to three years' duration, were designed to balance the need for revenue with appropriate incentives to seek profitability.



The fall in remittances -- to 1% of GDP by the late 1980s -- left the budget heavily dependent on consumption taxes, especially excise taxes and turnover taxes on services. Other taxes -- including those on income and profits (mainly from SOEs), imports, and other sources -- became less important. By the early 1990s, the system was characterized by numerous taxes and large differences in effective rates across enterprises, types of transaction and

consumption items. Tax administration was chaotic, with local governments playing the major role in collections and exercising significant discretionary powers over exemptions and other concessions, while the central government became heavily dependent on remittances from the local level. Revenues, meanwhile, declined steadily. These shortcomings led to a major reform in 1994.

II. The Public Finance Reform of 1994

The main features of the 1994 reform were as follows:

- **Reform of taxation and tax administration.** The reform was designed to create a relatively non-distortionary system with transparent and stable rates, well-defined tax bases, and improved buoyancy. Specifically, the VAT base was expanded, with a 17% standard rate applied (exports were exempted), while excise taxes were simplified and streamlined and enterprise income taxes harmonized, at a standard 33% rate (which also applied in theory to FFEs, although many of their income and trade tax concessions remained in place -- meaning that the most profitable parts of the economy are not taxed). All exemptions and other reliefs were to be specified in law. The personal income tax was also modernized and unified, with marginal rates of 5% to 45%.
- **Adjustment of intergovernmental fiscal relations.** The contract system was replaced with a clear delineation of tax assignment and tax-sharing, with a goal of increasing the central government's take from less than 40% of revenue to 58%. The new system consisted of (1) local taxes, consisting of a business tax (on services), personal income tax, and enterprise profits tax on non-centrally owned enterprises, (2) central taxes, including excises and profit taxes on centrally-owned enterprises, and (3) shared taxes, mainly the VAT, of which the central government receives 75%. The reform was phased in, with the sharing arrangements applied only to increases above existing amounts.
- **Reform of the Budget Process.** The 1994 reforms also included a new budget law, which improved procedures and provided local governments with authority to prepare their own budgets, although they are prohibited from borrowing to cover deficits.

III. Financing the Deficit

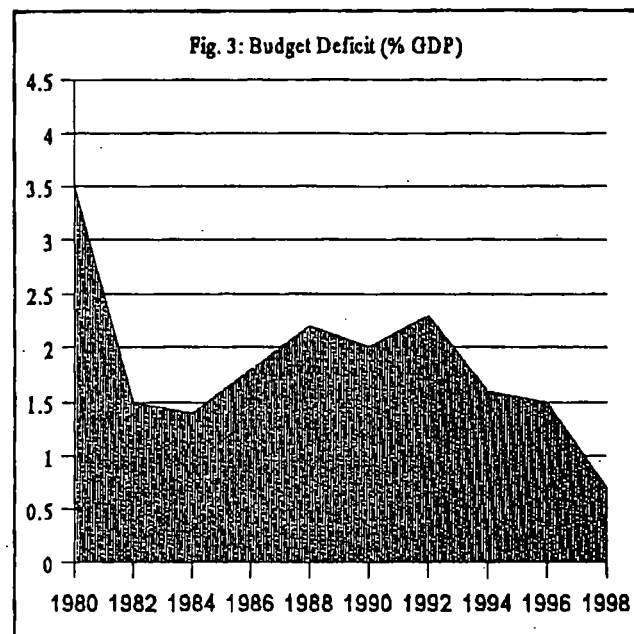
Budget financing has traditionally been through Treasury bills, domestic bank financing, and external borrowing. The Central Bank Law of 1995 banned the central government from borrowing from either the PBOC or domestic banks, however, with only two exceptions: short-term borrowing for day-to-day operations and exceptional circumstances. Despite the steady decline in the state budget deficit (fig. 3), gross bond issues have risen sharply in recent years, reaching RMB196.7 billion, about 3% of GDP, in 1996. The outstanding stock of government bonds at end-1996 was about 6.6% of GDP.

IV. Recent Fiscal Performance

As fig. 2 showed, revenues continued to fall despite the 1994 reforms, although the revenue ratio now appears to be stabilizing. Weakness in collection has been across the board, with taxes on income and profits falling from 7.4% of GDP in 1986 to 1.9% in 1996, while consumption taxes (mostly VAT) fell from 10.3% of GDP to 6.8%. Local revenues have increased more rapidly than those of the central government, by 26.2% vs. 12.6% in 1996, due to the greater profitability of local enterprises, relatively buoyant personal income and services taxes, and to the incentives given local tax authorities. In 1996, the government decided to withdraw the FFEs' exemption from import taxes on capital goods; concern about falling investment has caused it to be reintroduced, however.

The weak revenue collections and concerns about reigniting inflation have led to fairly prudent budgets in recent years (fig. 3), although the prudence is overstated by the exclusion of interest payments from the expenditure side and by the off-budget items. It has been estimated that the true deficit in 1996 -- including extrabudgetary funds and policy lending -- was between 5.7% and 8.0% of GDP, versus the official figure of 1.5%.

The government's goal is fiscal balance (by its measure) by the year 2000. Despite concerns about slowing growth, the 1998 budget -- announced at the recent National People's Congress -- is a significant step in this direction: revenues are projected to rise 12.1%, while expenditures grow only 10.3% (over 1997 actuals), leaving a deficit of 46 billion yuan (\$5.5 billion, about 0.6% of GDP). The budget contains large increases for assistance to laid-off workers and restructuring of enterprises (up five-fold to \$2.1 billion), and a 6.8% fall in central government capital spending (to just under \$5 billion), despite highly-publicized promises of increased infrastructure investment.



IV. INTERGOVERNMENTAL FISCAL RELATIONS: THE CHINESE SYSTEM IN PERSPECTIVE¹

A. Introduction

1. China's recent economic experience underscores the importance of the structure of intergovernmental fiscal relations. As in many transition economies, the structure of subnational governments and their relation with the central government have emerged as important policy issues. The experiences of other countries suggest there are no "ideal" solutions to these problems, and the choice of a particular system of intergovernmental relations involves both advantages and disadvantages. The issue of the fiscal relations among different levels of government represents in a sense the domestic counterpart to the broader question of the constraints on national tax policies imposed by an increasingly globalized economy with closer integration between national economies.²

2. In most countries, the territorial structure of a government is determined primarily by historical, social and political considerations. This paper focusses, nevertheless, on the economic aspects of the Chinese reforms in this area. To enable a systematic assessment of the Chinese experiences and policies in this field, section B briefly lays out some key conclusions of the economic literature on intergovernmental fiscal relations, especially with regard to an efficient structure of government. Sections C and D discuss developments in China prior to the comprehensive fiscal reforms of 1994, and describe—on the basis of the limited data available—the main intergovernmental elements of that reform. Section E presents some of the main features of the experiences of other countries with regard to the economic implications of the system of intergovernmental fiscal relations. Finally, section F discusses how some of the weaknesses in China—including the erosion of central control over fiscal policy and limitations in the scope for fiscal policy—may be addressed.

B. Issues in Intergovernmental Fiscal Relations: A Conceptual Background

3. An important rationale for a decentralized government—one in which the subcentral levels have an appropriate degree of autonomy in fiscal decisions—is to improve economic

¹Mr. Arora (ext. 36211) or Mr. Norregaard (ext. 36383) is available to answer questions related to this chapter before the Board discussion.

²See, for example, Tanzi (1996), who argues that tax competition between nations to attract mobile tax bases (particularly enterprise profits through investment, and returns from financial saving instruments) may lead to so-called tax degradation or suboptimal levels of taxation.

efficiency with regard to the provision of public goods.³ There are two main arguments. First, some public goods, such as street lighting and fire protection, typically benefit only the local community, whereas the benefits of others, such as defense and the judicial system, are national by nature. Second, preferences for public goods usually differ across regions or groups of the population. Economic efficiency, and welfare, could increase if the supply of public goods of a local nature were provided through a decentralized system which adapted the provision of public goods in accordance with the preferences of the local populations.⁴

4. A decentralized system has several other benefits. It constitutes a competitive "market" for public goods, where the benefits of the public goods and services accrue mainly to the local population which also bears most of the burden, through local taxation, of financing provision of these goods and services.⁵ Further, fiscal decentralization ensures that local preferences for public services are revealed, and financed through benefit taxation imposed by local governments who are held accountable for the provision of the services and their financing. In this sense, it also contributes to resolving or alleviating the free-rider problem in public-good provisioning. A decentralized system may also increase efficiency by promoting competition among local governments to provide the best services at least cost. The existence of a multitude of local bodies also fosters experimentation and cost-effective innovations. Finally, in a decentralized system, local governments' better knowledge of the local population, combined with the use of benefit taxation, may help to enhance local revenue mobilization.

5. While there is general agreement regarding the virtues of decentralization, it is also generally acknowledged that a decentralized system will only function well under strict and transparent conditions concerning expenditure and revenue assignment, and the design of transfers to local governments. While in practice the design of the fiscal tiers between levels of government must be tailored to the specific circumstances of each country, including their stage of development, the general conditions relating to tax and expenditure assignment and to the system of transfers may briefly be summarized as follows.

³See Oates (1992) and Musgrave and Musgrave (1989). It may be noted that while these papers, as well as the present one, deal with the division of fiscal responsibilities and the interactions among the different levels of government there is also much ongoing research into the appropriate scope for government activity as a whole. See Tanzi and Schuknecht (1997) for a brief discussion of some of the main issues in that literature.

⁴This conclusion assumes that local public goods have limited externalities, which could be felt beyond the local population, and that the costs of providing the goods can be internalized to the local population.

⁵See Tiebout (1956), who describes this market as the outcome of the choices of mobile voters of the localities that best satisfies individual demand for local public service (through "voting by their feet").



Expenditure assignment

6. The key principle concerning expenditure assignment is that assignment should be based on the "benefit principle." (The responsibility for a function should be accorded to the level of government within whose jurisdiction the benefits of the function accrue.) A clear, consistent, and stable system of expenditure assignment to each level of government based on the spatial characteristics of the public goods in question is required in order to minimize externalities between local governments, and to ensure accountability and political responsiveness. Lower levels of government should be given clear and well-defined expenditure autonomy with respect to allowed variations in service levels and composition of expenditures, consistent with any minimum standards determined by the central government. The legal framework should also ensure that local governments do not engage in activities of a purely commercial nature (such as industrial production or banking).

7. An important implication of this principle is that stabilization policies aimed at achieving macroeconomic objectives (for example, those relating to inflation and unemployment) are most efficiently carried out by the central government. The rationale is that because of the "openness" of local and regional economies, locally implemented stabilization policies would lead to large spill-over effects on neighboring regions. Also, local governments do not have the range of policy measures (such as monetary policies) to carry out macroeconomic stabilization. The fact that the stabilization objective is often the overriding one in many developing and transition economies has been used to argue in favor of a centralized government structure and policies in such economies.⁶ The argument is often extended by pointing to the need in many cases for allocating the responsibility for investment in basic infrastructure to the center. In a similar vein, central governments are generally better suited to carry out general redistribution policies, since the active pursuit of such policies by local governments may lead to migration from and to other localities of the groups affected by such policies. Also, fiscal decentralization may contribute to regional (including rural-urban) disparities in income and wealth, because wealthier local governments will benefit most from greater local taxing powers.⁷

8. Subnational governments, on the other hand, are best given responsibility for the provision of local public goods that are of a clear regional or local nature, for reasons of allocative efficiency. Urban services such as street lighting and cleaning, sanitation, water provision, urban mass transit are the clearest examples, since most of their benefits accrue

⁶See Bahl and Wallace (1996).

⁷Recently, however, some authors have suggested assigning at least some responsibilities for stabilization policies to subnational levels of government on the basis, inter alia, that economic cycles may not be highly correlated across regions (see, for example, Gramlich (1987)).

locally.⁸ Secondary education, specialized health care, and environmental protection are better provided by regional governments, since their benefits extend to a larger area.

Tax assignment

9. Tax assignment in a fiscally decentralized system should involve the central government maintaining appropriate taxing powers consistent with its macroeconomic responsibilities, but should include a system of local taxes with one, or at most a few, major tax sources allocated to lower levels of government. Lower levels of government should be allowed well-defined autonomy over the rate setting for the taxes they have been assigned. It should be noted that the question of tax assignment may be dealt with quite separately from the question of who administers and collects the taxes. The former issue should be addressed on the basis of which taxes constitute good central taxes and which are best suited as local taxes, while the latter functions may best be implemented under a strictly centralized regime because of administrative economies of scale.⁹ There are a number of generally recognized criteria that "good" local taxes must satisfy:

- The base of taxes assigned to the local level should not be too mobile, or taxpayers will relocate from high-tax to low-tax areas, and the freedom of local authorities to vary rates will be constrained.
- Tax bases of local taxes should not be unevenly distributed across jurisdictions, in order to allow a uniform level of provision of public goods and services across the country.
- Local taxes should be visible: it should be clear to local taxpayers what the tax liability is, thereby encouraging local government accountability.
- Local taxes should be able to raise sufficient and stable revenue to meet the needs of subcentral levels of government and to minimize vertical fiscal imbalances.
- It should not be possible to "export" the tax to nonresidents thereby weakening the link between payment of the tax and services received.
- Taxes and user charges based on the benefit principle can be adequately used at all levels of governments, but are particularly suitable at the local level since the benefits are "internalized" to the local taxpayers.

⁸Other examples are kindergartens, primary education and basic health care.

⁹Hence, a given tax may be administered (i.e., levied, audited, collected) by the central tax administration, while the yield ultimately accrues to the relevant local governments.

10. These broad criteria translate into more specific recommendations concerning the taxes that can appropriately be assigned to lower levels of government. **Property taxes**, including in particular land taxes, are usually local taxes because it is always clear which authority is entitled to the revenue; administration costs are generally moderate provided there is a cadastre; and the yield can be predicted with fair accuracy. However, property taxes are generally not very buoyant, and there are problems with the "correct" valuation of the tax base and its updating.

11. In a large number of countries, **personal income taxes** are shared between the central and the local governments. Among the main advantages of PITs is the fact that they generally are buoyant and thus capable of raising the necessary revenue. A cost-effective way of taxing a global income tax base in local jurisdictions, used in a number of countries, is to use the same statutory tax base for the local and the national income tax (i.e., overlapping taxes or "piggy-backing"). Because it requires an efficient administrative system with up-to-date recording of taxpayers' residence, overlapping personal income taxes are used more often in industrial countries. **Payroll taxes** withheld at source are used in many countries as a benefit tax to finance (mainly) the social safety net. Generally, these taxes are seen as less appropriate as local tax sources, and are not assigned to the local level.

12. **Retail sales taxes and excises** levied on the final sale to the consumer can be assigned to local governments, but should not be levied at very different tax rates across localities, which would drive consumers away from high tax areas. In contrast, **value-added taxes** are most appropriately assigned to the central level of government because of the fairly extensive administrative capabilities required to operate the tax in combination with problems of allocating revenues appropriately between local areas.

13. **Corporate profit taxes** should be left to the national level (and to provinces or states only in countries where these are very large). The economic activities of corporations are typically diversified and complex, with factor inputs originating from a number of regions and from abroad, and with sales similarly going to a multitude of regions. Hence, local taxes on corporate profits would to a large degree be exported or shifted to other areas in a nontransparent way, thus rendering the associated tax burden almost imperceptible to local citizens. Finally, **taxes on natural resources** are generally considered poor candidates of local taxation, since their bases normally are very unevenly distributed across regions and revenues may be highly volatile.

Transfers

14. A system of general and specific transfers should ensure that externalities are corrected and an acceptable degree of equity achieved by equalizing fiscal capacities and "objective" expenditure needs beyond the control of individual local governments. If this is done properly, differences in tax rates across subnational governments at the same level will reflect differences in expenditure policies and service levels decided by the local councils in

accordance with local preferences, and not factors beyond their control, such as disparities in per capita income levels, demographic and social factors, and uncontrollable differences in unit costs. Only in this case will elected local councils be given equal opportunities to provide their constituencies with public services at a comparable tax price.

15. There are two broad categories of transfers: **general purpose transfers** and **specific purpose transfers**. With general purpose transfers, local governments are usually free to choose how to spend them, but the share that each subnational government receives is fixed by rules determined by the central government.¹⁰ These transfers are intended to reduced fiscal imbalances across levels of government or to reduce revenue disparities between jurisdictions at the same level. With specific transfers, the central government ultimately decides how the funds should be spent. The size of the transfer may be determined by the central government, or may depend upon the spending decisions of lower levels of government, under so-called matching or co-financing schemes. Specific purpose transfers are intended to correct interjurisdictional spillovers or to achieve specific national priorities and policies concerning the lower level of governments.¹¹

16. Broad guidelines for the appropriate design of intergovernmental transfers are as follows.¹² A fair distribution of transfers among subnational governments provides more equal opportunities for different local governments, and is often viewed as an important means of improving cooperation among different regions and levels of government. A fair distribution is best achieved by general purpose, equalization grants. These grants should enable individual subnational governments to provide public services at standards similar to those provided by other subnational units without imposing taxes and charges at levels appreciably different from those prevailing in other subnational governments. Also, general transfers should be allocated among subnational governments according to well-defined, non-negotiable formulas, based on objective factors over which individual governments have no discretionary control. Subnational governments should have predictable shares in total transfers, in order to allow them to formulate budgetary decisions on a medium term basis. Transfers should when possible provide incentives for sound management practices and discourage inefficiency, and should not encourage local governments to run budget deficits.

17. To summarize, a decentralized system of government, with well designed expenditure and revenue assignments, supported by an appropriate transfer and equalization mechanism

¹⁰The amounts received by individual authorities may also depend on their own tax efforts, that is, the extent to which they actually exploit their tax sources.

¹¹For example, to promote preventive medicine or environmental protection, or to ensure equal national standards in the provision of certain basic public services like health or education.

¹²See, for further background, Oates (1979).

will enhance economic efficiency and ensure budgetary discipline at the local level. Most countries operating a multi-level government broadly satisfying these requirements have in addition found it necessary to establish mechanisms to ensure that the local governments as a whole are in compliance with broad macroeconomic targets and possibilities. The mechanisms range from negotiations and voluntary agreements between the national- and individual local governments to demands for strict compliance by local governments with quantitative targets (for example, ceilings for local government employment and local tax rates, and floors for expenditure cuts).

C. Intergovernmental Fiscal Relations in China, 1978-94

18. In the period since 1978, China's economy has grown rapidly, against the background of reforms that have allowed market forces a greater role in resource allocation. Changes in the system of intergovernmental relations have included greater decentralization of fiscal authority, especially in terms of increasing the autonomy of local governments over taxation. Decentralization has been accompanied by a growth in off budget (or "extrabudgetary") activities of local governments, contributing to a weakening in the center's control over fiscal policy. A parallel development has been a trend decline in the ratio of budgetary tax revenue to GDP to very low levels, reflecting weaknesses in both central and local tax revenues. The declines in the central government's control over fiscal policy and in the tax ratio have limited the role of fiscal policy in macroeconomic stabilization, redistribution to mitigate regional economic disparities, and fulfilling expenditure needs.

The institutional framework

19. In China, the fiscal administration consists of a central government and four subcentral levels of government referred to as "local governments." The local governments are: (i) 31 provincial-level localities, consisting of 22 provinces, 4 municipalities with significant independent powers directly under the central government,¹³ and 5 autonomous regions;¹⁴ (ii) over 300 prefectures and municipalities at the prefectural level; (iii) over 2,100 counties, autonomous counties, and cities at the county level; and (iv) several tens of thousands of townships, towns, and city districts. The sub-provincial levels of government operate under the authority of the provincial level.

