Fiscal Policy in China: Taxation and Intergovernmental Fiscal Relations

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Fiscal Policy in China

Taxation and Intergovernmental Fiscal Relations

Roy Bahl
Georgia State University

Research sponsored by
The 1990 Institute
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In its continuing effort to further a better understanding of China's economic reform, The 1990 Institute is proud to present a fourth book devoted to this topic. The author, Professor Roy Bahl, Dean, School of Policy Studies, Georgia State University, Atlanta, is a world-renowned scholar on taxation. He is sought out by governments and international organization worldwide for advice on taxation reform.

In this book Professor Bahl examines and analyzes China's 1994 taxation reform as a case study of an attempt by a major developing country to modernize its fiscal system. The 1994 reform is noteworthy because it was the most systematic and comprehensive restructuring of China's revenue system since the beginning of its economic reform in 1979.

This far-reaching reform extended to the country's tax structure, tax administration, central-provincial fiscal relations and provincial-local fiscal relations. The author traces the history of this reform over the past two decades and evaluates its impact, including extensive review of the analytical work of other scholars. Through detailed quantitative analysis, he draws parallels with the fiscal reform options followed in other economies. The concluding chapter examines the possibilities for continuing taxation reform in China.

The Institute is grateful for the impressive scholarship Professor Bahl has devoted to this authoritative study.

* * * *

The 1990 Institute is a nonprofit research institution dedicated to the study of economic and social policy issues in China. It was founded in 1990 by a group of individuals in the United States who wished to contribute to China's modernization through sponsoring independent, scholarly, and policy-relevant research without becoming involved in the politics of either country. The Institute has been funded by tax-deductible contributions from individuals, corporations, and foundations. It is primarily a volunteer organization, in which none of the honorary chairmen, directors, or officers receives compensation for their services.
Foreword

In addition to its publication of four books and thirteen Issue Papers on various topics of the economic reform in China, The 1990 Institute has organized several major international conferences in the United States and China. In 1996, The Institute was called upon by the Joint Economic Committee (JEC) of the U.S. Congress to help organize a study on the future of China’s economy and its implications for U.S. policy toward China. Institute scholars contributed a total of five essays to the JEC volume, which was published in August of that year.

The Institute hopes to further world understanding of the economic and social conditions in China as well as contribute to China’s modernization.

Hang-Sheng Cheng
President, The 1990 Institute

San Francisco
September 1998
Acknowledgments

I first started thinking about public finances in China in the mid-1980s, when I began traveling there for the World Bank. In the nearly fifteen years since then I have worked on numerous assignments in China for donors, private firms, foundations, and for the Chinese Government. The material in this book reports what I learned in the course of that field work, from the research of others, and from many Chinese students and visitors who have passed through Georgia State University during this time.

I had the great good fortune to work with Christine Wallich of the World Bank on tax reform in China. We learned the Chinese fiscal system together and I benefited greatly from her reviews of my research. Xu Shanda, then of the Chinese Tax Service, was my teacher of the legal system and institutions that govern taxation and intergovernmental fiscal relations. If this book shows an understanding of the Chinese system, it is mostly due to his patience in explaining it to me.

Charles McLure gave me his usual thorough and insightful review of this manuscript. My colleagues, Jorge Martinez and Sally Wallace, prodded me to do more with several parts of the analysis, and Penny Prime and Richard Bird made numerous helpful comments. Bert Hofman and Christine Wong of the World Bank shared their work with me and helped my thinking quite a lot.

The 1990 Institute stimulated me to write this book, provided financial assistance including that for a field trip to finish up the data work, and was most patient in waiting for completion of the manuscript. Hang-Sheng Cheng both encouraged me to push the analysis further and gave me many useful comments.

Cynthia Blasdell and Bettye Davis processed this manuscript (through more drafts than either of them probably cares to remember) with great skill and good humor. Baoyun Qioa served very ably as my graduate research assistant, database manager, translator, and in-house critic. Many others have helped me write this book, too many to list here. In particular, I am grateful to those numerous
Acknowledgments

Chinese officials who patiently answered what must have seemed an unending stream of naïve questions.

Despite all the advantages and good help, the mistakes in this book are mine alone.

Atlanta, Georgia
September 1998

Roy Bahl
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Fiscal Policy in China

Taxation and Intergovernmental Fiscal Relations
In China, one cannot address separately the subjects of intergovernmental fiscal relations, tax policy, and tax administration. The three are inextricably linked (Bahl 1994). China’s fiscal system is characterized by the following:

- All rates and bases for major taxes are centrally determined.
- Each subnational government receives a designated share of revenue collections made within its boundaries.
- Tax administration is a shared responsibility between central and local governments.¹

Another distinguishing feature of the fiscal system has been its propensity to use negotiation rather than formal rules to define relationships among the levels of government and between government and the enterprise sector. Vertical revenue-sharing arrangements have been negotiated with individual provinces, tax agreements have been negotiated with most state enterprises, expenditure assignments to different levels of government are unclear, and provincial government fiscal strategy often involves using unauthorized taxation measures to pursue industrial policies.

The comprehensive fiscal reform of 1994 was a major step toward changing this fiscal system, although the basic linkages among tax policy, tax administration, and revenue are still in place. The reform addressed all three dimensions of the intergovernmental system. The tax structure was altered, changing the size of the total revenue pie to be allocated; tax administration responsibilities were changed to discourage subnational governments from using "back door" approaches to revenue mobilization; the ability of subnational governments to negotiate tax incentives with enterprises was sharply curtailed; and the formulas by which revenues are divided between the central and subnational governments were changed. The reform will be successful at centralizing control over resources,
but paradoxically it put in place the structure necessary to pursue a true fiscal decentralization in the future. Chinese subnational governments still do not have taxing or borrowing powers, but revenues are now clearly assigned to each level of government, and separate local and central tax administration authorities are in place. True fiscal decentralization is but a step away.

In this context, it is important to note that the Chinese fiscal system has developed by a process of incrementalism over the past 15 years. The enterprise income tax system was introduced as an experiment and then extended to the nation, and each new reform of the revenue-sharing system has been announced as a transition measure. But with every step in the reform process, some features of the transition system become institutionalized. The 1994 fiscal reform is a more fundamental break with the past than other reforms were, but it also contains some important transition measures that very likely will become institutionalized, and on which future changes will be built.

The subject of this book is taxation and fiscal decentralization in China. In the next chapter, we raise the question that seems central to all policy prescriptions for China: Should taxes be increased? The subjects of Chapters 3 and 4 are tax structure and tax administration: the problems with the pre-reform system, the changes introduced by the 1994 reform, and an evaluation of the potential impact of that reform.

In Chapters 5 and 6, the focus is intergovernmental fiscal relations, including tax assignment, tax sharing, and grants. The fiscal relations between the central government and the provinces are evaluated, and evidence is presented on how the 1994 reform might affect interregional fiscal disparities in the short and long run. In Chapter 6, we turn to the sometimes forgotten issue of provincial—local fiscal relations—arguably a crucial dimension because of the vast size of some of the Chinese provinces and the very great disparities in income and wealth within these provinces.

The concluding Chapter 7 summarizes this work, offers some thoughts on the future of fiscal reform in China, and evaluates some options that might be considered. China seems to be perpetually at a crossroads in structuring its fiscal system. It remains formally centralized, but the government has allowed the exercise of local discretion. Now the 1994 reform seems to be laying a new path in the direction of an assignment system of public finances, similar to that used in many Western countries. The big questions would seem to be how much autonomy will eventually be given to the local governments, what form this autonomy will take, and when the next steps will be taken.

An important constraint on this analysis is the absence of data for evaluating the 1994 reform. At the time of writing, the government had not yet released data that would enable a thorough analysis of the impact on either national finances or
interprovince disparities. Moreover, the quality and comparability of the data used in this study present a problem. The Chinese definition of taxation differs sharply from that used in most Western countries, and this complicates comparisons and economic analysis. Although care is taken throughout this book to point out which definition is being used, and comparisons among various data sets are made to assess the implications of using one definition versus another, in some cases only the Chinese definition is available. As discussed in Chapter 2, this is not a fatal problem, but it does cause qualifications of the conclusions that can be drawn. Third, there is the problem of how much is known about the provincial and subprovincial levels of finances in China. Fiscal practices vary widely across the country, and the aggregate data and case studies presented here may not pick up the variety of practices that exist. Finally, there are many significant fiscal issues that, in spite of their very great importance, are not taken up in detail here. Among these are social security and its financing, the taxation of natural resources, public utility pricing, and the role of the banking system in financing government services.

All these shortcomings notwithstanding, this analysis is meant to add to what is known about Chinese public finances. It pulls together a great deal of disparate material and data on the system, presents an analysis of the very important 1994 reform, and draws together the three major dimensions of the fiscal system in China: tax policy, tax administration, and intergovernmental fiscal relations.
CHAPTER 2
Are Chinese Taxes Too Low?

Much has been written about the remarkable success of the Chinese economy in the fifteen years since the liberalization of economic policies began in earnest. By early 1996, real GNP was growing at about 10 percent per year and inflation was being held to about 6 percent. The major short-term concern for the economy in the mid-1990s was a fear of overheating and the need to develop policies that would reduce the growth rate to single digit without choking off expansion. Long-term prospects are for continued strong growth, and there is cautious optimism about continued stability in price levels. Few countries in the world have such bright prospects.

The revenue system that supported this strong national growth was anything but a textbook example of good fiscal practice: There is no individual income tax to speak of, the enterprise income tax has been largely negotiated with each major taxpayer, the indirect tax system has been a study in complexity and interference with market decisions, the rate of tax compliance has not been strong, and the intergovernmental fiscal system is characterized more by “ad hocism” than objectivity. The rate of revenue mobilization has fallen consistently over the past 15 years, and there is considerable murkiness surrounding the roles of the private and government sectors in the economy. Chinese analysts and international observers have been cautioning for several years that China cannot build its future on such a fiscal system, no matter how well it has served in the past. The new Chinese economy is modernizing and growing more diverse and more complicated each year. Its revenue needs are changing, it is bumping up against infrastructure bottlenecks, and significant regional inequalities in standards of living could eventually threaten the consensus that supports the government’s national economic reform program. In 1994, the Chinese government recognized the need for major structural changes and enacted a sweeping reform that has set the fiscal system on a new path.
Are Chinese Taxes Too Low?

The fiscal reform of 1994 was a policy response to three general concerns: The structure and administration of taxes had not modernized as rapidly as had other economic policies, and they were no longer in step with the goals of the government for economic restructuring and growth; the system of fiscal relations between the central government and the provinces was not sustainable; and the level of taxation was too low. The first two questions are the subject of most of this book, and the third is addressed in this chapter.

The Declining Tax Ratio

Virtually every analyst who has studied the Chinese economy in recent years has sounded an alarm about the declining share of taxes in GNP. On the one hand, taxes should decline as a share of output in a transition country. The government is reducing its involvement in the economy through privatization, removal of subsidies, price decontrol, and it is generally accepting a more limited role. That the share of total output claimed by government is less in 1997 than in 1987 is not in itself a cause for alarm (Martinez-Vazquez and McNab 1997). The questions are whether the revenue share of output has fallen too far and whether it has fallen in step with the expenditure share of total output (see Box 1).

The concerns about the declining tax ratio vary: Some fear the chronic deficits that accompany this declining revenue share (IMF 1994, p. 21), some point to the shortage of revenue to finance needed government expenditures (World

Box 1: Revenue Declines in Transition Countries

China's declining tax ratio has been a less severe economic event than in many other transition countries. Hemming, Cheasty, and Lahiri (1995) show that between 1991 and 1993, 11 of 15 former Soviet states suffered a decline in the revenue share of GDP. For those 11 countries, the decline averaged 10 percent of GDP. Moreover, because real output was declining, there were reductions in real levels of revenues in all 15 countries, and in 4 instances the reduction was over 50 percent. In Russia during this period, the decline in the revenue share has not been accompanied by a declining expenditure share, and the size of the deficit has mushroomed and resulted in heavy reliance on external financing to cover shortfalls.

China's growth in real output has all but hidden the effects of its decline in revenue share: 8 percent of GDP between 1985 and 1990, and 5 percent between 1991 and 1996. Real revenues are increasing and the budget deficit is at a manageable level and is mostly financed internally.
Fiscal Policy in China

Bank 1996), some see declining taxes as a sign of too much fiscal policy discretion having been passed to the banks and state-owned enterprises (Hofman 1993), and others are most concerned that the central government has been getting successively smaller shares of this smaller revenue base and therefore has less ability to manage public sector investment, spending, and deficits.2

That the tax share of GDP has declined precipitously is beyond dispute. The tax ratio (collections as a share of GNP) has now fallen to less than half of its level of about 23 percent in the year after the enterprise income tax replaced the profit remittance system (Table 2.1). The built-in response of revenues to income growth and to inflation (the revenue–income elasticity) is very low. Between 1978 and 1993, the revenue–income buoyancy of the Chinese tax system was only 0.71, that is, the rate of revenue growth averaged less than three-fourths the rate of growth in GNP (Table 2.1).3 Between 1985 and 1993, the revenue–income buoyancy was only 0.53.4 Such a slow growth in revenue almost certainly creates budgetary-balance problems and restrains expenditure growth to what may be unacceptable levels. By 1995, government revenue mobilization was under 11 percent of GNP, a low share by international standards.5 There is some evidence of revenue stabilization after the 1994 reform in that the ratio of taxes to GDP has remained approximately constant. This would imply that the income elasticity of the tax system has risen to approximately unity. Whether the reversal in the past two years is a sign of new, permanent vitality in the tax system, or just a temporary effect of the 1994 reform, the larger question remains: Is the government share of GNP now too low, and if so, by how much?

As a percentage of GNP, the share of all taxes in the system fell during the period leading up to the 1994 reform. The decline in the enterprise income tax was the most precipitous, and many explanations have been offered. Among the most frequently cited are the widespread use of the contracting system,6 the offloading of some enterprises by the government sector, weak tax administration, the granting of tax preferences by local governments, and the growing number of loss-making enterprises and the declining rate of profitability in the state-owned enterprise (SOE) sector.7 Another reason for the weak revenue performance of the enterprise income tax is the (administrative) failure to expand the tax base to encompass adequately the faster growing private and collective enterprise sector. In 1985, about 60 percent of GNP was accounted for by the nonstate sector, but almost 80 percent of tax revenues were derived from the state-owned enterprises (IMF 1994, p. 28). At a 1.5 percent share of GNP in 1995, the enterprise income tax had become a much less significant force in economic policy than it was at more than 8 percent of GNP in 1985 (see Table 2.1).

With the enterprise income tax in decline and the individual income tax very
Table 2.1. Tax Revenue Performance During the 1985–1997 Period

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL TAX REVENUE (BILLIONS YUAN)</th>
<th>TOTAL ENTERPRISE INCOME TAX REVENUES AS% GNP</th>
<th>SALES TAX AS% GNP</th>
<th>INTERNATIONAL TRADE TAX AS% GNP</th>
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<tr>
<td>1985</td>
<td>208.5</td>
<td>23.18</td>
<td>8.23</td>
<td>12.2</td>
</tr>
<tr>
<td>1986</td>
<td>213.3</td>
<td>20.90</td>
<td>7.20</td>
<td>11.8</td>
</tr>
<tr>
<td>1987</td>
<td>218.3</td>
<td>18.26</td>
<td>5.91</td>
<td>10.7</td>
</tr>
<tr>
<td>1988</td>
<td>244.2</td>
<td>16.36</td>
<td>4.87</td>
<td>10.0</td>
</tr>
<tr>
<td>1989</td>
<td>279.1</td>
<td>16.49</td>
<td>4.51</td>
<td>10.4</td>
</tr>
<tr>
<td>1990</td>
<td>290.0</td>
<td>15.59</td>
<td>4.27</td>
<td>10.0</td>
</tr>
<tr>
<td>1991</td>
<td>306.5</td>
<td>14.14</td>
<td>3.72</td>
<td>9.1</td>
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<tr>
<td>1992</td>
<td>335.7</td>
<td>12.59</td>
<td>2.93</td>
<td>8.4</td>
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<td>1993</td>
<td>430.5</td>
<td>12.45</td>
<td>2.11</td>
<td>9.2</td>
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<td>1994</td>
<td>512.7</td>
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<td>1.52</td>
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<td>1995</td>
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<td>691.6</td>
<td>10.2</td>
<td>1.9</td>
<td>—</td>
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<tr>
<td>1997c</td>
<td>800.6</td>
<td>10.2</td>
<td>1.1</td>
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<td>Buoyancyd</td>
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<tr>
<td>1985–93</td>
<td>0.53</td>
<td>0.03</td>
<td>0.75</td>
<td>0.27</td>
</tr>
</tbody>
</table>

\a Includes direct remittances by enterprises.
\b Value-added tax, business tax, and product tax.
\c Budget estimate.
\d The percentage change in tax revenue that is associated with a 1% change in GNP, estimated from a double log regression of tax revenue on GNP.


Much of the data for compilation of this table and other tables in this book were gathered in China, often from official releases of the Ministry of Finance.

Narrowly based, China has moved to heavy reliance on sales taxes. By 1995, indirect taxes accounted for about two-thirds of total collections (Table 2.2). But sales taxes, falling from 12.2 percent of GNP in 1985 to 8 percent in 1995, also contributed to the reduced share of taxes in total output. A combination of widespread exemptions, poor enforcement, a flawed tax structure, and the continued granting of tax exonerations by subnational governments led to this slow growth in sales taxes revenues.
### Table 2.2. Tax Structure (as percentage of total taxes)

<table>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companies</td>
<td>31.9 19.7 16.8 16.2</td>
<td>31.6</td>
<td>50.5</td>
<td>27.5</td>
</tr>
<tr>
<td>Individual</td>
<td>31.9 19.7 12.7 13.4</td>
<td>20.5</td>
<td>9.2</td>
<td>15.3</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>11.1</td>
<td>41.3</td>
<td>12.2</td>
</tr>
<tr>
<td>Domestic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>indirect taxes</td>
<td>43.5 60.8 62.1 66.8</td>
<td>33.5</td>
<td>41.7</td>
<td>37.8</td>
</tr>
<tr>
<td>VAT</td>
<td>6.8 20.8 41.3 42.8</td>
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<td></td>
<td></td>
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<tr>
<td>Product tax</td>
<td>27.1 20.4 8.7 8.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business tax</td>
<td>9.6 19.6 12.0 15.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>trade taxes</td>
<td>9.4 6.2 4.9 4.4</td>
<td>24.4</td>
<td>1.3</td>
<td>19.3</td>
</tr>
<tr>
<td>Other</td>
<td>12.8 10.5 16.2 12.6</td>
<td>10.5</td>
<td>6.5</td>
<td>15.4</td>
</tr>
</tbody>
</table>

<sup>a</sup> Sample includes 83 countries for the 1986–94 period.

<sup>b</sup> Sample includes 22 countries for the 1993–95 period.

<sup>c</sup> Sample includes 105 countries for the 1986–95 period.

Sources: China Finance Statistics (1950–91); SSB, Statistical Yearbook of China (various years); World Bank (1996); and IMF (1997b and 1997d, various years).

### The Case for Increasing Taxes

There is probably little disagreement over the need to increase the level of taxes in China. The government cannot both meet expenditure demands and hold the deficit at its current levels. The more debatable question is the amount by which taxes should be increased. There are at least three ways to determine the size of the financing gap: in terms of the level of unmet expenditure needs, in terms of the additional revenue needed to cover or control the deficit, and in terms of the revenue level that would keep Chinese taxes within "competitive" international limits.

#### Unmet Expenditure Needs

Arguably the most compelling rationale for higher taxes is that public expenditure levels are far below those needed to support economic development and an adequate quality of life. The assessment of expenditure requirements is a subjective matter, however, and it is difficult to demonstrate unmet needs. It is especially difficult to make this case in China where indicators of social development are relatively high for a country with its level of per capita income.
Are Chinese Taxes Too Low?

The World Bank (1996, annex 2) makes the argument that public-servicing gaps are serious in some cases, that the next decade will bring new pressures on government budgets, and that by comparison with other countries China spends at a low level. By the late 1980s, China's level of budgetary expenditures had fallen well below that of most developing and industrialized countries. The World Bank (1996) used international standards to estimate the financing gap and concluded that expenditures for unmet needs were equivalent to about 6 percent of GDP. The major spending gaps are in the areas of health and education (2.3 percent of GDP) and infrastructure (1 percent of GDP). Social insurance, pensions and environmental protection are other areas where expenditure gaps now exist or are likely to occur. Perkins (1996, p. 8) points out that bottlenecks in transportation already cost the Chinese economy an amount equivalent to about 1 percent of GDP.

The World Bank analysis makes the essential point that government expenditures in China are going in the wrong direction. They are declining as a share of total output, while expenditure needs are increasing. The need for an increased government expenditure share of output seems clear from this analysis, but the case for a 6 percent financing gap is less easily made from international expenditure comparisons.

There is another view. Should not China be expected to have a lower ratio of budgetary expenditures to GDP than other countries? Among the considerations that might justify a lower budgetary expenditure (and revenue) ratio in China are:

- Some public services are still provided in substantial amounts by state-owned enterprises. Reported budgetary expenditures, therefore, understate actual outlays on government services. Moreover, the expenditures by these enterprises on these services may be compensated with tax relief, resulting in an understatement of the size of government on the revenue side.
- Many quasi-public services are financed by policy loans from banks or are outside the budget. Extrabudgetary accounts of the government hold a large and growing share of government expenditures in China, and these expenditures would not ordinarily show up in international comparisons. Nor is it clear that the other countries in international comparisons have the same split between budget and off-budget spending.

These are considerations that suggest that China could achieve world standards in spending on public services even if its budgetary expenditure share of national output is lower than in other countries. A revenue shortfall for China almost certainly exists, but it may be less than 6 percent of GDP.
The Government Deficit

If the government faces a chronic budget deficit, there is a case to be made for increasing taxes. In fact, government expenditures in China have grown faster than tax revenues over the past decade and fiscal sector deficits have arisen. Few would argue, however, that the budget deficit is so out of control that it presents a major policy concern, even given the special Chinese sensitivity to inflation.

Hofman and Atinc (forthcoming) argue that analysts must separate the budgetary deficit from the consolidated deficit in order to investigate properly the existence of a budget-balance problem in China. The budgetary deficit is of modest size. Between 1986 and 1995, the general government deficit averaged 2.1 percent of GDP. To the extent there is a budget deficit concern in China, it stems from the consolidated deficit, which is the sum of the general government budget deficit and central bank lending for policy purposes (Hofman and Atinc forthcoming; Hofman et al. 1996). The consolidated deficit rose from 4.7 to 5.5 percent of GDP between 1986 and 1996, but reached over 9 percent of GDP in 1993. The consolidated deficit comes from enterprises being unable to cover their losses, and/or to initiate new investments, and the government sector not having sufficient revenues to provide a direct subsidy. The state banks are urged, perhaps even cajoled, by subnational governments to make policy loans to fill the gap. These losses constitute part of the government deficit because they are financed directly or indirectly by the People's Bank of China. Huang (1996, p. 143) points out that, by 1990, domestic loans financed about 21 percent of investments by Chinese firms.

The consolidated budget deficit has caused concern about fiscal balance for three reasons. First, the size of the consolidated deficit, while not dangerously large, puts pressure on the stability of economic growth, and overheating is an especially sensitive issue in China. Much of the consolidated deficit is financed by the issuance of reserve money by the People's Bank of China. Woo (1994, pp. 287–88) points out that the Central Bank's accommodation of loans to cover SOE losses and finance SOE investments meant that, by 1991, the growth in reserve money was more closely related to these policy loans than to the size of the budget deficit. There has been little transparency in this process.

Second, the consolidated deficit has not declined. The IMF (1997b, table 36) estimates that it has remained in the range of 6 to 9 percent of GDP in recent years. There does not appear to be an equilibrating force that will automatically eliminate the consolidated deficit. This means that government policy will be required, and such policy will likely pit the center, which must control local investment spending, against the locals who seek to increase SOE investment spending to generate jobs, higher wages, and increased government revenues.
Third, this practice of giving policy loans sends the wrong signals to economic decision makers. Enterprises conclude (correctly) that they may increase both current and future resource use, and subnational governments see this as a way to stimulate the output of their enterprises and enhance the provincial–local tax base without bearing the cost of this expansion. There is no built-in disincentive to overinvestment, and the practice of making policy loans is not conducive to allocating resources to investments that offer the highest return. Not surprisingly, enterprises and subnational governments have increasingly turned to policy loans as a source of investment finance. Underlying all of this is the fear that contingent liabilities pose a future threat to the stability of the Chinese economy. If, as some suggest, the banks are holding bad debts of the enterprises equivalent to 20 percent of GDP, a bailout would significantly compromise the fiscal position of the government. There is, in addition, a significant unfunded pension liability that might do the same.

These are worrisome potential problems, but one should stop short of jumping to an analogy with the Thailand, Korea, or Indonesia financial crisis of 1998. There are important differences. Given the relatively small size of the Chinese public sector, “bad debts” of the banking system equivalent to 20 percent of GDP could be absorbed. Moreover, the Chinese economy is significantly less open and less exposed, than those nations in crisis in 1998.

Even so, the practice of making policy loans should be replaced with commercial credit at the SOE level and with direct borrowing by provincial and local governments for their investment projects. Because repayment would be enforced on SOEs and subnational governments, investment decisions would be bound by a hard budget constraint and therefore increase the efficiency of resource use. That part of the policy loans that supports SOE provision of social services is another story. So long as these are social services and not fringe benefits, a government subsidy is not inappropriate. However, it should take the form of a grant from government rather than a policy loan through the banking system. Finally, there is the transparency issue. A transparent deficit, financed by tax revenues, is more consistent with the market approach of the system reform than is the negotiated and “hidden deficit” of the current approach. Erasing the entire consolidated budget deficit would take a tax increase equivalent to 6 percent of GDP.

International Comparisons

The level of Chinese taxes may also be evaluated by international comparisons. Some analysts have argued that Chinese taxes are low in comparison with comparable countries. Underlying such comparisons is the thought that, if other, similar countries have had to raise a higher level of taxes to provide government services, then why not China? It is tempting to argue that the level of taxation is a
Fiscal Policy in China

A rough indicator of a country’s international competitive position. Certainly this is true in terms of the perception of a “business climate,” but there is much more to the relationship. The tax structure is a more crucial issue, because domestic taxes borne by consumers of final goods and user charges for services provided, for example, would not affect the competitive position of those producing for world markets. Differential taxes on exports, raw materials, profits, or dividend repatriations, for example, could have serious repercussions. Moreover, the level of government infrastructure financed by these taxes, or the lack thereof, may have an even more profound effect on competitive position. Nevertheless, international comparisons do give some indication of whether a country’s tax levels are generally out of line with those elsewhere, and they are widely used as an indicator of a country’s capacity for increasing taxes.

Comparative tax effort analysis is based on a straightforward comparison of the ratio of taxes to GDP. Using the IMF definition of tax revenues, China’s average tax ratio of 11.7 percent of GDP is below that observed in most industrial and developing countries (Table 2.3). One problem with using the tax share of GDP as a basis for such comparisons is that it ignores other determinants of taxable capacity. For example, two countries could have the same per capita GDP, but one might be more urbanized and the other more dependent on agricultural output. The first country would have the greater taxable capacity, mostly because it would be easier administratively to levy and collect the modern forms of direct and indirect taxes. In many countries, China included, the tax system is

Table 2.3. Comparison of Ratio of Tax to GDP: 1992–1994

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Actual tax ratio</th>
<th>Estimated taxable capacity</th>
<th>Index of tax effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1993</td>
<td>11.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>12.8</td>
<td>0.91</td>
</tr>
<tr>
<td>21 industrial countries</td>
<td>1992–94</td>
<td>24.2&lt;sup&gt;b&lt;/sup&gt;</td>
<td>24.3</td>
<td>1.00</td>
</tr>
<tr>
<td>64 developing countries</td>
<td>1992–94</td>
<td>15.2&lt;sup&gt;b&lt;/sup&gt;</td>
<td>15.7</td>
<td>0.97</td>
</tr>
<tr>
<td>Korea</td>
<td>1994</td>
<td>17.0</td>
<td>5.8</td>
<td>1.08</td>
</tr>
<tr>
<td>Philippines</td>
<td>1993</td>
<td>15.6</td>
<td>17.8</td>
<td>0.88</td>
</tr>
<tr>
<td>Japan</td>
<td>1993</td>
<td>12.3</td>
<td>28.3</td>
<td>0.63</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1993</td>
<td>21.3</td>
<td>28.3</td>
<td>0.93</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1993</td>
<td>13.8</td>
<td>16.4</td>
<td>0.85</td>
</tr>
<tr>
<td>Thailand</td>
<td>1994</td>
<td>17.0</td>
<td>17.6</td>
<td>0.98</td>
</tr>
<tr>
<td>Singapore</td>
<td>1993</td>
<td>16.6</td>
<td>31.7</td>
<td>0.53</td>
</tr>
</tbody>
</table>

<sup>a</sup> IMF definition (see Appendix 2.1).
<sup>b</sup> Arithmetic average.
<sup>c</sup> See equation (2.1).

Source: IMF (1997d, various years).
structured to focus on urban collections, partly for the administrative advantages, partly because the greatest taxable capacity is in the cities, and partly to support government equalization and industrial policies.

To take account of such differences in taxable capacity—and, it is hoped, to get a better estimate of taxable capacity in China—we have estimated the determinants of the variation in the ratio of tax revenues to GDP \((T/Y)\) across a sample of 85 developed and developing countries. Three independent variables are introduced to account for differences in taxable capacity. Per capita GDP \((Y/p)\) measures the level of development and should be positively related to the tax ratio. Higher levels of economic development imply greater rates of urbanization and literacy, which in turn imply a greater capacity to tax. The ratio of imports plus exports to GDP \([(X+M)/Y]\) is used to measure the openness of the economy and therefore the greater ease of tax collection, and it should be positively related to the tax ratio. The percentage of income generated in the agricultural sector \((A/Y)\) should be negatively related to the tax ratio, reflecting both the difficulties of tax administration and the pressures for exemptions in this sector. Finally, a dummy variable (equal to 1 for developed countries) is included to represent the particular tax administration advantages of industrialized countries, and it should be positively related to the size of the tax ratio.

We compare the ratio of tax revenues to GDP across countries with data for the early 1990s, drawn from IMF, *Government Finance Statistics (GFS)*. The *GFS* data are not used for China because they match neither the definition of taxation used by the Chinese nor that more conventionally used. The IMF–World Bank definition is used here.

The results of the ordinary least squares (OLS) estimation for 21 industrial and 64 developing countries are

\[
\frac{T}{Y} = 12.4415 - 0.0001 \left( \frac{Y}{p} \right) + 0.0529 \left( \frac{X+M}{Y} \right) - 0.00329 \left( \frac{A}{Y} \right) + 10.9403 D \tag{2.1}
\]

where \(R^2 = 0.45\) and t-values are shown in parentheses below the regression coefficients. The signs and significance of the openness, agricultural share, and industrial country dummy variables are as expected, and the explained variation is about the same as that found in earlier studies.\(^{11}\) Taxable capacity is greater in countries with more open economies that are less dependent on their agricultural sector. Even after controlling for the level of income, openness, and the size of the agricultural sector, we can expect an industrialized country to have a tax ratio that is about 10 percent of GDP higher than that of a developing country.

We may use equation (2.1) to predict the level of taxation “expected” for a country, that is, what a country could raise if it taxed at the international average.
These predicted values are shown for selected countries in Table 2.3. For example, we estimate Korea to have a capacity to raise taxes equivalent to 15.8 percent of GDP. Dividing actual tax performance by this predicted amount will give an estimate of the level of tax effort. For example, Korea's actual level of taxation (17 percent) is higher than its estimated taxable capacity of 15.8 percent of GDP. Korea's index of tax effort, therefore, is 1.08, that is, Korea's tax effort is 8 percent above the international average. Using the IMF definition of taxes, China actually raised 11.7 percent of GDP in taxes in 1994. Using equation (2.1), we predict that taxable capacity in China would have been 12.8 percent of GDP in 1994. By this measure, China's tax effort index is 0.91, that is, China exerts a tax effort about 9 percent below the international average. By international standards for developing countries, China does tax at a low rate.

If one accepts this notion that international averages suggest the capacity for additional taxation, then it can be said that a tax increase equivalent to about 1 percent of GDP would bring China up to "standard." An increase of 6 percent of GDP would raise China's revenue effort to more than one-third above the developing country norms as predicted from equation (2.1). There are other ways to look at these results. If we include the level of extrabudgetary revenues raised from other than state enterprises (that is, departmental charges and earmarked taxes as shown in Table 2.4), China's actual tax ratio is above 15 percent and China can no longer be classified as a low-taxing country by international comparisons. If, however, we judge China by developed country standards, then the

<table>
<thead>
<tr>
<th>Year</th>
<th>TOTAL BUDGETARY REVENUES</th>
<th>BUDGETARY PLUS TOTAL EXTRABUDGETARY REVENUES</th>
<th>BUDGETARY PLUS NONENTERPRISE EXTRABUDGETARY REVENUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>22.30</td>
<td>39.32</td>
<td>25.38</td>
</tr>
<tr>
<td>1986</td>
<td>20.80</td>
<td>37.83</td>
<td>24.10</td>
</tr>
<tr>
<td>1987</td>
<td>18.39</td>
<td>35.36</td>
<td>21.76</td>
</tr>
<tr>
<td>1988</td>
<td>15.79</td>
<td>31.61</td>
<td>19.48</td>
</tr>
<tr>
<td>1989</td>
<td>15.75</td>
<td>31.46</td>
<td>19.03</td>
</tr>
<tr>
<td>1990</td>
<td>15.79</td>
<td>30.35</td>
<td>19.22</td>
</tr>
<tr>
<td>1991</td>
<td>14.76</td>
<td>29.74</td>
<td>18.30</td>
</tr>
<tr>
<td>1992</td>
<td>13.06</td>
<td>27.53</td>
<td>16.73</td>
</tr>
<tr>
<td>1993</td>
<td>12.58</td>
<td>n.a.</td>
<td>16.72</td>
</tr>
<tr>
<td>1994</td>
<td>11.21</td>
<td>n.a.</td>
<td>15.21</td>
</tr>
</tbody>
</table>

Are Chinese Taxes Too Low?

expected tax ratio would be 23.7 percent, well above what China raised in budgetary and fiscal extrabudgetary revenues. China’s tax effort may also be even lower than is indicated by this analysis, because the methods used to calculate GDP in China lead to a significantly larger underestimation than in most other countries (World Bank 1994).

The Case for Increasing the Revenue–Income Elasticity

Revenues should grow automatically at a rate that is sufficient to cover the demand for government services. The buoyancy of tax revenues with respect to GDP during the 1985–93 period (0.53) was very low, that is, a 10 percent increase in GDP generated only a 5 percent increase in (budgetary) tax revenues. It is likely that the built-in elasticity was even lower. It is now an explicit policy of the Chinese government to increase the income elasticity of the revenue system and gradually reduce the size of the deficit (Liu 1996). This can be a sensible approach in a country where the financing gap is not large. An elasticity above unity allows government revenues to grow at a faster rate automatically in order to meet expenditure needs better.

The alternative is to introduce a larger one-time shock to the revenue system to raise the needed funds. “Big” tax increases can cause serious political instability and erode confidence in the government. The downsides to the elasticity approach to gap filling are that automatic revenue growth takes time (Box 2), that more elastic systems produce a more cyclically unstable revenue flow, and that the required, significant restructuring of the tax system imposes a shock of its own. An elasticity set too high can also lead to an “overshooting” of the revenues needed to cover expenditure demands. Moreover, the money may well stick with the (central or subnational) government where it hits and that could exacerbate vertical imbalances in the intergovernmental fiscal system.

How high should the elasticity of the Chinese tax system be? If the elasticity is above unity, taxes will automatically increase more than in proportion to GDP. This has the advantage of generating significant new revenues each year, and the government would not have to seek approval of a reform that would raise the effective tax rate. As noted above, many would say that government expenditures in China must rise faster than total output in order to eliminate a backlog of expenditure needs and to accommodate the slow growth in productivity in the government sector. 12

There also are good arguments for keeping the rate of automatic revenue growth below that of total output. First, a high built-in elasticity hides tax increases from the population and may encourage overspending by the government. Second,
Box 2: Revenue Implication of a Higher Revenue–Income Elasticity

China had a ratio of tax to GNP of 10.54 percent in 1995 (Table 2.1, Chinese definition). Suppose that the goal is to reach a tax ratio of 14 percent by the year 2000. Is it feasible to do this by increasing the revenue–income elasticity of the tax system? Our simulations show that an increase of the pre-reform elasticity of 0.6 to 1.1 would cause the tax ratio to rise from 10.54 percent in 1995 to 12.53 percent in 2000. The target of 14 percent would not be reached until the year 2014. To reach the 14 percent target in 2000, an elasticity of 1.3 would be required. The implications of these simulations are clear: Either the target is inappropriately high, or a large one-shot revenue increment is required.

depending on whether the VAT or the income tax is more elastic, the balance in resources between the central and subnational governments will be disturbed and will require an adjustment in either grants or expenditure assignment. Finally, a low elasticity may be consistent with good economic policy and increased service levels. A lower average effective tax rate may lead to higher levels of savings and investment and may also stimulate entrepreneurship.

The “right” elasticity for the Chinese tax system finally depends on the target for expenditures. Traditional analysis sets this target as a percentage of GDP and usually implies that the tax system can be no less than unitary elastic. To the extent there is theory behind this rule of thumb, it is that the income elasticity of demand for public expenditures is unity—public finance analysts are divided in their opinion about which public services have that elasticity. Moreover, the question of the “right” expenditure–income elasticity in high-growth countries raises two special questions. Does the income elasticity of demand for government services fall at very high levels of real growth? Is expenditure growth in such countries more limited by the ability of governments to expand delivery of public services than by the demand for more government services?

This traditional approach misses the essential point: The object of revenue growth is to cover expenditure requirements. A more reasonable approach is to target desired real per capita spending levels and accept the revenue–income elasticity implied, even though it may be less than unity. China’s recent fiscal history has shown that even though the tax share of GDP has fallen, it does not necessarily indicate that real levels of government services have declined. Between 1990 and 1995, the tax ratio fell from 15.6 percent to 10.6 percent of GDP. During the same period, the real per capita expenditures of governments in China rose from 130 yuan to 180 yuan.
What Should Chinese Policy Be?

The conclusion that Chinese taxes are too low and should be increased seems inescapable. Expenditure needs are considerable, there is a trend to increase in the consolidated government deficit, and China's (budgetary) tax effort is below the international average. The continued robust growth in the Chinese economy may well depend on cleaning up a significant infrastructure backlog; public service needs are great in the areas of education, health, and environmental protection; and there are a social security system and a safety net still to be put in place. The issue of eventually dealing with the bad debts of the state banks and with unfunded pension liabilities remains. Significant disparities in public service levels among the provinces must be addressed. An underlying issue is the need for the government to separate its functions from those of its enterprises. To accomplish all of this, an increase in the government share of output will be required.

But how much of an increase, and how quickly should this backlog be covered? A good case can be made that the level of new revenue needed is less than the 6 percent of GDP suggested by some analysts. First, while expenditure needs are unmet in social service and infrastructure areas, there is significant real per capita expenditure growth. Second, the size of the deficits is a concern, but the deficits are actually still of modest size. Third, a tax increase equivalent to 6 percent of GDP would push China well above the norms for taxation in developing economies. Fourth, one might question the ability of Chinese central and subnational governments to efficiently increase expenditures by an amount equivalent to 6 percent of GDP.

It is not likely that the built-in revenue–income elasticity of the Chinese system will exceed unity in the near future (Xu 1995). Even with an income inelastic revenue response, however, a continued robust growth in the Chinese economy will produce revenues adequate for significant increases in real per capita spending. It is also worth noting that, by international comparison, China may not be a low-taxing country when one takes the extrabudgetary revenues and the enterprise participation in public services delivery into account.

This book examines several dimensions of this policy challenge, but one can lay out here a number of issues that the Chinese government must face in deciding on the size of its government sector:

1. The need to develop firm expenditure targets that will guide its choices in revenue policy, that is, in restructuring to achieve a higher ratio of tax to GDP and a higher elasticity.
2. The need to decide on the degree of autonomy that will be given to subnational governments, on both the revenue and expenditure sides of the budget. Once this decision is made, a correspondence between expendi-
ture responsibilities of the two levels of government and the revenues available to finance these expenditures can be established.

3. The need to rethink the benefits and the costs of the fiscal extrabudgetary accounts. The benefits are the discretion given to local governments and the incentives for increased revenue mobilization. The costs are the risks that government expenditures may be directed to nonpriority areas and that methods of tax avoidance will be invented.

4. The need to define properly the relationship between the enterprises and the government sector. The areas of greatest concern are the division of expenditure responsibility, policy loans to enterprises, and the coverage of short term enterprise losses. More generally, the government needs to make the system of relations between the government and the enterprise sector more transparent.

5. The need to decide whether the government should absorb quasi-government expenditures from the enterprises, or if such services should continue to be enterprise-provided on a contract basis. If the government is to absorb these responsibilities, it is necessary to determine the cost and a financing plan.

6. The need to improve the facility for long-term fiscal planning. This includes institution of a proper capital budget at all levels of government, as well as a forecasting capability built around modern modeling techniques. This issue will require developing a management information system that enables tracking of the fiscal outcomes for all subnational governments.

This presents the Chinese government with a formidable set of policy choices: by how much to increase the government share of economic output and how quickly to do it, what fiscal instruments to use, and how to distribute responsibility between central and local governments for raising the new revenues and spending the new money.
Appendix 2.1
Chinese and IMF Definitions of Taxation

The Chinese definition of revenues and expenditures differs from the definition traditionally used by Western analysts. The Chinese government treats debt issued as a revenue, debt repaid as an expenditure, and subsidies to cover enterprise losses as a negative revenue, and it excludes government "departmental" revenues from the budgetary accounts. The IMF and World Bank have adjusted these fiscal data to conform to standard international classifications. A comparison of the two series shows that the revenue share of GNP declined substantially under either definition, but that the ratio of taxes to GDP is systematically lower under the Chinese definition (see Appendix Table 2.1.1).

The time series patterns are much the same under the two series. A simple ordinary least squares (OLS) regression gives the following result for the 1985–94 period:

\[
\left( \frac{T}{Y} \right)^c = -0.11 + 0.95 \left( \frac{T}{Y} \right)^w \\
(42.88) \quad \hat{R}^2 = 0.99
\]

Where \((T/Y)^c\) = tax ratio, Chinese definition, and \((T/Y)^w\) = tax ratio, IMF and World Bank definition.


Appendix Table 2.1.1. Comparison of Tax Revenue Data Based on Chinese and IMF–World Bank Definitions

<table>
<thead>
<tr>
<th>Year</th>
<th>By Chinese Definition</th>
<th>By IMF and World Bank Definition</th>
<th>Chinese Definition as % IMF–WB Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>23.2</td>
<td>24.3</td>
<td>95.5</td>
</tr>
<tr>
<td>1986</td>
<td>20.9</td>
<td>22.0</td>
<td>95.0</td>
</tr>
<tr>
<td>1987</td>
<td>18.3</td>
<td>19.4</td>
<td>94.3</td>
</tr>
<tr>
<td>1988</td>
<td>16.4</td>
<td>17.3</td>
<td>94.8</td>
</tr>
<tr>
<td>1989</td>
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<td>1994</td>
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Sources: Table 2.1; World Bank (1996), table 21.
By the early 1990s, the Chinese tax structure had gotten out of step with the goals of the system reform and structural changes were needed. The VAT and the enterprise income tax were characterized by rate and base structures that interfered with market-driven decisions and both taxes imposed an uneven distribution of burdens on enterprises; the determination of tax bases was subjective and less controlled by the tax law (regulations) than desirable; both taxes were complicated and difficult to administer. Moreover, there was a troublesome intergovernmental dimension to the tax system. Local governments used their considerable administrative discretion to follow their own economic development and revenue mobilization policies, and these often compromised the ability of the central government to use tax policy to implement its macroeconomic program successfully.

The 1994 reform was designed to increase the revenue responsiveness to GNP growth. It would allow the central government to regain control over the VAT, raise the long run GNP elasticity of the revenue system through a revision of rate and base structures, and provide local governments with an incentive to follow tax laws rather than negotiations in establishing the tax liability of enterprises. The reform program covered all taxes in the system and included changes in the tax administration and tax sharing systems. By any standards, it was a major, comprehensive reform.

**Tax Structure**

The Chinese tax structure is dominated by the indirect taxes (VAT, product tax and the business tax), and the enterprise income tax. By the early 1990s, these taxes accounted for about 80 percent of total tax revenues (see Table 2.2). The remaining taxes in the system, therefore, are much less significant as revenue
raising instruments. Virtually all taxes in the system are paid directly by enterprises, of which there are several types:

- State-owned enterprises (SOEs)
- Collectives
- Township and village enterprises (TVEs)
- Individual household enterprises
- Private enterprises
- Joint ventures
- Foreign enterprises

Most revenue is collected from the state-owned companies, with TVEs and urban collectives the only other significant contributors. A summary of the taxes imposed, and an annotation of the changes resulting from the 1994 reform are presented in Box 3.

The Enterprise Income Tax

Before the 1994 reform, the income tax on enterprises was really a family of taxes. There were separate tax treatments for large state-owned enterprises, small state-owned companies, collectives, individual household enterprises, joint ventures and foreign enterprises. The rate structures were different, there were differences in the definition of the tax bases, and a number of surtaxes were applied. Revenues collected from centrally owned enterprises accrued directly to the central government. Revenues collected from state enterprises owned by provincial and local governments were shared on a derivation basis, with the retention rate fixed by the central government and varying among provinces.

Larger and medium-sized state-owned enterprises paid a flat rate of 55 percent on taxable profits, and smaller enterprises paid according to a graduated rate that rose from 10 percent to 55 percent. Taxable profit was defined as the difference between gross sales and allowable costs. There were, however, some notable departures from the conventional approach taken in most industrialized and developing countries:

- Repayment of loan principal was an allowable deduction.
- The depreciation deduction was an actual cash expense paid into a depreciation fund.
- Wage bonus payments and most fringe benefits provided to workers were not allowable labor-cost deductions.

In addition to the company income tax proper, state-owned enterprises paid an "income adjustment tax." This tax was intended to offset the advantages given to certain enterprises by the central government (e.g., capital endowments, preferential input or output prices). These advantages, it was supposed, led to an excess profit rate, and the central government felt that part of this excess should
**Box 3: The Tax Structure in 1994**

The tax structure was simplified significantly in 1994, as is noted below.

1. **Product Tax.** Merged with the VAT. Some items previously covered under the product tax are now covered under a consumption tax.
2. **VAT.** Absorbs some business tax and most product tax.
3. **Business Tax.** The wholesale and retail sectors will be merged with the VAT, and the rest will remain as business tax.
4. **SOE Income Tax.** Becomes part of the new income tax on domestic enterprises.
5. **Collective Income Tax.** Becomes part of the income tax on domestic enterprises.
6. **Income Tax on Private Firms.** Becomes part of the income tax on domestic enterprises.
7. **Income tax on Self Employed Individuals.** Becomes part of the individual income tax.
8. **Personal Income Adjustment Tax.** Becomes part of the individual income tax.
9. **Wage Bonus Tax.** Abolished.
10. **Salary Adjustment Tax.** Abolished.
11. **Adjustment Tax on SOEs.** Abolished.
12. **Urban Construction and Maintenance Tax.** Continues with no change.
14. **Banquet Tax.** Continues.
15. **Market Trading Tax.** Merged into the VAT structure.
16. **Animal Husbandry Tax.** Merged into the VAT structure.
17. **Slaughter Tax.** Continued, but the choice of whether to levy this tax is given to the Province.
18. **Urban Land Use Tax.** Continue but increase rates.
19. **Resources Tax.** Continue but reform. This tax presently covers mostly crude oil, natural gas and iron ore. It will be extended to cover a larger group of metal and nonmetal resources.
20. **Salt Tax.** Merged with the resource tax.
21. **Real Estate Tax (domestic).** Merged into a general tax on real estate.
22. **Vehicles/Ships Tax (domestic).** Merged into a general tax on vehicles and ships.
23. **Commercial Industrial Sector Tax.** Abolished.
24. **Urban Real Estate Tax.** Mostly for foreigners. Merged into a general tax on real estate.
25. **License for Vehicles and Ships.** Mostly for foreigners. Merged into a general tax on vehicles and ships.
26. **Income Tax on Joint Ventures and Foreign Owned Companies.** Continue as is but eventually merge with income tax on domestic enterprises.
27. **Personal Income Tax on Foreigners.** Becomes part of the individual income tax.
28. **Tax on Burning Oil.** Abolished.
29. **Special Excise Tax.** Abolished.
be reclaimed. The amount of this tax was determined in an ad hoc manner and varied from enterprise to enterprise.

This structure operated as the major form of taxing enterprises between 1984 and 1986. Thereafter, a contract system was adopted for most industrial SOEs. This “contract,” between the government owner and the enterprise, usually required the enterprise to pay a quota amount of tax or to guarantee a quota level of taxable profit. A common feature was for the marginal rate of tax to be lower when profits exceeded the quota amount. Firms not reaching their quota amounts were required to pay from other sources of funds. Contracts typically had a three-year life. In effect, contracting merged the enterprise income tax with profit sharing. By 1991, about 77 percent of all industrial SOEs were covered by contracts as compared with 84 percent in the initial contract period which ran from 1987 to 1990 (Shi 1995, pp. 154–55). A relatively small share of collectives and nonindustrial SOEs were covered.

A number of surtaxes were imposed on enterprises, largely to claw back some revenues to the center. These surtaxes were not part of the contract. A 15 percent energy and transportation tax (ET) and a 10 percent budgetary adjustment tax (SBAF) were levied on a base of after-tax earnings plus depreciation fund contributions. The revenue from the ET and SBAF accrued primarily (70 percent and 50 percent, respectively) to the central government. Remaining, after-tax earnings were subject to a construction tax, a wage-bonus tax, and a wage-adjustment tax. Each of these three taxes was an attempt to regulate the economic decisions of enterprises. The construction tax was meant to discourage off-plan construction financed by extrabudgetary funds and to divert retained earnings to “more productive” investments. The wage bonus tax and the wage adjustment tax had a similar intent, to discourage excess distribution of profits to labor.

Income taxes on urban collective enterprises were levied under the same rate schedule as applied to small state-owned enterprises. Township and village enterprises paid at a 20 percent rate. Deductible costs were approximately the same as for SOEs, but there were some notable exceptions. For example, only 60 percent of loan interest on principal repayment was treated as a deductible expense on loans for technical transformation, and no deduction was allowed for capital construction loans. Profits distributed to members of enterprises were not taxable under the individual income tax.

Individual household enterprises paid according to a progressive rate schedule with 10 rates ranging from 7 percent to 60 percent, and a surcharge for highly profitable enterprises. A surtax was imposed for incomes exceeding a certain amount. The total tax rate on joint ventures was 33 percent, and generous tax holidays were provided for new companies. Tax rates in the special economic
zones were (and remain) 15 percent. Foreign enterprises paid at progressive rates ranging from 20 percent to 40 percent. An additional local income tax surcharge could be added.

**Problems with the Pre-Reform System**

The Chinese government and numerous analysts identified problems with this system and called for its reform.\(^4\) First, the enterprise income tax was too complex to be either properly administered by government or easily understood by taxpayers. There were five different tax rate schedules, depending on the ownership of the enterprise, and the tax base was defined differently for each form of ownership. In addition to the basic enterprise income tax, up to six different taxes were applied to various definitions of enterprise profits. The result of this complication was high administrative cost, high compliance cost, ease of evasion and avoidance, and loss of taxpayer confidence.

Second, the contractual agreements with enterprises by-passed the income tax rules in favor of a negotiated arrangement, arranged by the local governments on an enterprise-by-enterprise basis. This did not create a level playing field for all companies, and was not consistent with the goal of creating a competitive environment that would lead to the best allocation of resources. The disparities in treatment were widely recognized by the government; some state enterprises paid effective tax rates as high as 70 percent while others paid as little as 5 percent; and average rates in some provinces were as low as 10–20 percent while in other provinces average rates reached 40–50 percent (Shi 1995, pp. 156–57).