20. Intergovernmental fiscal responsibilities, in terms of revenue assignment and expenditure responsibilities, are not clearly delineated in China's constitution. During most of the reform period, intergovernmental fiscal relations were based on a complex set of

¹³Chongqing became the fourth such municipality on January 1, 1997 joining Beijing, Tianjin, and Shanghai.

¹⁴On July 1, with the transfer of sovereignty over Hong Kong, the number of autonomous regions will increase to six.

negotiated contracts between the central and local governments. Since 1994, wide-ranging reforms as well as legislative changes have clarified to some extent the fiscal responsibilities of different levels of government, but important areas—notably the system of intergovernmental transfers—remain to be fully addressed.

Developments in central and local revenues and expenditures

21. During the period 1978–94, local governments gained increasing influence over fiscal revenues. Unlike in most countries, the central government in China did not have a nationwide tax administration and tax collection was mainly the responsibility of local governments.¹⁵ While the central government controlled tax legislation, tax assignment evolved from a centrally controlled system to one based on revenue sharing.¹⁶ Revenue sharing was introduced in 1980, in part with the intention of raising the incentive for local governments to increase revenue collections.¹⁷ Under revenue sharing, all revenue no longer automatically accrued to the central government. The central government designated revenues from each tax as being “central fixed revenue” (accruing to the central government), “local fixed revenue”, or “shared revenue.” Shared revenue was divided between the central and local governments according to negotiated but flexible contracts.¹⁸ The revenue sharing system was subsequently modified: first (in 1985) with the intention of raising the share of revenue retained by poorer regions and then (in 1988), when the tax efforts of richer regions flagged, of raising the

¹⁵There were a few exceptions. For example, customs duties and taxes paid by large centrally owned state enterprises were collected by the customs administration and the central government, respectively.

¹⁶For a comprehensive discussion of the pre-1994 system, and subsequent developments, see Jun Ma (1997).

¹⁷Before 1980, all taxes and profits were remitted to the central government, which then made transfers to local governments based on centrally approved expenditure priorities.

¹⁸The contracts were sometimes altered at the discretion of the central government. In addition, a small part of shared revenue was divided in a fixed proportion. For example, the central and local governments received 50 percent each of the revenue from the urban land use tax.

revenue share of these regions as well.¹⁹ As a result of the changes in 1985 and 1988, the terms under which revenue was divided between the central and local governments differed across localities, and began to include an element of bargaining.

22. The assignment of expenditure responsibilities among different levels of government remained largely unchanged; in particular, there was no decentralization similar to that in revenue assignment.²⁰ Expenditure policy and legislation remained under the purview of the central government, while administrative functions overlapped between the central and local governments.²¹ The central government budget was responsible for expenditure on most capital outlays and on national defense, and for servicing government debt. Local government budgets were responsible for spending on social welfare (including health and education), and for most expenditures on administration and agricultural development. In addition, local budgets bore most of the costs of budgetary subsidies.²²

23. Overall budgetary revenue and expenditure declined in relation to GDP, as did the share of the central government in expenditure (Tables IV.1 and IV.2). Overall budgetary revenue declined from 30 percent of GDP in the early 1980s to 12 percent in 1994, reflecting declines in both the central and local revenue ratios (to 6.7 percent and 5.3 percent,

¹⁹In 1985, the system was revised so that if a locality raised local fixed revenue in excess of its expenditure, a part of that revenue had to be submitted to the center. If local fixed revenue fell short of local expenditure, a higher proportion of shared revenue could be retained by the locality. If even all of shared revenue did not suffice to balance the local budget, the locality usually received a grant from the center. While it limited increases in regional fiscal disparities, the revision reduced the incentive of faster-growing regions to increase tax collection. In 1988, the system was further changed to one consisting of six kinds of revenue-sharing contracts (i.e., with different terms), each adopted by a limited number of localities, that on the whole increased the portion of revenue that localities were allowed to retain.

²⁰However, after 1981 the central government stopped stipulating specific expenditures in local budgets, leaving these to be determined by local governments within the overall limits of the general government budget.

²¹Most administrative functions were the responsibility of local governments. The main exclusively central functions were defense, foreign affairs and monetary affairs.

²²See Christine Wong (1991) for further discussion. While the distribution of the costs of price subsidies changed often, in the early 1990s local governments bore over two thirds of the costs. Essentially, the central government transferred a fixed amount to localities to cover the difference between the cost of grain procurement at controlled prices—the “grain quota”—and the market value of procurement. Localities were supposed to bear the cost of any consumption of subsidized grain above the quota. In practice, localities were sometimes compensated by the center, through “earmarked” grants, for a significant part of these costs.

respectively, when measured before transfers).²³ Budgetary expenditures declined by similar amounts (to 13.6 percent overall, and to 4.1 percent and 9.5 percent, respectively, for the central and local governments), reflecting cutbacks in often necessary expenditures and the shifting of others to off budget accounts. The central government's share of "own revenue" (i.e., revenue before transfers) actually increased during the 1980s, before declining subsequently, but the recorded increase was more than offset by the negotiated revenue sharing and transfer arrangements.

24. A prominent feature of the fiscal landscape during 1978–94—as well as subsequently—was the growth of "extrabudgetary funds" (Table IV.3). These were funds outside the scope of the formal budget (including in terms of monitoring and approval) but subject to control by different levels of government. Most extrabudgetary funds were controlled by local governments. Revenues for these funds included initially the retained earnings of local SOEs,²⁴ public utilities surcharges, transportation fees, rental income on public housing, and various social funds, as well as ad hoc fees and charges. Extrabudgetary expenditures were mainly directed toward priority capital projects of local governments. The balance of extrabudgetary revenue and expenditure remained in surplus. The size of extrabudgetary funds rose steadily in relation to budgetary funds, to nearly 100 percent (for revenues) and 80 percent (for expenditures) in 1992.²⁵

25. Local governments in principle were not allowed to borrow, but the guidelines was often not followed. In practice, local budget deficits were often financed through extrabudgetary funds, grants from the central government, and arrears, as well as through various financial instruments.

26. Implementation of the complex, contract-based revenue system entailed a web of intergovernmental transfers. Local governments made revenue-sharing transfers to the center based on their contractual arrangements. The central government in turn made transfers to

²³See Vivek Arora and John Norregaard (1996) for a further discussion of the revenue decline.

²⁴In principle, SOEs' retained earnings and depreciation funds do not belong in the budgetary domain. In 1993, SOEs' retained earnings and depreciation funds ceased in principle to be under the control of the government. However, there continued to be reports of local governments imposing arbitrary charges on SOEs to tap into these funds. (See Ma (1997).)

²⁵Complete data are not available for the late 1970s, but Ma (1997) suggests that in 1978 the ratio of local extrabudgetary to budgetary funds was 66 percent. For the period after 1992, due to a change in the definition of extrabudgetary funds in the official data, comparable data are not available. A new time series suggests, however, that the size of extrabudgetary funds has remained relatively high in the last few years.

localities in the form of subsidies or grants.²⁶ From 1989 onward, central government transfers to local governments were larger than local transfers to the center. This pattern reflected the central government's efforts to redistribute a part of fiscal resources from surplus to deficit localities.

Key economic implications

27. The changes implemented in the system of intergovernmental fiscal relations were consistent with other structural reforms to move the economy from a centrally planned system to one based on decentralized decision making. Reforms in intergovernmental fiscal relations were incomplete, however, as the revenue sharing system was complex and retained a strong element of ad hoc bargaining, the expenditure assignment system was not decentralized, and the transfer system was broadly unchanged. These aspects of the system—as well as the occasionally perverse incentives that it posed to local governments—may at times have compromised macroeconomic stability, eroded the central government's control over fiscal policy, widened regional fiscal disparities, and led to inefficiencies in resource allocation.

28. The intergovernmental system—both its revenue and expenditure aspects—contributed to expansionary pressures, especially at the local level. While the revenue contracts tended to fix for extended periods the level of revenue accruing to the central government, they contributed to local revenue being quite closely related to changes in economic activity.²⁷ Increases in local revenues during periods of economic expansion tended to be followed by corresponding increases in local expenditures, rather than by budgetary surpluses. The expansionary (or pro-cyclical) bias may have existed partly because, unlike the central government, local governments did not have macroeconomic management

²⁶In addition, one of the contracts formulated in 1988 required the center to pay localities a revenue-sharing transfer. Central government transfers that comprised subsidies or grants were of three kinds. "Quota grants" compensated local governments for the local budget deficit in the base year (i.e., the year in which the contract was made). "Special purpose grants" were given to finance specific tasks of national priority that were undertaken by local governments. "Account-settlement grants" were in relation to revenue-sharing contracts, changes in the ownership of fixed assets, or general compensation to local governments (for example in response to any adverse effects on their budgets resulting from central government measures).

²⁷ For example, the changes to the revenue-sharing system in 1988 allowed several local governments to retain a higher share of revenue if revenue growth was sufficiently strong. The changes included requiring ten provinces to share with the center a fixed proportion of revenue if revenue grew within a range of 3.5–6.5 percent in a year, but allowing them to retain all of the revenue in excess of 6.5 percent growth; and requiring three other provinces to transfer to the center a fixed proportion of revenue until a pre-specified level (in millions of yuan) was attained, beyond which a smaller proportion needed to be transferred.

responsibilities to constrain their spending plans. In addition, under the revenue contracts, local governments were often required to make larger remittances to the center if they started to run budget surpluses. Expansionary pressures at the local level did not tend to subside during periods of slow growth, since local deficits were partly financed by grants from the center.

29. At the same time, local budgets were exposed to greater uncertainty, as pressures from the center often spilled over, including in the form of arbitrary assignments of additional expenditure-responsibilities ad hoc revisions to contracts. In part due to such uncertainty, local governments intensified efforts to promote industrial expansion as a source of both budgetary and extrabudgetary funds. Rapid local expansion had obvious benefits, but was also often a source of overheating.²⁸

30. Elements of the intergovernmental system contributed toward limiting the scope for fiscal policy, especially at the central level. The nature of the fiscal contracts—especially the additional burdens placed on localities whose budgets performed well—gave local governments incentives both to reduce their overall tax efforts and to shift tax collection efforts away from revenues that had to be shared with the center toward those over which they had greater control. They provided generous ad hoc tax concessions, exemptions, and refunds to SOEs under their jurisdiction, increasing these SOEs' retained earnings.²⁹ Retained earnings were part of the extrabudgetary funds, on which local governments drew to finance local projects.³⁰ Both the prevalence of tax breaks and the shifting of revenues from budgetary to extrabudgetary accounts contributed to the decline in the budgetary revenue ratio, which in turn reduced the ability of fiscal policy to perform its full range of functions. In addition, the increasing retention of budgetary revenue by the local governments (under the contracts) contributed to the decline in the share of the central government in revenue. The decline in this share, along with the lack of expenditure decentralization, led to an erosion specifically in the central government's control over fiscal policy.

31. The central government was restricted by its fiscal weaknesses from undertaking redistribution in order to reduce regional economic disparities. In addition, grants from the

²⁸Expansion was also often achieved through policies that were uncoordinated among regions, contributing to inefficiencies (discussed below).

²⁹Tax rates and bases, while legally determined by the central government, were thus increasingly influenced by local governments, who were responsible for tax collection.

³⁰Funds were shifted to extrabudgetary accounts for other reasons as well, such as to avoid central government scrutiny.

center often went to relatively well-off provinces in the form of budgetary subsidies.³¹ As a result of these factors, the deterioration in the fiscal positions of the deficit provinces was larger than the improvement of the fiscal position of the surplus provinces.³² A related development was the emergence of regional protectionism. Fiscal uncertainties, as mentioned, induced local governments to develop their own sources of revenue, which led them to press for an expansion of local SOEs. Local governments also had the authority to restrict inflows of goods from other localities, and to approve the use of inputs produced in their own localities. The protection from competition of local SOEs was sometimes used as a justification to set up barriers to interprovincial trade. Regional protectionism contributed to inefficiencies in economy-wide resource allocation, including "duplicate investment", whereby identical, large projects were established in several localities at once (a lack of specialization), and "irrational investment", whereby investments were made in projects that quickly turned out to be unprofitable.³³

D. Addressing the Problems: the 1994 Reform

32. As part of the wide-ranging fiscal reforms implemented in January 1994, the complex, contract-based intergovernmental revenue system was replaced by the transparent delineation of revenue sources for the central and local governments. In addition, the central government's authority over tax collection was enhanced through the creation of a National Tax Service. These reforms were intended to raise the share of the center in fiscal revenue (to around 60 percent over the medium term); and to strengthen fiscal policy as an instrument for macroeconomic management and other national priorities such as the reduction of regional disparities. The clear delineation of revenue assignments was also expected to impose greater discipline on all levels of government in their expenditure decisions.³⁴

³¹These consisted of price subsidies for "daily living necessities" and subsidies to cover the operating losses of SOEs.

³²See World Bank (1993), Table A-19, page 258.

³³Of course there were other reasons for duplicate and irrational investment. One reason was declining central authority and oversight with regard to investment planning. A second reason was that since capital markets were not well developed, and financial intermediation was thus limited, investible funds tended to be reinvested locally regardless of the rates of return in other regions. See Michael Bell and others (1993).

³⁴For a detailed description of the 1994 fiscal reforms, see Wanda Tseng and others (1994).

33. Under the new system, as before, taxes were classified as central-fixed taxes, local-fixed taxes, and shared taxes.³⁵ An important difference was that these assignments were explicit in the tax regulations and not subject to bargaining. The changed revenue assignment was supported by a new system of tax administration, with the newly established National Tax Service being made responsible for collecting all central and shared taxes and the local tax services being limited to collecting local taxes. In order to minimize the disruption to local government finances, the central government guaranteed the localities that local revenues would not be allowed to fall below a "basic amount" (based upon actual local revenues in 1993). The main means by which the guarantee was intended to be fulfilled was central transfers to local governments of part of VAT and excise revenue.

34. The system of expenditure responsibilities was essentially unchanged. It was envisaged that the central government's share in total expenditure would remain at around 40 percent, and that a fiscal surplus would thus be recorded at the central level. The surplus was intended to be used to finance a system of grants. Grants were to be based on "objective criteria", such as poverty levels and costs arising from natural disasters, which were not, however, established at the time. The need was recognized for the grants mechanism to be made transparent, and to avoid past problems such as using grants simply to fill gaps in local budgets (reducing the incentives for fiscal prudence at the local level) or basing grants on subjective criteria (opening the system to undue political influence, particularly from the local level, and possibly widening regional disparities).

35. Later in 1994, the authorities drafted the Budget Law, which further strengthened the basis for fiscal operations. Under the law, which was approved with effect from 1995, budgetary operations procedures were clarified, requiring the local and central budgets to be formulated in a coherent framework. Local governments were disallowed from financing any deficits through bond issues or bank borrowing.

E. Decentralization and Economic Stabilization: Selected Country Experiences

36. It is commonly held that stabilization policies are best implemented by the central government, and that the more centralized a country is, the easier it will be to implement such

³⁵The central government was assigned revenue from the income tax on centrally-owned SOEs; the business tax on railways and the financial sector (including banks, nonbank institutions, and insurance companies); the excise tax; customs duties; and the value-added tax (VAT) on imports. Local governments were assigned revenue from the income tax on all enterprises that were not centrally owned (i.e., locally-owned SOEs, collectives, joint ventures, and private enterprises); personal and agricultural income taxes; the remainder of the business tax; the VAT on real estate transactions; urban land use taxes; stamp taxes; and minor transactions taxes. Except as above, the VAT was intended to be shared between the central and local governments in the ratio of 75 percent to 25 percent.

policies.³⁶ The main reasons are that monetary policies (which together with fiscal policies are the main policies for stabilization) necessarily must be centralized; that subnational entities usually are fairly open, which implies that fiscal multipliers are small and local stabilization policies therefore relatively inefficient; and that tax competition between subnational entities to attract mobile tax bases may be destabilizing and may lead to a suboptimal level of taxation, particularly on capital. However, since many countries have in fact instituted some level of fiscal decentralization,³⁷ the question arises how such a system can achieve the advantages of decentralization without having unwarranted effects on stabilization. There are no simple solutions, but the discussion in section B has covered some of the conceptual issues involved.

37. It is useful in addition to examine key elements of the systems of intergovernmental fiscal relations in other countries. This section discusses such elements in selected countries, focussing on five basic factors: (i) the structure of government (levels, number of entities at each level, and their internal division of powers), as defined in the constitution or other legal basis; (ii) the assignment of responsibilities to each level of government; (iii) the assignment of revenues—particularly taxes—to each level; (iv) the system of transfers; and (v) local borrowing. The following cases provide examples pertaining to each of these five factors.

38. Relating to the **structure of government**: in the former republic of Yugoslavia, the fiscal system was considerably decentralized through the Constitution of 1974, which granted the republics fiscal autonomy with respect to defining tax bases, setting tax rates, and other budgetary freedoms. Horizontal imbalances developed but, unlike in most countries, the deficit (own revenues minus expenditures) was at the federal level rather than at the state or local level. The federation thus relied in large measure on fiscal contributions from its constituent republics. In Russia, selected autonomous regions were given the right to negotiate with the center the amount of the tax payments accruing on their territories that should be handed over to the central government. Together with an overall decline in fiscal revenues, insufficient revenues at the center constrained to some extent the transfers that could be made to subnational governments.

39. As regards the **assignment of responsibilities among different levels of government**: in a number of Central and Eastern European transition economies subnational governments were given greater responsibilities than to provide local public services to their populations (the "core" responsibility). In Poland, for example, during the early phases of the transition, local governments were able to establish enterprises and commercial banks, in order to raise revenue and promote local economic activity.

³⁶See, for example, Musgrave and Musgrave (1989).

³⁷Usually for reasons (including historical, ethnical, cultural, and religious reasons) that are not purely fiscal in nature.

40. **On tax assignment:** in Brazil, a comprehensive system of fiscal federalism includes assignment of the VAT to different levels of government is one part of a comprehensive system of fiscal federalism, albeit an important one. All three levels of government are assigned taxing powers on consumption, but using different tax systems, and with the broadest base (an income type VAT) assigned to state governments rather than the federal government. In addition, a large fraction of central consumption tax revenue is transferred to lower levels of government under a tax sharing arrangement. In some countries—including Argentina, Nigeria, and Russia—natural resource taxes (on oil, for example) are assigned to subnational governments rather than the federal government. Such taxes may provide subnational governments with revenue windfalls, which tend to be consumed locally.

41. **Transfers to subnational governments** are intended to promote national priorities and to correct for externalities at the local level, to equalize horizontal fiscal disparities between local governments, and to address problems of vertical fiscal imbalances (because, in most countries, the central government has been assigned a larger part of taxation powers than expenditure responsibilities). Transfers to subnational governments constitute the most direct instrument by which the central government can subordinate the local sector to national stabilization objectives. In some countries—for example, Australia and Korea—the general grants system is designed as a set of formula based equalization schemes that transfer a fixed percentage of the revenue from some central government revenue sources directly to provincial and local governments.³⁸

42. Excessive borrowing by subnational governments, which has taken place in a number of countries at different points in time,³⁹ can undercut stabilization objectives of a country as a whole, by increasing domestic demand; by crowding-out other important borrowing and private investment, and by undermining effective limits to money and credit growth. This is why in the large majority of countries (developing, transition, and developed), governments have imposed strict limits on borrowing by subnational governments. This takes many

³⁸Problems of stabilization in the context of transfers may arise if the basis of the transfer includes progressive income taxes, which generally are the most buoyant and effective automatic stabilizers. Transfers of part of such revenue to subnational governments typically results in their being spent, since local governments are generally liquidity constrained due to restrictions on their borrowing (an effect known as the “flypaper effect”). In this way, transfer mechanisms may have a pro-cyclical and hence a potentially destabilizing effect. To the extent that transfers to subnational governments are purely “gap-filling”, that is, for each local government calculated as the difference between (centrally assessed) local expenditure norms, and local own revenue, local governments may engage in strategic behavior in order to maximize transfers from the center. Thus, the design of the transfer system per se may provide expansionary incentives with potentially adverse effects on stabilization.

³⁹See Ter-Minassian (1996).

different forms,⁴⁰ from outright repeal of all local borrowing, to less stringent regulations on the allowed purposes of local borrowing, and constraints on the allowed terms of such borrowing.

43. In conclusion, actual country experiences suggest that virtually all aspects of the design of a fiscally decentralized system have potentially important implications for the efficiency of the macroeconomic policies conducted by central governments. These experiences do not necessarily suggest a need for greater centralization, but simply for the system of intergovernmental fiscal relations to take appropriate account of the implications for macroeconomic policies.

F. Developments in China Since 1994 and Outstanding Issues

Developments

44. Since the reform of 1994, the overall revenue ratio has continued to decline, although it seems to have stabilized at about 11½ percent of GDP in 1996. However, the revenues of the local governments have continued to perform much better than the revenues of the central government, resulting in a renewed tendency toward decentralization of taxation (with regard to actual yields rather than the authority to tax). This is the outcome of much more buoyant local rather than central taxes, particularly as reflected in the yields of the personal income tax and the local elements of the business tax. In addition, the VAT, which hitherto performed better than taxes as a whole, has lost some of its momentum, in turn negatively affecting the relative performance of central government tax yields.

45. Although the available data are particularly scarce in this area, the activities of off-budget funds and operations seem to have further escalated, and may according to some estimates have reached almost 6 percent of GDP. Some, but far from all, of these off-budget activities relate to public utilities, and as such—following GFS principles—should remain as classified outside the general government. Most extrabudgetary activities take place at the responsibility of local governments. To increase the transparency and the central control of fiscal policy, the central government has recently taken a number of initiatives to counter this development by, inter alia, issuing strict regulations to central and local entities to repeal all nonauthorized funds and fees, and by including 13 large central funds in the budgetary process starting in 1997.⁴¹ These initiatives also aim at enhancing the legality of the actions of local governments. It is not clear to what extent the off-budget activities will simply be transferred

⁴⁰Standard approaches are described in Ter-Minassian, *op. cit.*

⁴¹In 1996, the authorities issued guidelines to both the central and local governments prescribing strict measures to curb the growth of extrabudgetary funds (see State Council (1996)).

to the local budgets, and to what extent they will be curtailed, and hence reduce the size of the general government.

46. Concerning the five social funds, the approach adopted by the authorities of conducting pilot experiments in selected cities and regions has continued, although the scope of these schemes has not been broadened. The authorities intend to establish a modern social safety net, including nationwide pension schemes and unemployment schemes, by the end of this century, which should significantly relieve the state owned enterprises from the costs of extensive social responsibilities. The social funds, as well as local governments, may need to assume substantial tasks in this regard.

Outstanding issues

47. The 1994 reform contributed importantly to alleviating the problems created by the previous system of intergovernmental fiscal relations, including for macroeconomic policy management. A continuation of the transformation to a market-based economy, and maintaining the present high growth performance with low inflation, will require ongoing improvements in the fiscal system, including strengthening of the buoyancy of central government taxes. In addition, the increasing economic disparities between coastal and inland regions remain to be addressed. Reforms are intended to continue in the state-owned enterprise (SOE) sector, and are to include relieving SOEs from most of their present social obligations, through social divestiture to local governments and/or to the social funds, based on the provision of the necessary funding. While reforms of the system of intergovernmental fiscal relations obviously cannot resolve all of the problems involved, they can contribute to making the process smooth.

48. Important outstanding issues in the area of intergovernmental fiscal relations include the following. A transparent and stable legal framework for the activities of subnational governments, that clearly delineates the degree of autonomy of local governments including with regard to expenditure responsibilities, has yet to be formulated; several extrabudgetary funds and operations remain outside the official budget framework, making fiscal management more difficult and limiting the transparency of the fiscal accounts; the transfer system, which was not changed during the 1994 reforms, retains elements of bargaining and unpredictability.⁴² The authorities intend to establish a transfer system based on "objective" criteria that would overcome these problems and also help in equalizing regional disparities in public goods provision; the buoyancy of central government revenues remains relatively low. The authorities are taking measures to strengthen these revenues, including by scaling back overly generous tax concessions to certain kinds of enterprises.

⁴²A few preliminary measures have been taken, however. A modest equalization grant was introduced in 1996, and may be expanded in future years, in order to help reduce regional economic disparities.

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Table IV.1. China: Budgetary Developments, 1980-96

(Percent of GDP, GFS basis)

	1980	1982	1984	1986	1988	1990	1992	1994	1996
Revenue	30.6	29.1	25.2	24.0	18.8	19.2	14.7	12.0	11.4
Tax	13.3	14.4	14.6	22.0	17.3	16.9	13.0	11.2	10.2
Direct	1.7	1.7	2.1	7.4	5.1	4.6	3.0	2.0	1.9
Indirect	11.6	12.7	12.5	14.6	12.2	12.3	10.0	9.2	8.2
Nontax	17.3	14.7	10.5	1.9	1.5	2.2	1.8	0.7	1.2
Expenditure	34.1	30.6	26.6	25.8	21.0	21.1	17.0	13.6	12.9
Current	22.5	22.8	18.9	18.4	15.9	16.6	13.7	11.5	10.8
Subsidies	6.4	7.3	5.5	5.7	5.1	5.2	3.4	1.5	1.2
Capital	11.6	7.8	7.7	7.4	5.1	4.6	3.4	2.0	2.1
Balance	-3.5	-1.5	-1.4	-1.8	-2.2	-2.0	-2.3	-1.6	-1.5

Source: Chinese authorities.

Table IV.2. China: Central and Local Government Shares of Own Revenue, 1957-96

(In percent)

	1957	1965	1977	1980	1984	1990	1993	1994	1995	1996
Total revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Central government 1/	72.6	33.0	12.9	19.4	33.6	41.3	33.4	55.7	52.4	49.5
Local government 1/	27.4	67.0	87.1	80.6	66.4	58.7	66.6	44.3	47.6	50.5
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Central government 2/	71.0	61.7	46.7	53.7	46.7	43.3	37.0	30.3	29.9	27.1
Local governments 2/	29.0	38.3	53.3	46.3	53.3	56.7	63.0	69.7	70.1	72.9
Total local own revenue in percent of total local revenue	...	...	...	...	...	76.9	86.2	50.1	54.4	57.8

Source: Ministry of Finance. Data were available only for selected years. Data are classified according to national definitions.

1/ Revenue before transfers (or "own" revenue).

2/ Expenditure before transfers (or "own expenditure").

Table IV.3. China: Extrabudgetary Funds of Central and Local Governments, 1982-94 1/

	1982	1984	1986	1988	1990	1991	1992	1993	1994
(In billions of yuan)									
Extrabudgetary Revenue	80	119	174	236	271	324	385	143	186
Central government	27	47	72	91	107	138	171	25	28
Local governments	53	72	102	145	164	186	215	119	158
Extrabudgetary Expenditure	73	111	158	215	271	309	365	131	171
Central government	23	42	64	84	104	126	159	20	23
Local governments	51	69	94	130	167	183	206	112	149
Balance of extrabudgetary funds	7	7	16	22	0	15	20	12	15
Central government	4	5	8	6	4	12	11	5	6
Local governments	2	2	8	15	-3	3	9	7	9
(In percent of GDP)									
Extrabudgetary Revenue	15.3	16.6	17.0	15.8	14.6	15.0	14.5	4.1	4.0
Central government	5.2	6.6	7.0	6.1	5.8	6.4	6.4	0.7	0.6
Local governments	10.1	10.0	10.0	9.7	8.8	8.6	8.1	3.4	3.4
Extrabudgetary Expenditure	14.0	15.5	15.5	14.4	14.6	14.3	13.7	3.8	3.7
Central government	4.3	5.9	6.3	5.6	5.6	5.8	6.0	0.6	0.5
Local governments	9.7	9.7	9.2	8.7	9.0	8.5	7.7	3.2	3.2
Balance of extrabudgetary funds	1.3	1.0	1.6	1.4	0.0	0.7	0.8	0.3	0.3
Central government	0.8	0.7	0.7	0.4	0.2	0.5	0.4	0.1	0.1
Local governments	0.5	0.3	0.8	1.0	-0.2	0.2	0.3	0.2	0.2

Source: China Statistical Yearbook 1996.

1/Does not include the social funds. There is a break in the series in 1993, when several items hitherto included in the authorities definition of extrabudgetary funds (including mainly the retained earnings of state enterprises) began to be excluded.

INTERNAL FR

John Fernald
April 22, 1998

Monetary Policy, the People's Bank of China, and Prospects for Reform

Overview

- The People's Bank of China (PBOC) has been China's central bank since 1984. The PBOC is not an independent central bank, but implements monetary policy under the direction of the State Council, China's cabinet.
- The State Council, China's Cabinet, has ultimate responsibility for setting monetary policy. Policy choices are thus influenced by ministries other than the PBOC that are affected by monetary policy and that have a voice in the State Council. China established a "Monetary Policy Commission" in 1997 to advise the PBOC on monetary policy, with representatives of major banks and ministries. The Commission is scheduled to meet at the beginning of every quarter.
- China has a long-term goal of shifting monetary policy towards the use of indirect monetary policy instruments such as interest rates rather than direct credit allocation. In 1996, the PBOC formally began open market operations. However, given the limited quantity of tradeable treasury bills on the market as well as the continuing system of credit quotas and mandated interest rates, these open market operations are likely to remain small and largely experimental for some time to come.
- Monetary policy is set centrally but implemented locally. Local branches of the PBOC have substantial independence from the head office, and are often susceptible to pressure by local interests. As a result, the PBOC has sometimes found it difficult to control local lending decisions. In 1993, the PBOC officially terminated the ability of local branches to allocate credit without central approval; however, anecdotal evidence suggests that some unauthorized lending continues, though it is much more limited and circumspect.
- In January 1998, China announced plans to reorganize the PBOC along the regional lines of the Federal Reserve System, with 12-14 regional branches replacing 44 (roughly) provincial-level branches. Policymakers hope that since these regional branches will cross provincial lines, they will be more responsive to the head office and less responsive to local authorities.

Introduction

Since its founding in 1948, the People's Bank of China (PBOC) has formed the core of China's financial system. The institutional structure of the system changed several times in the 30 years before 1978, but the nature of the all-inclusive monobanking system never changed. Specialized state banks, which served the role of commercial banks in market economies, served in essence as departments of the PBOC or the Ministry of Finance. For a time, the PBOC was itself incorporated into the Ministry of Finance. Whatever the form, the system's function was to accommodate the physical output plan.

Since 1978, the financial system has steadily taken a more active role in allocating resources, and reforms of the PBOC have accompanied this. In 1978, the PBOC was formally separated from the Ministry of Finance and granted ministerial rank. In 1984, the PBOC became the nation's central bank, and most of the commercial banking activities of the PBOC were transferred to the newly established Industrial and Commercial Bank of China.

The PBOC supervises and regulates the banking system and helps oversee most of the rest of the financial system. It handles official foreign exchange reserves, and a PBOC subsidiary (the State Administration of Foreign Exchange, or SAFE) controls and regulates foreign exchange transactions. The PBOC represents China in international financial institutions such as the IMF.

In recent years, China has implemented numerous financial reforms, including reforms of the PBOC. One goal of reforms has been to improve the effectiveness of monetary policy as an instrument for macroeconomic control. The PBOC is currently only one voice in the setting of monetary policy, and its decentralized structure makes it difficult to implement policy effectively. Hence, key aspects of proposals to strengthen the central bank are to increase the autonomy of the PBOC in setting policy, to give the head office of the PBOC greater control over the actions of its branches, and to give the PBOC viable indirect monetary instruments. In addition, the Asian financial crisis in 1997 has focused the attention of Chinese authorities on the potential problems of weak financial systems, spurring announcements of rapid reforms aimed at avoiding a future crisis.

The Structure and Independence of the People's Bank

The State Council, roughly China's equivalent to the Cabinet, has ultimate responsibility for monetary policy decisions. Beneath the State Council are a number of ministries and commissions, including the PBOC. The State Council appoints the governor and deputy governors¹ of the PBOC. There are no fixed terms, and it appears that the governor and the deputy governors can be replaced at any time.

China's 1995 central bank law provides a legal framework for the PBOC, and officially gives the PBOC primary responsibility for setting monetary policy. In practice, however, the PBOC appears to have no ability to pursue monetary policy independently, since it remains subject to the State Council.

For almost all borrowing and lending, the PBOC sets administratively the interest rates that financial institutions can charge. However, the primary instrument of monetary policy remains the direct credit plan, which is effected through ceilings on the credit of the specialized and universal banks. (In early 1998, policymakers announced plans to abolish credit quotas for banks sometime this year.) Setting the annual plan involves negotiation among all interested parties, including SOEs, various ministries, the State Development Planning Commission, the Ministry of Finance, and the PBOC. The State Council serves as final arbiter, since it must approve the plan.

In 1997, China established a new Monetary Policy Commission, which includes the governor and several

¹ There can be as many as six deputy governors, though usually there are fewer.

deputy governors of the PBOC, as well as representatives of the State Planning Commission, the Finance Ministry, the commercial banks, and other agencies. The commission plans to meet during the first month of every quarter, with the first meeting held in July 1997. Currently, the commission plays an advisory rather than policymaking role. When the PBOC proposes a change in policy, it appears the commission will review the proposal, and provide the State Council with a summary of the discussion, thus providing a forum for the views of different groups within the government.

The PBOC has a long-term goal of shifting away from direct credit allocation towards the use of indirect monetary policy instruments. In 1996, the PBOC formally began open market operations. However, only a limited quantity of tradeable treasury bills have been issued, and the system of credit quotas and mandated interest rates remain in force; hence, these open market operations remain small and largely experimental.

The PBOC has more than 2500 branches. Hierarchically, below the head office there are 44 major branches in provinces and major cities; below this are city and county sub-branches. As discussed in the next section, the branches affect the implementation of monetary policy but appear to have no role in its formulation. The PBOC had about 180,000 employees in early 1998, including about 1,000 at the head office. The large staff is a holdover from the time when the PBOC monitored the accounting and implementation of the national economic plan, and according to Chinese press reports, the PBOC plans to reduce that number by 50,000 (no timetable has yet been announced).

The operational autonomy of the PBOC and the influence of its professional staff depends to some extent on the governor's standing in the State Council. PBOC governor DAI Xianglong is reported to be a close advisor to Premier Zhu Rongji, suggesting relatively high standing. Zhu himself served as PBOC governor from 1993 to 1995.

The Relationship between the Head Office and the Branches

Monetary policy tends to be set centrally, but implemented locally. As a result, in looking at the autonomy of the PBOC one must assess not only the political power of the head office in Beijing, but also how independent the 44 provincial branches and 2,500 sub-branches of the PBOC are from the head office. At present, the branches are often more responsive to local interests than to the PBOC head office. As a result, the PBOC has often found it difficult to control lending decisions at local levels.

The branches of the PBOC have traditionally had two main functions. First, they distributed currency and allocated credit, and second, they guided and supervised the operations of the specialized banks and other financial institutions. The branches have generally had close ties with specialized banks and with provincial governments. Local

staffing of PBOC branches comes largely from the local population. Indeed, only since 1988 has the PBOC head office appointed the provincial heads of its own branches. Even now many reports indicate that local PBOC staff salaries are determined by local authorities and not by the center.

The PBOC branches thus performed a balancing act between orders from the PBOC head office and from local governments. Central monetary plans gave substantial control over the allocation of credit to local branches. If the goal of price stability conflicted with the realization of local projects or with the health of local SOEs, then the local interests carried substantial weight. The influence of local elites on local PBOC operations thus made it difficult for the central bank in Beijing to enforce its credit plans.

In terms of bank supervision, under central planning the primary focus was on ensuring that banks carried out state credit plans. Credit risks were largely ignored so long as the banks allocated loans as dictated by the PBOC. As banks have gained greater autonomy, it becomes necessary to assess their creditworthiness. Thus, PBOC supervisors must learn a new approach and new skills. In addition, the close ties between branches of the PBOC and the state banks make effective monitoring of the banking system difficult.

Reforms

Numerous reforms have been put in place in recent years. In 1993, the PBOC officially terminated the ability of the branches to allocate credit without central approval. The branches remain responsible for supervising banks in their jurisdictions. (It is unclear how much power over credit the branches still retain; anecdotal evidence suggests that some unauthorized lending by branches at the city and county level). Since 1994, the government can no longer order the PBOC to extend its credit, but must finance budget deficits through domestic and external bond issues. PBOC officials have also been required to sever personal connections with investment companies.

In recent years, the PBOC has upgraded and reform its ability to supervise banks. For example, the PBOC has worked with the IMF, the UNDP, and the Federal Reserve to train bank examiners to analyze risk properly. The PBOC has implemented a system of offsite monitoring of banks.

In mid-January 1998, China announced sweeping financial market reforms, which included plans to reorganize the PBOC along the lines of the Federal Reserve System. In order to reduce interference by local authorities, the reforms would replace the 44 provincial-level branches with 12-14 regional branches that cut across provincial lines.

PBOC Governor Dai has stated that this restructuring should take place in 1998. Although the PBOC has little independence and still requires State Council approval to change policy, the recent reforms do give the PBOC greater influence in setting monetary policy. Hence, the reforms may help the government to act more quickly and flexibly

in response to changing economic circumstances.

23. ENTERPRISE REFORM

State Enterprise Reforms

Enterprise Reforms

“Chapter Two: The State-Owned Enterprise Problem,” China’s Unfinished Economic Revolution,” Nicholas R. Lardy, Draft, November 28, 1997.

“Reforms of China’s State-Owned Enterprises,” Harry Broadman.

State Enterprise Reforms

Since 1995 enterprise reform has accelerated, in part because tighter credit has forced many state enterprises to cut costs and lay off workers. In addition, Beijing adopted a new enterprise reform strategy described as "grasping the large and letting go of the small." In this approach the central government focuses its support and supervision on a limited number—nominally 1,000—of large enterprises and enterprise groups in key sectors of the economy, while allowing local governments more leeway to implement more aggressive ownership reforms of the more than 90,000 smaller state firms.

- Since 1996 Chinese senior leaders have in public speeches explicitly endorsed the reform of smaller state firms through a variety of means including mergers, bankruptcies, conversion into share-holding firms, leases, and sales.
- President Jiang Zemin's speech at the 15th Communist Party Congress last September was the strongest official endorsement to date of such reforms, in particular expansion of the private sector and conversion of state firms into joint-stock companies.

Premier Zhu Rongji last fall set a goal of making most money-losing large and medium state firms profitable by the year 2000, and during a nationally televised press conference last month he highlighted the goal as one of three major government initiatives—the others being financial reform and government restructuring—for the next three years.