State enterprises outside the industrial sector, collectives, and private enterprises were not covered to the same degree by contracts and often faced a much higher effective tax rate. This provided a significant incentive for evasion, with the result of a low degree of compliance by these enterprises. There also was a practice of local governments writing contracts or imposing special fiscal requirements for more enterprise investment in social services and/or economic programs. For example, Jiangsu local governments required TVEs to make ad hoc payments to local governments to support the modernization of agriculture, and subjected them to an effective tax rate about 20 percent higher than that faced by SOEs (World Bank 1991). Byrd and Qingsong (1990) report similar “milking” of township, village and private enterprise in rural areas. They argue that TVEs were taxed more lightly than the state sector but that significant extrabudgetary charges on these enterprises were used to support local government services.

While contracting became a problem for the central government, it must have been viewed as a fiscal bonanza by subnational governments, especially those whose economic position was stronger. Contracting, in effect, removed any trans-
Tax Policy

Transparency from the enterprise income tax, and made central monitoring all but impossible. This opened the door for all manner of arrangements to avoid sharing with the center. Since only the central government can affect the legal structure of taxes in China, subnational governments took some autonomy by providing incentives for “preferred” enterprises. Sometimes this took the form of contracts and sometimes it took the form of direct tax incentives.

In addition, provincial and local governments found ways to use tax policy to increase the rate of social infrastructure investment by enterprises. With reduced taxes on enterprises, the size of the budgetary revenue-sharing pool was reduced and the disposable income in the hands of enterprises was increased. These additional resources were transferred to the extrabudgetary account, that is, to the retained profits of the enterprise. The enterprise and the local government then agreed on the disposition of a portion of these funds on infrastructure projects, social services, and the like.

The practice of contracting had features that some Western economists might have applauded. It often lowered the marginal rate of taxation on enterprises to zero, providing a maximum stimulus to expand and to operate in a more efficient way. In the end, however, the fact that all firms did not have access to contracts (and some of the most progressive may have been excluded), the poor definition and measurement of taxable profits, and the revenue costs that led to higher rates elsewhere, likely defeated any advantage.

A third problem was that the revenue–income elasticity of the enterprise income tax was very low. Taxable profits grew slowly in the 1980s. The ratio of SOE profits to GNP fell from 22 percent in 1979 to less than 9 percent in 1990 (Wong, Heady and Woo 1995, p. 26). By the early 1990s, about one-third of all industrial SOEs were incurring losses. Those SOEs that were profitable often benefited from various forms of tax relief, and the tax administration was not aggressive enough to pull the growing nonstate sector into the net.

The contracting system contributed significantly to the low elasticity. By writing the contract with a marginal tax rate below the average tax rate (the usual practice in contracts), a low revenue elasticity was assured, especially in periods of rapid growth. Contracts often required firms to pay quota amounts of tax to the government even when they made losses. However, it is reported that during the early 1990s, only about 37 percent of those enterprises who did not make the quota actually paid tax according to the contract (Wong, Heady, and Woo 1995, p. 57). So, as far as revenue–income elasticity was concerned, contracts gave government the worst of both worlds: small increments in periods of rapid growth and even smaller increments in periods of slow economic growth.

The revenue–income elasticity was also dampened by arbitrage. Subnational governments were engaged in a kind of transfer pricing scheme where tax relief
Fiscal Policy in China

to enterprises was shuttled to the extrabudgetary account. There were considerable incentives for this transfer on the part of both the local government and the enterprises. The local government gained because extrabudgetary revenues are not shared with the center, and because the extrabudgetary account of locally owned enterprises can be tapped with relative ease. Enterprises can be asked to deliver services of certain types, or special taxes can be placed on their retained earnings to transfer the funds back to local governments. Either way, the local governments can spend from the extra budgetary accounts with much more discretion than they can spend from the budgetary account. The enterprises also benefited from the transfer of tax relief to retained earnings, where there was a greater possibility of spending for purposes that would directly benefit the leaders of the enterprise (e.g., employee bonuses or fringe benefits).

For some combination of these reasons, revenues from the enterprise income tax fell to a level of about 1.5 percent of GNP in 1995, by comparison with 8.2 percent in the first full year of the income tax reform (1985). With the expansion of the contracting system after 1986, the revenue contribution of the SOE sector dropped by more than 4 percent of GNP (IMF 1994, p. 26). Over the same period, however, the extrabudgetary revenues of the state enterprises increased significantly.

Fourth, the (nominal) marginal rates of taxation were too high. A 55 percent basic rate, a 15 percent Energy and Transportation Fund rate, and a 10 percent SBAF rate, coupled with a wage bonus tax and an adjustment tax, led to a very high marginal effective rate for those enterprises outside the contract system. However, though the legal rates were high, the average effective tax rate was thought to be quite low, even by international standards (Xu and Lin 1995).

Rather than dampening off-plan investment, the high statutory rates probably had the effect of stimulating tax avoidance. This posed a problem for tax reform in China. In part, the contract system with all of its flaws came into being because the enterprise tax rate was so onerous that it threatened to choke off innovation and enterprise development. Elimination of contracting could not be part of a comprehensive reform unless the nominal rates were significantly lowered (Xu 1995, p. 5).

Fifth, the deductions allowable in computing enterprise income tax liability departed from the international practice in significant ways. In some cases, these deductions encouraged inefficient behavior by enterprises. Loan principal and interest were deductible from taxable enterprise income, even though loan proceeds were not taxed as income. This is at odds with the international practice (which allows only interest cost as a deductible expense) and leads to an overstatement of the true production costs and an understatement of taxable profits. Clearly, financial choices were distorted in favor of debt. The World Bank (1990,
annex 2) estimated a marginal effective tax rate of 87 percent for an investment in a fixed asset by a large SOE, financed with retained earnings, assuming a 20 percent inflation rate and full tax compliance.

The deductibility of loan repayments placed subnational governments in a position of assuming much of the risk for enterprise borrowings and left the enterprises and the banks less burdened by repayment considerations. This deduction also imposed a revenue cost on the government. A combination of this deductibility and the availability of policy loans through the banking system meant that enterprises could afford to be less careful in choosing their portfolio of investments: The former lowered the price of an investment and the latter led to a sharing of the risk.

Other production costs were not fully deductible (hence taxable profits were overstated) in the Chinese tax system. In principle, all labor and capital costs that are incurred in producing taxable output should be treated as a tax-deductible expense. In China, there were two very significant departures from this rule: fringe benefits and depreciation. Ordinary wages, which are deductible production costs, are only a fraction of total labor costs. Fringe benefits (housing, health care, schools, etc.), and a wage bonus, which the enterprise provides from its after-tax profits, are significant components of employee compensation. Even basic consumer goods, presumably given in lieu of additional compensation, are often provided by enterprises. Various estimates place the share of fringe benefits at one-third to one-fourth of total employee compensation (Fan, Hai, and Woo 1996, pp. 264–68). These employee benefits were not allowable deductions under the Chinese enterprise income tax, nor were they taxable under the individual income tax.

The other area where true production costs are understated in computing taxable profits is depreciation. Chinese practice has allowed only very low depreciation rates, perhaps one-half to one-third of Western rates for similar assets. No accelerated depreciation is permitted. Moreover, the depreciation fund was reduced because the central government’s energy and transportation tax, and the income adjustment tax, both were applied to the sum of after-tax income and contributions to the depreciation fund.

The net effect of these deductibility practices on revenues is difficult to disentangle. The loan repayment deduction leads to an understatement of profits but the limited deduction for labor and capital costs has the opposite effect. At least for some enterprises, profits were overstated, and then subjected to high nominal tax rates, which led to a high burden and incentives for avoidance and evasion. For those in the contract system, the deductibility provisions were of no consequence except in the determination of liability for the surtaxes.

The enterprise income tax was adjusted in piecemeal ways between 1983 and
1994 to accommodate many policy objectives, for example, protecting central revenues, regulating wage payments and investment, compensating for unfair trading advantages. By the late 1980s, the statutory tax rate had reached unacceptably high levels. The provincial and local government owners of these SOEs used various types of tax incentives, administrative discretion, and the contract mechanism to both control the tax burden on SOEs and to retain a greater amount of budgetary and extrabudgetary revenue for local use. But every new round of changes brought more uncertainty about what the future would hold. This uncertainty dampened the enthusiasm of enterprise investors for medium and longer-term investments (Xu 1995, p. 4).

The Reform Program

The government appeared to establish four general reform objectives for the enterprise income tax:

1. Let the division of profits between the government and the enterprises be determined by the market, and by an objective tax system that is uniformly applied to all enterprises. Other ways of transferring profits between enterprises and government (e.g., contracting) should be eliminated.
2. Create a more horizontally equitable system, where all firms are treated the same by the tax system, regardless of ownership. This will enhance competition and lead to a better allocation of resources.
3. Tax enterprises at rates that are high enough to raise adequate revenue but low enough to provide incentives for new investment and more efficient operations.
4. Increase the revenue–income elasticity of the tax.

The 1994 reform was more or less true to these objectives. Five major changes were introduced (and remained in effect to the time of this writing in 1998). The first was unification. This new rate and base structure applies to all domestic enterprises regardless of ownership. At some point in the future, unification of the income tax for Chinese and foreign enterprises will be considered.

Second, contracting was prohibited in all cases except insurance and banking. Arguably, this is the most important component of the income tax reform. Once contracting is abolished, unification of the income tax across different types of ownership, reduction of the nominal tax rates, and elimination of the extrabudgetary surcharges all become possible. With this reform, China returns to the taxation approach to sharing profits, which it abandoned for the State-owned industrial enterprises after 1986.

The elimination of tax contracts posed some difficult transition issues. At the time of the reform, the government either negotiated a termination of contracts
in force, or allowed them to expire. Since most contracts had a three-year life, 1994 and 1995 were the phaseout years. Officials interviewed in Yunnan Province explained that the expiration approach was taken, that is, they reported that contracting with enterprises continued in 1994 and there were few if any terminations (Bahl and Wallace 1995). At least in terms of its formal provisions, this method of phaseout favors the government because the tax due under the law must be paid in full, as if no contract exists, and then a year-end settlement is made according to the terms of the contract.

Third, the top bracket income tax rate was reduced from 55 percent to 33 percent. The lower basic rate was necessary if the practice of contracting is to be eliminated. Smaller enterprises are subject to a lower marginal rate.11

Fourth, the surtaxes were eliminated or reduced. The income adjustment tax, the energy and transportation contribution, the budget adjustment fund contribution, the extrabudgetary construction tax, and the wage bonus taxes were abolished for SOEs and reduced for collectives and private firms.12 Elimination of these taxes simplified the administration of the tax system and made the enterprise income tax more transparent. These taxes were originally designed to recapture income tax revenues lost to the central government because of the leakage to the local government extrabudgetary accounts. With the abolition of contracting and the full assignment of income taxes to the local government, the income tax surrates were no longer necessary.

Fifth, a number of changes were made in taxable deductions. SOEs are no longer permitted to deduct repayments on loan principal from taxable income. However, four loopholes were left open. Loan principal repayment can be deducted if (1) the repayment is made from identifiable “new” profits, that is, profits generated by revenue-producing projects, or (2) foreign funds are earmarked for loan repayment, or (3) the government approves repayment of foreign loan principal from product tax revenues. In addition, (4) collectives may still repay part of their loan principal from before-tax profits. But for most SOEs, loan principal repayment is no longer deductible in determining income tax liability. Apparently, many enterprises have been hurt by this new regulation, but the blow is softened considerably by the rate reductions and the increased level of other deductions.

The tax treatment of interest expense does not conform to the international practice. Deduction of all interest expense is provided in the new Chinese accounting regulations,13 but the new tax law does not allow full deduction. The new law specifies two classes of interest expense. If the loan is from a financial institution (bank, insurance company, leasing company approved by the government), interest is fully deductible. If the loan is from a nonfinancial institution (e.g., another enterprise, a nonprofit government unit), interest is deductible only up to the interest rate charged by financial institutions.
Fiscal Policy in China

The 1994 reform includes an accelerated depreciation schedule available to all enterprises. Though this provides a faster write-off of capital investment than under the previous law, and many believe that it is a small step toward true economic depreciation, it does not provide the same incentive for capital investment as it does in most countries. The tax law is less liberal than the new accounting regulations in the treatment of depreciation.

The tax reform moves in the direction of a full statement of labor costs in the definition of taxable profits. Enterprises obviously would prefer that all labor costs be deductible. It would be to the advantage of profitable enterprises to shift labor cost expenditures to deductible status since the “price” would be lower by the amount of the enterprise tax rate (33 percent). Because the individual income tax does not apply to most workers, there would be little built-in resistance to this. However, the government has decided that it is more important to protect revenue and to exert some control over enterprise decisions about outlays for compensation than to allow full deductibility of labor costs for tax purposes. Therefore it has been decided to depart from the conventional practice by defining a cap on deductible labor costs (see Box 4).

The deduction for charitable contributions is capped at 3 percent of the taxable income of the enterprise. All charitable contributions by enterprises must be made through (central-government) approved intermediaries.

Indirect Taxes

Before the 1994 reform, there were three sales taxes in China: product tax, business tax and value-added tax. Each contributed about the same amount of revenue in 1992 (Table 2.2). The structure of these taxes was designed at the time of the switch from a profit-remittance system to an enterprise income tax. Because most prices were still controlled at that time, sales tax rates were used as an instrument to regulate profits. This multiple rate regime was the distinguishing feature of the Chinese sales tax system. By the late 1980s, there were over 250 different tax rates levied under these three taxes. Revenues were shared with the provinces on a derivation basis, with central determination of the retention rate.

The product tax was levied on the total sales value of certain manufactured and imported goods and on agricultural products. The base of the tax was the price paid by the buyer, which differs from international practice where the tax base is usually the producer’s sale price. The 21 different nominal rates of product tax varied from 3 percent to 60 percent. The value-added tax was applied in certain sectors of the economy and gradually became the principal levy on manufactured and imported goods. The VAT rates varied by the type of good, influ-
Box 4: Deductible Labor Costs

Wage and bonus payments (direct labor costs) are deductible under the 1994 reform, but only up to a cap. Each province has a “standard” wage plus bonus amount, set by the provincial government and approved by Ministry of Finance (MOF). These standard amounts are deductible, but any excess payments are not. The province does have some discretion to vary these base amounts within its borders, by location and by sector.

Interviews in Beijing Province (Bahl and Wallace 1995) suggest four ways for a province to avoid the standard labor cost cap. The first is to link the wage to the enterprise profit. The second is to tie the wage to productivity, for example, piecework payments. The third is to pay the worker a fixed percentage of the product value. Fourth, workers may be paid by the hour. Wages may be fully deducted in all of these instances.

With respect to fringe benefits, partial deduction of expenditures for trade unions, worker welfare, and training will be allowed according to a centrally determined formula:

- Trade union costs are deductible on a per employee basis up to 2 percent of the “official” base salary. For example, if total base salaries in the enterprise add up to 10 million yuan, 200,000 yuan of total trade union expenses would be deductible.
- Welfare costs, which include housing, clinics, etc., are deductible up to 14 percent of base salary; it was 11 percent in the pre-reform period.
- Worker training such as technical education is deductible up to 14 percent of base salary.

enced by the price and profit-regulation motive. The pre-reform VAT had 13 rates. A turnover tax referred to as the business tax was the main tax instrument used to cover the service and trade sectors. It was levied on gross receipts (gross markup in the case of wholesale). The 4 rates of tax varied from 3 to 15 percent. The 40 tax rates for combined industrial commercial taxes on foreign enterprises ranged from 1.5 to 69 percent (Xu 1995, p. 6). The agricultural sector was exempt from indirect taxes, as were enterprises with monthly sales below a specified floor level (the floor level varied by sector). No commodity was subject to more than one type of sales tax.

The base of the Chinese VAT in the pre-reform period was similar to the
international practice in some respects. Exports were zero rated, and exemptions included agriculture and most services. But the Chinese VAT was different in that exemptions included the construction, transport, and communications sectors; credit was not allowed for tax paid on capital inputs; and a multiple-rate structure was in place. The method of calculating the tax base was different from that used for value-added taxation in most countries. Taxes paid on raw materials and most tangible intermediate goods were credited, but credit amounts were established according to presumptive methods. The assessment and collection of VAT by the relatively autonomous local tax bureaus, and the ability of the local governments to provide VAT exemptions, were significant and important departures from the normal practice. The VAT rate and base may have been determined in Beijing, but one could not correctly say that it was levied in a uniform way throughout China.

Problems with the Pre-Reform System
Chinese government officials and outside reviewers seemed to agree on several major problems with pre-reform indirect tax system (Bahl 1994; Wong, Heady, and Woo 1995; World Bank 1990; Xu 1995). The first is that it was designed to act as a substitute for the market process in controlling profits and prices. Because tax rates varied so widely, enterprises faced widely different tax burdens and therefore were advantaged or disadvantaged relative to their competition. Such a system of differential rates was no longer necessary by 1994 because prices had been decontrolled on most consumer and producer goods. Nevertheless, the practice of multiple VAT, product, and business tax rates continued up to 1994, even though a simplified rate structure was possible for most goods. The net effect was an impediment to competition and a cause of inefficient resource allocation.

Second, the pre-reform system introduced a bias against capital investment and against capital intensive industries. The GNP form of VAT used in China did not allow a credit for tax paid on capital goods. A VAT that credits capital purchases does not discriminate against capital intensive industries, and most industrialized countries have taken advantage of this desirable feature. Leading proponents of value-added taxation argue that capital expenditure should be free of tax (Cnossen 1998a; McLure 1987; Summers and Sunley 1995; Tait 1991, p. 11).

A third problem was the absence of uniformity in the VAT, even though the tax rate and tax base were centrally determined. Input tax credits were determined using subjective methods and presumptive rules rather than invoices, and this left considerable room for discretion on the part of local tax officials. The credit for product taxes paid was calculated at 14 percent, and this presumptive
practice was often extended to other intermediate goods, including some that paid VAT (World Bank 1990, p. 161). However, even this practice was not uniformly followed, and in some provinces, the tax authorities used invoices to try to calculate the actual tax paid on inputs (Wong, Heady, and Woo 1995, p. 51). The lack of uniformity in administration made it almost impossible for the central government to monitor efficiently the revenue performance of the VAT.

A fourth problem is that certain producers were put in a disadvantaged position by the rules on tax credits allowed under the VAT. Taxes paid on overhead inputs and on distribution inputs were not creditable, full credit was not allowed for taxes paid on the purchase of some raw materials, and applications for export rebates could be made only after the goods had cleared customs.

Fifth, because the indirect tax system was a mixture of a value-added tax and a turnover tax, and because all inputs could not be credited under the VAT, it was subject to substantial cascading that distorted prices and weakened the competitive position of exporters. The World Bank (1990, p. 186) estimated that the degree of distortion was quite large in some sectors, for example, the statutory rates for the electricity and heavy-chemicals sectors were 5 percent and 10 percent, respectively, but the full tax rates were 10 and 26 percent.

Sixth, the system was unduly complicated because of the number of tax rates and the three separate sales taxes. This compromised administration because it forced tax administration officials to spend more time with classification and interpretation issues, and less with audit and collection. It also raised compliance costs because it required a great deal of direct contact with tax administration officials. Finally, complication makes the tax system difficult to understand, eroding confidence on the part of taxpayers and dramatically reducing the possibilities for accurate self-assessment.

One result of these structural problems was a slow growth in revenues from the indirect tax system. The revenue–income elasticity of the sales tax system was 0.75 between 1985 and 1993. As a consequence, the sales tax share of GNP, the effective rate of tax on total value-added in the economy, fell from 12.2 percent in 1985 to 8.4 percent in 1992 (Table 2.1). In addition to reasons related to structural problems as noted above, this low elasticity may be attributed to the widespread practice of granting VAT exemptions to enterprises. Relief from VAT was regularly provided by provincial and local government officials. Provinces could provide an exemption of up to 30,000 yuan per application (Wong, Heady, and Woo 1995, p. 54), and this authority was usually delegated to lower-level governments. Approval at the central or even the provincial level was not required. Unfortunately, there are no centrally available records that will enable an accurate accounting of the revenue cost of these exemptions.
The Reform Program

The Chinese government has described its objectives for reform of the indirect tax system in a number of documents (Xu 1995; Xu and Lin 1995).

1. Move the sales tax system away from its role as a "regulating" instrument, recognizing the proper role of the sales tax: to raise adequate revenues equitably and without compromising the government's goals for an economic environment where enterprises compete on a level playing field.

2. Simplify the structure of the sales tax system and standardize the treatment of all enterprises (and most products). Departures from the standard treatment should be the exception rather than the rule.

3. Structure the sales tax so that its built-in revenue growth is adequate to support the desired rate of expenditure growth.

The 1994 reform program addresses these objectives by substantially restructuring the sales tax system. There were several major areas of reform.

The VAT now absorbs most sectors previously covered under the product tax, and the latter will eventually be phased out. For a few industrial sectors, the product tax remains as an additional excise. The consumption tax was enacted in 1994 to compensate for the rate reductions that occurred for some products when the product tax and the VAT were merged. This was done mainly for revenue purposes, but is consistent with the argument that drinking, smoking, driving and luxury consumption be discouraged by the tax system. Consumption taxes are collected from producers under the following categories:

- Tobacco (30 to 45 percent)
- Alcohol (5 to 25 percent)
- Cosmetics (30 percent)
- Shampoo and conditioners (17 percent)
- Jewelry (10 percent)
- Firecrackers
- Gasoline (0.2 yuan per liter)
- Diesel fuel (0.1 yuan per liter)
- Automobiles (3 to 8 percent)
- Motorcycles (10 percent)
- Tires (10 percent)

Most wholesale and retail activities are now covered under VAT rather than under the business tax. The business tax now includes only the following categories of services:

- Transportation, postal service, and telecommunications
- Entertainment and hotel services
A two-rate system for the value-added tax was adopted. In addition to a standard rate of 17 percent, a low rate of 13 percent is applied to wholesale food consumption, vegetable oil, agricultural products, agricultural machinery, textiles, mineral products, basic foodstuffs, newspapers, books and utilities.

The base of the VAT is changed to producer price. This conforms to the international practice and improves the transparency of the tax.

A credit–invoice system was adopted for VAT administration. There was a transition period during which presumptive crediting and the credit–invoice system would coexist, but by the end of 1994, much of the country was reported to have “switched over” to the credit–invoice method.

Two standards were set with respect to coverage of small wholesale and retail enterprises under the VAT. They are subject to the ordinary VAT if they have annual sales above a specified limit (1 million yuan in gross sales for general firms, and 1.8 million yuan for industrial firms), or if they can demonstrate competence to comply with VAT regulations. Otherwise, they are subject to a 6 percent gross receipts tax.

There was no proposal to permit a credit for taxes paid on capital goods. This is primarily because of the concern about overinvestment, and because of the short-run revenue cost. The State Administration on Taxation (SAT) estimated that if the capital credit had been given, and if revenues had been protected, the basic VAT rate would have been 25.5 percent instead of 17 percent (Bahl and Wallace 1995).

Individual Income Tax

Individual income tax is a relatively minor tax in China, accounting for less than 1 percent of total tax revenue in 1992. Revenues are retained by the local governments. Until the 1994 tax reform, there were two separate individual income taxes. The first, a tax on the income of foreign residents in China, was levied according to a progressive rate schedule. The second, the personal income adjustment tax, was the tax on Chinese citizens. This tax also was levied at a progressive rate, but the exemption level was considerably higher than the average Chinese wage. The result was that the coverage was very narrow. For example, the World Bank (1990, p. 179) estimated that less than 1 percent of all workers in Beijing were covered in the late 1980s. About two-thirds of the tax was collected through withholding.

The 1994 reform unified the individual income tax on Chinese and foreign residents. It maintains a high exemption of 800 yuan per month for individuals,
and allows deduction of actual expenses for individually owned businesses. The new law provides for three rate schedules. The rates applicable to income from wages and salaries range from 5 percent to 45 percent, those on income earned by "individual and commercial households" range from 5 percent to 35 percent, and that on capital income is a flat 20 percent. The tax on wages and salaries is collected by withholding (with a 2 percent commission), and that on businesses by a monthly payment made directly to the local tax bureau.

The tax threshold is so high that one can correctly conclude that China does not have a broad-based personal income tax. This omission from the tax structure provides some measure of justification for not allowing full deduction of labor costs under the enterprise income tax. That aside, one could identify four major problems with the pre-reform system of individual income taxation. First, the threshold is too high. The basic annual exemption of 9,600 yuan is twice the level of the annual average wage in China. It is one-third higher when compared to the average wage in banking and insurance, which is the highest-paid sector in China, and 3.4 times the average wage in the agricultural sector, which accounts for 54 percent of total Chinese employment. As it is currently structured, the tax aims only to cover a small portion of top-end taxpayers. This has obvious administrative advantages, but the revenue yield has been inconsequential.

A second problem is that the present high marginal tax rates (45 percent on wage earners, and 35 percent on household business) may discourage the entrepreneurship and investment that the government is now trying to stimulate. Third, the tax is complicated. Though there is not a long array of deductions, there are three rate schedules that provide different treatment for wages, small business earnings, and capital income.

**Evaluation of the Reform**

These changes in the Chinese tax structure are a major step in the direction of modernization, and bring taxation more into line with the goals of the system reform. The reformed system is more equitable horizontally and has the potential to be more revenue productive. These rate and base changes also simplify the system, thereby making the administrative tasks of enterprises and government less difficult and the system more transparent to taxpayers; and the changes improve the ability of the central government to use taxation as an instrument of macroeconomic policy. Thus, the reform leaves the central government in a better position in terms of revenue mobilization, with more certainty about the effects of taxes on economic activity, and with a better ability to use the tax system as a lever to influence investment, consumption, and pricing decisions.

This is not to say that the reform program solved all problems. Indeed, it did
not, and it may have made some things worse. Some structural flaws were left in place; there still is no significant personal tax, local autonomy may have been weakened; and the success of the tax structure reform depends very much on a still-untested tax administration. These cautions notwithstanding, the view here is that the Chinese reform, at least in terms of structural revisions, is a major step in the right direction.