- Beijing will focus this year on the textile sector—China's largest state industry both in terms of employment and financial losses. Chinese officials state that textile enterprises in 1998 will layoff 600,000 workers and, in an effort to reduce excess capacity, destroy about 4.8 million outdated cotton spindles in coastal provinces. The government has set aside funds to partly compensate enterprises for the destruction of the spindles.
- Chinese officials have said that in 1998 the government will provide about 40 billion yuan of "cash-reserves" for restructuring of large and medium enterprises through mergers, bankruptcies, layoffs, and reduction of interest payments; that state enterprises will raise about 100 billion yuan through new stock listings on domestic and foreign markets; and that about 50 billion yuan of bank loans will be converted into "state capital."
- Chinese officials continue to emphasize establishing the "modern enterprise system"—meaning transformation into state-owned corporations—as a key method of reforming large state enterprises. A key central government pilot program involving 100 state enterprises chosen to pilot the system has made slow progress, however.

Enterprise Reforms

There are more than 300,000 state-owned enterprises (SOEs) in China--with 130,000 of them classified as industrial. Many of them have been suffering losses and have been kept afloat by bank loans. The continuing state subsidy to the money-losing SOEs through the banking sector is not only a misallocation of resources but also is a primary cause for China's banking problem.

- Although SOEs' share of industrial production has fallen to about 35 percent from 76 percent in 1980, they continue to receive more than three-fourths of total domestic credit.
- About 40 percent industrial SOEs posted losses in 1997.
- According to one estimate, the average debt-equity ratio of the industrial SOEs was 560 percent in 1996.

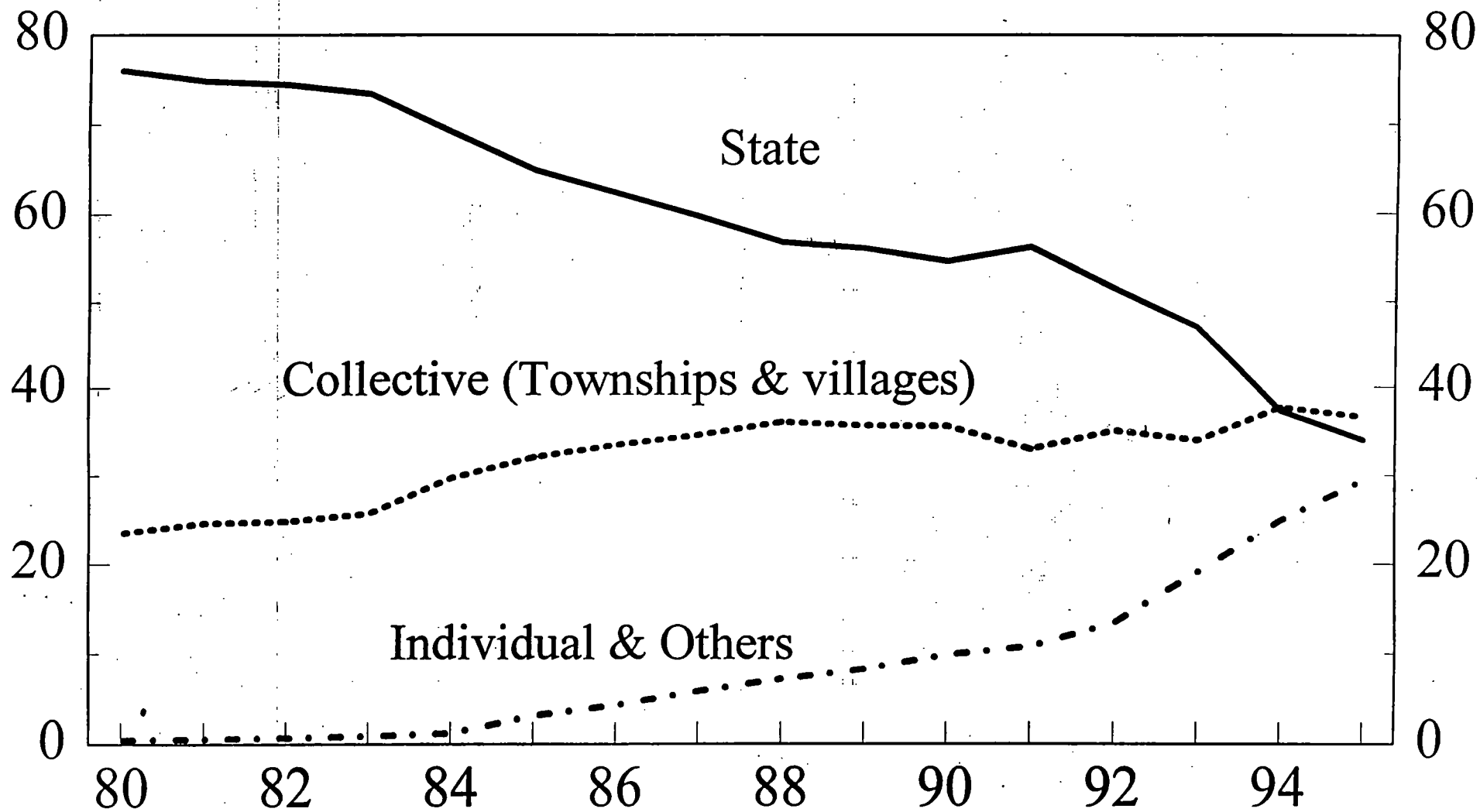
Reforming these SOEs is a top priority of the Chinese government. Although many small SOEs have been privatized over the years, the government is not expected to give up its control over the large ones. The government's basic strategy is to "keep the large and let go of the small". Through mergers, privatization, and bankruptcies, the number of SOEs will be significantly reduced in the future. The Chinese government plans to retain the ownership of about 500 industrial SOEs and nurture them into large conglomerates similar to the Korean *chaebols* (conglomerates). Zhu Rongji, the new premier, indicated recently that it would take about three years to complete the reform.

The restructuring of the state-owned sector has raised unemployment, especially in the rust belt areas of northeast China. China's minister of labor indicated recently that there were 11.5 million laid-off workers at the end of 1997, including 7.9 million from the state sector.

The SOEs are providing many social services, such as housing, unemployment benefits, medical, and pensions to their employees. For the SOE reform to be successful, the government needs to establish new social safety nets to replace the services being provided by the SOEs. So far the government has not made much progress in this area.

Share of Industrial Output by Ownership

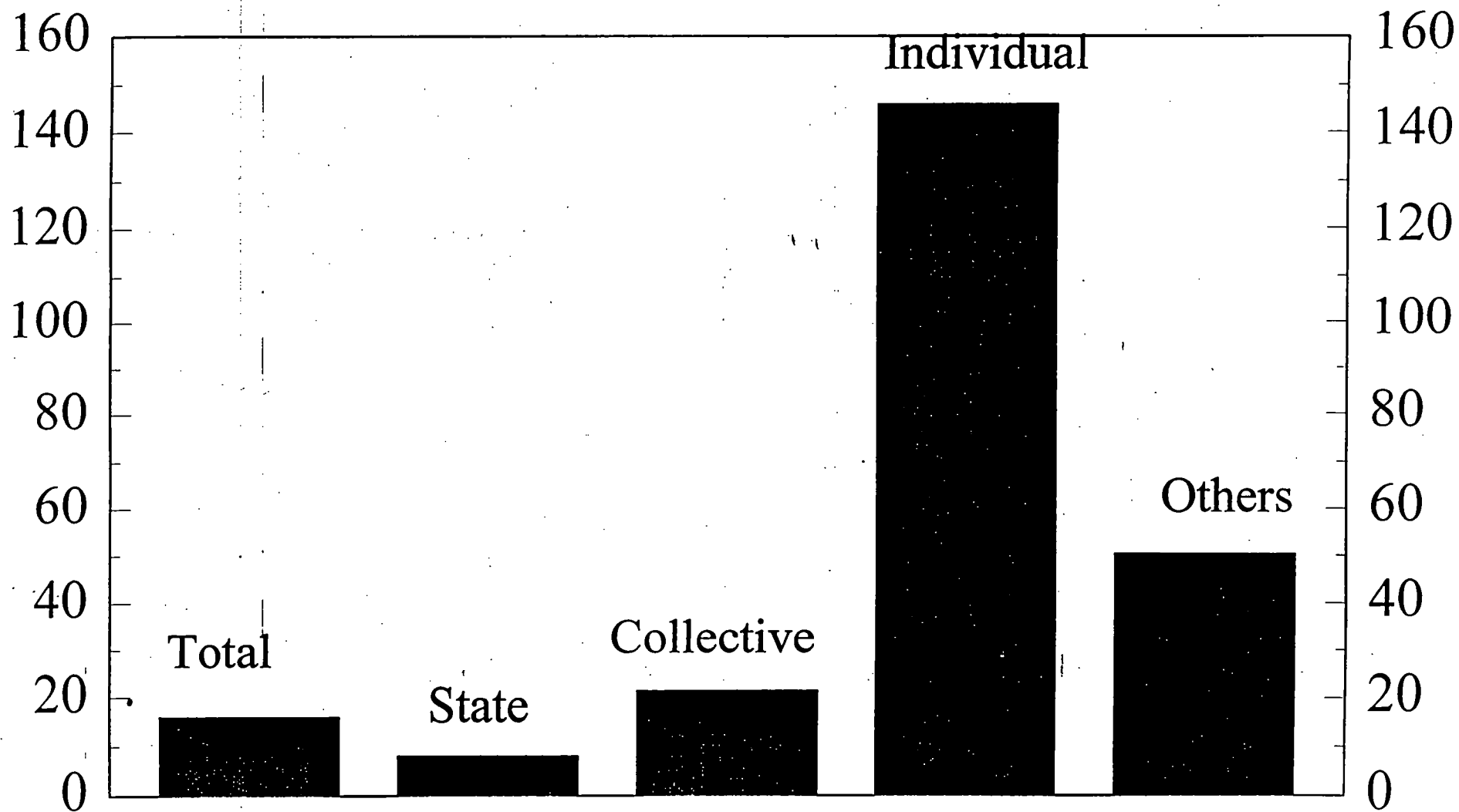
(Percent)



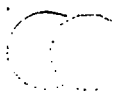
Source: China Statistical Yearbook

Real Gross Industrial Output By Ownership

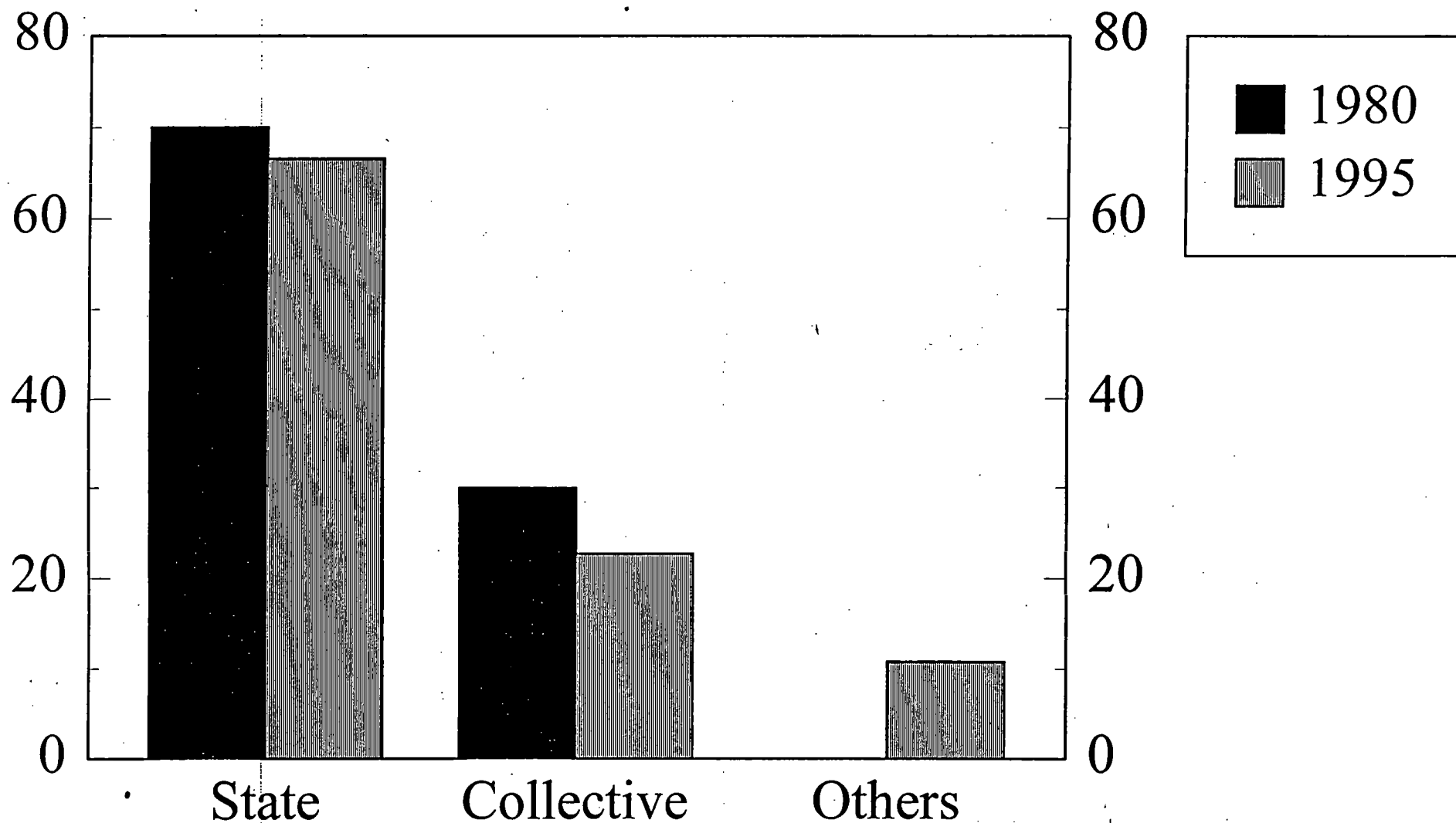
(Average annual growth rate -- 1980-95)



Source: China Statistical Yearbook



Share of Industrial Employment (%)



Source: China Statistical Yearbook

Note: Employees at individual-owned are excluded in Chinese statistics

From: Nicholas R. Lardy, China's Unfinished Revolution, forthcoming

Please do not cite. Comments welcome. Draft of November 28, 1997

Chapter Two

The State-Owned Enterprise Problem

The state sector is the core of the challenge faced by China's reformers. Its large size alone means that any reform that does not successfully address the state-owned sector ultimately will fail. As will be discussed below, on the eve of reform the state dominated economic resource allocation. Moreover, the problem of long-run declining efficiency in the use of resources was most acute in the state sector. As noted in Chapter One, that was the chief stimulus for undertaking economic reform. The sources of inefficiency can be traced to factors that were deeply embedded in economic planning system that developed in the pre-reform era.

Although reformers recognized the challenge, political constraints precluded them from initiating a direct assault on state-ownership via a program of privatization. Rather they pursued a two-fold strategy that preserved state-ownership as a major feature of the institutional landscape. The first part of the strategy was gradually to restructure incentives faced by enterprise managers and enhance the role of the market. The second part was to allow the relatively unconstrained growth of what is called the non-state sector--urban collectives, rural township and village enterprises, and private firms.

One difficulty this gradualistic approach creates is that it is difficult to measure the progress of reform. In the absence of a rapid increase in the role of the market in the allocation of goods, labor, and capital, changes in financial performance of enterprises do not necessarily reflect underlying changes in economic efficiency. Even simple yardsticks commonly used in analysis of other transition economies, such as progress in the privatization of state-owned companies, are not relevant. Given this problem, researchers have devoted considerable effort to measure directly trends in factor productivity.

Following a very brief summary of the stages of reform, this chapter examines two fundamental questions. The first is simply whether or not the size of the state sector, relative to the rest of the economy, has shrunk so dramatically that the question of whether or not reforms have led to increased productivity of state firms has become largely irrelevant. The conclusion is that while the relative contribution to output of the state sector has shrunk dramatically, state firms remain a disproportionately large employer and claimant of society's investment resources. Thus the second question is the extent to which the economic performance of state-sector has improved. The tentative conclusion is that reforms to date have failed in large portions of

the state-owned sector and that their ultimate success will depend on the willingness of the Chinese Communist Party to embrace privatization.

The Stages of Reform

The priority accorded to reform in the state-owned sector confirms the view that there was an early widespread recognition within the Chinese leadership that reform could not be limited to agriculture. Although rural reforms captured the most attention of external observers, the Chinese Communist Party launched a major effort from the outset of reform in 1979 to reinvigorate the state-owned sector.¹ This initial stage focused on increasing the operational autonomy accorded to enterprise managers, largely by allowing them greatly increased authority over the allocation of their profits. Profit retention, the key policy in this first phase of reform, was widely adopted in state firms in 1979-1980. Some profits were used to finance increased investments but enterprise managers also were able, for the first time, to pay bonuses to workers. These quickly became a significant source of wage growth.

While these steps were a promising beginning, they were undermined by two shortcomings. First, price reform in these early years was limited, resulting in persistent distortions. Second, several efforts to force enterprises to pay for the fixed and working capital they used failed.² Without these changes there was little reason to expect that increased enterprise autonomy would improve the efficiency of resource allocation, particularly of capital.

A second phase of enterprise reform emerged in the mid-1980s. The key new policy instrument was long-term contracts between enterprises and their bureaucratic superiors spelling out deliveries of profits and taxes as well as other financial targets.³ The emphasis on financial variables was a distinct break from traditional economic planning, which had relied primarily on physical output targets to both guide and judge enterprise performance. Contracts were designed to provide better incentives for improving the financial performance of enterprises by limiting the ability of higher bureaucratic levels to ratchet up, on an annual basis, the requirement to remit profits. Thus under long-term contracts enterprise managers who were able to increase profitability consistently over time were assured of the ability to retain these incremental profits. The second phase also included provisions that further enhanced the autonomy of managers, a policy initiated in the first phase of reform, and introduced substantial price flexibility for output produced above planned levels.

Although the second phase reforms comprised a consistent reform package and substantially enhanced the role of the market, they also had important shortcomings.⁴ They fell short of establishing a system of uniform market-determined prices. That meant some enterprises continued to lose money largely because of externally imposed price controls. In turn, that made it

impossible for the state to impose hard budget constraints on enterprises via bankruptcy of money-losing enterprises. Second, the negotiation of financial contracts on an enterprise-by-enterprise basis precluded the development of a modern tax system with uniform rates applied universally and impartially. Finally, the dual track price system created enormous incentives for corruption--merely transferring a good from within plan to outside plan could raise its price by 50 to 100 percent or even more.

The third stage of reform of state-owned enterprises began in 1993 when the Third Plenum of the 14th Chinese Communist Party Congress endorsed the creation of a modern enterprise system.⁵ The key features of this initiative were its approval of the development of diversified forms of ownership, which would compete on equal terms in the marketplace, and the introduction of modern corporate governance for state-owned firms. In the words of one specialist, this reform "is undoubtedly the most ambitious plan for China's reform since the launching of reform in 1978 and may well prove to be a watershed in China's modern economic history."⁶ The 15th Party Congress in the fall of 1997 approved an acceleration of this initiative, which seeks to reform enterprises primarily through converting them into limited liability or shareholding companies.

The ownership reforms center on two objectives. The first is the transformation of state-owned enterprises into limited liability companies under the Company Law, which was passed by the Standing Committee of the National People's Congress within a few weeks after the close of the Party Plenum.⁷ The objective of the law is to separate government and business functions and to create incentive structures that insure that firm managers act in a manner consistent with the interests of the firm's owners. The company law allows for the establishment of corporations as distinct legal entities, separate from their owners (shareholders), "with a clear definition of and accounting for its own assets and liabilities."⁸ Second, it introduces the idea of limited liability for shareholders. Third, it calls for the establishment of boards of directors, elected by shareholders, responsible for hiring the managers of the firm and evaluating their performance. Finally, the law provides for transferability of ownership shares. In Broadman's words these are the four structural attributes of the modern corporation.

The second broad objective of the most recent reforms is to optimize the capital structure of state-owned enterprises by lowering their debts and raising their asset:liability ratios. This program involves reduced rates of taxation on profits, accelerated rates of depreciation on fixed assets, and reduced interest rates on loans made available to finance a share of enterprise tax liabilities.⁹

Have these three stages of reform been successful in either shrinking the relative size of the state sector or increasing its economic efficiency?

At the outset of reform the state dominated the non-agricultural portions of the Chinese economy. This domination was reflected in the high share of output produced in state-owned firms, the large share of urban employment in the state sector, the disproportionately large share of fixed assets owned by state firms, and the large role of the state budget in allocating resources within the Chinese economy.

State domination was most obvious in manufacturing, where on the eve of reform fully four-fifths of output was produced in state-owned firms. These firms employed about 30 million workers, more than two-thirds of all industrial employees.¹⁰ Although state-owned industrial enterprises accounted for only about one-fourth of all industrial enterprises, they owned the vast majority of all of the machinery, equipment, and other physical assets employed in manufacturing.¹¹

State domination was also evident in construction, transportation, and in other services. In 1980 three-quarters of all construction workers in urban areas worked for state-owned firms and by value these firms built almost four-fifths of all projects.¹² State-owned transport enterprises, mostly under the direct control of the Ministry of Railroads and the Ministry of Communications, were responsible for almost all transport of goods by rail, road, and water.¹³ In retail trade state domination was particularly strong. Although state-owned retailing units accounted for only a third of all retail stores and shops and employed just over half of all retail workers, state-owned units accounted for more than 90 percent of the value of all retail sales as reform was getting underway in 1978.¹⁴

Finally, the dominant role of the state was reflected in the large share of output allocated through the state budget. On the eve of reform budgetary expenditures were equal to almost a third of the economy's output.¹⁵ This proportion is low in comparison with advanced industrialized countries where transfer payments loom large in government expenditures. However, it is quite high in comparison with other low income countries primarily because in the late 1970s most investment in fixed and working capital in China was financed through the budget.

Many analyses of China's economic reform strategy have focused on the dynamic role of the non-state sector, particularly township and village manufacturing enterprises that have grown so rapidly. The relatively slow growth of state-owned firms in industry has led to a reduction in the share of output they produce, from about four-fifths at the outset of reform to about one-third by 1995.¹⁶ Because state-owned firms are more likely to be controlled by or at least influenced by planners either in Beijing or at the local level, whereas non-state firms appear to be more entrepreneurial, the rapid growth of the non-state sector has led some to characterize China's reform process as growing out of the plan.¹⁷

However, focusing on the declining share of manufactured goods produced in state-owned factories in certain respects overstates the extent to which the role of the state has declined during the reform process. First, the decline in the role of the state is far more modest in the service sector than in manufacturing. In construction, for example, by value state-owned firms in



1995 continued to be responsible for more than three-fifths of all building projects in urban areas, a very small decline from their share in 1980.¹⁸ Similarly, even though there has been a dramatic increase in the number of collective and private wholesale and retail establishments, in 1995 state-owned firms still were responsible for more than three-fifths of the combined value of wholesale and retail sales.¹⁹ Long distance transport and telecommunications remain almost entirely within the domain of state ownership.

Second, even within manufacturing, focusing on the declining share of output produced in state-owned firms obscures the continued importance of the state sector, both as a major source of employment and as the recipient of a disproportionately large share of investment resources. Moreover, even though the share of output produced by state-owned firms has declined dramatically on average, there remain many important industries where state-owned firms have yet to feel much competitive pressure from non-state firms.

Employment

As shown in Table 2.1, employment in the state sector soared by 40 million or more than 50 percent, between 1977 and 1996. State sector employment rose so briskly that the share of the urban sector labor force employed by the state declined only moderately, from 78 percent in 1978 to 70 percent by 1992 and then 65 percent by the end of 1995. And the decline since 1992 is somewhat overstated since most of it is due to the reclassification of state-owned enterprises into what are called corporatized or shareholding firms. As will be discussed later, in most cases the state remains the dominant shareholder in these firms after the conversion and there appears to be only modest initial change in corporate governance.²⁰

This is not to underestimate the very dramatic transformation of the labor force that has been underway for more than a decade. According to official statistics the share of the workforce employed in agriculture has declined from 71 percent in 1978 to only 51 percent in 1996. As a result, the number of persons employed in agriculture peaked in 1992 at 383 million and has since declined in absolute terms.²¹ In large part this is due to the growing importance of jobs in the non-state sector, particularly in township and village enterprises where employment expanded by more than 100 million between 1978 and 1995.²²

But this structural transformation of the labor force occurred primarily in rural areas. In urban areas the state accounted for half of the new jobs created between 1978 and 1995. More than twice as many new jobs were created in the state sector than in private enterprises and proprietorships combined.²³

Most of the increase in state sector employment came in manufacturing, where employment shot up by more than nine million. But state employment in banking and insurance, commerce, construction, public utilities and other activities also rose. The number of government and party bureaucrats soared

by almost 150 percent. State employment fell in absolute terms only in agriculture, largely due to a shrinkage in employment on state farms.

Investment

Table 2.2 shows the broad allocation of investment resources throughout the economy to alternative forms of ownership. For the years through 1992 it shows the allocation among state, collective, and individual forms of ownership. These data show that collective and individual investment jumped sharply in the early 1980s, largely reflecting stepped up investment in collective industries and in individually owned housing in rural areas. But in the following decade there was little change in the share of investment in state-owned units and the share of investment in collective units rose at the expense of individual investment. However, these data do not take into account the more diverse forms of ownership that emerged in the 1980s.

Belatedly, beginning in 1993, the State Statistical Bureau adjusted its classification system for reporting investment to take into account the growing importance of new forms of ownership, particularly foreign-funded and shareholding firms.²⁴ The more disaggregated data published beginning in 1993 suggests that the seeming constancy of the share of investment in state firms through 1993 disguises the growing share of investment in foreign-funded firms and the emergence of the new category of shareholding firms. If one accepts the view that joint ventures and wholly foreign-owned firms are quite distinct from state-owned enterprises but that shareholding companies are not, the share of investment in state-owned firms fell by about one-seventh, from 69 percent in 1981 to 58 percent in 1996.²⁵

The modest decline in the annual allocation of investment resources to state-owned companies is confirmed in data on the ownership of the entire stock of productive assets. In 1995 two-thirds of all assets were controlled by state-owned firms.²⁶

In industry the share of assets owned by state firms fell to 53.7 percent in 1995, compared to their 74.6 percent share a decade earlier.

But this decline is only about one-half of the proportionate shrinkage in the share of industrial output produced in state-owned enterprises over the same period.²⁷ In short, the relative efficiency of state-owned firms in the use of capital has declined significantly over time.

Competition

The most important potential stimulus to improvements in productivity at the firm level is competition. In many industries ranging from textiles and apparel to electronics and computers the domination of state-owned firms has receded rapidly. Yet in some industries state-owned firms as late as the mid-1990s faced only modest competitive pressure from non-state companies. State

firms produced 91 percent of all electric power, 91 percent of all coal, 95 percent of all petroleum, 79 percent of metallurgical products, and 77 percent of all chemicals.²⁸ Of course, the state continues to own the rail system, which continues to be the dominant mode of long-distance transportation, most of the water borne transport capacity, and all telecommunications operating companies.²⁹

The lack of competition in manufacturing more generally is confirmed by the relatively low rates of capacity utilization in many branches of Chinese industry at the mid-1990s. A major census of Chinese industry revealed that for more than 900 major industrial products the rate of capacity utilization in 1995 was below 60 percent. Rates in some products were extraordinarily low, particularly when one takes into account that the years leading up to the census were ones of rapid economic growth, not recession in which one would expect utilization rates to have been depressed. For photographic film the rate was 13.3 percent; movie film, 25.5 percent; air-conditioners between 30 and 40 percent; telephone sets, 51.4 percent; color televisions, 46.1 percent; machine tools, less than 40 percent; copper smelting and pressing 50 percent; chemical products and chemical fibers, 50 to 60 percent; large and medium-sized tractors, 60.6 percent; and final products produced from rolled steel, 62.0 percent.³⁰ These low rates suggest massive over-investment in capacity across a broad range of products. Yet the absence of exit of a significant number of firms from these industries shows that there is little competition. As will be suggested in Chapter Three, in part this is explained by the availability of credit on very soft terms.

In short, the evidence does not really support the view that the state sector is withering away rapidly. State-owned firms continue to loom large in terms of employment and investment and continue to produce a dominant share of output in many critical industries and services. Thus much of the balance of this chapter examines evidence that might shed light on the question of whether state-owned firms have become more efficient under the reforms summarized briefly at the outset of this chapter. The evidence examined includes total factor productivity studies as well as a variety of financial indicators.

Factor Productivity

The potential importance of understanding trends in total factor productivity is attested to by the dozens of published studies on the topic.³¹ Factor productivity studies compare the growth of inputs relative to the growth of output, both measured in constant prices. The basic idea of total factor productivity growth is straight forward. If output expands more rapidly than inputs used in the production process, total factor productivity is rising. The complexity arises from a variety of methodological issues. Initially, these studies used a very simple methodology, comparing the growth of output with the growth of capital and labor, the latter aggregated by appropriate weights. Subsequently, the methodologies became more complex.

Researchers included intermediate inputs, as well as capital and labor, when measuring the growth of inputs. This was an important improvement since the earlier methodology would have overestimated productivity growth if, for example, firms had increasingly substituted purchased intermediate inputs for either labor or capital. Some researchers attempted to exclude labor and capital used to provide social services to employees when calculating the productivity of state-owned enterprises. Finally, procedures for stripping out the influence of price changes also became more complex. Not only did researchers use improved measures to deflate output to remove the bias introduced by rising prices, they also introduced separate deflators for capital and intermediate inputs.

Despite the increasing methodological sophistication, no consensus has emerged on the issue of whether the numerous reform initiatives summarized at the outset of this chapter have led to increases in total factor productivity in the state-owned sector. Initially, most researchers reported that productivity continued to stagnate, as in the pre-reform era. Subsequently, other authors, utilizing a different price index to deflate the cost of capital, argued that productivity had turned up significantly in response to reforms. But others failed to confirm these findings and argued that productivity continued to stagnate or even decline in the reform era.

More recently the authors that have most consistently presented evidence of improved factor productivity have modified their earlier findings in several important respects. First, they have revised their estimates of total factor productivity growth for state-owned industry from an earlier estimate of 5.2 to 5.9 percent per annum for the years 1978-1985 to 2.24 percent per annum for the years 1980-1984.³² Although the time coverage is not precisely the same, this is a substantial downward revision. Second, they now report that improvements in factor productivity in state firms slowed markedly after 1988. The estimate for 1988-92 is 1.58 percent per annum compared to estimates of 2.24 percent for 1980-84 and 3.68 percent for 1984-1988. While part of the decline may be due to cyclical factors, the authors also judge that financial factors such as preferential access to loans and negative real interest rates on such borrowings "encouraged many SOE managers to make unwise investment decisions during the later 1980s and early 1990s . . . that may have contributed to a reduction in the growth of TFP (total factor productivity) observed in China's state industries."³³ Third, they have revised downward dramatically their estimate of total factor productivity growth in collective industry so that it is now less than one percentage point higher than the estimate for state-owned industry. Previously, the differential had been substantially greater.

Even if an empirical consensus on productivity had emerged, however, this would not settle the question of the success of reforms in the state-owned sector for two reasons. First, it has long been understood that total factor productivity is an imperfect reflection of the underlying variable we want to measure--the ability of firms to increase output through improvements in technology. The reason is that improved total factor productivity can be due either to improvements in x-efficiency or to technological progress. The former occurs when firms operating below their production frontier are able to move closer to the frontier, which represents the maximum level of output that

can be obtained in the short-run with existing inputs and levels of technology. Gains of this type, frequently called improvements in static efficiency, are important. But, since they will eventually be exhausted, they can not be the source of improvements in total factor productivity over the long run. That depends on the second factor, technical change. In short, given the distortions that prevailed in the pre-reform economy, it would not be surprising if reforms led initially to growing total factor productivity. If these measured gains arose from improvements in x-efficiency, rather than underlying technical change, this rise in productivity would tell us little about the long-term success of reform.

Second, and equally important, the success of reform of state-owned enterprises depends ultimately on converting gains in productivity to improved financial performance. If firms are able to raise total factor productivity through improvements in technology but poorly-defined property rights mean that the managers can siphon off most of the gains, reforms ultimately will not succeed. More generally, even if enterprise managers are not corrupt but have any significant motives other than profit, such as higher levels of employment than would prevail in a competitive environment, total factor productivity becomes a "questionable measure of SOE performance. Under these conditions higher productivity may lead to lower profits."³⁴ It is therefore essential to consider the financial performance of state-owned firms.

Financial Performance

Most measures suggest that the financial performance of state-owned enterprises has declined dramatically during the reform period. These measures include the rate of return on assets of state enterprises, the percent of state firms that are incurring financial losses, and the magnitude of fiscal subsidies provided to state-owned firms. Each of these measures provides an indicator based on annual financial data, sometimes called financial flows. These data, since they are readily available, have received the most attention. This study introduces systematic data derived from the balance sheets of state-owned firms, which provide data on the stocks of liabilities and assets. Analysis of these data provides more definitive support for the view that the financial performance of state firms has deteriorated over the course of reform.

Profitability

The profits of state-owned industrial firms fell from almost 7 percent of gross domestic product in 1987 to only 2 percent by 1994.³⁵ In the first quarter of 1996 the state-owned sector as a whole, for the first time ever, was actually in the red; the losses of money losing enterprises exceeded the profits of other firms.³⁶ For all of 1996 the state industrial sector was barely in the black with profits as a percent of gross domestic product of

under 1 percent.³⁷ One might suspect that a major explanation for this dramatic decline in profits as a share of total output is simply that the state-owned sector contributes an ever diminishing share of gross domestic product. The reality is that most of the decline in profits, at least through 1994, was due to a dramatic reduction in the rate of return on investments of state enterprises. In 1987 the return was 15 percent whereas by 1994 it had fallen to about 5 percent.³⁸

Incidence of loss-making

One of the reasons the rate of return on investment by state-owned firms as a group has declined is that the share of these enterprises operating at a loss has risen over time. Table 2.3 summarizes Chinese data on losses for two categories of state-owned industrial firms--those practicing independent financial accounting and those considered to be under the state budget.³⁹ Since enterprises under the budget are a subset of enterprises with independent financial accounting the two data series are generally quite similar.

As shown by the data in Table 2.3, the share of loss-making state-owned industrial firms initially fell in the early years of reform, reaching a low of less than 10 percent in 1985. Subsequently, however, the share of loss-making firms has risen steadily, reaching an all time high by the mid-1990s. By 1996 the absolute level of enterprise losses also reached a record high of more than RMB 70 billion.

Initially it was believed that a large share of enterprise losses could be explained by distortions in the price system that required some enterprises to sell a large share of their output at state-controlled prices that were far below those prevailing on the market. Thus financial losses were not necessarily considered to be an indication of economic inefficiency and were expected to disappear as price controls were eliminated.

This explanation is roughly consistent with the declining share of loss-making enterprises and the decline in the monetary value of losses in the first half of the 1980s when more and more product prices were liberalized. However, it is not consistent with the rising share of loss-making enterprises and the more than twenty-fold increase in the magnitude of these losses between 1985 and 1996, when price liberalization accelerated.

It is important to note that loss-making is not confined to state-owned industrial firms. In 1995 the total losses of all industrial enterprises practicing independent financial accounting were RMB 88.3 billion, implying that non-state firms incurred losses of RMB 34.2 billion.⁴⁰ Between 1985 and 1995 non-state firms have accounted for a rising share of the financial losses of all industrial enterprises. In 1985 their losses, 0.8 billion, accounted for only a fifth of the total. In 1995 their share was almost two-fifths.⁴¹ These data are consistent with the low rates of capacity utilization discussed earlier, several of which are for products in which production is not limited to state-owned firms.

Fiscal subsidies

Table 2.4 shows fiscal subsidies to loss-making enterprises, data which are often cited in the literature on Chinese economic reform. The scope of these data is both broader and narrower than those in Table 2.3. It is broader since it is not restricted to manufacturing firms but includes state-owned commercial firms as well. But it is narrower since not all financial losses are offset by fiscal subsidies. Table 2.4 shows that subsidies flowing through the state budget rose from about RMB 32 billion in 1986 to a peak of RMB 60 billion in 1989 and then declined dramatically to RMB 35 billion in 1996.

The numbers in Tables 2.3 and 2.4 are sometimes used to support the view that China's state-owned industry is not a significant impediment to further reform, and the Chinese strategy of gradualism, sketched out in Chapter One, continues to be sound. State-owned firms may incur rising losses, but even the record level of RMB 72.6 billion in 1996 represented only 1.1 percent of gross domestic product that year. Fiscal subsidies to loss-making enterprises peaked at 3.5 percent of gross domestic product in 1989 but since have fallen to only 0.5 percent. These relatively modest numbers suggest that state-owned firms are not imposing much of a burden on the economy, and that this burden could be maintained almost indefinitely with little real penalty in terms of efficiency and ultimately economic growth.

Moreover, it is sometimes argued that the increasing share of enterprises losing money is misleading since most of the money-losing firms are small.⁴² If money-losing firms on average are small in size, any needed restructuring in industry should be relatively painless. The share of employment and assets of small firms is also small so workers and machinery could be redeployed to more productive uses with modest social costs.

The central theme of this chapter is that both of these are very mistaken views, in large part because the data in Tables 2.3 and 2.4 present only a partial picture of the financial performance of state-owned firms. This is most obvious with respect to the data on fiscal subsidies. The simple fact is that most enterprise losses are no longer covered by grants from the state budget but by loans from state banks. As the government has sought to finance its budget deficit increasingly from the sale of bonds, rather than simply borrowing from the central bank (i.e. printing money), the Ministry of Finance has been under growing pressure to reduce the explicit budget deficit. Since 1994 the entire government deficit has been financed by the sale of bonds. As the option of borrowing from the central bank was reduced and then foreclosed, the Ministry of Finance simply reduced subsidies to loss-making state enterprises, forcing these institutions to borrow from state-owned banks rather than relying on funds channeled through the budget in order to stay in business.

The data on financial losses of state-owned firms in Table 2.3 probably is understated significantly as well. This arises primarily because most state-firms do not pay interest on their outstanding loans but rather roll-over their loans periodically, increasing the principal of each new loan by at least as much as the interest that was due on the maturing loan. The bank

then does not disburse the increase in the value of the loan attributable to the previous year's interest but keeps it and records it as interest income.⁴³ This is particularly prevalent for working capital loans, which account for a very large share of total bank lending. Since enterprises traditionally have relied primarily on cash rather than accrual accounting in compiling their profit and loss statements, many do not include the increase in their debt attributable to the capitalization of their interest payment obligations as an element in their expenses. Obviously these firms have overstated their income relative to their expenditures. Thus, both the share of enterprises losing money and the amount of losses may be far higher than the numbers in Table 2.3 would suggest.