In this light, one might evaluate the proposed reform by the same five criteria that the Chinese government has explicitly or implicitly laid out as justification for the reform:

- Revenue mobilization
- Horizontal equity or fairness
- Industrial policy
- Simplification and administration
- Transition issues

Revenue Mobilization

Some analysts have worried that the reform has not turned around the revenue decline, and point to the continued decline in the ratio of tax to GNP in 1994 and 1995 (Table 2.1). The pessimistic view is that the government may have missed both of its revenue targets: halting the decline in the tax ratio and raising the built-in revenue–income elasticity of the tax structure. There are a number of possible explanations to support this view: The VAT and enterprise income tax rates may not have been set high enough to recoup the revenues lost from the other tax structure changes, or the new revenue structure is in fact potentially more revenue productive, but the present administration of the system is not capable of capturing this growth.

A more optimistic view is that the reform was revenue neutral in the first year and will increase the elasticity and therefore the tax ratio, but only after the transition period. In fact, the evidence does suggest that the 1994 reform did achieve revenue neutrality, that is, it raised as much revenue as the pre-reform system would have raised. To show this, we have estimated the relationship between taxes and GDP in China for the period 1978–93. The result is described in equation (3.1) below:

$$\left( \frac{T}{Y} \right) = 33.63 - 0.01794 \left( \frac{RGDP}{P} \right)$$

(7.18) (12.15)

$$R^2 = 0.90$$

where $T/Y$ is the ratio of taxes to GDP, and $(RGDP)/P$ is real per capita GDP.

This equation can be used to predict a tax ratio of 10.2 percent of GNP 1994, and 10 percent in 1995. In fact, China’s actual tax ratio was 11.0 percent in 1994 and
10.5 percent in 1995. The reform would seem to have met the revenue-neutrality test, and probably was a revenue gainer by comparison with the pre-reform system.

The 1994 reform may give even more of a revenue boost once the administrative shock to the system has been absorbed. One might think of 1994 and 1995 as transition years when contracts were being phased out, the new loan repayment provisions were not yet fully in force, the credit-invoice system of VAT was being learned by enterprises and tax administrators, and special transition features were in place. After the transition period, one would expect the base elasticity of the enterprise income tax, the VAT, and the fixed local taxes to rise because of the incentive effects for greater collections, the base broadening effects of the credit-invoice system, and the reduced incentives to providing tax preferences. The preliminary evidence is that the revenue elasticity of the Chinese tax system has begun to increase. Compared to an overall income elasticity of about 0.53 between 1985 and 1993, the revenue-income elasticity was 0.92 in 1995–96, the first year after the reform.

**Income Taxes.** The structural reform of the enterprise income tax included both changes that would reduce revenues, and changes that would enhance revenues. There will be revenue losses, other things being equal, from lowering the top enterprise income tax rate from 55 percent to 33 percent; from eliminating the adjustment, budgetary adjustment and energy-transportation surtaxes; and from the increase in deductibility to correct for the understatement of labor and capital costs in calculating enterprise profits.

Other elements of the proposed reform will give revenue increases. The elimination of contracting could increase revenues from the enterprise income tax by a significant amount. No one really knows the extent of the revenue loss resulting from the practice of contracting, because no reporting was required and no thorough records were kept. However, it is known that about 80 percent of all industrial SOEs were under contract, and that revenues from the enterprise income tax had fallen off precipitously since the beginnings of the contracting practice. Revenues will also increase as a result of elimination of the loan repayment deduction. Again, the government has made no hard estimate of the revenue consequences. The World Bank tax study (1990, p. 68) estimated the revenue cost of the loan repayment deduction to be equivalent to about 3 percent of total revenue in 1986.

The Ministry of Finance (MOF) Tax Policy Department studied the potential impacts of the reform, using a sample of forty thousand SOEs, twenty thousand collectives, and several thousand township enterprises. The department estimated that there would be little change in the average tax burden facing enterprises, but that there would be a change in the distribution of tax payments among industries.
of various types (Xu 1995). About 75 percent of the “products” (sectors) would see a decline in the tax burden, and about 25 percent would see an increase. The sectors with increases in tax burdens included natural resources (e.g., coal mines), motorcycles, and textiles. The 1994 reform was intended to produce a better match between revenue growth and the growth in expenditure needs, by increasing the income elasticity of the enterprise income tax; however, there was no expectation that enterprise income tax revenues would grow in proportion to GDP even after reform (Xu 1995, p. 19). The elimination of contracting should increase the overall elasticity because contracts were written with a marginal rate that was lower than the average rate, whereas the statutory rate structure imposes a more conventional, graduated marginal tax rate structure. The reduction in the tax rates, the elimination of surtaxes, and the more realistic deductions should increase the rate of profitability of enterprises. However, elimination of contracts may slow the long-run growth in profitability of enterprises if contracts really did have an incentive effect. The more appropriate deductions for labor and capital costs may increase the longer-run profitability of enterprises, but they will probably compromise the short-run level of taxable profits. The net effect of these influences on the growth in enterprise income tax revenues is not easily seen and data are not yet available to make a hard estimate. The results for 1995, however, show that the tax-GNP share for the enterprise income tax remained approximately constant (Table 2.1).

The changes to the individual income tax are not obviously revenue enhancing because they do not address the basic issue of the high income threshold for positive tax liability. On the other hand, there is a “local effect” that should be decidedly revenue enhancing. Local governments, now charged with collecting the tax and retaining all revenues, have more power to control the revenue take and more incentive to increase it. Moreover, the long view is that the future health of local government finances will depend more on how aggressively they collect local taxes than on how well they negotiate for an increased VAT share.

**Indirect Taxes.** The revenue effects of the indirect component of the tax reform are no easier to estimate. This is because data are not available to make the estimate, but also because a significant part of the revenue impact will be the result of administrative improvements in the assessment of the tax. The data available, for 1994 and 1995, show that total VAT and business tax revenues continued to decline as a share of income.

The big change in the VAT is the introduction of a credit−invoice system. This is a very different assessment approach from presumptive crediting and requires significant adjustments in procedure. It is unlikely that the introduction
of the credit–invoice method alone could lead to the same revenue yield as the presumptive method in the first year of operation, because of the learning required on the part of both the tax administration service and the financial officers of the enterprise. There also is a revenue-dampening effect in terms of the speed with which the retail and wholesale sectors can be absorbed into the VAT. Again, it is an administrative question: Can the existing VAT administration register retail and wholesale enterprises, assess their tax liability, and collect efficiently?

Several other features of the VAT reform could protect revenues in the very short run. First, the basic VAT rate of 17 percent, together with the limited number of exemptions, may lead to a higher effective rate than the preexisting VAT, product, and business taxes. Second, the special excises were retained to protect revenues collected on consumption of luxury goods (e.g., motor vehicles) and goods with a low price-elasticity of demand (e.g., cigarettes and liquor). Third, the self-policing component of the value-added tax could bring additional firms into the tax net, mostly suppliers and smaller enterprises. Fourth, the credit–invoice method requires actual proof of the amount of tax paid on inputs, and this should lead to a more accurate statement of revenue liability than did the presumptive method. Finally, the new indirect tax structure is simpler and easier to administer, and the responsibility for controlling administration rests fully with the central tax authority. Administrators would hereafter spend less time administering three different sales taxes at more than two hundred different rates and concentrate on assessing and collecting a broad-based VAT with two rates. Revenue leakage due to exonerations provided by local governments would presumably be closed off.

There also would be a “local effect” operating with respect to indirect taxes. Subnational governments would now have more incentive to collect business taxes and the VAT surcharge (urban construction and maintenance tax) aggressively. Not only do these revenues belong to the provincial and local governments in terms of administrative responsibility and revenue assignment, but the new, narrower coverage of the business tax at once puts on a revenue squeeze and makes the administrative task less daunting. Moreover, the new form of VAT administration could result in an expansion of the tax base for local governments if a taxpayer information-sharing system is put in place.

**Horizontal Equity**

Chinese government officials have emphasized the need to create a level playing field to enhance competition among enterprises. This principle of horizontal equity means that businesses in an equal situation should be treated equally by the system. The 1994 reform attacked all four major sources of horizontal inequity
in the present system: differential treatment according to ownership, the practice of contracting, legal rate and base structure, and administrative procedures. This policy reform was brought to the table none too early. The government has now embarked on a program that will dismantle the non-profitable SOEs. It is more important than ever to remove any tax features that might distort the calculation of true profitability or reduce the incentive for enterprises to maximize profits.

The pre-reform system treated enterprises differently under the profits tax, depending on their ownership. Tax burdens differed among SOEs, collectives, and private firms. Unification of the enterprise income tax to a single system for all domestic firms significantly improved the fairness of the system.

Even within the SOE sector, tax burdens varied widely depending on whether an enterprise had a contract, the type of contract written, and the financial position of the local government that wrote the contract. The elimination of contracting substituted a transparent tax system for a negotiated one and placed enterprises on a more equal footing.

Tax-burden differences among enterprises also were affected by the more than two-hundred and fifty different sales tax rates that were in force under the pre-reform system. The merging of the bases of the product tax and much of the business tax into the VAT, with the adoption of only two rates for the VAT, significantly reduces the variation in tax burdens due to differential tax rates.

The movement of the VAT to the central government level should improve the uniformity of application of the tax and improve horizontal equity. Local governments should no longer be able to give VAT tax relief to favored enterprises. The switch to a credit–invoice system will remove some of the subjectivity from assessment of tax liability and moderate another source of horizontal inequity.

Though the playing field has been significantly leveled by the 1994 reform, there remain important horizontal inequities in the system:

1. The absence of a VAT credit for taxes paid on capital inputs maintains a bias in the tax system against investment and against capital-intensive enterprises. If depreciation rates under the enterprise income tax are too low, this bias is exacerbated.
2. Joint ventures and foreign enterprises are taxed under a different income tax regime from domestic Chinese enterprises.
3. The tax administration does not cover the nonstate sector to the same degree as it does the state sector, thereby creating differential tax burdens.
4. Some local governments impose taxes or mandatory contributions on their enterprises (sometimes as monetary transfers and sometimes in the form of public service provisions). This is, in effect, a differential tax treatment by type of enterprise.
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The centerpiece of China’s industrial policy is to create more competition in the enterprise sector, to stimulate enterprises to undertake greater rates of productive investment, and to continue the process of separating the government from the enterprise sector. The 1994 reform is consistent with these objectives.

The improved horizontal equity in the system removes the significant variation in tax burdens that exists across firms and creates a competitive environment that is less driven by the tax system than by market forces. Competition should create more entrepreneurship, innovation, and investment. The reform also reduces the very heavy income tax burden on some enterprises. The elimination of the adjustment tax, energy and transportation fund contribution, and budgetary adjustment tax, and the reduction in the general rate to 33 percent are measures that significantly increase after-tax earnings. This is especially true in cases where enterprises were in full compliance with the pre-reform tax system. The increased deductibility of labor costs and the more liberal depreciation rates also will reduce the overstatement of profits and therefore the tax burden. All of these factors will enhance the incentives for productivity increases and profit making.

Elimination of loan repayment as a deductible item will, other things being equal, improve the efficiency of enterprise investment decisions by leading to a more careful scrutiny of investment choices. This reform also should enable the central government to exert more effective macroeconomic policy control over the level of enterprise investment. Xu and Lin (1995, pp. 144–45) underline the point that this reform will have an important indirect effect: forcing enterprises to change their operating mechanisms because of the harder budget constraint that they must face. These operating mechanisms almost certainly will include better cost–benefit analysis of investment choices, better forecasting to make explicit the affordability of maintenance and borrowing costs on capital projects, and better accounting for true costs of investments. However, so long as policy loans from state banks are available (see Chapter 2), enterprises will not be forced to scrutinize their borrowing choices. The elimination of loan repayment as a tax deduction is certainly a step in the right direction but by itself will not impose a hard budget constraint on local governments.

This reform will shift the locus of industrial policy from the local to the central government level. Under the previous system, local governments had relatively free reign to stimulate job creation and investment. They could:

- Write tax contracts with incentive provisions for enterprises to increase their profitability;
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- Assess special charges and taxes on enterprises to cover shortfalls in the general local government budget;
- Give tax incentives under the VAT and enterprise income tax to stimulate activities in targeted sectors;
- Impose "buy local" constraints on local producers to protect VAT revenues and force up income tax revenues; or
- Enter into strategic agreements with enterprises whereby tax payments to the central government were "traded" for some combination of increased public service provision and increased retained earnings.

The 1994 reform removed the contracting option and, by making the VAT a central government revenue source under central government administration, ostensibly removed the option of targeted VAT tax relief. This leaves the income tax in the hands of subnational governments—both administration of and control over revenues collected are fully under provincial control. The local governments may choose to provide tax relief, but they must bear the full cost of the revenues lost.

Simplification and Administration

The 1994 reform makes the tax system more transparent, that is, less a negotiated system and more an objective system. This has a number of advantages: it is less costly to administer because it is simpler, it permits a reallocation of the time of tax administration officers toward the more important issues of assessment, collection, and audit; and it increases the public's understanding and therefore confidence in the tax system.

The tax structure was markedly simplified in 1994 by the reduction in the number of taxes from 32 to 18 (Box 3). There are also important structural simplifications: The number of sales tax rates has been dramatically reduced, the tax treatment of enterprises no longer depends on kind of ownership, the two individual income tax schedules have been merged, and the practice of giving tax contracts to enterprises has been eliminated.

These changes have important effects on the tax administration service and on the overall cost of administering and complying with the tax system. Simplification means that tax administration officers now can spend less time on activities such as classification of products into rate classes and overseeing a differential treatment of state, collective and private companies. The elimination of contracting relieves the tax service from the task of developing and monitoring agreements with enterprises. This means that tax officials can reallocate their efforts to more revenue-productive activities, such as registration of enterprises and collections.
There are also savings on the compliance side. Enterprises no longer must assign significant resources to negotiating and maintaining contracts and special tax incentives. The smaller number of taxes and simpler VAT structure will lift some of the burden from enterprise accountants. Finally, codification and transparency, as provided in the 1994 reform, allow the enterprise tax officials to organize their work efforts more efficiently and to spend less time in direct (and often face-to-face) negotiation with local government officials.

Certainly, this reform also introduced some new complexities, and for a time this may result in higher administrative costs. The switch to a credit-invoice method of calculating VAT will initially be more difficult for administrators and taxpayers than was the arbitrary presumptive method. The monitoring of invoices is an important new activity, and the credit-invoice VAT requires a more extensive accounts-based assessment than does presumptive crediting. This has important implications for the training of government officials. The movement of many categories of production and consumption from product and business taxes to VAT will increase the complexity of assessment. The absorption of small retailers and wholesalers into the VAT is a bold move, and at least for the transition period could increase the difficulties of administering the VAT because these firms are small and often do not keep adequate books of account.

Both the tax service and the enterprises will have to make a significant and continuing investment in educating their personnel in how the new system works. The central government will be required to prepare revised forms and instructions, new audit and assessment manuals, modern accounting regulations, and methods of controlling the tax intermediaries who certainly will emerge. Enterprise staffs must absorb all this and modify their books of account to fit the new system.

**Transition Issues**

The cost of administration and compliance almost certainly will increase during the time of transition. Depending on the readiness of the tax administration, these costs will be higher or lower and the transition period longer or shorter. In the long run, however, the administrative cost of a credit-invoice administered system, compared to the present system, should be lower in proportion to the revenues collected.

There are transition issues other than those related to tax administration. Two areas seem especially important. First, many enterprises have planned their business strategy around the provisions of the pre-reform system, and these companies may not be able to adjust quickly. One issue is the revoking of the repayment of loan principal as a deduction from income tax liability. Some enterprises may have over-committed to debt financing to a point where loan repayment from
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after tax earnings may not be possible without significant financial hardship. There are a number of possible adjustments. Local governments can provide targeted tax relief, enterprises can seek policy loans to reduce claims on their retained earnings, and repayment periods for debts can be extended, subject to approval by the examining bank (Shi 1995, pp. 162–63). Transition issues always plague tax reform. On the one hand, there is the desire to be fair, but on the other, bridging arrangements too often become institutionalized in the form of loopholes. Chinese reform must walk an especially fine line in balancing these two considerations, because of the revenue implications and because the entire state enterprise system is entering a period of major restructuring.

A second transition issue is the contracting practice. The government faced the problem of what to do about contracts still in force. The possibilities were to buy out some existing contracts, to prohibit renewal, and to extend the contract period for enterprises in “special circumstances.” During the transition period, governments will be tempted to make special provisions for enterprises that are unable to cope with the new regime. Again, the danger is that these special arrangements will become institutionalized, and thus will not be repealed after the transition period passes.

The Remaining Agenda

The tax structure features of the 1994 tax reform were far-reaching and clearly in the right direction. Still, there is an unfinished agenda of important reforms.

The enterprise income tax proposal does make progress in the direction of properly defining production costs for the determination of taxable profits; however, there remain significant discrepancies from the best practice. One is that direct labor costs are capped rather than being fully deductible, and fringe benefits are not deductible. This results in an overstatement of profits, a higher relative cost of labor, and a higher effective tax rate than would exist under full (and proper) deductibility. The reform stopped short of what it could have achieved in this area. If enterprise decisions are to be driven by market forces, all labor costs should be counted in determining taxable profits. On the other hand, China’s economy is in transition, and one might argue that partial deductibility is not an unreasonable second-best solution at this point. A portion of the labor costs that are not deductible takes the form of distributions of profits to labor, based on other criteria than productivity; and another portion takes the form of fringe benefits such as kindergartens, clinics, housing, canteens, and the like. Since there is no broad-based individual income tax in China, some limits on the deductibility of these items might be justified.29

Another problem involves the tax treatment of capital inputs. Depreciation
rates are low by international standards, and low in relation to the economic life of assets in China, with the results that, other things being equal, profits are overstated, and long-lived capital investments are overpriced relative to other inputs. Nor does the reform contain a provision allowing credit for taxes paid on capital inputs under the value-added tax. This is at odds with international practice and it discourages investment, but it is a common problem faced by countries in transition to a value-added tax. Many countries have adopted the approach of gradually phasing in the credit for capital goods so as to soften the one-time revenue loss (Cnossen 1981; Tait 1988, pp. 182–85; 1991, p. 11).30

Another needed reform is the creation of a broad-based individual income tax. The threshold level of taxable income set by the government in the 1994 reform is twice the average wage, hence, the coverage remains very narrow. As the enterprise sector is cut loose from government, it will be necessary to shift more and more to a true statement of profitability, including full deductibility of labor costs. This means that an individual income tax will have to cover the compensation (including fringes) of all workers. At present, the Chinese system does not have a broad-based tax levied directly on individuals, and surely this must be high on the reform agenda for the future.
The 1994 reform was a major step toward resolving a long-standing problem presented by the divided loyalties of tax administration officers. Prior to the reform, two-thirds of the tax administration staff operated at the lowest level of government with relatively little central government supervision. Consequently, the staff members maintained close ties with the local finance offices and with the locally owned enterprises (IMF 1994). This led to a kind of collusion that weakened the position of the central government in revenue sharing (World Bank 1990). Elimination of this dual responsibility system was a major goal of the fiscal reform.

Separate national and local tax administration services were established by the 1994 reform. Under the new system, a local tax bureau operates in each province with responsibility for collection of "local taxes," including the enterprise income tax on locally owned enterprises, collectives, and private businesses. There are still about six hundred thousand employees in the tax administration service: four hundred thousand in the national tax bureau (NTB) and two hundred thousand in the local tax bureaus (LTB). The LTB is now an independent unit of the subnational governments, and its operations are funded from local resources. The NTB is responsible for collecting the VAT and all other central or shared taxes (primarily excises, consumption taxes, income tax on centrally owned enterprises, and securities). The NTB continues to operate mainly from provincial and local offices, but does not have day-to-day supervisory responsibilities over the local tax service. Both the LTB and the NTB are subordinate to the State Administration of Taxation (SAT).

There should no longer be a question about the objectives of the tax administration offices as regards the choice between full taxation under the law and maximization of retained local revenue. The NTB officers stationed at the local level have an incentive to collect fully the VAT and other central taxes due. It is now
clear that local NTB officials report up to the provincial NTB offices, and so on, and that their performance and rewards are determined by the next higher level. At least this is the theory behind the tax administration separation in the 1994 reform. The LTB should observe the uniformity prescribed in the tax law, but if in some way it is allowed to grant preferential treatment, the local government must absorb whatever revenue costs are incurred in that choice. By 1994, it had become clear that the existing division of fiscal responsibility—locally led administration and central policy formulation—would not work.

What Prompted the 1994 Changes?

The function of tax administration systems is to implement the structure of taxation that is defined in the laws of the country. In China, where a national tax structure applies uniformly to all local areas, a uniform implementation of the tax code is expected. The only "noise" in the system should come from those random deviations arising from quirks in the approaches of particular officials—and perhaps from underperformance in the poorer provinces due to skill and computerization shortcomings.

This turned out to be far from the way things were in the pre-reform period. The provincial and local-level Chinese tax administration offices actually made policy via their discretion in assessing and collecting taxes. China's fiscal system has been a textbook verification of Casanegra's adage that administration is policy, and further progress could not be made unless the two were separated (Casanegra 1987). Separation of the local from the central tax collection bureaus was necessary if the 1994 reform was to be successful in raising revenue, achieving uniformity in the implementation of the tax structure, and creating a tax-assignment system with incentives for improved tax effort.

Revenue Mobilization

As noted above, the declining share of taxes in GDP has plagued macroeconomic policy in China for most of the past decade. Although part of the problem had to do with a tax structure that was inherently inelastic, and part from contracting and the granting of lucrative preferential treatments, most observers would also note deficiencies in the tax administration. Most often noted as problem areas are the skill level of the staff, procedural shortcomings, and the absence of computerization. Arguably, an even greater revenue leakage resulted from the divided loyalties of officers at the local level. The local tax officers, who actually collected the tax, were subordinate to both the central tax service and the provincial and local government finance bureaus.

This "divided loyalty" of the subnational tax administration officials gave a
significant tilt toward the provincial and local government side. One reason is that the salaries and benefits of these officers were paid by the subnational governments, and another that the absence of a rotation scheme meant the local tax officers often (usually) had stronger ties and loyalties to the local governments. Another reason is that the central SAT and the provincial tax bureau exerted relatively little control over the local bureaus where the actual assessment and collection take place. Bahl (1990, p. 12) found indirect evidence of meager oversight in Jiangsu Province. There were (in 1990) only 170 employees in the provincial tax bureau office (50 of these were administrative–clerical staff), and 23,000 employees in the local tax bureaus in the province. Approximately six hundred thousand private firms and one hundred thousand SOEs, TVEs, and collectives were doing business in Jiangsu in 1990. There were no detailed tax records at the provincial tax bureau office—only summary statistics. There was little or no computerization. All of this suggests that the provincial tax authorities were in no position to exercise any significant measure of control over the local offices of the State Tax Bureau (STB). It is a reasonable hypothesis that the situation is not markedly different in many Chinese provinces.

The local tax officers and the local tax bureaus used the tax administration system and enterprise contracting to establish a provincial government taxing autonomy and to alter the revenue-sharing scheme. They accomplished the former by entering into direct negotiations with the SOEs for payments in lieu of the enterprise income tax; the latter, by "transferring" tax funds to local extrabudgetary accounts that otherwise would have been shared with the central government. Since the local government saw itself as an owner of the state enterprises, it would gain if the revenue went either to a fiscal extrabudgetary account of the local government or to the retained earnings of locally owned enterprises. In addition, local governments have become increasingly imaginative and bold in the levy of extrabudgetary charges on enterprises. The tax service may well have been archaic in its approach to assessment and collection, but it could be downright creative in finding ways to shield revenues from the budgetary accounts.

The administrative reform addressed the revenue mobilization problem in three ways. First, by assuming all collection responsibility for the value added tax (VAT), the central government established its prior claim and removed VAT from the list of taxes over which the local governments have administrative control. From 1994 on, VAT revenue collections would go first to the center and then be redistributed to the local governments by some combination of derivation and a formula arrangement. The elimination of leakages of VAT revenues to the extrabudgetary accounts, together with hoped-for assessment and collection improvements, were intended to arrest the revenue decline facing the central government.
Second, the practice of tax contracting was abolished in favor of a transparent enterprise income tax with a lower rate, and all its revenues were assigned to the provincial level of government. The goal here was to stimulate enterprise income tax revenues by removing the local government’s disincentive (sharing revenues with the center) to fully assess and collect the tax. Local governments may still give tax incentives to enhance their competitive position, but now they will bear the full revenue cost of these exoneration.

Third, the LTB as a part of the local government would have more incentive to collect the local fixed taxes than would the NTB. The central government, after all, does not share in the revenues from these taxes. Finally, local revenues will be enhanced because the local tax administrations no longer will spend their efforts on the administration of tax contracts and (presumably) special treatments, but on the more revenue-productive assessment and collection functions.

**Uniformity**

China still has a centralized tax system where all tax rates and bases are laid down by the central government. It is a system based on collections from businesses rather than from individuals, and the expectations are that all enterprises will be treated the same under this system. While such a system (presumably) misses out on the benefits of fiscal competition among governments, it has the advantage of giving the central government maximum flexibility to use the tax system as an instrument of macroeconomic control and industrial policy, and it should guarantee that an enterprise will receive the same tax treatment no matter where it chooses to locate.

With administration at the local level however, Chinese taxation was anything but uniform. Four of five state-owned enterprises had tax contracts with their “owners” and these contracts took many different forms. The local government tax negotiations had reached beyond the enterprise income tax to the value-added tax. By the time of the 1994 reform, the system was well on the way to becoming a completely negotiated one and the central government’s ability to use tax policy as a lever to effect economic decisions was becoming more and more limited. In fact, the way the system was administered led to a significant degree of competition among the local governments.

**VAT.** The Chinese value-added tax is a central government tax, and if it is to be applied uniformly across the country, it is best administered by the central tax administration. Uniformity in administration maximizes the chances that the desirable administrative features of the VAT are captured, such as, the self-policing feature of the credit–invoice method of determining tax liability, the absence
of pyramiding, the standardization of reporting, and the use of invoices to identify a broader tax base. In theory, and with better administration, a dual–central-provincial VAT could work and might even improve overall collection efficiency. However, as Bird and Gendron (1998) point out, this would require an administration good enough to carry off a destination-basis VAT, and an overriding central VAT with approximately the same base as the local VAT. The second condition could be met in China, but the first is probably well into the future.

Local government involvement in the administration of the VAT during the pre-reform period raised many issues: the division of revenues from imported goods, the responsibility for refund payments to exporters, the incentive for local officials to favor local suppliers, and others. Even with a centrally defined base and rate structure, local administration of VAT could compromise the uniformity of the tax, for example, different audit procedures, uneven enforcement, different regulations for dealing with those who stop filing, different procedures for determining whether a small enterprise should be allowed into the VAT population. In pre-1994 China, there were significant variations among and within provinces in the way in which the VAT was administered, and significant distortions arose.

Central administration of the VAT, adopted in 1994, has the potential to eliminate such problems. The reform of the administrative structure of the VAT in 1994—the switch to a credit–invoice method, the change in the base to producer price, the inclusion of the wholesale and retail sectors—made it an opportune time to implement this change in responsibility for assessment and collection.

Whether central administration will achieve national uniformity in the application of the value-added tax is still an open question. Certainly it is within the power of the central government to set nationwide standards for assessment and collection, and the NTB officers would appear to have little incentive to circumvent the process. Local officials of the NTB, however, are more or less the same people who were previously in the local bureaus of the SAT, and the oversight difficulties from the provincial level are no less severe than before. Though procedures for assessment, collection, and record keeping are in place, the SAT still faces the daunting task of overseeing the work of four hundred thousand tax officials who operate from local offices. There is no adequate management information system to support this oversight. And because the VAT is so significant a tax, local officials will be under a great deal of pressure to find ways to relieve the tax burden.

Enterprise Income Tax. Certainly the enterprise income tax was not administered uniformly before the 1994 reform. Nearly two-thirds of all state enterprises
negotiated tax liabilities with their local governments. The code itself contributed to the uneven treatment of enterprises, because it was complicated and vague and left much room for discretion on the part of administrators.

The 1994 reform greatly simplified the income tax structure, abolished the contracting approach, and assigned the revenues to local governments. After 1994, the tax was administrable and local officials no longer could gain from cheating on the center. Still, the 1994 reform does not fully address the uniformity problem with the enterprise income tax. The tax was restructured and contracting abolished, but there is no real safeguard against discretionary policies at the local level. For one thing, the provinces are very different in their level of economic development and economic sophistication. Some will choose to compete for economic development more than others will, some have more resources to allocate to preferential tax treatments than others do, and some will be more aggressive about pursuing their own industrial policy. Variations in the application of the enterprise income tax should be expected.

The Move to Tax Assignment

Before the 1994 reform, China's intergovernmental system was based on revenue sharing. The center defined the tax structure, the local bureaus collected the revenue, and by negotiation, the total revenue take was shared. The subnational governments had more incentive to channel funds into extrabudgetary accounts that were not shared with the center than to collect budgetary revenue that would be shared with the center. The lower the retention rate established for a province, the greater the incentive to avoid tax-sharing payments to the center. The central government, of course, had every incentive to minimize the diversion of funds to the extrabudgetary accounts and to maximize the size of the revenue-sharing pool. But the central government did not have the wherewithal to oversee the activities of the local tax administration bureaus, and it could not win the allegiance of the local officials. The local governments had the upper hand by the time of the 1994 reform.

Once the direction of the tax structure and revenue-sharing reform was established, separate tax administrations became a necessity. The tax reform assigns all of the revenues from certain taxes to each level of government. Continuing the pre-reform system would have meant that the national tax service would collect the local government income taxes, as well as taxes from which the local government would receive only a share (the value-added tax). The incentives would have been in place for the central tax administration to cheat in the direction of more efficient collection of their own revenue sources. This surely would have compromised the objectives of the tax structure reform. Tax assignment and a single national tax administration system could not have functioned side
by side in China. The 1994 reform changed this incentive structure. Local governments now collect only revenues that they will fully retain, and so they have a vested interest in more aggressive collection and assessment. Central officials likewise have more incentive to collect the VAT efficiently.

**Revenue Collection Responsibilities of the Local Tax Bureaus**

Responsibilities for tax collection are now divided along the lines of who "owns" the revenue. The SAT has responsibility for the collection of VAT; consumption duty, income tax from central enterprises, joint ventures and foreign enterprises; and taxes on international trade. The LTB collects those revenues that accrue to the local governments.

The LTB has responsibility for 14 local taxes whose revenues are dedicated to the local government. These are:

1. Business tax
2. Income tax on locally owned enterprises, collectives and private enterprises
3. Individual income tax. At present, this tax is very difficult for local tax bureaus to manage effectively, mostly because their registration, record keeping and assessment systems are manual. At present, there is some withholding, and the enterprises are paid a 2 percent commission on the amounts withheld.
4. Tax on vehicles and ships
5. Stamp tax
6. Urban construction and maintenance tax (UCMT). In some provinces, this is collected by the LTB along with the business tax, while in other provinces it is collected by the central government along with the VAT.
7. Land use tax. The field occupancy tax is collected by the local finance bureau and the land use tax is collected by the LTB.
8. Property tax
9. Value-added tax on land
10. Construction tax
11. Education surtax. This is levied at 3 percent on the VAT, business tax, and consumption tax liability. The surtax on the VAT and the consumption tax are collected by the SAT, but the surtax on the business tax is collected by the LTB from locally owned enterprises, collectives, and so on. From enterprises that pay the central government tax, it is collected by the SAT.
12. Surtax on the income tax on collectives
13. Resources tax
Box 5: The Separation of the Local and Central Bureaus in Beijing

The separation of the central and local tax administration services is reported to have gone smoothly. The separation of the Local Tax Bureau (LTB) and the National Tax Bureau (NTB) began on August 15, 1994 and took effect on October 1, 1994. A great deal of preparation was made in terms of staff, office, computers, files, civil service status, and the rest. Of the 8,600 staff members to be divided, 2,300 (27 percent) were assigned to the LTB. About 700 others from audit and other central government departments joined the LTB, bringing the total staff complement to 3,000. The NTB claimed much of the existing offices, facilities, computers, and so on. Space was reported to be an especially difficult problem. The taxpayer files were divided or shared as appropriate to collection responsibilities.

The LTB personnel are now employees of Beijing City. The director of the LTB also serves as the director of the Finance Department. There is no direct, day-by-day responsibility of the LTB to NTB, but both units receive guidelines and directives from, and report monthly to, the SAT. More than 20 different reporting forms on collections, and the like, are required, most reported monthly.

Officials in Beijing City reported no problem in persuading officials to accept positions in the city tax bureau and leave the central service. This is primarily because the officials and staff concerned wanted to live in Beijing and shifting to another NTB department (where they would have less experience and seniority) might have led to transfer to a rural district. In some cases, officers wanted to remain with the NTB because of the greater prestige and job security associated with the central government position.

The Beijing LTB leadership confirmed that the two bureaus were completely separated by early 1995, and that there was good cooperation, especially in the area of sharing information. Formally, there is no requirement that the LTB report to the NTB, except in terms of data. The NTB in Beijing also claimed to have realized a significant revenue increase, but it is not clear how much was due to administration, how much to the strong performance of the economy, and how much to the change in the tax structure.

One would have to visit every province to determine how much variation exists in the working relationship between the LTB and NTB, and in the division of their assessment and collection responsibilities. Moreover, there was a transition period, during which the LTB and NTB sorted out personnel and responsibilities (Boxes 5 and 6). Field work in Beijing and Yunnan Provinces (Bahl and Wallace 1995) suggests some differences among provinces in how these have been as-
Box 6: The Separation of the Central and Local Tax Bureaus in Yunnan Province

The Yunnan Provincial Tax Bureau is responsible for collecting 15 local taxes, and has approximately 7,300 employees in the province. About 100,000 companies are controlled by this LTB. There are 17 prefecture-level bureaus, 129 county bureaus, and 1,319 township stations under its jurisdiction. The Yunnan NTB has 11,000 staff members in the province. It is organized around 17 prefecture offices, 127 counties served by 133 SAT offices, and more than 1,300 township stations.

As in the case of the Beijing bureau, provincial officials reported that the separation went smoothly. The LTB is responsible for collection of local taxes, but it is acknowledged that there are transition issues to be worked out and a few areas where the division of responsibility between the LTB and the NTB is not yet working according to the plan.

There was relatively little disruption associated with the separation of the NTB and the LTB in Kunming City. By the end of September 1994, the separation was complete. The NTB employees were able to remain in their own building. The relationship between the NTB and the LTB remains cordial, and there is a sharing of information.

The reason for so little disruption, according to the bureau director, was that "all lead officials had a great deal of experience." Because the responsibility of the officers did not change, they did not object to the transfer in status from central to local government employee. An interview with a line officer reconfirmed this. Though he said it was a "hard decision" to move from his central government post, he did so because he had a long experience with income tax administration and did not want to give up the seniority that went with this experience. The wages, apartment, and other benefits of workers were not changed as a result of the conversion.


signed. Arguably, the transition to a dual tax administration is not complete in some provinces.

Some "local" taxes are actually surcharges on central taxes, and others are so closely related to central taxes that one might expect their collection by the central government on behalf of the subnational governments. Sometimes this has happened. In 1994, the Beijing office of the NTB collected the urban construction and maintenance tax on behalf of the local governments. Since 1995, the UCMT has been collected by the LTB. The fact that it is a surtax on value-added
tax liability did not concern LTB officials in Beijing who noted that they were able to cooperate effectively with the NTB on this. NTB officials agreed and noted that each enterprise was given “tax tickets” showing both VAT liability and proof of payment. In Yunnan, however, the NTB collects the UCMT if it is a surtax on the VAT or a consumption tax, but the LTB collects it if it is a surtax on the business tax.

In other areas and states, the division of responsibilities poses more difficult problems. For example, the LTB is responsible for the income tax on collectives, because these revenues belong to the local governments. However, collectives are still liable for both the energy and transportation tax and the budgetary adjustment fund contribution, and these are collected by the NTB, because the revenues are assigned, at least in part, to the central government. In Yunnan, by contrast, the income tax on small firms and the business tax on small companies are collected by the NTB, even though these are local revenues. Clearly, these should be collected by the LTB, but the NTB is so concerned about efficient collection of the VAT that it is not yet willing to separate collection responsibilities. The NTB also collects most local taxes on foreign enterprises and joint ventures, including the business tax if the joint venture is a service establishment.

Next Steps in Tax Administration Reform

Compared to the tax structure and the intergovernmental fiscal system in China, the tax administration there is much further behind in its modernization. Clearly, the key to resolving many of the problems with the Chinese fiscal system is improved tax administration, and it is this area that now requires the greatest attention.

The Chinese began late in the development of their tax administration system. Until 1983, the system was one of profit remittances and a very complicated turnover tax. There was little need to adopt the elements of a modern tax administration system then. The enterprise income tax was put in place in 1983–85 by a government with relatively little experience in income tax administration. However, the tax reverted almost immediately to a negotiated system under contracting arrangements. The Chinese still have relatively little experience with modern income tax administration.

Neither had the value-added tax been administered using a modern credit-invoice method. Until the 1994 reform, and possibly after, presumptive methods of crediting and assessing sales values were used. The side-by-side existence of a VAT, a product (turnover) tax, and a business tax on services (with more than 60 rates) all but dictated an ad hoc approach. The situation is much the same as for the income tax, with the Chinese having relatively little experience.

It is not just the technique of assessment and collection that needs to be re-
thought and upgraded, but the “right” division of administrative responsibility between central and local governments calls for a major decision. The Chinese opted to create a new local tax service and to endow it with significant power in the area of income tax administration. As much as there is to be gained from a quasi-independent local tax administration, it also bears some costs to be reckoned with. Some are drawbacks that must be accepted as the price of accomplishing larger goals, others are mostly transition issues that, even so, must be faced; and still others are administrative shortcomings that would have to be resolved no matter what the division of responsibility between levels of government is. The policy question is how to structure the administrative dimension of Chinese fiscal decentralization to minimize these costs.

Monitoring

A first, crucial problem is that the SAT requires a monitoring system for local government finance. One of the great weaknesses of tax administration and tax policy planning in China is the absence of readily available data that can be used for tracking the finances of subnational governments. This is crucial for several reasons. In order to assess uniformity in the application of all national taxes, measure the tax effort made by local governments, identify interprovince disparities in fiscal need, and evaluate the ability of provincial and local governments to function effectively in a credit market, the central government must have ready access to a detailed fiscal information system.

Not all countries have the same need for a monitoring system that China has, but most industrialized countries have set up some form of management information system to track the fiscal outcomes of local governments. A national monitoring system does not exist for all federal, state and local government taxes in the United States, but this is because U.S. tax policy and tax administration are very decentralized. Short of assuring that the U.S. Constitution is not violated, the federal government has little interest in the fiscal practices of state and local governments. China is different because its tax structure is nationally uniform and governed by central law, and even fiscal administration procedures are centrally directed. Uniformity is of very great concern to the central government.

The Chinese government needs a management information system that will provide data adequate for tracking revenue performance, assessment, and collection efficiency, and also audit results and performance. There are many uses to which such an information system could be put.

- The center will need a data base that will allow development of an allocation system for grants to provincial governments. Local tax revenue performance could be a consideration in such allocations.
Central analysis of registrations, collections, and the rest, can assist in identifying problem areas in the tax administration and in defining programs to deal with these problems, for example, special training programs in registration and assessment problems with service companies.

A central data system will enable tracking the two major taxes on enterprises—VAT and income tax—and will enable comparisons of the efficiency of the local offices of the NTB and the LTB.

Audit performance can be measured, and an audit selection approach can be developed and evaluated.

Management efficiency can be evaluated.

**Duplication, Coordination, and Administrative Cost**

A second issue arising from the 1994 tax administration reform is that some advantage might be lost in the separation of income tax administration and value added tax administration. There clearly is overlap in the registration, collection, and audit activities for the two taxes. Many countries do combine income tax and VAT administration, and where this is done, administrative cost per registered business is lower and the number of registered businesses is greater (Cnossen 1994, p. 1653).

A case can also be made that it is not necessary that VAT and income tax administration operate jointly. One argument is that the definition of profits used for the enterprise income tax differs so significantly from that implied in the value-added tax base that there are no economies in joint audits. The income tax definition of taxable profits is calculated with a depreciation allowance, whereas the VAT does not credit capital purchases; the income tax does not allow all labor costs as deductions thereby overstating profits; the VAT does not allow credit for taxes paid on all inputs; and the VAT is computed on a cash-flow basis. Another argument for separation is that the VAT audit is very different from the income tax audit, and great savings are not sacrificed in separating these two. VAT audits are more frequent and less intensive than income tax audits, and in general they are not meant to supersede or duplicate the income tax audit (Casanegra, Silvani and Holland 1991, p. 68).

Regardless of whether VAT and income tax operate jointly, or as separate departments administered by different levels of government as in China, the sharing of information is a necessary part of successful administration. Provision has been made for such a sharing between the NTB and the LTB, and all enterprises are numbered according to the same system. However, there is still very little by way of a computerized information transfer.

There is a potentially higher monetary cost for separate national and local tax
administrations. Two autonomous tax administration organizations implies a duplication of effort and higher costs than a unified tax administration, and the dual systems may lead to a failure to capture some available economies of scale. There are now two levels of management, separate record-keeping systems, different data-processing centers, different taxpayer education programs, and the rest. Moreover, compliance costs will be higher because enterprises must deal separately with the NTB and the LTB. On the other hand, there are some cost reductions resulting from the separation of administrative responsibility, for example, less administrative oversight is required and each level can gain economies from technical specialization.

The Chinese government can mitigate these costs and still preserve the advantages of separation by sharing responsibility for functions where economies of scale are present and where the need for uniformity is greatest. These areas include training of tax administration personnel, the development of procedural manuals, the preparation of forms and instructions, and the centralized development of computer software.

**Uniformity**

Local administration of the enterprise income tax is not likely lead to a uniform application of the national law. In fact, it is more likely that the treatment of enterprises will be quite diverse. Local political leaders still have the same incentives to stimulate rapid enterprise development as in the pre-reform period. It may be true that they no longer have the same instruments for doing this at their disposal (contracting and tax incentives), but they do have the same ingenuity that they successfully used to navigate around central strictures in the past decade. The probabilities seem high that various schemes of tax forgiveness will reappear. The new law does give the provincial and local governments discretion in areas such as the determination of the deductible “standard” wage and granting enterprise income tax relief. Subnational governments still have discretion in levying extrabudgetary charges, influencing bank policy loans, and negotiating for higher levels of earmarked grants. Finally, there is the difficult task faced by the central government of monitoring so vast an activity as local tax administration. One scenario is that, for the foreseeable future, the SAT will have its hands full with oversight of VAT collections and the LTB will have a relatively free hand to shape the income tax in any way it chooses. Such a scenario suggests very little uniformity in income taxation will ensue.

Certainly the central government will not completely bow out of income tax administration. Data reporting is still required of the provincial governments, and the central government has already decided to maintain control over joint ventures and foreign companies. The future will probably pull the central gov-
ernment back into income tax administration. Making and enforcing rules for the taxation of profits of enterprises that operate in more than one province and controlling the transfer pricing schemes that will surely emerge will require central government leadership.

One final issue raised by the separation has to do with the taxation of small firms and the now reduced role of the local government business tax. The revised VAT includes most wholesale and retail establishments, which were previously subject to the business tax. This makes good policy in that it includes all major suppliers in the VAT net. However, two problems arise. Some small enterprises are subject to a flat charge in lieu of VAT. Second, some enterprises are subject to the local business tax. This situation could raise administrative and compliance costs above present levels. Small firms now may be able to take actions to influence their classification: in the VAT net, as a small firm, or as subject to the business tax. This is important because the tax rates under these three regimes are quite different.

An International Perspective on Chinese Tax Administration

Many analysts have offered opinions about the characteristics of an “optimal” tax administration system.³ Eight features of a good tax administration system, that is, eight targets to shoot for, seem to be on most lists: (1) lower compliance costs through voluntary self-assessment, (2) extensive use of withholdings, (3) concentration on large taxpayers, (4) high-quality audits and fraud detection, with significant penalties, (5) a method for monitoring the performance of the tax administration service, (6) extensive programs of taxpayer information, (7) a human resource development program for tax administration personnel, and (8) appropriate computerization. As is discussed below, the Chinese tax system does not yet score high on several of these features.

Voluntary Compliance and Self-Assessment

A first principle of efficient tax administration is to minimize compliance costs. The sacrifice of resources made by taxpayers should show up primarily as revenue to the government, and as little as possible in the time cost of complying with the tax code or the real cost of purchasing the services of a representative or maintaining a large tax department.

To be sure, compliance costs will always be present and in some cases will be significant. The Chinese economy is growing more complex and, necessarily, the costs of properly paying taxes and of monitoring the rate of compliance will rise. But there are steps that can be taken to hold these costs to reasonable levels.
1. Simplify the tax code.
2. Provide a significant taxpayer education program to minimize filing mistakes and maximize the probability that the average taxpayer will have only one contact with the taxing authority.
3. Adopt the principle of self-assessment and minimize the direct contact between the tax administration and the taxpayer. A taxpayer in full compliance should have no direct contact at all with the taxing authority.
4. Provide a ready supply of clear, complete, and accurate forms and instructions.

The Chinese tax reform of 1994 took the first two of these steps but did not get very far with the other two. The 1994 reform did simplify the tax system. The number of taxes in the system fell from 32 to 18, the number of indirect tax rates was reduced dramatically, and the negotiated, contract method of determining enterprise income tax liability was abolished. Perhaps as important as any step taken in reducing compliance cost was removal (or reduction) of the incentive for local governments to shift revenues to extrabudgetary accounts. The management time and administrative efforts required to carry off these transfer schemes imposed a significant cost on both the local governments and on the contracting enterprises.

The 1994 reform sets the stage to move to a system of self-assessment that would not have been possible under the previous tax regime. Credits under the VAT were presumptive and required calculation by tax administration staff, the system was rife with “special arrangements,” and yearly renegotiations were not uncommon. The enterprise income tax was levied under individual contracts with SOEs. The 1994 reform, with a credit–invoice system of value-added taxation and a transparent enterprise income tax, makes self-assessment possible; to date, however, the system is not yet primarily self-assessed.

**Withholding**

Governments can move to a system of final withholding to minimize compliance and administration costs (and to increase revenues). Employer withholding against payrolls (PAYE) accounts for a very significant share of individual income tax revenues in many countries. For most workers, this eliminates the need for filing a final return, and both administrative and compliance costs are lessened significantly. The principle of final withholding could be extended to interest and dividends quite easily by allowing final withholdings by banks and enterprises. This would, however, require a schedular approach to individual income taxation, or a uniform flat rate applied to all sources of income. In many countries it would also involve dealing with bank secrecy laws.
There are relatively few individual-based taxes in the Chinese system. Almost all taxes are paid directly by enterprises. The individual income tax is paid by less than 1 percent of the population because it has a very high threshold, and most of such revenue is collected from foreign residents. There is a real possibility, however, that the individual income tax will now grow significantly as a revenue source. Final withholding will lead to lower administrative and compliance costs versus a system where final returns are required. But the setting for final withholding in China will be difficult to achieve for some time to come. The large SOEs, which arguably have the best capacity to administer a withholdings system, will be dramatically reduced in number with privatization and the increased emphasis on efficient operation and profitability. The fast-growing private business and collective sectors will be the most difficult to reach with a withholding system.

**Concentration on Large Taxpayers**

In most developing countries, the bulk of revenues is collected from larger taxpayers. Extension of the tax system too far in the direction of smaller enterprises, lower-valued properties, lower income individuals, and so on, can impose administrative costs that are high relative to the additional revenue collected. Some countries have invested their scarce administrative resources on a concentrated effort to increase the rate of compliance by larger taxpayers.

One approach is to set up a large taxpayer unit, staffed by the most highly skilled tax administration personnel, and with a mandate to monitor collections from the major revenue producers. The theory is that because revenue collections are concentrated among the larger enterprises, collections per dollar of administrative effort expended can be maximized by this strategy. At present, there is no strategy for setting up large taxpayer units in a formal way in China, even though revenue potential appears to be concentrated in the larger enterprises.

A related approach is to install a selective audit program to detect underpayment. The efforts of field auditors might be concentrated on large enterprises where the revenue potential is greatest. Casanegra, Silvani, and Holland (1991, pp. 71–72) take exception to this approach, at least in terms of VAT, and point out that revenue has been increased considerably in countries where the audit strategy has focused heavily on medium and small taxpayers. In China, there is very little of audit strategy at best. All enterprises are subject to a desk audit, and there is little fiscal selectivity in choosing among enterprises for field audit.

Finally, a strategy used in many countries is to adopt an alternative tax regime for small taxpayers. The most commonly practiced alternative regime is to substitute a simple tax based on turnover for VAT from enterprises whose turnover is below a certain level. This gains large economies in staffing. Tait (1991, p. 13)
points out, as an example of its savings, that small taxpayers file about 76 percent of returns in Korea but account for only 5.6 percent of revenues. In Guatemala, the smallest 60 percent of VAT-registered firms contribute only 3.6 percent of collections (Bahl, Martinez-Vazquez, and Wallace 1996, pp. 119–21). In China, all enterprises are subject to more or less the same enterprise income tax regime, but a small-firm cutoff has been established for the VAT. As may be seen in Table 4.1, however, the small-firm cutoff is well below that chosen by most countries.

Fraud Detection and Penalties

Economists think about the calculus of the compliance-evasion choice with a simple model of mathematical expectation (Allingham and Sandmo 1972; Alm 1988). If a person pays taxes according to the law, this taxpayer may enjoy after-tax income with certainty, equivalent to:

\[ Y' = (1 - t)Y \]

where \( Y' \) = after-tax income, \( t \) = tax rate, and \( Y \) = before-tax income. If he or she evade, the expected value of this act \( E(\varepsilon) \) is equal to:

\[ E(\varepsilon) = p(Y - X) + (1 - p)Y \]

where \( X \) = punishment for evasion (in dollars), and \( p \) = probability of getting caught. If \( E(\varepsilon) \) is greater than \( Y' \), evasion is the better route. From this simple paradigm, it is clear that the taxpayer decision can be tilted in the direction of full compliance by (1) a lower tax rate \( t \), (2) a higher probability of detection \( p \), and (3) a higher penalty level \( X \).

Tax administrations can install special fraud detection units to increase the probability of detection. These units track filers and assure immediate identification of those who cease to file a return. Such firms are immediately notified of their delinquent status and are required to respond and, if necessary, suffer a penalty. As Tanzi and Pellechio (1995, p. 12) put it, “It is important to convey the impression that, in this area, big brother is watching.”

Successful fraud detection, however, requires some investment by the government in a management information system that allows it to monitor tax collection, it requires the placement of quality and “clean” tax administration officials in the fraud detection unit, and it requires an effective audit system. Fraud detection will not be useful unless stringent penalties are in place, are visible, and are applied. These may be monetary penalties, imprisonment, or closure of a business, depending on the nature of the evasion. An amnesty approach to encourage compliance is better avoided.4
China’s penalties for tax evasion are severe. Where evasion is equivalent to more than 10 percent but less than 30 percent of tax liability, the penalty is up to 3 years’ imprisonment at hard labor and a fine of up to 5 times the amount evaded. For evasion of more than 30 percent of tax liability, the penalty is 3 to 7 years’ imprisonment and 5 times the tax liability. Individuals and responsible enterprise officers are subject to these penalties. The question, of course, is the extent to which these penalties are enforced, and more important, the extent to which the population believes that they will be enforced. There are no hard numbers on tax evasion in China, but anecdotal evidence suggests that evasion may be significant. Huang (1996, pp. 54–55) reports that the government discovered tax evasion equivalent to 3 percent of revenues in 1987, and that about three-fourths of SOEs engaged in some form of evasion.\(^5\)

**Monitoring Performance**

Improvement in the tax administration system requires a monitoring of performance. One goal of any tax administration is to achieve a given revenue target at a minimum in administrative cost. However, in order to track the efficiency of

<table>
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<td>13,000</td>
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</tr>
<tr>
<td>Luxembourg</td>
<td>11,561</td>
<td>37,320</td>
<td>0.31</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,194</td>
<td>20,950</td>
<td>0.06</td>
</tr>
<tr>
<td>Portugal</td>
<td>7,462</td>
<td>9,130</td>
<td>0.82</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>56,388</td>
<td>18,060</td>
<td>3.12</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>24–97</td>
<td>490</td>
<td>0.20</td>
</tr>
<tr>
<td>Goods</td>
<td>73–243</td>
<td>490</td>
<td>0.50</td>
</tr>
</tbody>
</table>

the tax service, and in order to identify problem areas in the enforcement process, the leadership in the tax service must have access to some form of information management system. The tax administration service should be able to review, on a regular basis, indicators such as the following:

- Status of new registrations, by type of tax and by type of enterprise registered
- Delinquency lists
- Monthly collections in each major collection station
- Details on assessments and collections for major taxes, by type of enterprise
- The revenue results of audits, per hour (cost) of audit effort
- Administrative costs associated with each of the major tax administration tasks: taxpayer identification, assessment, collections, and record keeping.