This hypothesis is consistent with Chinese estimates of the financial difficulties enterprises face as a consequence of their heavy indebtedness to banks. According to Zhou Tianyong, as of the end of 1994 state-owned enterprises would have needed to write off RMB 1,215 billion in loans to state banks in order to reduce their indebtedness to a level where it could be serviced at current levels of profitability.⁴⁴ That figure, which is equal to one-quarter of gross domestic product in 1994, is several times the cumulative financial losses through 1994 reflected in Table 2.3.⁴⁵ That disparity suggests the financial losses shown in Table 2.3 represent only the tip of the iceberg.

Moreover, while it is true that most of the state firms that report losing money are small, this does not imply that the challenge of further reforms is modest.⁴⁶ Among state-owned industrial enterprises practicing independent accounting only about one-fifth are classified as medium and large-scale.⁴⁷ Thus it is possible that even though loss-making large and medium-sized firms comprise a small share of the total universe of loss-making state firms, they represent a significant share of the total number of large and medium-sized firms. Indeed, this is precisely what seems to be the case. In 1995, for example, one-third of all medium and large firms were operating at a loss.⁴⁸ The incidence of loss-making was virtually identical in the two size categories. Moreover, medium and large-scale firms have borrowed disproportionately large amounts from the state banks that they are unable to amortize at their current levels of profitability. Thus four-fifths of the borrowing of state-owned enterprises that needs to be written off is the debt of medium and large-scale enterprises.⁴⁹ Thus even if small-size firms could be restructured and returned to profitability, such measures would not address the problem of the massive cumulative borrowing by larger firms which are unable to amortize their debts and, as will be discussed in greater detail in Chapter Three, threaten the financial viability of the entire banking system.

Asset:Liability Ratios

Whatever its cause, the declining profitability of state-owned enterprises has reduced the share of fixed investment of state enterprises financed with after-tax retained profits. By 1994 the share was down to one-fifth.⁵⁰ Thus enterprises have become ever more dependent on banks, rather than their own retained earnings, both as a means to finance fixed investment

and as a source of working capital. The deterioration of the balance sheets of state-owned enterprises is reflected clearly in the changes in the ratio of financial liabilities to assets. In addition, in the reform era state-owned enterprises have accumulated substantial financial liabilities that are not included in their balance sheets and thus not reflected in the official data on liability:asset ratios. Of these, unfunded pension liabilities are far and away the most significant and will be discussed further below.

As shown in Table 2.5, at the outset of reform financial liabilities of state-owned industrial firms were only 11 percent of the value of their assets. This figure, which is far below the average for industrial firms in market economies, is not surprising. It simply reflects the fact that during the planning era state-owned firms remitted most of their profits to the state treasury and, in return, received state budgetary grants to finance most of their fixed investment and to meet a significant portion of their working capital needs. These budgetary grants did not have to be repaid. Since enterprises had little need to borrow from banks, financial liabilities were quite modest.

After reforms began, these arrangements of the planned era were scrapped. Starting in 1983 budget financing of working capital for state-owned firms was drastically curtailed and in late 1984 the authorities announced that the budget also would no longer provide financing for fixed asset investment.⁵¹ Thus state-owned enterprises began to borrow more heavily from banks. By 1988 their liabilities, mostly bank loans, reached a value equal to almost half their assets.⁵² This level is roughly comparable to that typically found in market economies.

Rather than stabilizing, however, the ratio of liabilities to assets continued to rise after 1988. Data for state-owned industrial firms for the years from 1989 through 1992 are not available but, as shown in Table 2.5, liabilities relative to assets for all state-owned firms rose continuously throughout those years. By 1993 the liabilities of state-owned industrial firms were the equivalent of two-thirds of the value of their assets and in 1994 the ratio reached four-fifths. By the end of 1995 the ratio for all state-owned firms reached an all time high of 85 percent.⁵³

The ratio of working capital that is comprised of borrowed funds is even higher--97 percent in 1995.⁵⁴ In short state-owned firms are so poorly capitalized that they have virtually no working capital other than funds they have borrowed from banks.

These national figures obscure important regional variation. Perhaps the most extremely indebted state-owned enterprises are located in China's industrial heartland--the northeast. In Liaoning, historically China's most industrialized province, at the end of 1992 the average liability:asset ratio for the province's 392 medium and large industrial enterprises was 190 percent, about three times the national average.⁵⁵ Because the average ratio was so far above the 100 percent critical level differentiating solvent from insolvent firms, it seems likely that virtually all of the medium and large state-owned firms in the province were technically bankrupt. The situation in Heilongjiang Province was also unfavorable. In one of the province's 14

districts the liability:asset ratio in 1994 was 86.1 percent, more than 11 percentage points greater than the national average. And, as will be discussed further in Chapter Three, non-performing loans as a share of outstanding loans in the region at the end of October 1995 exceeded 55 percent, two and one-half times the national average.⁵⁶

There are two implications of an average liability:asset ratio of 85 percent. First, a significant portion of Chinese state-owned firms are technically insolvent, i.e. the value of their liabilities exceeds the value of their assets. Even in 1994, when the liability:asset ratio for state-owned industrial enterprises was 10 percentage points below the level of 1995, liabilities exceeded assets for more than one-fourth of the enterprises and liabilities were equal to assets in an additional one-fifth of all enterprises.⁵⁷ In short, not even taking into account net debts to non-state firms or unfunded pension liabilities, half of all state-owned enterprises were at or beyond the brink of insolvency. They remained in operation only because of generous access to additional bank loans.

Second, the continuous rise in the ratio of liabilities to assets suggests that many firms have negative value added; their output is worth less than the cost of all of the labor and other inputs required to manufacture it. Their borrowing rises relative to their assets because the funds are not used to finance fixed investment but also to pay wages and taxes.⁵⁸ This problem, which McKinnon identifies as value subtracting firms, was important throughout Eastern Europe and the Soviet Union in the pre-reform era.⁵⁹

Unfunded Pension Liabilities

In addition to the rapid expansion of liabilities to banks, state-owned enterprises also have accumulated large unfunded pension liabilities during the reform period. The World Bank estimates that implicit pension debt in the mid-1990s was equal to about 50 percent of China's gross domestic product.⁶⁰ Implicit pension debt is measured by the present value of benefits that state enterprises will have to pay to current pensioners and to current workers on the assumption that the pension system was terminated when the estimate was made.⁶¹ It makes no allowance for the higher levels of pension benefits that current workers in state-owned firms will be eligible for by virtue of the additional years they will work, on average, before they retire. Thus the estimate of implicit pension debt understates the magnitude of unfunded pension liabilities.⁶²

The World Bank characterizes China's situation as a "crisis of pensions in the SOE (state-owned enterprise) sector." But this is not a hypothetical future problem like that of the U.S. Social Security System, where revenue currently exceeds outlays by \$65 billion per annum. That annual surplus will more than double over the next decade. Estimated annual pension expenditures will not exceed revenues until 2018. Because of the build up of the surplus in the intervening years, however, the system will not be insolvent until

2030.⁶³ In contrast with an insolvency that is three decades away, the World Bank describes China as facing an "urgent and immediate problem."⁶⁴

China's high level of implicit pension debt results from a combination of several factors. First, China's pension system is financed strictly on a pay-as-you-go basis, meaning that payments to current retirees are financed almost entirely from the current pension contributions made both by enterprises and workers. Moreover, the World Bank estimates that the reserves of the pension system in the mid-1990s were only RMB 30 billion. That was only 0.6 percent of GDP and less than a third of the pension payments made to retirees in 1994.⁶⁵ As a result China's system compares unfavorably with the United States Social Security System, which also operates on a pay-as-you-go basis, but which had accumulated reserves of US\$ 496 billion or 6.8 percent of U.S. gross domestic product in 1995.⁶⁶

Second, the number of retirees relative to active workers covered by China's pension system has soared since reform began. Only three million retirees were collecting pensions in 1978. By 1995 that number exceeded 30 million, 10 times as many. At the outset of reform there were 30 workers contributing to the pension system for each retiree but by 1995 there were fewer than 5.⁶⁷

Third, by international standards, China's pension system replaces a high percent of pre-retirement income. Cash pensions and in-kind payments replace the equivalent of 80 to 90 percent of total pre-retirement compensation, substantially more than the 40 to 60 percent replacement rates that prevail in most countries.⁶⁸

Fourth, China's retirement age is relatively young, age 60 for men and age 55 for women. These ages were set in 1951 when the system was established and the average life expectancy was 50 years. They have not been adjusted upward, despite the fact that life expectancy is now 71 years. The average worker retiring today will live an additional 17 years, far longer than a worker retiring in the 1950s.⁶⁹

Finally, although there are regional variations, pensions generally are indexed to wages rather than prices, meaning that pensioners share the increasing prosperity of current workers at the cost of a more rapidly rising pension burden on enterprises and current workers. In normal times, when wages rise more rapidly than prices, this approach means that pensioners are more than protected from rising prices. By contrast Social Security payments in the United States are indexed, perhaps imperfectly, to prices. In some countries, such as Switzerland, pension indexation is based on the average of price and wage inflation.⁷⁰ Given China's rapid growth of real wages in recent years indexing pensions to wages has dramatically increased the pension burden.

China's current pension system appears to be unsustainable. Because of the rapid aging of the population, the number of workers per retiree will continue to fall. As a result the contribution rate has risen and, unless the system is modified, will continue to rise. When the system was established in 1951, there were over 400 workers per retiree and enterprise contributions to

pensions equal to 3 percent of the wage bill were more than sufficient to fund the very generous pension system established at that time.⁷¹ By 1994 the average pension contribution rate was 23.5 percent of the wages or 8 times the ratio prevailing in the 1950s. Enterprises paid 20.7 percent and workers paid in an additional 2.7 percent of their wages. The combined rate was twice the rate of payroll taxes prevailing in developing countries, close to twice the 12.4 percent rate prevailing in the United States, and substantially higher than the 16.5 percent rate in Japan, and 18.6 percent in Germany.⁷² Among transition economies Hungary has a pension contribution rate exceeding China's, 30.5 percent. It too faces a pension crisis.⁷³

Without changes to the system a Chinese research group estimated that the contribution rate necessary to sustain the present pension system will rise to 39.27 percent in 2033. More elaborate models underlying World Bank estimates show the contribution rate must rise as high as 46 percent. Although this estimate, one of nine alternative scenarios, assumes the greatest degree of continuity with the current system, it incorporates two critical assumptions that hold down the required increase in the contribution rate. First, it assumes that pension indexation in the future is tied to an average of price and wage increases, rather than to wages alone, as in the current system. Second, it assumes that the rate of growth of the economy and thus the rate of growth of real wages will decline dramatically over time from 6.4 percent in 1990-94 to 5 percent in the years 2000-2010, 4 percent for 2011-2030, and 3 percent thereafter.⁷⁴

The World Bank concludes that drastic changes are called for. They recommend reducing pension costs through a combination of an increase in the age of retirement, a reduction in the rate of wage replacement, and less generous indexing of pensions. Thus the pay-as-you-go part of the pension system would provide a replacement rate of only about one-fourth of pre-retirement compensation, substantially less than the 80 to 90 percent at present, and would be indexed to prices rather than wages. In addition to the pay-as-you-go system, there would be a two tier system of fully-funded individual pension accounts. The first tier of this new system would be funded by mandatory contributions of workers and enterprises. Under certain assumptions concerning the rate of return on investments, income generated by the individual pension accounts would replace about 35 percent of wages. Thus the combined pension from the modified traditional system and the mandatory fully-funded individual accounts would replace 60 percent of pre-retirement wages. Finally, the Bank recommends a second tier of fully-funded individual accounts financed entirely by voluntary contributions by workers alone. The fully-funded individual accounts borrow features from retirement systems in Chile and Singapore.

Under the recommended plan the old pay-as-you-go system would be terminated at the outset, necessitating separate financing of the pensions of current retirees and the accrued pension rights of current workers who have been contributing under the present system, i.e. the implicit pension debt outstanding at the time of termination.⁷⁵ This is what happened in Chile in 1981 when the pay-as-you-go public pension fund was terminated and replaced with mandatory defined contribution pension funds, similar to 401K plans in the United States. The Bank recommends that the pensions of current workers

and the accrued pension rights of current workers be financed by pledging the housing and land use rights of state-owned enterprises, which they calculate to be sufficient to finance the implicit pension debt.⁷⁶

The urgency of the pension situation is evident in the fact that many state-owned enterprises, particularly those that are running at a loss or have stopped production, have negotiated to delay making pension contributions or have simply stopped making such contributions. A limited amount of pension pooling at the municipal and provincial level may provide for pension payments for retirees from those enterprises that are no longer contributing, but anecdotal evidence suggests that these payments are partial or in some cases have been suspended entirely. In some cases enterprises are financing pension payments by borrowing from state banks.

Explanations

Why have financial indicators of enterprise performance, particularly asset:liability ratios, deteriorated so badly when factor productivity studies are less conclusive, with a few suggesting improvement in the efficiency of resource use? Are there explanations for declining financial performance that are consistent with stagnating or even rising total factor productivity?

Erosion of Abnormal Profits

Barry Naughton has argued that the declining profitability of state-owned firms is the natural result of the rapid expansion of non-state firms which erode the monopoly power of state firms.⁷⁷ At the outset of reform profitability was high, at 25 percent. It varied widely by sector, however, with higher rates in light industries which relied primarily on agricultural inputs and much below-average rates in sectors producing heavy industrial goods. Liberalization naturally attracted new firms, mostly non-state, in high profit sectors. On Naughton's calculation by the end of the 1980s average profitability fell to 17 percent, largely because the entry of new firms reduced profits in light manufacturing. Thus there was a convergence in profitability rates across sectors. In short, the reduction in profits was due to increasing competition, not declining efficiency.

But increased competition appears to be only a partial explanation of the convergence in profitability across sectors and the decline in the average profit rate. First, it is difficult to separate out the effects of price reform from those of increased competition. High profits in light manufacturing, which were dependent on agricultural raw materials, reflected the state's long-time policy of taxing the agricultural sector indirectly through unfavorable terms of trade.⁷⁸ When the state raised farm-gate prices in the early stages of reform and increasingly allowed prices to be set in the market, it was inevitable that profit rates in the food processing and textile

and garment industries would fall. Furthermore, profitability declined dramatically even in some industrial sectors where there was only limited entry by non-state firms. For example, profitability declined by a third in electric power and by more than nine-tenths in petroleum and natural gas extraction. These are sectors where there has been virtually no entry by non-state firms. That suggests that price reform is a key contributor to convergence in profit rates across sectors.

Second, the average rate of profitability of state-owned industrial firms has continued to plummet since 1989, the end year in Naughton's calculations. By 1995 the average profit rate reached 8.0 percent, half the level of 1989.⁷⁹ Expressed as a return on all the assets reflected on the balance sheet of state enterprises, profitability in 1995 was only 2.7 percent, which is very low by international standards.⁸⁰

Accounting Reforms

A second possible explanation of the increase in reported losses since 1993, shown in Table 2.3, is the introduction of more modern accounting rules, which began to take effect in July 1993.⁸¹ In particular, the adoption of accrual accounting may have led to a more accurate accounting of interest expenditures which, as discussed in Chapter Three, would not be recorded by firms using cash-based accounting. If this is a significant factor it would mean that profits in earlier years were overstated and that the currently low level of return on assets of state-owned industrial assets is a longer term problem than the analysis above of data on financial losses suggests.

Excessive Wage Payments

Another possible explanation of declining profitability and rising liability:asset ratios is too rapid growth of real wages. When wages grow more rapidly than labor productivity, profitability is likely to decline. Although official data show wage growth in the state sector lagging behind the growth of labor productivity between 1978 and 1990, these data appear to understate the growth of total compensation, i.e. wages plus various subsidies and in-kind benefits. The growth of total compensation has outstripped the growth of labor productivity, contributing to a decline in profitability.⁸²

One reason for excessive wage payments may be insider control. With insider control managers may ignore the interests of the owners of the firm and pay workers too much, especially bonuses. The state attempted to alleviate this problem by imposing sharply progressive taxes on bonus payments exceeding specified limits. In 1984, for example, the state fixed the tax rate at a peak of 300 percent on bonuses exceeding six months standard wages.⁸³ This system was not very successful and later was replaced by a scheme tying the total wage bill of each enterprise to pre-tax profits or other indicators of enterprise productivity.

The continued existence of regulations specifying various constraints on the wage bill of an enterprise suggests that excessive wage payments remains a problem. In a market economy the combination of competitive labor markets and managers acting on behalf of the owners of firms would make such regulations superfluous.

Excess Employees

In addition to providing a broad range of specific social services, state-owned firms have long been required to employ redundant workers as part of the government's ill-founded strategy to maintain full employment in urban areas. Although the 1988 law on state-owned enterprises gave managers the right to hire and fire workers, many firms still have excess employees.⁸⁴ A World Bank survey of 142 enterprises in 1994, for example, found 60 percent of the firms had redundant workers exceeding 10 percent of their labor force. One-third of the firms reported labor redundancy exceeding 20 percent.⁸⁵ Chinese estimates of redundant labor cover a broad range but the consensus seems to be about one-third. As already noted above, if enterprise managers are prevented from pursuing profit maximization, higher productivity may be accompanied by lower profits.

Excessive Social Expenditures

Growing social expenditures, which in most economies would be financed through the state budget, may also have contributed to the declining financial performance of state-owned firms. While a comprehensive study of this topic lies well beyond the scope of this study, some important indicators of this burden should be noted. Annual construction of residential housing owned by state-owned units rose by half, from 116 million square meters in 1985 to 177 million square meters in 1995. Their share of newly constructed urban housing over the same period declined only moderately, from 62 percent in 1985 to 47 percent in 1995.⁸⁶ In short, state-owned units continue to have the responsibility for building almost half of all new housing provided for urban residents. In some cities progress has been reported in selling enterprise housing to workers. But even when this has been done, all too frequently the prices have been set at artificially low levels. When housing is sold below cost, enterprises are still burdened by having to pay interest on the loans taken out to finance the initial construction. More commonly workers pay rent that does not even cover the cost of maintenance of the buildings.

In addition to being burdened by the need to provide subsidized housing for most of their workers, state-owned enterprises shoulder substantial costs for education and health. In the mid-1990s they operated more than 18,000 schools with an enrollment of 6.1 million students. Enterprises employed a total of 600,000 teachers and other staff to teach in and manage these institutions. Hospitals built and run by state firms accounted for one-third of all hospital beds in China!⁸⁷ A World Bank survey in 1994 showed that enterprise social burdens absorbed 7.6 percent of the sales revenue of the 76

profitable firms in the sample.⁸⁸ This growing burden of social expenditures could have pushed some enterprises into the red even if they had successfully adopted technical improvements that increased factor productivity.

Asset Stripping

Another final possible explanation of deteriorating financial performance of state-owned firms is asset stripping, the illegal transformation of state assets to non-state ownership. Given the uncertainty of property rights, managers of some state-owned firms have moved assets of state-owned firms into new non-state enterprises, leaving the original state-owned firm only as the holder of liabilities. Subsequently the original firm may declare bankruptcy and default on its outstanding financial obligations, notably loans from banks. These cases are referred to as "false bankruptcies." Alternatively the managers of state-owned enterprises lease or contract out the use of the assets to workers. But the lease payments or profits transferred back to the state firm may be so small that the latter can not amortize the loans that it took out to finance the original purchase of the equipment.