**Taxpayer Information**

An important step toward improving the rate of compliance and reducing the cost of compliance and administration is to put a taxpayer education program in place. The program must concentrate on both the training of tax administration officers and the training of taxpayers and their representatives. The program must be a continuing one, and it must be accelerated at the time of the tax reform.

As countries adopt the principle of self-assessment, the premium on taxpayer education becomes greater, because errors and thereby compliance–administrative costs can be reduced. Taxpayers and their representatives must have a good understanding of the tax code, and forms and instructions must be readily available and clearly presented.

**Human Resource Development and Management**

The tax administration system in any country is only as good as the officers who administer it. Most developing countries point to the quantity and quality of staff as the major impediment to a more effective tax administration. Nevertheless, some of the problem is no doubt due to inadequate resources devoted to tax administration.

Much can be done to improve the quality of administration, even without new investment in tax administration personnel:

- Develop a strategy around which to build the training program. Focus most heavily on developing the skills necessary to address the most important administrative problems (for example, accountancy, treasury, records management).
Fiscal Policy in China

- Move the tax authority to a special status. This will allow tax officials to be hired outside the civil service and presumably paid at a level nearly commensurate to private market rates. This goes some distance toward resolving two problems. The first is the loss of quality tax officials to the private sector because of compensation differences, and the second is that, with higher salaries, tax officials would possibly become less susceptible to corruption.
- Improve personnel management. This includes better time management on the part of tax officials and a shift of activity from menial to more revenue productive activities, hiring, firing and promoting based on performance, and more emphasis on incentives for improved performance.
- Allow for the rotation of personnel among posts. This provides a route for advancement, and it also can eliminate long familiarity with taxpayers at the local level and thus reduce the tendency to provide them favored treatment—as well as outright corruption.

Computerization

There can be little doubt that the success of tax administration in all countries will depend on how well the flow of information is managed. The case for computerization is compelling (Dubroff 1991, pp. 58–66). The price of hardware and software is falling, tax administration costs are increasing with the rate of compensation of staff, and economies are growing too complex to be tracked by manually operated tax administration systems.

There has been much discussion in the literature about the dangers of computerization, embellished with horror stories about the dust-gathering hardware in many tax administration offices. The salient point in all these discussions is not that developing countries should see themselves as unready for computerization, but that computerization should be carefully planned. System design should precede hardware purchase, and training plans should be in place well ahead of any purchase of equipment. In short, there should be a plan.

Conclusions

Tax administration shortcomings plague Chinese fiscal policy, just as they do fiscal policies in most developing countries. Revenue mobilization is inadequate, quick fixes to the tax system are encouraged, unevenness in tax burdens emerge because some sectors are more easily reached than others, evasion is too easy, confidence in the system erodes, and the ability to use tax policy as a macroeconomic lever is compromised. While China’s tax administration is less far along
in the modernization process than its tax structure, it has so far been able to outgrow many of the worst consequences of a poorly administered tax system. But even double-digit real economic growth can hide tax-compliance problems for only so long. It is time for China to move the modernization of its tax administration system to a first-priority status.

The place to begin is building an improvement plan around the primary objectives to be achieved. The government cannot simply declare that it wants to improve tax administration and increase budget resources devoted to this effort. In fact, there are a number of very different objectives that the government may opt for in shaping its tax administration, and the appropriate reform strategy will depend on how these objectives are weighted. The following are objectives that could guide this strategy:

1. Lower the cost of administration.
2. Lower the cost of compliance.
3. Increase the incentives to collect.
4. Maintain uniformity.
5. Specialize in low-cost taxes.
6. Improve the “corporate” efficiency of the tax service.

As will be argued below, there are trade-offs to be made among these strategies, and the Chinese government must choose which it will emphasize.

Reaching a low-administrative-cost objective would imply a strategy of reducing duplication in tax functions such as assessment, collection, and audit. This could be done, for example, by combining income tax and VAT departments, allowing local governments to piggyback on the central government tax base, and allowing the center to be the collection agent for local governments. The substitution of capital for labor (computerization) could reduce administrative costs, and the use of private agents to assist in compliance efforts could lift some of the burden from the State Administration of Taxation. This strategy could lower administrative costs to the government, but it might shift some of the costs of complying with the tax system to the taxpayer, and it might lead to less revenue collection than would a system that gives more collection incentives to local governments.

A second objective is lowering compliance costs. This might be achieved in a number of ways: simplifying the tax structure, asking the taxing authority to take on more of the responsibility for assisting taxpayers, and relying less on third parties such as tax agents, and paying more appropriate commissions for enterprises that withhold on behalf of the government. Again, there are tradeoffs. The Chinese economy is becoming more complicated, and oversimplification could produce unfairness and unwanted economic distortions. Lower compliance costs
for taxpayers may show up as higher administrative costs for the government, with the result that net savings may be relatively small. The trick is to find the right balance between compliance and administrative costs.

A third objective might be to strengthen the incentives to improve the collection rate. This would suggest a decentralized tax administration where each government collects its own taxes. This is the system that the Chinese government has recently moved to. The hoped-for result is that subnational governments will try harder because they will retain all revenues they collect. The cost incurred in choosing this objective is the duplication of functions as each level of government takes on assessment, audit, and the rest of the responsibilities for the same population of enterprises, and then increased compliance costs as each enterprise must deal with two tax authorities. Moreover, decentralization of the tax administration means that local governments would be relatively free to pursue their own objectives, and there might be less uniformity in the way the tax system is administered.

A fourth objective could be to promote uniformity in the way the tax system is administered, that is, the same enterprise in two different provinces should face the same tax burden. This seems a reasonable objective in a country where the tax structure is nationally uniform, and the pursuit of this goal suggests a central tax administration with little room for local discretion. To put in place the controls to guarantee this level of uniformity, however, would be extremely costly, much more costly than past attempts to implement a nationally uniform tax code. To attempt centralization without paying to monitor the system would be asking for the same plethora of "back door" approaches that undermined uniformity under the previous system.

Fifth, the government could choose a strategy of specializing in "low cost taxes." This would suggest a strategy of reducing diversity in the tax system to gain from the economies of specialization. The plan might concentrate on the VAT as the principal revenue source, and eliminate most or all of the remaining 17 taxes in the system. This could well drive down the cost of administration, and it could also increase the rate of revenue mobilization. But it would leave the government exposed from a lack of balance in the system (some sectors and economic activities would be taxed more lightly than others, and exposure to cyclical movement in the economy might be greater), redistribution objectives might be harder to achieve, foreign tax credits would be sacrificed, and the use of taxation for macroeconomic policy would be more difficult. Moreover, a destination-based VAT cannot capture economic rents—especially those reaped by foreigners—as an income tax can.

Finally, the objective could be to improve the technical efficiency with which the local tax service operates. This strategy would imply separating the tax ser-
vice from the government proper, removing employee pay scales from civil service regulations, creating enhanced career paths, investing in high-powered training and advanced computerization, and generally moving to an elitist service. Many countries have moved to independent revenue authorities, but a record of success is not yet clear. The independence of the tax administration service should lead to less political involvement of tax officials and should provide more professional administration of the system. Very likely, it would lead to increased revenue collection and to greater uniformity in the administration of taxes, but the cost of tax administration might well go up in the short and in the long run as the government invests in a modern system. Moreover, this strategy suggests a centralized system, with its cost of losing the incentive advantages of decentralized administration.

The nub of this discussion is that the Chinese government faces tough choices in deciding on a tax administration strategy, and some of the possibilities involve important trade-offs. An important part of the next round of reform of the Chinese fiscal system will be evaluation of these trade-offs.
Chapter 5

Central–Provincial Fiscal Relations

China’s revenue-sharing system is primarily a division of national sales and profit tax revenues among the central, provincial, and local governments, and conditional grants to lower-level governments. The amount of shared tax revenue that finally shows up in the local government’s budgets depends on the centrally determined tax base and tax rates, the tax administration, the assignment of revenues to the local government, and the sharing formula. In addition, earmarked grants are given to provincial governments by the central government, and to the local governments by the provincial governments. To understand the revenue-sharing system in China, and to understand the implications of the 1994 reform, one must understand all of these dimensions as well as the assignment of expenditure responsibility. It is a very complicated matter.

The four major issues surrounding revenue sharing are examined in this chapter: the assignment of taxes, the actual distribution formulas for shared taxes, the distribution of earmarked grants, and the pattern of extrabudgetary revenues of local governments. The latter issue is more properly part of the discussion of intergovernmental fiscal relations in China, because extrabudgetary funds reflect the success of Chinese local governments in diverting resources from the sharing pool. The 1994 reform changed all these dimensions and therefore changed the very nature of the revenue-sharing system.

Expenditure Assignment and Distribution

The division of expenditure responsibilities among levels of government in China more or less follows the same rules as in all countries. The center provides those services with major national benefits, provincial governments are responsible for functions with a regional benefit zone, and cities and counties deliver functions that are primarily of benefit to local-area residents. The central government
is responsible for national defense and about 80 percent of all construction expenditure. The provincial governments are responsible for the remaining capital expenditures, while the cities, counties, and townships provide most of the social services. The central government maintains a degree of control by means of a set of mandates with which local governments must comply, and it determines the total size of the budget for all levels of government. In 1995, subnational governments made about 60 percent of the total direct expenditures.

Although expenditure responsibilities seem clear enough in principle, there is a major problem in practice. The Chinese government has yet to enact a law or regulation that clearly spells out what level of government is responsible for what services. As a result, administrative responsibilities overlap, expenditures assignment is in some cases murky, and oftentimes expenditure decisions are driven as much by political considerations as by considerations of efficiency in provision of service. (Hu 1995, pp. 126–27, Lou 1997, pp. 352–54). Ambiguity about who is responsible for which functions compromises the efficiency with which the local government may operate.

**Budget Structure**

All local governments in China have the same basic expenditure format and record their activities under the same budget heads. The following is a listing with brief descriptions of these expenditure heads:

1. Capital construction expenditures. Included here are civil works including school buildings, hospitals, roads, industrial plants, mines, railways, bridges, harbors, residential facilities, and all equipment purchases where the value is greater than 50,000 yuan. This category includes most of the capital expenditures in the government-sector budget.
2. Enterprise upgrading. These are expenditures made to improve the productivity of SOEs, that is, to renew, rebuild or replace existing assets. For example, new machines would qualify for this category, but capital construction would be part of (1).
3. Simple construction. This category is primarily for storage warehouses, sheds, and other buildings requiring less than finished construction, and most of this construction is considered temporary.
5. Scientific research. Research and development for pioneer products; experimental costs for scientific research projects. These funds are a combination of current and capital grants, but do not include expenditures for wages and salaries.
6. Working capital. Budgetary allocations of working capital are relatively small in amount and are given primarily to enterprises engaged in military-related production.

7. Agricultural support. Includes current and capital expenditures to finance civil works related to the agriculture sector. Examples are small-scale irrigation projects and soil erosion protection. Many of the expenditures are grants to lower-level governments.

8. Operating costs for agriculture, forestry, mining, and water resources. Salaries for local officials, and other administrative expenses to support vocational schools, rural extension activities, and farmers’ training.

9. Operating costs for the industrial and transportation sectors. Financing for vocational schools and training and extension services related to industry.

10. Commercial operating costs. Administrative costs of the Ministry of Commerce. Also includes grain-distribution expenditures.

11. Urban construction and maintenance. Repairs, maintenance, and new construction for roads, bridges, water supply, and sewerage. These expenditures are heavily financed by earmarked taxes from the urban maintenance and construction tax.

12. Employment of urban youth. Training activities for new employees, primarily at the county level of government.

13. Culture, education and public health. In terms of amounts expended, the major function is education. The other major categories, public health and free medical services, include salaries for doctors and nurses, hospital operating costs, medicines, and payment to hospitals for services to government officials. Apparently, enterprises make hospital and health care payments for their employees out of the welfare fund. The very small “culture” category includes sports, broadcasting, parks, and the like.


15. Operating costs for miscellaneous sectors.

16. Social security. Includes both the social safety net fund and the fund to support disaster relief.

17. National defense.

18. General administration. Support expenditures of all ministries and Congress. Includes wages and salaries, travel expenses, supplies, and the like.

19. Public security, prosecutor, courts. All current expenditures for these purposes.

20. Price subsidies. Includes budgetary subsidies for consumers, producers and distributors. When it is given to the localities, the funds are shown in local budgets as earmarked funds. About one quarter of the amount spent
for price subsidies comes from the central budget and the rest from local budgets. Food subsidies include those for meat, edible oil, grain, and vegetables, as well as other household subsidies such as (heating and cooking) coal, as well as intermediate goods subsidies for products such as cotton (World Bank 1993, p. 111).

21. Debt service. Includes principal and interest repayment on domestic, foreign, and guaranteed debt. Does not include debt that is serviced by state enterprises or local governments.

22. Subsidy for underdeveloped regions. Earmarked budgetary funds for local governments, including current and capital transfers to minority and poor areas.

23. Miscellaneous.

24. Contingency. A proportion of budgetary expenditures, between 1 and 5 percent, is held in reserve for contingency use (World Bank 1993, annex 2.2).

25. Special expenditure. Includes earmarked expenditures such as those funded from the education surcharge.

26. Transfers to cover local government deficits.

**Budget Outlays**

The distribution of budgetary expenditures cannot be separated into current and capital components because there is no capital budget. Using the breakdown described above, we can disaggregate expenditures as is shown in Table 5.1, and report the following stylized facts:

- More than 27 percent of all budgetary expenditures are for education, health, and social welfare.
- Direct investments in enterprises, and expenditures for government regulation of enterprises, together account for about 10 percent of expenditures.
- Capital construction expenditures and general administrative expenditures take up approximately the same share of the budget (about 15 percent each).
- SOE losses are reported as negative taxes and so are not shown in this table.
- Price subsidies amount to only about 7 percent of budgetary expenditures, but they represent a significant component of transfers to local governments.

**Local Budget Autonomy**

In the past, each province prepared a consolidated local government budget, which is an aggregate budget of the provincial government and all of its underlying local governments, with all transfers appropriately netted out. This is a budget
## Table 5.1. Total Government Budgetary Expenditure by Function: 1995

<table>
<thead>
<tr>
<th>ACCOUNT ITEM</th>
<th>TOTAL EXPENDITURE (BILLION YUAN)</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital construction</td>
<td>78.9</td>
<td>14.9</td>
</tr>
<tr>
<td>Working capital</td>
<td>3.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Technological upgrades</td>
<td>49.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Administrative expenditures:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry, transportation, commerce</td>
<td>10.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Agriculture</td>
<td>43.0</td>
<td>8.1</td>
</tr>
<tr>
<td>Culture, education, science, and health care</td>
<td>146.7</td>
<td>27.6</td>
</tr>
<tr>
<td>Pensions and social welfare</td>
<td>11.6</td>
<td>2.2</td>
</tr>
<tr>
<td>National defense</td>
<td>63.7</td>
<td>12.0</td>
</tr>
<tr>
<td>General administration</td>
<td>87.3</td>
<td>16.4</td>
</tr>
<tr>
<td>Price subsidies</td>
<td>36.5</td>
<td>6.9</td>
</tr>
<tr>
<td>Total</td>
<td>531.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Expenditure on capital construction financed from abroad and debt retirement is excluded from this table.

* Excludes net value.


Concept used in centralized, planned economies. By contrast, in the United States, there is no consolidated budget for the nation or for any of the states. The U.S. Census does compile data on the revenues and expenditures of all local governments within each state, but this is done mostly for research purposes.

Historically, there have been both central and provincial review processes for the budget, and central approval was required. Under the new budget law, central government approval of local budgets is no longer required. Each level now makes its own budget and seeks approval from its Peoples' Congress. The central government does give “policy guidance” and requires a particular reporting format, but local governments have great discretion in deciding on their mix of budgetary expenditures. Local governments have almost total discretion to fix the level and composition of extrabudgetary outlays.

Subnational governments may determine the composition of expenditure budgets, however, their choices are limited by central government expenditure mandates. The most important of these restrictions relates to the employee compensation budget, which accounts for 80 percent of all expenditures. The level of wages and the wage bonus are set at the central government level. The provincial and local governments have relatively little freedom to alter this. Subnational governments may expand or contract within these limits without seeking approval, but may not exceed the centrally imposed limit. Employment
limits are set by the provincial governments. All budgetary capital construction expenditures are under the control of the central government, and these expenditures must be approved during the budget process. Subnational governments may not budget for deficits on their current accounts, but this restriction has not been actively enforced. Many provinces have been running current account deficits and financing the gap by borrowing indirectly and by deferring creditors (Agarwala 1992, pp. 9–10).

These restrictions have limited what could be done by provincial and local governments through their budgetary accounts. Subnational governments have responded with informal arrangements to move money to the extrabudgetary accounts where central mandates are not binding. It appears that the central government has as often as not turned its head to allow the provincial and local governments to use these informal channels to gain some fiscal autonomy.

The central government has always exerted more control over local revenue budgets than over local expenditure budgets. By controlling the determination of tax bases and rates, and by fixing the revenue-sharing formulas and subsidy amounts, it sets bounds on the total amount that will be spent by the subnational governments under the budgetary accounts. However, as mentioned above, the lower-level governments have exercised some discretion with contracting and tax administration practices. More important, subnational governments supplement their total resources with extrabudgetary revenue over which there is relatively little central control. In 1995, the total extrabudgetary revenue of subnational governments (excluding the retained earnings of SOEs) was equivalent to 68 percent of total budgetary revenue. Apparently, provincial and local governments have played an important role in determining the total level of spending.

Revenue Assignment

Revenue assignment can mean three things: (1) that all, or a portion of, revenue collections from some tax are turned over to a level of government; (2) that administrative responsibility for a tax is assigned to a level of government; and (3) that the power to set the rate or base of a tax is turned over to a particular level of government. In China, revenue assignment has taken the first two forms, but not the third. Subnational governments now have designated sources of income, and significant collection powers, but they have no authority to set tax rates or determine tax bases.

By law, there are three categories of revenue in China—fixed central government revenues, fixed local government revenues, and shared revenues. These categories refer to the destination of revenues, that is, fixed local revenues accrue 100 percent to local budgets, and so on.
Fiscal Policy in China

The 1994 reform did not assign significant powers to the subnational governments to adjust the tax rates and bases, but it did change the division of revenues and the responsibilities for administration. The following are those categories of revenue that now “belong” fully to the central government.

1. Excise taxes
2. Income tax of all central government enterprises
3. Taxes collected from the Ministry of Railroads and from the headquarters of banks and insurance companies
4. Profit remittances by all centrally owned enterprises
5. Price subsidies paid to producers of grain, cotton and oil are treated as a (negative) revenue of the central government
6. Income taxes, sales taxes and royalties from offshore oil activities of foreign companies and joint ventures
7. Treasury bond income
8. Energy and transportation fund contribution. This is a tax (charge) of 15 percent on enterprise profits net of profit and adjustment tax, but inclusive of the depreciation fund. It is earmarked for central government energy and transportation projects.
9. Seventy percent of the three sales taxes collected from enterprises owned by the Ministry of Industry, the Ministry of Power, SINOPEC (petrochemicals), and the China nonferrous metals companies.
10. All customs duty, VAT and excise taxes on imports
11. Enterprise income tax collected from banks and nonbank financial institutions.

The following are the taxes (revenues) that are designated for sharing between the central and subnational governments.5

1. Value-added tax (75 percent central, 25 percent provincial)
2. Natural resource taxes. This includes taxes on coal, gas, oil, and other minerals if the enterprises are fully Chinese owned.
3. Construction tax on the cost of construction of buildings that are outside the plan and financed from retained earnings
4. Salt tax
5. Security and exchange tax (50 percent central)
6. Industrial and commercial tax, and income tax levied on foreign and joint venture enterprises.

Revenues collected from the following taxes belong to subnational government budgets. In nearly all instances, tax rates and base definition are centrally determined.
1. Income tax and adjustment tax of locally owned state enterprises, collectives, and private enterprises.

2. Business tax. After 1994, all sellers and producers of products were merged into the VAT. This included most wholesalers and retailers. The result was that the business tax became less revenue productive, and there were many fewer businesses to be controlled. The groups still under the business tax, whose base is gross receipts, with their tax rates, are the following:

   (a) Transportation and communications, such as trucking  3 percent
   (b) Construction, including replacement and repair  3 percent
   (c) Finance and insurance (mostly SOEs)  5 percent
   (d) Post and telecommunications (mostly SOEs)  3 percent
   (e) Culture and sports  3 percent
   (f) Entertainment  5 to 20 percent
   (g) Services such as hotels, restaurants, tourism  5 percent
   (h) Intangibles, transfers, patents  5 percent
   (i) Real estate sales, sales of buildings  5 percent

3. Rural market trading tax. This is a stall rental charge, based on notional assessment, levied mostly on private sector traders.

4. Local grain-trading loss. The local government’s losses from selling grain at a subsidized price, and from storage cost, are treated as a negative tax.

5. Fines for delinquent taxes. The penalty rate on unpaid taxes (partial or full) is 0.2 percent per day of the amount outstanding.

6. The urban maintenance and construction tax. The UCMT is a surcharge on the tax liability of enterprises for business tax, consumption tax, and VAT. The rates depend on location, but, in general, are 7 percent in the municipal area, 5 percent in marginally serviced areas such as townships, and 1 percent in the village areas. In urban provinces, the rates vary by location. In downtown Beijing, for example, the rate is 7 percent, in other parts of the city it is 5 percent, and in the “far out” areas it is 1 percent. The idea is to charge enterprises for government services provided.

7. The urban land use tax is a charge on land area. Local governments have some freedom to choose the tax rate, up to a prescribed ceiling. The maximum rate in Beijing (1994) is 7 yuan per square meter, even though the central regulations permit a charge of up to 10 yuan. The top rate in Yunnan Province is 4 yuan per square meter. The revenues now accrue fully to the local government according to a derivation principle. Previously, revenues were split 50–50 with the central government.

8. Vehicle and vessel utilization tax.

9. Thirty percent of the product and VAT revenues collected from enterprises
owned by the Ministry of Industry, Ministry of Power, SINOPEC, and the China nonferrous metals companies.

10. Individual income tax. This tax is levied on Chinese citizens and foreigners, and has a monthly threshold of RMB 800 for Chinese and RMB 4,200 for foreigners. Before 1994, the thresholds were RMB 400 and 800, respectively.

11. Value-added tax on land. The State Council (SC) issued a regulation authorizing a value-added tax on land. The business community had a major negative reaction, and the SC is now "studying these reactions," presumably to reform the tax. The tax is not being collected in all provinces. As developed by the SC, the tax has five rates, based on increments in land value after deductions, as follows:

<table>
<thead>
<tr>
<th>Land Value Increment</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20 percent</td>
<td>0 percent</td>
</tr>
<tr>
<td>20 percent to 50 percent</td>
<td>30 percent</td>
</tr>
<tr>
<td>50 percent to 100 percent</td>
<td>40 percent</td>
</tr>
<tr>
<td>100 percent to 200 percent</td>
<td>50 percent</td>
</tr>
<tr>
<td>Over 200 percent</td>
<td>60 percent</td>
</tr>
</tbody>
</table>

The allowable deductions under this tax are: payment for use of the land; costs of improving the land; expenditures for demolition; taxes paid; and other miscellaneous expenses of maintaining and improving the land.

12. Education surtax. This tax is collected on the same base as the UCMT, at a rate of 3 percent from all but tobacco enterprises, whose rate is 1.5 percent. The revenue is earmarked for education.

13. Entertainment and slaughter taxes. The provincial government can decide whether or not these two taxes will be levied. In Yunnan, for example, it was decided to levy the slaughter tax as of May 1 1994, but the entertainment tax has not yet been authorized.


15. Surtax on collective enterprises. This is really a fee, and the amount can be decided by the city. This is another tax that the city has the discretion to levy or not levy and also to influence the tax rate.

16. Resources tax. The tax base is the assessable volume of crude oil, natural gas, coal, ores, and salt; and the Ministry of Finance determines the tax base, but it must fall within a range prescribed by law (People's Republic of China 1994, pp. 225–26).

17. Fixed asset investment tax.
Provincial and Local Taxation

In China, a "local tax" is one that is collected by provincial governments and its revenues are retained by the collecting government. This represents a major difference from Western countries where the local government often has discretion in choosing the tax rate and/or the tax base. Chinese local governments have no rate-setting powers but, as noted above, have claimed significant discretion in the way they administer the revenue system and by the use of off-budget charges.

Either way, the important question of which taxes should be assigned to which local governments must be resolved. With the 1994 reform, the Chinese government appears to have made three major decisions on this question. First, the principal indirect tax will be the VAT, and it will be centrally controlled. Second, the principal own-source revenue for subnational governments will be income taxation. Third, the responsibility for administration of local taxes will rest with the local governments. In effect, the central government will give up on trying to police the income tax agreements between local governments and enterprises. The 1994 reform does not give a hint when, or if, subnational governments will be given some independence in setting tax rates.

Structure and Revenue Performance

A list of allowable local taxes is prescribed by the central government. These "fixed local taxes" in the Chinese system are little more than a sharing of central revenues. Provincial and local governments collect these taxes and keep all the revenues, but they have little authority to adjust the tax rate or the tax base. The small amount of discretion now allowed gives provincial governments the right to use or not use the entertainment and slaughter taxes, and to select the rate of land use taxation within a band. However, for all other taxes, provincial and local governments cannot influence the level of taxation in any formal way. Not surprisingly, they have taken "back door" approaches, for example, contracts with enterprises, tax holidays, tax administration, and "trades" for investment in public services.