State-owned enterprises also engage in practices that at least temporarily may raise their liability:asset ratios even if they do not necessarily involve permanent asset stripping. State-owned firms frequently use their preferential access to loans from state banks to acquire funds that are then on-lent to non-state enterprises at substantially higher interest rates.⁸⁹ These borrowed funds are likely to be recorded as a liability on the balance sheet of the enterprise. Since the on-lending to non-state enterprises is illegal, it probably is not recorded on the asset side of the balance sheet, thereby leading to an overstatement of liabilities relative to assets. Similarly some firms transfer funds to their workers who then deposit them in personal savings accounts.⁹⁰ This apparently is a not uncommon scheme enterprises use to conceal income and avoid taxes.⁹¹ Even if the funds are eventually returned to the firm, in the short run the practice may result in an understatement of the firm's assets.

Chinese estimates suggest that this drain of state assets through these mechanisms, as well as blatant theft, has been growing. For the years 1987 through 1992 the State Economic and Trade Commission of the State Council estimated the state lost RMB 230 billion in assets drained away from state-owned enterprises, a loss of about RMB 33 billion annually.⁹² A more recent estimate by a researcher in the Policy Research Office of the State Council placed cumulative losses between 1990 and 1995 at over RMB 300 billion or more than RMB 50 billion annually.⁹³ Concern over the problem has become so severe that in early 1997 the State Council established a leading group led by Vice-Premier Zhu Rongji to investigate the extent of asset stripping and make recommendations to end this problem.⁹⁴

The evidence on whether total factor productivity of state-owned firms is rising is inconclusive. Different researchers report diametrically opposed results. Even those who believe total factor productivity growth has accelerated in the reform era report widely varying empirical results as their methodologies are refined.

On the other hand, the financial performance of enterprises appears to have deteriorated dramatically over the past 20 years. The rise in liabilities relative to assets of state-owned firms, reaching an average of 85 percent in 1995, is perhaps the most conclusive evidence.

The alternative explanations of declining financial performance, outlined above, point to a common underlying cause--the lack of a fundamental change in ownership and in corporate governance. The lesson from other transition economies is that without formal programs of privatization that vest secure ownership rights in the hands of new private owners, "assets and earnings in the state-sector tend to be increasingly diverted into private hands after the private economy becomes legitimate."⁹⁵ In China enterprise managers too often are able to ignore the interests of the state in favor of the interests of managers and workers. In particular, they are likely to maximize retained funds, including depreciation funds, wages, and welfare-related capital investments. Enterprises act to maximize community welfare rather than profits.⁹⁶ Since the wage is not determined by a competitive labor market but set by the firm, managers overpay workers. Similarly firms have every incentive to over invest. Because the firm can avoid paying interest or repaying the principle or because the nominal interest rate is less than the rate of inflation, the real cost of capital to state firms is very low or even negative. But depreciation of machinery and equipment is treated as a deduction from pre-tax profits. The state has sought, without much success, to limit over investment and payment of excess wages by intervening to limit capital spending and by taxing excess wage payments.

Given the environment in which they operate, especially the availability of explicit and implicit subsidies to cover losses, it is perhaps not surprising that so many firms report negative profits. But some of these firms may be operating efficiently and making economic profits.⁹⁷

The solution is obviously to impose hard budget constraints on firms, introduce measures that enhance the role of the market in wage determination, promote labor mobility by separating employment from the provision of subsidized housing and a broad range of social services, and to insure that managers act on behalf of the owners of the firm. Given the evidence from the first two decades of reform, ~~the latter almost certainly will have to include~~ widespread privatization of state-owned firms.

Is the enterprise reform program endorsed by both the Third Plenum of the 14th Party Congress in the fall of 1993 and by the full 15th Congress in the fall of 1997 adequate to deal with the substantial challenge that enterprise reform presents? The answer will be known only over time, but several shortcomings are already obvious.

First, the conversion of state-owned enterprises to limited liability shareholding companies has been slow. By year-end 1996 9,200 state-owned firms, only 3 percent of the total, had adopted the shareholding or corporate form of ownership laid out in the 1993 Company Law.⁹⁸ One obstacle to faster progress in corporatization is that the Company Law specifies that the articles of association required to establish a firm under the corporate form of ownership identify the investor or investors in the company as well as the magnitude and form of their investment. Competing claimants, including government bureaus and ministries, frequently can not reach a consensus as to who is the investor in the firm. This is a particularly difficult problem for firms with relatively large liabilities. "Everybody wants the valuable assets, but nobody wants the liabilities."⁹⁹

Second, there is little evidence of significant changes in the governance of the relatively few firm which have converted to limited liability shareholding ownership. There appear to be several reasons for this. First, many of the state-owned enterprises that are being "corporatized" have chosen to become wholly state-owned companies. For example, 80 percent of the 100 firms participating in the corporatization experiment initiated in early 1994 opted to convert to wholly state-owned companies.¹⁰⁰ This legal organizational form, which is provided for in the Company Law, embodies the fewest changes from the rules governing state-owned enterprises.¹⁰¹ For example, since there is only a single owner there is no provision for shareholder meetings. Thus the members of the board of directors of wholly state-owned limited liability companies are not elected but are appointed. The powers of these boards are severely truncated, compared to the boards of limited liability shareholding companies that are not wholly state-owned. For example, they have no power to make or approve mergers, break-ups, dissolutions, increases or decreases in a firm's capital, or the issuance of bonds. The authority to make these decisions is all reserved for "an organization authorized by the state."¹⁰²

Another reason that there appears to be little change in the governance of corporatized firms is that their Boards of Directors are dominated by insiders, i.e. the senior managers of the firm. A recent World Bank study of enterprise reform reported "In every case examined for this study, the majority of members of the boards of directors and the senior executives are one and the same. There is no real distinction."¹⁰³ The result is insider dominated firms, a form of governance that has weaknesses that are readily apparent in Russia and some other transition economies. Among these weaknesses are "asset stripping, poor investment decisions, decapitalization through excessive wage increases, and increases in other private benefits."¹⁰⁴

One reason for insider domination is that through the end of 1996 less than 6 percent of those companies that had reorganized into shareholding companies were listed on the stock exchange.¹⁰⁵ In market economies poor firm management and financial performance is typically reflected in a declining share price. That market signal frequently leads to a take-over by stronger, more efficient firms. But when shareholding firms are not listed capital markets are unable to provide this monitoring function and poor managers and insider dominated boards are less likely to be replaced.

Finally, even when corporatized enterprises are publicly listed individual shareholders "seem to have little, if any, influence on management."¹⁰⁶ In part this is because only a small portion of the shares of listed companies are available to the public.¹⁰⁷ The majority shareholders almost always are traditional line ministries at the national level and industrial bureaus at the provincial and municipal level.¹⁰⁸ In a few cases they are newly established state asset management institutions. These institutional shareholders "are generally not organized in such a way to marshal sufficient information, experience and skill to assess effectively an enterprise's performance."¹⁰⁹ There are no institutional investors, such as pension funds or mutual funds that might exercise influence on corporate governance on behalf of individual shareholders.

Beyond the failure of this reform to lead to significant changes in corporate governance, the third main shortcoming of the enterprise reform program introduced since 1993 is that government and business functions have not been separated when firms become limited liability shareholding companies. Transformed firms continue to bear the responsibility for providing a broad range of social services that should be financed from the government budget or paid for directly by workers.

The fourth shortcoming of the enterprise reform program initiated in 1993 is that labor mobility and the role of the market in determining wages in the state-owned sector remain limited. This, in turn, reflects generally slow progress in divesting individual enterprises of the responsibility for providing unemployment insurance, old-age pensions, and health care to their workers.

Fourth, institutional constraints have limited the ability of corporatized firms to develop a more balanced capital structure that depends less on debt and more on permanent equity financing. In part that is because so few companies have been allowed to raise funds through public listing of shares. If more companies had been allowed to list they would have been able to reduce their bank debt and thus reduce their operating costs. In addition, the resources that the government has allocated to finance the write-offs of bad debt to facilitate mergers and takeovers of unprofitable firms and thus improve the capital structure of the 1,000 large state-owned enterprises that are to form the core of the new modern enterprise system are too small. The state has allocated a total of RMB 500 billion for the enterprise reform program during the ninth five-year plan (1996-2000). But the majority of these funds, RMB 280 billion, are to finance technical renovations of these firms and another RMB 160 billion to cover worker redundancy payments. The amounts allocated to write off debts, RMB 20 billion in 1996 and an additional 10 billion in 1997, are grossly inadequate.¹¹⁰ Thus direct debt reduction will be modest.

Moreover, even these resources are being provided in a way that undermines incentives for improved enterprise performance. Firms in the program benefit from a reduction in their income tax rate from 33 to 15 percent; a dispensation to pay only 40 to 60 percent of this reduced tax obligation from their own funds, while borrowing the rest from banks at a special subsidized interest rate; and an increase in their allowable annual

depreciation rate from 3 to 5 percent.¹¹¹ In addition, firms that agree to merge with another firm are not required to pay interest on that firms liabilities to banks for a period of from two to three years.¹¹²

Since there is no specified time frame for phasing out most of these new subsidies, the reforms represent a softening rather than a firming up of the budget constraint under which state-owned firms operate. A much larger initial write-off of accumulated non-performing loans, combined with a hard budget constraint going forward, is more likely to lead to improved enterprise performance. This proposal is discussed in detail in Chapter Four.

What have been the consequences of an ever-growing but financially deteriorating state-owned sector for the banking system? This topic is discussed in Chapter Three.

Chapter 2 Endnotes

1. Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform 1978-1993* (Cambridge: Cambridge University Press, 1995), p. 97.
2. Barry Naughton, *Growing Out of the Plan*, pp. 27-30, 177.
3. Barry Naughton, *Growing Out of the Plan*, pp. 262-263.
4. Barry Naughton, *Growing Out of the Plan*, pp. 228-233.
5. "Decision of the CPC Central Committee on Some Issues Concerning the Establishment of a Socialist Market Economic Structure," *Renmin ribao* (People's Daily), November 17, 1993, pp. 1-2, translated in FBIS-CHI-93-220.
6. Harry Broadman, *Meeting the Challenge of Enterprise Reform*, pp. xiv, 25.
7. "The Company Law of the People's Republic of China," in FBIS-CHI-94-017, pp. 26-48. The law provides for two basic types of shareholding companies: limited liability companies and limited liability stock companies. The former can be established when there are from 2 to 50 shareholders, except that an authorized government department may be the sole investor, in which case the entity is a wholly state-owned limited liability company. Limited liability stock companies may, but are not required to, sell shares to the public. These shares may or may not be listed, i.e. traded on the Shanghai or Shenzhen stock markets.
8. *China's Management of Enterprise Assets: The State as Shareholder*, (Washington: D.C.: The World Bank, 1997), p. 11.
9. *China's Management of Enterprise Assets: The State as Shareholder*, p. 4.
10. State Statistical Bureau, *Statistical Yearbook of China 1986* (Hong Kong: Economic Information and Agency, 1986), pp. 95, 97, 189, and 224.
11. Reliable data on the share of assets in industry in state-owned enterprises prior to 1985 are not readily available. However, in 1985, when state-owned industrial enterprises accounted for only 20 percent of all industrial enterprises they owned 74.6 percent of total industrial assets. State Statistical Bureau, *Communique of the State Statistical Bureau of the People's Republic of China and the Third National Industrial Census Office on the Third National Industrial Census* (Beijing: China Statistical Publishing House, February 1997), p. 15.
12. State Statistical Bureau, *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), p. 457. Data on these variables for 1978, the formal beginning of the economic reform program, do not appear to be available.
13. State Statistical Bureau, *Statistical Yearbook of China 1981* (Hong Kong: Economic Information and Agency, 1982), pp. 290-291.

14. Statistical Yearbook of China 1986, pp. 414 and 445-446.
15. Budgetary expenditures in 1978 were RMB 112 billion, gross domestic product was RMB 362 billion. State Statistical Bureau, Statistical Yearbook of China 1986, (Hong Kong: Economic Information and Agency, 1986), p. 509; China Statistical Yearbook 1996, p. 42.
16. State Statistical Bureau, Chinese Statistical Yearbook 1983 (Beijing: Chinese Statistical Publishing House, 1983), p. 215; Chinese Statistical Yearbook 1996, p. 401. The figure for 1995 excludes output valued at RMB 460 billion produced by former state-owned firms that have been corporatized and are now classified as shareholding firms. This is equal to 5.0 percent of industrial output. See further discussion at notes 20 and 25.
17. Barry Naughton, Growing Out of the Plan: Chinese Economic Reform 1978-1993.
18. China Statistical Yearbook 1996, p. 457.
19. State Statistical Bureau, Statistical Yearbook of China 1993 (Beijing: China Statistical Publishing House, 1993), p. 98. China Statistical Yearbook 1996, p. 543.
20. Corporatization involves a change to a shareholding form of ownership. But the shares usually are not listed on the Shanghai or Shenzhen stock markets and in almost all cases the state retains more than half of the shares in the "new" corporatized firm. This dominant ownership position means that there is little change in corporate governance in the firms that have been corporatized. Nonetheless, once this change takes place the firms are no longer classified in China's statistical system as state-owned but rather as shareholding units. Employment in shareholding firms was first reported in 1993 at 1.6 million employees. By 1996 the number had risen to 3.63 million. This new form of ownership accounts for most of the decline in the share of employment in state-owned firms since 1992.
21. China Statistical Yearbook 1997, p. 93.
22. State Statistical Bureau, China Statistical Yearbook 1996 (Beijing: China Statistical Publishing House, 1996), p. 91.
23. The balance of new jobs was created in the intermediate collective sector and in joint venture firms. China Statistical Yearbook 1996, p. 90.
24. The new classification system was first used in the China Statistical Yearbook 1995, which presents data for both 1993 and 1994.
25. The category foreign-funded firms includes both joint ventures and wholly foreign-owned firms. The Chinese government does retain a majority ownership in some joint ventures, which might be a reason to continue to regard them as state-owned. However, even when the state retains a majority ownership, it appears that the governance of the firms changes sufficiently that they should no longer be regarded as state-owned firms of the traditional type. But, the

shareholding firms are a different matter. For reasons explained in notes 20 and 27, in believe they should continue to be regarded as state-owned.

26. Two sources report that the share of assets in the state sector in 1995 exceeded 65 percent. Xinhua, May 8, 1996 in FBIS May 9, 1996, p. 23. Liu Yuping, "The State-Owned Economy Occupies the Leading Position of the National Economy," Jinrong shibao (Financial News), May 10, 1996, p. 8. Another author, presumably rounding up the true figure, reported a share of 70 percent. Wang Yantian, "How Much Do You Know About 'Resources' of the State?" Renmin ribao (People's Daily) July 14, 1997, pp. 1,4 translated in FBIS-CHI-97-203.

27. The state share of industrial output fell from 61.9 percent in 1985 to 29.0 percent in 1995, a decline of more than half. The share of industrial assets owned by state firms declined by less than three-fifths. Interestingly, in Table 12-1 of the China Statistical Yearbook 1996 the footnote that gives the value of output of shareholding companies describes these companies as "state-owned holding companies," supporting the view that for all practical purposes limited liability and limited liability stock companies—remain state-owned companies. See previous discussion in note 16.

28. Xinhua, May 8, 1996 in FBIS May 9, 1996, p. 23.

29. At the end of 1995 private firms owned less than a fifth and less than a tenth of the haulage capacity of motorized vessels and barges, respectively. China Statistical Yearbook 1996, pp. 515 and 518.

30. State Statistical Bureau, Communique of the State Statistical Bureau of People's Republic of China and the Third National Industrial Census Office on the Third National Industrial Census (Beijing: China Statistical Publishing House, February 1997), p. 21. "State Statistical Bureau Director Liu Hong Expresses View on China's Economic Situation," Jingji ribao (Economic Daily), September 15, 1997, p. 5 translated in FBIS-CHI-97-281.

31. For a useful survey of more than a dozen such studies see Peter Harrold, "China: Enterprise Reform Strategy," Annex 1, unpublished manuscript, August 1993.

32. Chen Kuan, Gary Jefferson, Thomas G. Rawski, Wang Hongchang, and Zheng Yuxin, "Productivity Change in Chinese Industry: 1953-1985," Journal of Comparative Economics, Vol. 12, No. 4 (December 1988), p. 585. Gary Jefferson, Thomas G. Rawski, and Yuxin Zheng, "Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments," Journal of Comparative Economics, Vol. 23, No. 2 (October 1996), p. 155.

33. Gary Jefferson, Thomas G. Rawski, and Yuxin Zheng, "Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments," p. 170.

34. Cheng-en Bai, David D. Li, Yijiang Wang, "Enterprise Productivity and Efficiency: When is Up Really Down?" Journal of Comparative Economics, Vol. 24, No. 3 (June 1997), pp. 269-271.

35. World Bank, China: Reform of State-Owned Enterprises (Washington, D.C.: The World Bank, 1996), p. 3.
36. New China News Agency, "State Planning Commission on State Enterprise Losses," July 2, 1996 in FBIS-CHI-96-132, p. 26.
37. China's Management of Enterprise Assets: The State as Shareholder, p. vii.
38. China: Reform of State-Owned Enterprises, p. 3. Though not stated, these numbers are calculated by dividing post-tax profits by the net value of fixed assets. An alternative measure of financial performance, pre-tax profits as a percent of total assets, or the rate of return on assets, is presented below in this chapter.
39. At the end of 1995 there were 118,000 state-owned industrial enterprises. Of these, 87,905 practiced independent financial accounting. These firms accounted for just over four-fifths of the output of state-owned industrial firms. State Statistical Bureau, Chinese Statistical Yearbook 1996, (Beijing: China Statistical Publishing House, 1996), p. 401. In the same year there were 38,200 state-owned industrial enterprises under the budget. They all practice independent financial accounting and have received capital or financial subsidies from the central government. Harry Broadman, Meeting the Challenge of Chinese Enterprise Reform, World Bank Discussion Paper No. 283 (Washington, D.C.: International Bank for Reconstruction and Development, April 1995), p. 12.
40. Xi Shi, "The 1996 State Enterprise Reform Assault," Jinrong shibao (Financial News), April 20, 1996, p. 1.
41. Calculated from the data on losses of state-owned firms with independent financial accounting in Table 2:3 and a reported RMB 64.8 billion in combined losses of state and non-state owned firms. Wu Yunhe, "Reform targets State-owned industrial firms," China Daily Business Weekly, August 26, 1996, p. 1.
42. This has been a continual theme of World Bank reports. See, for example, The Chinese Economy: Fighting Inflation, Deepening Reform (Washington, D.C.: The World Bank, 1996), p. 15.
43. The prevalence of this practice is discussed in greater detail in Chapter Three.
44. Zhou Tianyong, "The Feasibility of Debt Restructuring during the Ninth Five-Year Plan," Gaige (Reform), No. 5 (September), 1995 in FBIS-CHI-95-236, p. 58.
45. RMB 1,215 is 5.9 times and 4.5 times the cumulative financial losses through 1994 of state-owned industrial enterprises under the budget and state-owned industrial enterprises practicing independent financial accounting, respectively. Part of the discrepancy is that Zhou's estimate of needed write-offs of state-owned enterprise debt to banks includes commercial as well as the industrial state-owned firms.

46. For example, of 24,000 state enterprises running at a loss, 19,700 or 82.1 percent of the total, were classified as small. The source does not specify the year for this observation but presumably it is for 1994. Commentator, "Small State Enterprises Are Not a Trivial Matter," *Jingji ribao* (Economic Daily), November 7, 1995 in FBIS-CHI-95-227, November 27, 1995, p. 34.
47. That was the share in 1992. *Statistical Yearbook of China 1993*, p. 417.
48. Wang Lihong, "Trial project targets debt," *China Daily Business Weekly*, October 7, 1996, p. 1.
49. Zhou Tianyong, "The Feasibility of Debt Restructuring during the Ninth Five-Year Plan."
50. *China: Reform of State-Owned Enterprises*, p. 3.
51. State Council, "Notice Approving and Promulgating the Report of the People's Bank Concerning Changing the Provision of Working Capital to State-Managed Enterprises to be Under the Unified Management of the People's Bank," *Zhonghua renmin gongheguo falu fenlei zonglan*, pp. 68-72. State Planning Commission, Ministry of Finance, and People's Construction Bank of China, "Interim Regulations Converting All State Budgetary Capital Construction Investment from Appropriations to Loans," *Almanac of China's Banking and Finance 1986*, pp. VI-79--VI-82.
52. In 1994 85 percent of the liabilities of state-owned enterprise were loans from banks. Yu Jian, "The Predicament and the Solution for State-Owned Enterprises," *Jinrong shibao* (Financial News), January 29, 1996, p. 3. Presumably the balance of the liabilities consisted of bonds that some enterprises have sold to the public, unpaid taxes, and unpaid levies to social insurance and unemployment funds. Note that state-owned firms do not include either the value of unfunded pension liabilities or their net debt to the non-state sector when calculating their financial liabilities. See following note. The rise in the liability ratio occurred despite the fact that between 1984 and 1988 loans to enterprises valued at RMB 66 billion were converted into state investment in enterprises. These transactions apparently were not debt-equity swaps since there is no indication that banks obtained a share in the ownership of the firms in exchange for writing off their loans. A Ming, "State-Owned Enterprises: How to Confront the Debt Ratio?" *Jinrong shibao* (Financial News), October 7, 1995, p. 1.
53. Even these numbers understate the problems faced by state-owned firms since they do not take into account interenterprise debt, what the Chinese refer to as triangular debt. These are unpaid bills that accumulate rapidly when the central authorities restrict the growth of credit. When firms are unable to borrow enough to pay for their inputs, for example, they frequently simply postpone paying their suppliers. To the extent the triangular debt phenomenon is among state-owned firms it does not affect the net liabilities of the sector as a whole since one firm's liability is another firm's asset. However, it appears as if state firms have a significant net indebtedness to non-state firms, suggesting that it is easier for state-owned firms to refuse

to pay non-state firms than vice versa. At year-end 1994 this amounted to RMB 440 billion, about two-thirds of all interenterprise debt. Taking this into account increases the liability:asset ratio of state-owned firms from 75 to 83 percent. Yu Jian, "The Predicament and the Solution for State-Owned Enterprises," Jinrong shibao (Financial News), January 29, 1996, p. 3.

54. Li Chiliang, "Realignment of Enterprise Debt," Jingji cankao bao (Economic Reference News), August 8, 1996, p. 1 in FBIS-CHI-96-187.

55. Su Ning and Lu Zhongyuan, "State-Owned Enterprises Financial Problems and Their Remedies," Caimao jingji (Finance and Trade Economics), No. 8, August 11, 1994 translated in JPRS-CAR-94-055.

56. Qiu Mingchen, "Concerning the Way to Advance the Transformation of the Method of Managing Credit Funds," Jinrong shibao (Financial News), May 18, 1996, p. 5.

57. The precise share in each of these two categories was 27.6 percent and 21.5 percent, respectively. A Ming, "State-Owned Enterprises: How to Confront the Debt Ratio?" Jinrong shibao (Financial News), October 7, 1995, p. 1.

58. Dai Jianming, "Enterprises Cannot Rely on Loosening the Money Supply to Solve Their Problems," Jinrong shibao (Financial News), September 6, 1996, p. 1.

59. See Chapter One, note 11.

60. World Bank, China: Pension System Reform (Washington, D.C.: The World Bank, 1996), p. 26.

61. As discussed below, the Bank recommends termination of the present pension system. It thus is interested in estimating the present value of current pension obligations, exclusive of the additional benefits current workers would accrue prior to their retirement if the current system remained in place.

62. Thus the 50 percent figure should not be compared with estimates of unfunded pension liabilities for other countries.

63. Henry Aaron, "The Myths of Social Security Crisis: Behind the Privatization Push," The Washington Post, July 21, 1996.

64. China: Pension System Reform, p. 2.

65. State Statistical Bureau, A Statistical Survey of China 1996 (Beijing: China Statistical Publishing House, 1996), p. 6. China Pension System Reform, p. 15.

66. The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, The 1996 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability

Insurance Trust Funds (Washington, D.C.: U.S. Government Printing Office, 1996), p. 105. Survey of Current Business, Vol. 76, No.12 (December 1996), p. D-2.

67. Department of Population and Employment Statistics, State Statistical Bureau and Department of Overall Planning and Wages, Ministry of Labor, China Labor Statistical Yearbook 1996 (Beijing: China Statistical Publishing House, 1996), p. 441.

68. China: Pension System Reform, p. xiv.

69. China: Pension System Reform, pp. xiii and 20.

70. China: Pension System Reform, p. 23.

71. According to the World Bank, pension contributions exceeded payments to retirees in the 1950s and the system built up significant reserves. These reportedly were used for purposes other than paying pensions during the Cultural Revolution. China: Pension System Reform, pp. 3-4. -

72. China: Pension System Reform, p. 11.

73. Virginia Marsch, "Hungary spreads the pension load," Financial Times, January 22, 1997, p. 2.

74. China: Pension System Reform, p. 37.

75. China: Pension system Reform, pp. xvii-xviii.

76. China: Pension System Reform, p. 54.

77. Barry Naughton, Growing Out of the Plan, pp. 236-240.

78. Nicholas R. Lardy, Agriculture in China's Modern Economic Development.

79. Calculated using Naughton's approach, which is pre-tax profits divided by the sum of depreciated fixed capital plus working capital.

80. Calculated as pre-tax assets relative to total capital. Total capital is the sum of the net value of fixed assets, working capital, and intangible assets. State Statistical Bureau, China Statistical Yearbook 1996, (Beijing: China Statistical Publishing House, 1996), pp. 418-421.

81. Ministry of Finance, "Accounting Standards for Enterprises," CCH International, China Laws for Foreign Business--Taxation and Customs, document No. 35-536, pp. 44,368-44,395. In one survey almost all state-owned enterprises reported that they were in compliance with the new accounting standards. However, these firms were not a random sample but chosen because of their advanced status. China: Reform of State-Owned Enterprises, p. 57. Moreover, "application of the accounts produced to reach a commercially meaningful assessment of SOEs (state-owned enterprises) assets and net worth--consistent with international standards--is still problematic." China's

Management of State-Owned Enterprises, p. 67.

82. Yuan Zhong Cao, Gang Fan, Wing Thyee Woo, "Chinese Economic Reforms: Past Successes and Future Challenges," in *Economies in Transition: Comparing Asia and Eastern Europe*, edited by Wing Thyee Woo, Stephen Parker, and Jeffrey D. Sachs (Cambridge: MIT Press, 1997), p. 36.

83. Barry Naughton, *Growing Out of the Plan*, p. 208.

84. "State-Owned Enterprise Law," in National People's Congress Standing Committee Legislative Affairs Work Committee, *Zhonghua renmin gongheguo falu fenlei zonglan, jingji fa (zhongshou)* (A Categorized Compendium of Laws of the People's Republic of China, Economic Laws, (middle volume)) (Beijing: Legal Publishing House, 1994), pp. 1,029-1,181.

85. *China: Reform of State-Owned Enterprises*, p. 14.

86. The percentage calculation assumes that housing of state-owned units is built exclusively in urban areas. While this is not strictly true, for example a state extraction oil company may build housing for its workers living in remote areas far from any city, it is a close approximation of reality. State Statistical Bureau, *China Statistical Yearbook 1996*, pp. 143, 312.

87. Yu Jian, "The Predicament and the Solution for State-Owned Enterprises," *Jinrong shibao* (Financial News), January 29, 1996, p. 1.

88. *China: Reform of State-Owned Enterprises*, p. 13.

89. Dian Jianming, "Enterprises Can Not Rely on Loosening the Money Supply to Solve Their Problems," *Jinrong shibao* (Financial News), September 6, 1996, p. 1.

90. The People's Bank in the spring of 1997 issued an urgent nation-wide notice requiring enterprises and organizations to end this practice. New China News Agency, "Public Funds in Savings Accounts Forbidden," March 19, 1997 in FBIS-CHI-97-078.

91. Enterprises, of course, are free to deposit funds in interest bearing bank accounts. But the interest would be an income item for the firm and would, if the firm were profitable, lead to an increase in the firm's tax liability. Chinese workers generally pay no taxes on interest income since their incomes are below the threshold level above which taxes must be paid on personal income, including interest income. The state has sought to limit this practice by forbidding enterprises and government institutions from depositing public funds under private names. People's Bank of China, "Notice Forbidding Turning Public Funds into Private Deposits," cited in Wang Baoqing, "Strengthen the Management of Deposits, Prohibit Public Funds into Private Deposits," *Jinrong shibao* (Financial News), May 1, 1997, p. 1.

92. Yu Jian, "The Predicament and Solution for State-Owned Enterprises," *Jinrong shibao* (Financial News), January 29, 1996, p. 3.

93. Fan Bi, "Current Situation, Mechanism, and Countermeasures for Losses of State Assets," *Jingji guanli (Economic Management)*, No. 2 (March), 1996 translated in FBIS-CHI-96-133, pp. 55 and 58.
94. Jen Hui-wen, "Zhu Rongji Presides over Work of Screening State-Owned Assets Erosion," *Hong Kong Hsin Pao (Hong Kong Economic Journal)*, January 10, 1997, p. 22 translated in FBIS-CHI-97-014. *China's Management of Enterprise Assets: The State as Shareholder*, p. 53.
95. Alan Gelb, "China's Reforms in the Wider Context of Transition," in *China's Economic Future: Challenges to U.S. Policy*, Study papers submitted to the Joint Economic Committee, Congress of the United States (Washington, D.C.: Government Printing Office, 1996), pp. 96-97.
96. Terry Sicular, "Going on the Dole: Why China's State Enterprises Choose to Lose," unpublished manuscript, May 1994.
97. Terry Sicular, "Going on the Dole."
98. "New Progress in Restructuring Economy," *Beijing Review*, June 2-8, 1997, p. 5.
99. *China's Management of Enterprise Assets*, p. vii.
100. *China's Management of Enterprise Assets*, p. 4
101. While state-owned companies are subject to provisions set forth in the Company Law, traditional state-owned enterprises are governed by the 1988 "State-Owned Enterprise Law of the People's Republic of China," in *Zhonghua renmin gongheguo falu fenlei zonglan, jingji fa (zhongshou) (A Categorized Compendium of Laws of the People's Republic of China, Economic Law (middle volume))*, pp. 1,029-1,034.
102. "The Company Law of the People's Republic of China," Article 66.
103. *China's Management of Enterprise Assets*, p. 40.
104. *China's Management of Enterprise Assets*, p. 51. See also *From Plan to Market* (New York: Oxford University Press, 1996), p. 55.
105. At year-end 1996 a total of 514 companies were listed on either the Shanghai or the Shenzhen stock exchanges.
106. *China's Management of Enterprise Assets*, p. 39.
107. See discussion in Chapter Four.
108. At year-end 1996 of the companies listed on the Shanghai Stock exchange the state held 43.9 percent of the shares and the companies themselves held 27.3 percent in the form of treasury shares. These shares are not traded on the market. See discussion in Chapter Four and notes to Table 4.1.

109. China's Management of Enterprise Assets, p. 40.
110. "State Council Outlines State Enterprise Reform Plan," Zhongguo Tungxun She, December 1, 1996 in FBIS-CHI-96-234. Xinhua, "\$3.65 b goes into special State fund," China Daily, March 4, 1997, p. 2.
111. China's Management of Enterprise Assets, p. 4.
112. Xinhua, "Circular Issued on Debts of Merged Enterprises," June 21, 1995 in FBIS-CHI July 5, 1995, p. 48.

Table 2.1: State Sector Employment, 1977-1996

	Millions of Workers	Percent of Urban Labor Force
1977	71.96	79
1978	74.51	78
1979	76.93	77
1980	80.19	76
1981	83.72	76
1982	86.30	76
1983	87.71	75
1984	86.37	71
1985	89.90	70
1986	93.33	70
1987	96.54	70
1988	99.84	70
1989	101.08	70
1990	103.46	70
1991	106.64	70
1992	108.89	70
1993	109.20	68
1994	112.14	67
1995	112.61	65
1996	112.44	*

Note: * Because of a change in the definition of urban, the percent that can be calculated for 1996 is not comparable with that for earlier years.

Sources: State Statistical Bureau, *Chinese Statistical Yearbook 1993* (Beijing: China Statistical Publishing House, 1993), p. 97; *Chinese Statistical Yearbook 1995* (Beijing: China Statistical Publishing House, 1995), p. 84; *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), p. 87. *China Statistical Yearbook 1997* (Beijing: China Statistical Publishing House, 1997), p. 93.

Table 2.2: The Allocation of Investment in Fixed Assets, 1980-1996

(percent)

	State	Foreign-Funded	Shareholding	Collective	Individual
1980	82			5	13
1981	69			12	19
1982	69			14	17
1983	67			11	23
1984	65			13	22
1985	66			13	21
1986	66			13	22
1987	63			15	22
1988	61			16	23
1989	61			14	25
1990	66			12	22
1991	66			13	21
1992	67			17	16
1993	61	6	2	18	12
1994	57	10	3	18	12
1995	54	11	4	16	13
1996	53	12	5	16	14

Notes: Investment in fixed assets is the broadest measure of investment in China. It includes investment in capital construction as well as investment in technical updating and transformation. It is inclusive of investment from all sources of finance including budgetary funds, bank loans, foreign funds, as well as retained earnings and other "self-raised" funds. Individual investment includes household investment in agriculture and in housing. The data on foreign-funded enterprises is the sum of what the Chinese separately report as foreign funded and overseas

Chinese investment. It is inclusive of both joint ventures and wholly foreign-owned investment projects. Data on investment by jointly operated units (investments undertaken jointly by enterprises of different forms of ownership or jointly by enterprises and institutions, such as universities) and investment by other economic units are not included for years 1993 and after. In 1996 these two categories accounted for 0.6 percent and 0.7 percent, respectively, of total investment in fixed assets.

Sources: State Statistical Bureau, *A Statistical Survey of China 1991* (Beijing: China Statistical Publishing House, 1991), p. 19; *Statistical Yearbook of China 1993* (Beijing: China Statistical Publishing House, 1993), p. 145; *A Statistical Survey of China 1994* (Beijing: China Statistical Publishing House, 1994), p. 27; *Statistical Yearbook of China 1995* (Beijing: China Statistical Publishing House, 1995), p. 137; *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), pp. 22-23, 139. *China Statistical Yearbook 1997* (Beijing: China Statistical Publishing House, 1997), p. 32.

Table 2.3: State-Owned Industrial Enterprise Losses,

1978-1996

Year	Enterprises with Independent Accounting		of which, Enterprises Under the Budget	
	Enterprises losing money (percent)	Losses (RMB billions)	Enterprises losing money (percent)	Losses (RMB billions)
1978	na	4.2	23.9	4.4
1979	na	3.6	23.4	3.7
1980	19.2	3.4	22.4	3.2
1981	22.9	4.6	27.7	4.2
1982	20.8	4.8	25.1	4.3
1983	12.8	3.2	14.6	2.9
1984	10.2	2.7	10.5	2.3
1985	9.6	3.2	9.6	2.7
1986	13.1	5.4	13.4	4.7
1987	13.0	6.1	12.8	5.1
1988	10.9	8.2	10.7	7.1
1989	16.0	18.0	15.9	12.8
1990	27.6	34.9	30.3	27.9
1991	25.8	36.7	28.0	30.0
1992	23.4	36.9	22.7	30.0
1993	30.3	45.3	29.8	29.0
1994		48.3		33.5
1995	33.5	54.1	44	40.9
1996	37.7	72.7		53.1

Sources: Finance Yearbook of China Compilation Committee, *Finance Yearbook of China* (in Chinese) (Beijing: Chinese Financial Magazine Society Publishers, 1994), p. 438. Zhongguo Xinwen She, March 14, 1996 in FBIS-CHI March 15, 1996, p. 24. Losses in 1996 for SOEs under the budget is only for 1-11/96, and is from

Economic Note, February 7, 1997, World Bank Resident Mission in China, p. 8. Losses for SOEs with independent accounting is from *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), p. 429, and Zheng Jie, "State Enterprise Reform Must Accomplish Five Strategic Tasks," *Jingji Ribao (Economic Daily)*, June 5, 1995, in FBIS-CHI, 95-148, pp. 31-32 and Yang Jisheng, "The Economic 'Big Triangle' in Perspective," *Jingji cankao bao (Economic Reference News)*, August 6, 1997, p. 1 translated in FBIS-CHI-97-253. Zhan Guoshu, Zhang Shuhong, and Yan Dalin, "State Enterprise Reform: What Exactly to Make of It," *Jingji ribao (Economic Daily)*, June 2, 1997, pp. 1,2 translated in FBIS-CHI-97-268. "A Look at Key Aspects of Economic Reform in 1997," *Inside China Mainland, March, 1997*, p. 53.

Table 2.4: Fiscal Subsidies to Loss-Making State-Owned Enterprises,

1985-1996

Year	RMB Billions	Percent of Budget Expenditures	Percent of Gross Domestic Product
1985	50.7	25	5.7
1986	32.5	15	3.2
1987	37.6	17	3.1
1988	44.6	18	3.0
1989	59.9	21	3.5
1990	57.9	19	3.1
1991	51.0	15	2.4
1992	44.5	12	1.7
1993	41.1	9	1.2
1994	36.6	6	0.8
1995	32.8	5	0.6
1996	35.3	4	0.5

Sources: State Statistical Bureau, *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), pp. 42, 223, 227. Liu Zhongli, "Report on the Implementation of the Central and Local Budgets for 1996 and on the Draft Central and Local Budgets for 1997," *Beijing Review*, April 7-13, 1997, p. 30. State Statistical Bureau, "Statistical Communique on Socio-Economic Development in 1996," *Beijing Review*, March 10-16, 1997, p. 23.

Table 2.5: Liabilities of State-Owned Enterprises, 1978-1995

(as a percent of assets)

	All SOEs	Industrial SOEs
1978		11
1980		19
1988		45
1989	55	
1990	58	
1991	61	
1992	62	
1993	72	68
1994	75	79
1995	85	

Sources: Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform 1978-1993* (New York: Cambridge University Press, 1995), p. 264 (Data for industrial SOEs in 1978 and 1988). Zhang Jin, "Concerned Officials of the State Restructuring Commission State Debt Restructuring of State-Owned Economy Is Imperative," *Jingji cankao bao (Economic Reference News)*, October 31, 1996, p. 3, in *FBIS 97-028* (data for all SOEs 1990-1994); Guo Shuqing, "Restructuring of State Assets and the Repayment of Social Insurance Debts," unpublished World Bank manuscript, 1995, p. 2 (data for 1989-93, of which 1990-93 is identical with JJCKB source); Wang Lihong, "Trial project targets debt," *China Daily Business Weekly*, October 7, 1996, p. 1 (For data on 1995 soes); A Ming, "State-Owned Enterprises: How to Confront the Debt Ratio?" *Jinrong shibao (Financial News)*, October 7, 1995, p. 1 (data for 1980 and 1994 for industrial soes); Liu Kaiyun, "The Difficult Problem and the Choice in the Commercialization of the Specialized Banks," a paper presented at the 1996 Guangzhou Conference on Financial and Enterprise Reform, p. 2 (Data for for 1993 and 1994 industrial SOEs).