Subnational governments now collect about half of all budgetary tax revenues (Table 5.2). Most of this is from the income taxes and the business tax. The other dozen local taxes in the system account for a relatively small amount of revenue. In some cases these smaller local taxes may serve other purposes, such as regulation or rationing, or even sending economic signals, but none is likely to become a significant revenue producer.

Historically, the local tax base has not been a buoyant source of revenue. The historical revenue-income buoyancy of local taxes is about 0.7. The latter is
### Table 5.2. Revenue Collections by Level of Government: 1978–1997

<table>
<thead>
<tr>
<th>YEAR</th>
<th><strong>TOTAL BUDGETARY REVENUE COLLECTIONS AS % GNP</strong></th>
<th><strong>LOCAL GOVERNMENT BUDGETARY COLLECTIONS AS % GNP</strong></th>
<th><strong>CENTRAL GOVERNMENT BUDGETARY COLLECTIONS AS % GNP</strong></th>
<th><strong>LOCAL COLLECTIONS AS % TOTAL COLLECTIONS</strong></th>
<th><strong>LOCAL GOVERNMENT EXPENDITURE AS % TOTAL GOVERNMENT COLLECTIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
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<td>6.2</td>
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<td>3.7</td>
<td>71.9</td>
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<tr>
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<td>98.2</td>
</tr>
<tr>
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<td>6.2</td>
<td>44.3</td>
<td>174.7</td>
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<tr>
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<td>5.7</td>
<td>47.8</td>
<td>161.7</td>
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<td>5.5</td>
<td>5.4</td>
<td>50.5</td>
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</tr>
<tr>
<td>1997</td>
<td>10.7</td>
<td>5.4</td>
<td>5.3</td>
<td>50.6</td>
<td>—</td>
</tr>
</tbody>
</table>

Income buoyancy:

| 1978–93 | 0.616* | 0.587* | 0.718* | —     | —     |
| 1985–93 | 0.574* | 0.721* | 0.235* | —     | —     |

---

*a Estimated from: \[ \ln R = \ln a + b \ln GNP \], where \( R \) = revenues (with no adjustment for discretionary changes), \( b \) = revenue–income buoyancy, and * denotes statistical significance at the .05 level.

*b Estimated as the difference between total revenue for the consolidated government sector (IMF definition) and local government budgetary revenue (Chinese definition). See Appendix 2.1 for definitions.

*c Budget estimate.

Source: Data supplied by Ministry of Finance.
important because it signals that local government revenues have been growing at a rate about three-fourths that of GNP, and some would argue, at a slower rate than the demand for local government expenditures.

**What Are the Correct Choices for Local Government Taxation?**

There is no one best choice in the assignment of taxing instruments to different levels of government, that is, there is no optimal local government tax structure. But there are economic and administrative guidelines that might be followed in deciding on the division of taxing powers among the central–provincial–local levels of government (McLure 1983).

One criterion for choosing local taxes is purely administrative, that is, subnational governments should not be assigned taxes that they cannot assess and collect at efficient levels. A second guideline relates to macroeconomic policy. Subnational governments should not control revenue instruments that have significant implications for stabilization policy and income redistribution. Especially in countries with economies prone to overheating and to large swings in domestic price levels, the central government is in a better position to implement corrective policy if it controls the major instruments of fiscal policy. Third, subnational governments should not levy taxes whose burdens can be exported to other jurisdictions. Fourth, local governments especially need to rely on revenues that are less cyclically sensitive, because many of their expenditures are for the provision of basic services, subsidies to households, or salaries that cannot be easily postponed. Finally, subnational governments should not control taxes whose major objective is to correct the interpersonal distribution of income. Bahl and Linn (1983, 1992) have added to this discussion. The appropriate mix of revenue sources for local authority depends on the expenditure responsibilities assigned to that local government, which determine the efficient revenue mix.  

For publicly provided goods and services where the benefits accrue to individuals within a jurisdiction, and where the exclusion principle can be applied in pricing, user charges and user taxes are the most efficient financing instrument. This is particularly valid for public utilities such as water supply, sewerage, power, and telephones, but also for public transit and housing. These services may involve some external benefits, but most of the benefits are likely to be local in nature and can therefore appropriately be handled either by cross-subsidies among service users or by subsidies financed from other locally raised revenue sources.

Other local services, such as general local administration, traffic control, street lighting, and security, are local public goods whose primary benefits accrue to the local population, but here the exclusion principle in pricing cannot be applied. These are most appropriately financed by taxes whose burden is local so
that "the electorate is confronted with the true opportunity cost involved" (Musgrave and Musgrave 1976, p. 665). For services for which substantial spillovers into neighboring jurisdictions occur, such as health and education, provincial or national intergovernmental transfers should contribute to financing. Full local financing would lead to underprovision of these services from a regional or national perspective.

Finally, borrowing is an appropriate source of financing capital outlays for those services involving investment in long-lasting infrastructure, which is the case particularly for public utilities and road infrastructure. A summary of the appropriate financing of local expenditure categories, according to the four main types of revenue sources that have so far been distinguished, is presented in Table 5.3. This analysis enables us to restate a basic principle of intergovernmental fiscal reform: Determine expenditure assignment before working out the revenue assignment and revenue-sharing provisions. Otherwise, it is not possible to develop an efficient mix of revenues for the local authorities.

How does China match up against these principles for market efficient allocation of revenue powers and expenditure assignments? The answer is, that in a backhanded way, the Chinese system may be closer to these efficiency norms than many would suppose:

1. It would appear that the Chinese system does not rely on user charges to finance those public utility services whose benefits are largely local, for example, water supply, sewerage, drainage, and so on. However, public utility costs may be capitalized into lower wages so that workers may indirectly bear much of the cost of operating these utilities. This, of course, is a far cry from an efficient pricing system where users pay marginal cost, but it is also not the general government subsidy to support utilities that many have interpreted it as.

2. Housing is not financed by direct rent payments, as efficiency would dictate, but is paid by government subsidy and by SOE contributions. Again, however, the true costs may be borne by low wage levels in the state enterprise and government sectors, hence a sort of rough justice may be operating.

3. Local highways and streets would seem best financed by local taxes, but in China they are heavily funded with intergovernmental transfers and by contributions from SOEs. In the latter instance, the contributions often come from extrabudgetary revenues that may be the equivalent of local taxes.

What we may conclude from all of this is that China does not match the efficiency criteria for the assignment of local taxes in a formal sense, but through an
Table 5.3. Efficient Assignment of Local Revenue Authority Classified by Type of Expenditure Responsibility

<table>
<thead>
<tr>
<th>LOCAL SERVICES</th>
<th>RECOMMENDED SOURCES OF FINANCE</th>
<th>USER TAXES</th>
<th>USER CHARGES</th>
<th>TRANSFERS</th>
<th>BORROWINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public utilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water supply</td>
<td>S</td>
<td>P</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sewerage</td>
<td>S</td>
<td>P</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainage</td>
<td>P</td>
<td>P&lt;sup&gt;c&lt;/sup&gt;</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>P</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephones</td>
<td>P</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Markets and abattoirs</td>
<td>S</td>
<td>P</td>
<td>(A)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>S</td>
<td>P</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land development</td>
<td>P</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highways and streets</td>
<td>P</td>
<td>P&lt;sup&gt;c&lt;/sup&gt;</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public transit</td>
<td>S</td>
<td>P</td>
<td>(A)</td>
<td></td>
<td></td>
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<tr>
<td>General urban services</td>
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<td>Refuse collection</td>
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<td>Parks and recreation</td>
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<tr>
<td>Law enforcement</td>
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<td>S</td>
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<td></td>
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<tr>
<td>General administration</td>
<td>P</td>
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<td>Social services</td>
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</tr>
<tr>
<td>Education</td>
<td>P</td>
<td>S</td>
<td>P</td>
<td>(A)</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>P</td>
<td>S</td>
<td>P</td>
<td>(A)</td>
<td></td>
</tr>
<tr>
<td>Welfare</td>
<td>S</td>
<td></td>
<td></td>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> P = primary source; S = secondary source.<br> <sup>b</sup> A = borrowing appropriate for major capital expenditures; (A) = borrowing appropriate for capital spending, but likely to account for small share of total spending.<br> <sup>c</sup> Development charges (i.e., special assessments, valorization charges, etc.) are appropriate for drainage, highways, and streets, especially where their benefits are spatially well defined.

An elaborate set of cross subsidies the system may not be as distorted as many analysts would expect. There is no way to sort out these cross-subsidies to determine how close local benefits match local burdens, and that is exactly the point—the system needs more transparency. As China moves toward wage and housing reform, it must simultaneously make a better (more efficient) match between expenditure assignments and revenue assignments to the provincial and local governments.
Another important source of finance for subnational governments in China is extrabudgetary revenues. These take both a direct form, the so-called fiscal extrabudgetary revenues, which are earmarked taxes and charges; and an indirect form, the retained earnings of locally owned state enterprises. There has been a considerable inducement for local governments to engage in fiscal manipulations to increase the amount of these extrabudgetary revenues. The more locally raised money that can be channeled into either of these accounts, the less local government will be required to share with the center and the fewer restrictions it will face in making expenditures. In effect, this Chinese version of transfer pricing is a kind of tax avoidance by the local governments against the center.

Most analysts seem to view the use of extrabudgetary accounts by local governments in China, on balance, as a negative in economic policy. The arguments go that extrabudget activities take expenditure decisions outside the budgetary planning framework; are part of the back door, informal approach to circumventing central policy; impose transactions costs because of the creation and management of the extrabudgetary accounts and the supporting “agreements”; and are anything but transparent. On the other hand, off-budget fiscal activities could be viewed as a way for local governments to claw back some autonomy, to free expenditures from strict central mandates, and to increase the overall rate of revenue mobilization. The overall grade one gives to the practice of using extrabudgetary accounts in China in the pre-reform period depends on whose eyes one sees them through.

For analytic purposes, one might posit two types of fiscal extrabudgetary revenues: extrabudgetary taxes and charges of the general local government, and departmental revenues. With local government taxes and user charges that are classified as “outside the budget,” the revenues can be used directly for public service financing. The most important of the legal taxes and charges is the public utility surcharge, a 10 percent tax on the utility bills of consumers. The remainder are taxes and charges levied on enterprises—some legal and some not—and earmarked for specific purposes. Included are fees and charges for hospitals, road maintenance, agricultural taxes, advertisement fees, vehicle purchase surcharges, school charges, household levies, and the like. The departmental or agency charges are service fees levied by individual departments of the local administration, which use them for their own purposes. These revenues do not pass through the general fund of the local government, and they are often imposed and controlled by the department or agency rather than by the local government administration.

The World Bank (1990, p. 259) estimated that, in 1986, the fiscal extrabudgetary revenues of local governments accounted for about 15 percent of total
off-budget receipts. Wong, Heady, and Woo (1995, app. 1) estimate this share at about 20 percent in 1990. Data for 1992 suggest a 38 percent share for fiscal extrabudgetary revenue.

The other type of extrabudgetary revenues are the retained earnings and depreciation funds of locally owned enterprises. In principle, these funds should not be classified as part of the government budget, because they are not resources over which local governments have complete control. However, enterprise-retained earnings can be of great benefit to the local government budget. Local governments may collude with SOEs to determine the use of these funds, or they may view the retained earnings as a base for their own extrabudgetary taxation. In the pre-reform period, local governments were able to add to the size of retained profits of their SOEs through tax administration practices, the provision of exonerations, or contracting. Sometimes this was done with the tacit or explicit approval of the central government, for example, the liberalization of the depreciation rate in the case of certain enterprises. Consequently, local governments were able to influence the use of some of these funds for purposes ranging from the provision of social services to infrastructure investment for local economic development purposes.

Local governments also taxed retained earnings. Officials at the provincial and local level still possess a great deal of control over the state enterprises, and claw back revenues by levying special charges. Local governments have been very innovative in this regard, and revenues from these charges have become an important source of discretionary funds for local governments in recent years. Huang (1996, p. 151) estimates that about 5 percent of enterprise profits are collected as fees. The exact form of these extrabudgetary fees, charges, and taxes varies widely among provinces and even among local governments within a province, and there appears to be a great deal of freedom in designing these instruments. The following examples, drawn from case studies, will give the flavor of this diversity:

- It has been reported that extrabudgetary levies on TVEs in Shanghai take the form of surcharges on profits and assessments according to the number of enterprise employees.
- Special education surcharges are an important source of financing public education and they may take many forms. West (1996) notes surcharges on the tax liabilities of TVEs, flat taxes per square meter of new construction, and surcharges on utility bills.
- Bahl (in press) identifies a number of extrabudgetary taxes and charges in Guangzhou Province, including surtaxes on fixed-asset investments, automobile registrations, taxi charges, and tolls.
Wong (1998) has assembled data that show a multiplicity of surcharges levied on commercial enterprises in Beijing. Many of these are illegal and can significantly affect the cost of doing business (see Box 10, Chapter 6).

The extrabudgetary charges are not restricted to enterprises. Especially in rural areas, charges are levied on households for education and health services. Wong, Heady, and Woo (1995) provide an example of a levy on a unified tax on households in rural Shandong Province to finance five types of public service—education, militia training, cadre subsidies, old age, and welfare support.

In the pre-reform period local governments were very efficient in developing schemes to move money to the extrabudgetary accounts of state enterprises. By 1992, total extrabudgetary revenues of local governments were equivalent to about 86 percent of budgetary revenues, up from 72 percent in 1984 (see Table 5.4). Much of this growth was in SOE retained earnings, and part was no doubt attributable to the greater operational discretion given to SOEs by the system reform. But since this growth in retained earnings occurred at a time when the rate of profitability of state enterprises was falling, it seems clear that some form of transfer strategy was in play.

As may be seen in the far right column of Table 5.4, off-budget revenues are a far more important source of financing at the local than at the central level. There was a precipitous drop in extrabudgetary revenues in 1993, as local governments moved funds into their budgetary accounts in order to increase their

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (billion yuan)</th>
<th>Per capita (yuan)</th>
<th>As % budgetary revenues</th>
<th>As % central government extrabudgetary revenues</th>
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</thead>
<tbody>
<tr>
<td>1984</td>
<td>71.8</td>
<td>69</td>
<td>73</td>
<td>151</td>
</tr>
<tr>
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</tr>
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<td>1988</td>
<td>145.3</td>
<td>133</td>
<td>92</td>
<td>161</td>
</tr>
<tr>
<td>1989</td>
<td>158.6</td>
<td>142</td>
<td>86</td>
<td>148</td>
</tr>
<tr>
<td>1990</td>
<td>163.5</td>
<td>143</td>
<td>84</td>
<td>152</td>
</tr>
<tr>
<td>1991</td>
<td>186.2</td>
<td>161</td>
<td>84</td>
<td>n.a.</td>
</tr>
<tr>
<td>1992</td>
<td>214.7</td>
<td>183</td>
<td>86</td>
<td>n.a.</td>
</tr>
<tr>
<td>1993</td>
<td>118.7</td>
<td>100</td>
<td>35</td>
<td>482</td>
</tr>
<tr>
<td>1994</td>
<td>157.9</td>
<td>132</td>
<td>68</td>
<td>557</td>
</tr>
</tbody>
</table>

Source: Data supplied by Ministry of Finance. Also reported in World Bank (1993, 1996).
expenditure base for the revenue-sharing formula. Originally, the expenditure of extrabudgetary funds was heavily concentrated in capital projects, but in recent years it has spread to a variety of social services and even payrolls. Local governments may spend the fiscal extrabudgetary funds directly, or they may induce enterprises to spend on their behalf for public services. Enterprises may spend retained earning with relatively little restriction. It is not uncommon for off-budget revenues to exceed expenditures and for surpluses to accumulate in the extrabudgetary accounts.

The growth in extrabudgetary revenues has been substantial. In fact, the revenue–income buoyancy of extrabudgetary revenues is greater than that of budgetary revenues. The ratio of local government extrabudgetary revenues to budgetary collections increased with real GNP over the 1983–92 period, as indicated by the following regression results:

\[
\frac{EXB}{B} = 57.28 + 0.02848 RGNP \quad (3.36)
\]

\[R^2 = 0.59\]

where: \(EXB\) = extrabudgetary revenue, \(B\) = budgetary revenue, \(RGNP\) = real GNP, and the figure in parenthesis is the \(t\)-statistic.

How does one interpret this result? One possibility is that as GNP rose, the local governments and enterprises found it easier to transfer funds from the budgetary to the extrabudgetary side of the budgets. Another possibility is that this statistical relationship is merely reflecting the fact that the period of rapid economic growth in the late 1980s and early 1990s coincided with the time when contracting became the rule of the day, and extrabudgetary revenues were easier to accumulate.

The fiscal reform of 1994 closed off many of the options for local governments to engage in fiscal manipulations to avoid tax sharing, and it eliminated some incentives to do so. Since contracting is no longer an allowable practice, and since the VAT is now centrally administered, local governments have fewer ways to transfer revenues to extrabudgetary accounts. And, since enterprise income tax revenues are now fully assigned to local governments, the avoidance of shared income taxes is no longer so reasonable a local government strategy. The result is that the ratio of extrabudgetary to budgetary revenue fell from 86 percent in 1992 to 68 percent in 1994 (Table 5.4). Extrapolation based on the historical relationship with GNP between 1982 and 1992 [equation (5.1)] suggests an expected value of this ratio of 94 percent in 1994. By this calculation, the reform program reduced the use of extrabudgetary funds by the equivalent of one-fourth of budgetary collections.
Revenue Sharing

The system of revenue sharing in China has two components. The most important, traditionally, has been a sharing of central government taxes. The other is a program of earmarked grants. To understand the meaning of the 1994 reform, it is necessary to understand the historical context, that is, how the system is evolving. Outside analysts need to be aware constantly that fiscal reform in China is always incremental, no matter how much of a departure the new laws appear to take.

The tax-sharing formulas have been regularly adjusted since the fiscal reform began in 1983. The 1994 reform can be best understood as another step in this transition. Whereas in most Western countries taxes are collected by the central government and then allocated to the subnational governments, in China they have been collected at the local level and “shared up” to the higher levels. The formula by which taxes are divided among levels of government has changed over time and has not always been strictly applied, but the government has held to a basic philosophy: Local governments should retain enough revenue to cover a “basic” level of services and then turn the remainder over to the center. The debate and negotiation have usually centered around setting the “approved level” of expenditure and by how much the approved level might grow each year.12

Tax Sharing: Pre-1988

Before 1988, tax sharing between the central and local governments was done by formula. The revenue-sharing formula in existence from 1985–87 is described in Table 5.5. Note that there were three categories of provinces: those which retained a fixed percentage of what they collected (the rest going to the center), those which kept all they collected and received a subsidy, and those which retained all they collected and then paid a fixed subsidy to the center. In the first category, for example, allowable expenditures in Beijing were equivalent to 48.2 percent of total shared and local fixed revenues in 1985. Beijing was able to retain 48.2 percent of all it collected from the taxes in the sharing pool. All fixed central government revenues were turned over to the center. During the whole 1985–87 period, 13 provinces were in such a “surplus” position, that is, shared taxes plus local fixed revenues exceeded allowable expenditures, so that the tax-sharing ratio was set at less than unity (Table 5.5). These 13 provinces would transfer “excess” revenues to the central government.

Guangdong was treated differently from the other surplus provinces. By special arrangement in 1985, it retained all fixed local and shared collections, but turned over a fixed annual amount of 772 million yuan to the central government. This transfer was based on the estimated amount of the 1985 surplus.

The remainder of the provinces were in a “deficit” position. These provinces
## Table 5.5. Revenue-Sharing System Between the Central and Provincial Governments: 1985–1987

<table>
<thead>
<tr>
<th>REGIONS AND PROVINCES</th>
<th>Fixed % Total Revenue Retained by Province</th>
<th>Province retaining own revenues, receiving fixed amount from center (MILLION YUAN)</th>
<th>Province retaining own revenue, paying fixed amount to center (MILLION YUAN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North China</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beijing</td>
<td>48.20</td>
<td>49.55</td>
<td>49.55</td>
</tr>
<tr>
<td>Tianjin</td>
<td>39.50</td>
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**a** Subsidies were to increase by 10 percent per year after 1985.

**b** The remainder is given to the central government.

**Source:** Data supplied by Ministry of Finance; Bahl (1994).
Fiscal Policy in China

were allowed to retain all of their fixed and shared revenue collections, and the central government paid a subsidy equivalent to the size of the approved deficit. Eight of these deficit provinces—the autonomous regions, the provinces with heavy minority populations and those which are least developed—were singled out for special treatment. They were to receive the deficit subsidy (sometimes called the quota grant), but this amount was to be increased by 10 percent per year. Apparently, 10 percent was taken as a number that would roughly approximate needed revenue growth. In fact, the 10 percent increment was allotted in 1986, but it was reduced to 5 percent in 1987 and 1988 and eliminated thereafter.

There was dissatisfaction with this system of tax sharing. Both the local and central government sectors felt that their shares were too low, and both sides felt that the system was too arbitrary. The ability of the central government to use fiscal policy as an instrument of macroeconomic policy and regional equalization was limited, local government incentives for increased revenue mobilization were weak, and local government incentives to move revenues to the extrabudgetary sector were strong. Some ad hoc adjustments were made in 1987 to address the incentives issue (an incremental sharing rate on revenues above a target level was introduced in Jiangsu, Zhejiang, Hebei, Beijing, and Tianjin provinces) but this did not quiet the calls for a complete reform.


Beginning in 1988, the system was changed to an even more negotiated approach. The basic idea was still to allow the subnational governments to retain sufficient revenues to enable them to cover a basic level of expenditure needs, but also to provide an incentive for revenue mobilization. The base year chosen to define the expenditure amount was 1987. Local governments could retain this “basic” amount plus a share of any increase in revenues, according to a predetermined negotiation. This agreement, originally planned to be in force for three years, led to six different arrangements for tax sharing, as shown in Table 5.6.14

1. The ratio of provincial revenue collections to provincial approved expenditures defined the local retention rate. In effect, the local government retained a fixed percent of total collections no matter what the increment (or lack of an increment). The share was determined from approved base figures for the previous two years. Three provinces used this method.

2. Revenue growth up to a defined limit was divided between center and province according to a formula. Both the limit and the sharing ratio were negotiated. The province could retain all collections above the limit. Ten provinces used this method of tax sharing.

3. The retained share of revenues was based on the ratio of revenues to ap-
proved expenditures in 1987. A retained share of all incremental revenues was negotiated separately. Three provinces used this method.

4. Provincial governments retained an amount equivalent to approved expenditures in the base year, and a fixed amount of revenues raised that are in excess of this level. Three provinces used this method.

5. The amount to be paid to the central government in the first year is determined by base year revenues and expenditures. This amount is increased at an agreed rate in later years. Two provinces used this method.

6. The central government provided a fixed subsidy, in an amount equal to the difference between actual collections and expenditure needs in the base year. This method was used by 15 provinces.

The idea of incremental sharing was to stimulate revenue mobilization. Provincial and local governments would have an incentive to collect at a higher rate, because they would retain a significant part of what was collected above a certain target level. The problem with this approach is that it did not take into account the extent to which the provincial governments would be able to use extrabudgetary revenues to shield tax collections from sharing. The result was that local tax effort may well have been stimulated but a smaller share of GDP found its way into the tax-sharing pool. Note from Table 2.1 that during the time of incremental sharing, the ratio of budgetary revenue to GNP dropped from 16 percent to 11 percent.

An example from Jiangsu Province during the early stages of the incremental sharing period illustrates what happened (Bahl 1990). Beginning in 1988 the province and local governments were able to retain 41 percent of collections up to the “target amount” and 100 percent of all collections above the “target amount.” The target was defined as base-year collections inflated by 5 percent per year. In one sense this incentive worked: Jiangsu retained 124 yuan in budgetary collections for every 100 yuan it turned over to the central government in 1989, whereas it had retained only 107 yuan during the 1981–87 period. In another sense it did not work, because there was a decline in the share of budgetary collections in provincial GDP. This is easily explained. The incentives to move revenues to the extrabudgetary side were even greater than the incentives to increase collections. If an extrabudgetary charge or tax was levied by the local government or by a local government department, 100 percent of the revenue raised could be retained. If the transfer was to the retained earnings of a SOE, then the amount spent to the benefit of the local government was a negotiated matter between the SOE and the local government. From the point of view of the local leadership, almost any negotiated outcome would be preferable to approximately even sharing with the central government. In 1989, Jiangsu had a ratio of revenues to GNP
<table>
<thead>
<tr>
<th></th>
<th>(1) BASIC SHARING WITH GROWTH</th>
<th>(2) INCREMENTAL SHARING</th>
<th>(3) FIXED QUOTA WITH GROWTH</th>
<th>(4) INITIAL AMOUNT TO STATE (100 MILLION YUAN MIN.)</th>
<th>(5) CONTRACTED ANNUAL RATE OF INCREASE (%)</th>
<th>(6) PAYMENT TO DEFICIT PROVINCES (100 MILLION YUAN MIN.)</th>
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<td>CONTRACTED RATE OF INCREASE (%)</td>
<td>BASIC RETENTION RATE (%)</td>
<td>MARGINAL RETENTION RATE (%)</td>
<td>FUND TO DEFICIT PROVINCES (%)</td>
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* After the cities of Wuhan and Chongqing were separated from Hubei and Sichuan provinces, the provinces changed from net providers to the state to net recipients of subsidies from the states. Data are not available on the other “independent cities,” such as Nanjing, Ningpo, etc. This table includes both provinces and “special” cities that were separated from the province at this time.

*b The payment is 4.8 percent of Wuhan’s remittance.

*Source: Bahl and Wallich (1992)*
of 10.3 percent, as compared to 13.7 percent in 1985, but extrabudgetary revenues had risen from 9.2 percent to 9.4 percent of GNP, and from 67 percent to 92 percent of budgetary revenues over this same period. Apparently, there was a significant diversion of revenue from the budgetary to the extrabudgetary accounts.

**Earmarked Grants**

In addition to shared taxes, local governments receive conditional grants from the central government. The purposes of this kind of grant include appropriations for capital construction and enterprise renovation, price subsidies for urban grain consumption and other goods, social relief funds, and special subsidies for health and education in the poor, minority, and border provinces. About 60 percent of all earmarked grants in 1993 was for price subsidies, and about 10 percent for capital purposes.\(^{15}\) As regards construction grants, there is no set formula to determine the amount of distribution in any given year, or the distribution among the provinces. The process appears to be ad hoc (Lou 1997).

The largest price subsidies are for food, and smaller amounts are distributed for heating fuel and other purposes. Three major types of subsidy are reflected in the provincial government (and local government) expenditures. First, a food grain–oil seed subsidy is paid to farmers and financed fully by the central government. Second, a subsidy is paid to distributors for price differentials for grain and oil seeds, with the costs shared between the central and provincial government. Third, a meat subsidy is also financed under a sharing arrangement.

The central government sets the prices and rates that underlie the subsidies, but the provincial and local governments can vary the amount of subsidy if they have the resources to pay for it.\(^{16}\) Every year the base amount of the subsidy is allowed to increase 5 percent, and any subsidy expenditures above that quota must be fully met from local resources. The local cost of these subsidies can be large. The provincial government in Hubei covered 59 percent of budgetary price subsidies in 1990, and the provincial government in Yunnan covered 62 percent in the same year (World Bank 1993, p. 211).

How is the subsidy amount determined, and how is the subsidy distributed among the local governments in the province? In Jiangsu Province (Bahl 1990), the grain and meat subsidies were distributed directly through the municipal and county governments. The amount distributed to each local government is based roughly on population size. The yuan amount of the subsidy is dependent primarily on the spread between the producer price and the consumer price, which is fixed by the central government. The local governments did pay a share of this subsidy. For example, Nanjing City paid 22 percent of the cost up to the quota amount and the provincial government paid the remainder. For amounts above the quota, Nanjing City would pay 100 percent.

In 1990, earmarked grants were equivalent to 14.4 percent of subnational gov-
Central-Provincial Fiscal Relations

Table 5.7. Earmarked Grants

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (Billion Yuan)</th>
<th>Real per Capita Amount</th>
<th>As % Subnational Government Budgetary Expenditure</th>
<th>As % Central Government Budgetary Expenditure</th>
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<td>12.9</td>
<td>10.8</td>
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</table>

Source: Computed from data provided by the Ministry of Finance.

Earmarked grants have grown significantly, and were greater in magnitude than tax-sharing transfers to the central government in 1992. The amount grew rapidly until 1991 when it began to fall off. About one-fourth of the amount is from the construction project component. Unfortunately, data are not available for years more recent than 1993.

Some would argue that a primary purpose of these conditional grants is equalization. In fact, China has no equalization grant program. Simple correlations show that per capita earmarked grants are distributed in significantly heavier amounts to higher-income provinces. Bahl (1994) reports the simple correlation in 1990 between per capita earmarked grants and per capita income is 0.425, and between per capita earmarked grants and population is −0.662. These are project rather than entitlement grants, and it is not unusual for more developed regions to absorb more of these grants because of their greater capability at project preparation and their greater ability to “buy in” on a matching basis, and, perhaps, because of their better ability to negotiate transfers from the central government.

Problems with the Pre-reform System

The pre-reform system of central-provincial relations contributed to some of the major fiscal problems facing the Chinese government. These included a declining rate of revenue mobilization, the revenue starvation of the central government, a
compromised ability of the central government to pursue macroeconomic policy, and significant fiscal disparities between rich and poor provinces.

It is important to be mindful always that existence of a "problem" depends on whose perspective is taken. What may be seen by the central government as a shortcoming in the fiscal system may be seen as a strength by the provincial and local governments. And what may be seen as a problem by rich provinces is a godsend to poor ones. For example, the central government's inability to pursue macroeconomic policy may be no more than a reflection of the greater degree of fiscal autonomy that provincial and local governments have claimed, rich provinces bemoan equalization while poor provinces depend on it, the central government's revenue starvation may be the local government's feast, and so on. It is a fact that most analysts who assess the workings of fiscal systems are either central government officials or representatives of international agencies whose concerns tend to be focused on the central government. Most reviews of the "problem" list, therefore, take a central view in their assessments.

**Declining Central Government Revenues**

Not only has the overall level of budgetary revenues relative to GDP fallen dramatically, but the share of the central government in total revenue has also dropped. This double fault left the central government with too little revenue to pursue national infrastructure and social service improvement programs or to equalize the gap between rich and poor provinces. It also left the central government compromised in its ability to use taxation as a macroeconomic policy instrument.

The buoyancy of central government revenue collections with respect to GDP during the 1985–93 period was 0.57, which is less than the 0.72 estimated for subnational government collections during the same period (Table 5.2). The collections disparity in favor of provincial and local governments accelerated with the growth of the contracting system beginning in 1988. During the 1985–87 period, the ratio of subnational to total government budgetary collections averaged 64.9 percent. During the 1988–92 period, the average was 68.7 percent (Table 5.2). The nexus of collections had clearly shifted toward the local governments.

**Central Government Macroeconomic Policy**

Because subnational governments retained such a large a share of the pie, the central government found itself in a position where it could not control the aggregate level of expenditure and investment to the degree it required. Moreover, during periods of expansion, enterprises were prone to increase their rate of investment because of the availability of funds. The primary sources of their funds are policy loans from banks and extrabudget surpluses resulting from profitabil-
ity and/or contractual reductions in enterprise income tax revenues. The result is that aggregate demand grew, the government revenue share of total output fell, and fiscal deficits appeared. There is an analogous procyclical effect in times of recession. Under a contract system, the central government could do very little to control this situation.

In the pre-reform period, the ability of the central government to pursue discretionary fiscal policy was limited because of the possibility of offsetting policy reactions by the local governments. For example, the central government might levy an extra tax to cool down an overheated economy, but subnational governments might react by renegotiating their contracts with enterprises to stimulate investment, or they might give preferential tax treatment to help enterprises avoid the consequences of the central tax.

The revenue-sharing system compromised the implementation of the central government’s industrial policy. Qiang (1995) makes the point that the sharing of income taxes from local enterprises and the sharing of indirect taxes on a derivation basis encouraged local governments to favor development of projects that could show high rates of profits and sales quickly. Local officials, facing a relatively short political life, favor investment projects that have a high visibility and offer a substantial short term return in terms of employment and revenues. This is a problem common to all countries. However, it is an especially acute problem for China because of the substantial amount of resources in the hands of subnational governments and locally owned enterprises (Chinese People’s Bank of Construction 1993).

This situation leads to a number of other problems. First, it diverts resources away from the more productive investments that the central government would prefer. In effect, it dramatically limits the ability of the central government to guide the direction of investment in the economy. Second, it has encouraged some governments to erect barriers to internal trade in order to protect local investments (and implicitly to protect the local tax base). Third, the evidence does not support the hypothesis that decentralization in the budgetary and extrabudgetary accounts has led to a more rapid economic growth rate (Prime 1992; Zhang and Zou 1996).

The validity of the argument that the center was losing its ability to control the fiscal sector effectively rests on the claim that an increasing share of total revenues was accruing to the subnational government sector. This concern is substantiated by the data presented in Table 5.8. The first three rows show the balance between collections and expenditures at the central government level. A negative number in the third row means that the central government must share in revenues from provincial and local collections to meet its expenditure commitments. The last three rows show the balance for subnational governments. By
Table 5.8. Tax Collection and Expenditure of Central and Subnational Governments: 1980–1996a (billion yuan)

<table>
<thead>
<tr>
<th>Year</th>
<th>Central Government Revenue Collections</th>
<th>Central Government Expenditures</th>
<th>Collections Deficit−Surplus</th>
<th>Subnational Government Collectionsb</th>
<th>Subnational Government Expenditures</th>
<th>Collections Deficit−Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>28.4</td>
<td>66.7</td>
<td>−38.2</td>
<td>87.5</td>
<td>56.2</td>
<td>31.3</td>
</tr>
<tr>
<td>1981</td>
<td>31.1</td>
<td>62.6</td>
<td>−31.5</td>
<td>86.5</td>
<td>51.3</td>
<td>35.2</td>
</tr>
<tr>
<td>1982</td>
<td>34.7</td>
<td>65.2</td>
<td>−30.5</td>
<td>86.5</td>
<td>57.8</td>
<td>28.7</td>
</tr>
<tr>
<td>1983</td>
<td>49.0</td>
<td>76.0</td>
<td>−27.0</td>
<td>87.7</td>
<td>65.0</td>
<td>22.7</td>
</tr>
<tr>
<td>1984</td>
<td>66.5</td>
<td>89.3</td>
<td>−22.8</td>
<td>97.7</td>
<td>80.8</td>
<td>17.0</td>
</tr>
<tr>
<td>1985</td>
<td>77.0</td>
<td>79.5</td>
<td>−2.6</td>
<td>123.5</td>
<td>120.9</td>
<td>2.6</td>
</tr>
<tr>
<td>1986</td>
<td>77.8</td>
<td>83.6</td>
<td>−5.8</td>
<td>134.4</td>
<td>136.9</td>
<td>−2.5</td>
</tr>
<tr>
<td>1987</td>
<td>73.6</td>
<td>84.6</td>
<td>−10.9</td>
<td>146.3</td>
<td>141.7</td>
<td>4.7</td>
</tr>
<tr>
<td>1988</td>
<td>77.5</td>
<td>84.5</td>
<td>−7.0</td>
<td>158.2</td>
<td>164.6</td>
<td>−6.4</td>
</tr>
<tr>
<td>1989</td>
<td>82.3</td>
<td>88.9</td>
<td>−6.6</td>
<td>184.2</td>
<td>193.5</td>
<td>−9.3</td>
</tr>
<tr>
<td>1990</td>
<td>99.2</td>
<td>100.4</td>
<td>−1.2</td>
<td>194.5</td>
<td>207.9</td>
<td>−13.4</td>
</tr>
<tr>
<td>1991</td>
<td>98.8</td>
<td>109.1</td>
<td>−10.3</td>
<td>221.1</td>
<td>229.6</td>
<td>−8.5</td>
</tr>
<tr>
<td>1992</td>
<td>98.0</td>
<td>117.0</td>
<td>−19.1</td>
<td>250.4</td>
<td>257.2</td>
<td>−6.8</td>
</tr>
<tr>
<td>1993</td>
<td>95.8</td>
<td>131.2</td>
<td>−35.5</td>
<td>339.1</td>
<td>333.0</td>
<td>6.1</td>
</tr>
<tr>
<td>1994</td>
<td>290.7</td>
<td>175.4</td>
<td>115.2</td>
<td>231.2</td>
<td>403.8</td>
<td>−172.7</td>
</tr>
<tr>
<td>1995</td>
<td>324.2</td>
<td>203.9</td>
<td>126.1</td>
<td>294.6</td>
<td>477.0</td>
<td>−184.3</td>
</tr>
<tr>
<td>1996</td>
<td>364.9</td>
<td>214.6</td>
<td>150.3</td>
<td>371.8</td>
<td>576.8</td>
<td>−205.0</td>
</tr>
</tbody>
</table>

a The difference between the local government’s surplus and the central government’s deficit is that the central government’s deficit includes foreign borrowing and the domestic budget deficit.

b Central and local government collections are before transfer from local governments to the central government and before earmarked grant distribution to the local governments.

Source: SSB, Statistical Yearbook of China, 1996; data supplied by the Ministry of Finance.

1993, 78 percent of all revenue collections were made at the subnational level in the form of either shared tax revenues or local fixed revenue. The central government view was that the fiscal system was tilting more and more toward provincial and local governments in the early 1990s. An even bigger concern was that the subnational government proportion of revenues, after sharing, was increasing. There was a net transfer of resources from the central to the subnational governments after 1986.20 By 1990, the net transfer was about 2 billion yuan from the center to the local governments. As recently as 1985, there had been a significant net transfer to the center.

There are a number of reasons for this reversal. First, the sharing formulas implemented in 1988 were negotiated to favor the subnational governments. Second, poor economic performance and natural disasters constrained provincial and local governments from reaching their negotiated amounts, and forced the cen-
Central–Provincial Fiscal Relations

The central government to forgive part of the planned upward transfer and to increase earmarked grants. Third, subnational governments used their authority to grant tax concessions and favorable contracts, and this reduced the flow of revenue to the central government (Cullen and Fu 1996, p. 7).

For whatever reasons, the central government’s ability to use the fiscal system for macroeconomic policy purposes was quite limited by 1992. The center collected only 28 percent of total revenues in the country, and paid out more in transfers to the subnational government sector than it received back under the tax-sharing arrangements (Table 5.8). The enterprise income tax had become a much less important fiscal instrument, largely because the local governments had more or less replaced it with negotiated contracts.

Fiscal Disparities and Equalization

Budgetary revenue collections in Chinese provinces (see Box 7) have been determined by some combination of fiscal capacity, tax effort, and the ease of transferring funds to extrabudgetary accounts. One would expect wealthier provinces to have a significant revenue-raising advantage, and the data seem to bear this out for the pre-reform period.

The disparities in income level have remained quite wide in China, as is shown in Table 5.9. The coefficient of variation in per capita GDP fell from 0.74 to 0.68 during the 1986–95 decade, but it actually increased during the first half of the 1990s. This finding jibes with the feeling of many analysts that regional disparities are increasing (Hofman and Yusef 1995, pp. 44–46).

In the pre-reform period, revenue collections were roughly proportional to income level. In 1990, the five highest income provinces in China accounted for 26 percent of local government revenue collections and 23 percent of national income (Table 5.10). However, these provinces accounted for only 13 percent of the national population. By contrast, the five poorest provinces had 13 percent of national income and 12 percent of revenue collection, but 19 percent of national income.

Box 7: Locally Raised Budgetary Revenues

Prior to the 1994 reform, shared taxes and fixed local revenues were collected by SAT provincial bureaus. These are referred to in this analysis and in the tables as "local government revenue collections": They are collected before sharing and include VAT except for that collected on imports. These definitions change after 1994, in China and in the tables in this book. "Local government revenue collections" now refers to collections of the newly assigned local taxes and does not include VAT and consumption tax.
### Table 5.9. Per Capita GDP by Province\(^a\)

<table>
<thead>
<tr>
<th>Province</th>
<th>1986</th>
<th>1990</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>2,955</td>
<td>4,880</td>
<td>10,265</td>
</tr>
<tr>
<td>Tianjin</td>
<td>2,406</td>
<td>3,497</td>
<td>8,164</td>
</tr>
<tr>
<td>Hebei</td>
<td>791</td>
<td>1,340</td>
<td>3,376</td>
</tr>
<tr>
<td>Shanxi</td>
<td>818</td>
<td>1,417</td>
<td>2,819</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>767</td>
<td>1,327</td>
<td>3,013</td>
</tr>
<tr>
<td>Liaoning</td>
<td>1,507</td>
<td>2,450</td>
<td>6,103</td>
</tr>
<tr>
<td>Jilin</td>
<td>925</td>
<td>1,617</td>
<td>3,703</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>1,068</td>
<td>1,831</td>
<td>4,427</td>
</tr>
<tr>
<td>Shanghai</td>
<td>4,008</td>
<td>5,818</td>
<td>15,204</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>1,205</td>
<td>1,957</td>
<td>5,785</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>1,180</td>
<td>1,977</td>
<td>6,149</td>
</tr>
<tr>
<td>Anhui</td>
<td>698</td>
<td>1,090</td>
<td>2,521</td>
</tr>
<tr>
<td>Fujian</td>
<td>777</td>
<td>1,573</td>
<td>5,386</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>652</td>
<td>1,112</td>
<td>2,376</td>
</tr>
<tr>
<td>Shandong</td>
<td>884</td>
<td>1,572</td>
<td>4,473</td>
</tr>
<tr>
<td>Henan</td>
<td>639</td>
<td>1,045</td>
<td>2,475</td>
</tr>
<tr>
<td>Hubei</td>
<td>891</td>
<td>1,496</td>
<td>3,341</td>
</tr>
<tr>
<td>Hunan</td>
<td>703</td>
<td>1,159</td>
<td>2,701</td>
</tr>
<tr>
<td>Guangdong</td>
<td>1,085</td>
<td>2,395</td>
<td>6,380</td>
</tr>
<tr>
<td>Guangxi</td>
<td>527</td>
<td>993</td>
<td>2,772</td>
</tr>
<tr>
<td>Sichuan</td>
<td>630</td>
<td>1,065</td>
<td>2,516</td>
</tr>
<tr>
<td>Guizhou</td>
<td>467</td>
<td>793</td>
<td>1,553</td>
</tr>
<tr>
<td>Yunnan</td>
<td>520</td>
<td>1,074</td>
<td>2,490</td>
</tr>
<tr>
<td>Sha' anxi</td>
<td>664</td>
<td>1,151</td>
<td>2,344</td>
</tr>
<tr>
<td>Gansu</td>
<td>684</td>
<td>1,061</td>
<td>1,925</td>
</tr>
<tr>
<td>Qinghai</td>
<td>923</td>
<td>1,476</td>
<td>2,910</td>
</tr>
<tr>
<td>Ningxia</td>
<td>775</td>
<td>1,319</td>
<td>2,585</td>
</tr>
<tr>
<td>Xinjiang</td>
<td>889</td>
<td>1,688</td>
<td>3,953</td>
</tr>
<tr>
<td>Median</td>
<td>804.8</td>
<td>1,446.5</td>
<td>3,177</td>
</tr>
<tr>
<td>Coefficient of variation(^b)</td>
<td>0.74</td>
<td>0.65</td>
<td>0.68</td>
</tr>
<tr>
<td>Range</td>
<td>3,541</td>
<td>5,025</td>
<td>13,651</td>
</tr>
</tbody>
</table>

\(^a\) Tibet and Hainan provinces are excluded.

\(^b\) Standard deviation as a percentage of the mean.

Table 5.10. Fiscal and Economic Concentration in Rich and Poor Provinces

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Five richest provinces</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of GDP</td>
<td>22.8</td>
<td>23.9</td>
</tr>
<tr>
<td>Percentage of population</td>
<td>12.7</td>
<td>12.4</td>
</tr>
<tr>
<td>Percentage of revenue collections</td>
<td>26.0</td>
<td>30.3</td>
</tr>
<tr>
<td>Percentage of local government expenditures</td>
<td>19.8</td>
<td>25.5</td>
</tr>
<tr>
<td><strong>Five poorest provinces</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of GDP</td>
<td>12.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Percentage of population</td>
<td>18.9</td>
<td>19.0</td>
</tr>
<tr>
<td>Percentage of revenue collections</td>
<td>12.3</td>
<td>10.5</td>
</tr>
<tr>
<td>Percentage of local government expenditures</td>
<td>14.0</td>
<td>12.4</td>
</tr>
</tbody>
</table>

*a* Shanghai, Beijing, Tianjin, Guangdong, and Zhejiang.

*b* Guizhou, Gansu, Sha’anxi, Jiangxi, and Henan. Tibet and Hainan are excluded because of special circumstances and data availability.


population. There were very significant disparities in per capita revenue collections among the provinces, from 1,180 yuan in Shanghai to 96 yuan in Anhui in 1990 (see Table 5.11).

What were the determinants of this variation in per capita revenue collections across provinces during the pre-reform period? The revenue collection statistics and income rankings shown in Tables 5.11 and 5.9 suggest that the capacity to raise taxes is a major determinant. Considerably more revenues were collected in provinces with higher per capita incomes. The three richest provinces (Shanghai, Beijing, and Tianjin) averaged about 800 yuan in per capita revenue collections in 1990, while the three poorest (Anhui, Jiangxi, and Henan) had average per capita collections of about 100 yuan. One might also suspect, based on observation of the statistics, that the rate of urbanization was a major determinant. This is a reasonable expectation because the tax system covers urban industrial and commercial activity to a much greater extent than it does rural and agricultural activity. Khan et al. (1993) have noted that only 9 percent of rural income is from wages and salaries. Finally, because some of the less populous provinces tend to have greater rates of urbanization and a smaller agricultural sector, one would expect them to raise more on a per capita basis.

We have tested these hypotheses for 1990 with a regression analysis of per capita budgetary collections against per capita income, population size and the rate of urbanization. The results of this analysis, presented in Table 5.12, more or
### Table 5.11. Collection and Expenditure Disparities Among Provinces: 1990

<table>
<thead>
<tr>
<th>Province</th>
<th>Collections (Per capita, Yuan)</th>
<th>As % of total</th>
<th>Budgetary Expenditures (Per capita, Yuan)</th>
<th>As % of total</th>
<th>As % of total population</th>
<th>Per capita income rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>702</td>
<td>3.85</td>
<td>633</td>
<td>3.22</td>
<td>0.95</td>
<td>2</td>
</tr>
<tr>
<td>Tianjin</td>
<td>508</td>
<td>2.27</td>
<td>455</td>
<td>1.88</td>
<td>0.78</td>
<td>3</td>
</tr>
<tr>
<td>Hebei</td>
<td>132</td>
<td>4.11</td>
<td>142</td>
<td>4.09</td>
<td>5.40</td>
<td>13</td>
</tr>
<tr>
<td>Shanxi</td>
<td>185</td>
<td>2.72</td>
<td>196</td>
<td>2.67</td>
<td>2.54</td>
<td>15</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>151</td>
<td>1.66</td>
<td>282</td>
<td>2.86</td>
<td>1.90</td>
<td>16</td>
</tr>
<tr>
<td>Liaoning</td>
<td>326</td>
<td>6.54</td>
<td>308</td>
<td>5.73</td>
<td>3.48</td>
<td>4</td>
</tr>
<tr>
<td>Jilin</td>
<td>204</td>
<td>2.56</td>
<td>289</td>
<td>3.36</td>
<td>1.18</td>
<td>18</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>216</td>
<td>3.87</td>
<td>262</td>
<td>4.35</td>
<td>3.11</td>
<td>8</td>
</tr>
<tr>
<td>Shanghai</td>
<td>1180</td>
<td>7.98</td>
<td>566</td>
<td>3.55</td>
<td>1.17</td>
<td>1</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>201</td>
<td>6.89</td>
<td>149</td>
<td>4.73</td>
<td>5.94</td>
<td>7</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>244</td>
<td>5.14</td>
<td>192</td>
<td>3.76</td>
<td>3.66</td>
<td>6</td>
</tr>
<tr>
<td>Anhui</td>
<td>96</td>
<td>2.76</td>
<td>108</td>
<td>2.89</td>
<td>4.98</td>
<td>24</td>
</tr>
<tr>
<td>Fujian</td>
<td>187</td>
<td>2.87</td>
<td>225</td>
<td>3.21</td>
<td>2.66</td>
<td>11</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>107</td>
<td>2.05</td>
<td>133</td>
<td>2.38</td>
<td>3.34</td>
<td>22</td>
</tr>
<tr>
<td>Shandong</td>
<td>129</td>
<td>5.55</td>
<td>146</td>
<td>5.81</td>
<td>7.45</td>
<td>9</td>
</tr>
<tr>
<td>Henan</td>
<td>99</td>
<td>4.35</td>
<td>106</td>
<td>4.31</td>
<td>7.59</td>
<td>26</td>
</tr>
<tr>
<td>Hubei</td>
<td>143</td>
<td>3.94</td>
<td>156</td>
<td>3.98</td>
<td>4.77</td>
<td>12</td>
</tr>
<tr>
<td>Hunan</td>
<td>118</td>
<td>3.66</td>
<td>134</td>
<td>3.86</td>
<td>5.38</td>
<td>18</td>
</tr>
<tr>
<td>Guangdong</td>
<td>206</td>
<td>6.63</td>
<td>237</td>
<td>7.06</td>
<td>5.57</td>
<td>5</td>
</tr>
<tr>
<td>Guangxi</td>
<td>112</td>
<td>2.41</td>
<td>154</td>
<td>3.08</td>
<td>3.74</td>
<td>27</td>
</tr>
<tr>
<td>Sichuan</td>
<td>111</td>
<td>6.06</td>
<td>132</td>
<td>6.69</td>
<td>9.48</td>
<td>25</td>
</tr>
<tr>
<td>Guizhou</td>
<td>113</td>
<td>1.87</td>
<td>149</td>
<td>2.28</td>
<td>2.87</td>
<td>28</td>
</tr>
<tr>
<td>Yunnan</td>
<td>208</td>
<td>3.92</td>
<td>243</td>
<td>4.26</td>
<td>3.27</td>
<td>21</td>
</tr>
<tr>
<td>Sha'anxi</td>
<td>134</td>
<td>2.25</td>
<td>172</td>
<td>2.68</td>
<td>2.91</td>
<td>20</td>
</tr>
<tr>
<td>Gansu</td>
<td>152</td>
<td>1.73</td>
<td>204</td>
<td>2.15</td>
<td>1.98</td>
<td>23</td>
</tr>
<tr>
<td>Qinghai</td>
<td>163</td>
<td>0.37</td>
<td>382</td>
<td>0.80</td>
<td>0.39</td>
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<tr>
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<td>318</td>
<td>0.70</td>
<td>0.41</td>
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<tr>
<td>Xinjiang</td>
<td>165</td>
<td>1.28</td>
<td>313</td>
<td>2.24</td>
<td>1.34</td>
<td>10</td>
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<tr>
<td>Median</td>
<td>152</td>
<td>2.76</td>
<td>225</td>
<td>3.36</td>
<td>3.11</td>
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<tr>
<td>Hainan</td>
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<td>263</td>
<td>0.82</td>
<td>0.58</td>
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</tr>
<tr>
<td>Tibet</td>
<td>8</td>
<td>0.01</td>
<td>582</td>
<td>0.61</td>
<td>0.19</td>
<td>30</td>
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</tbody>
</table>

*Source:* Computed from data provided by the Ministry of Finance.
Table 5.12. Ordinary Least Squares Regressions of Per Capita Subnational Government Revenues and Expenditures Against Selected Independent Variables: 1990 and 1995

<table>
<thead>
<tr>
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<tr>
<td><strong>Constant</strong></td>
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<td>-2.7636</td>
<td>-2.9755</td>
<td>-1.9157</td>
<td>2.0123</td>
<td>2.4332</td>
<td>1.1178</td>
<td>1.4570</td>
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<tr>
<td></td>
<td>(1.35)</td>
<td>(3.64)</td>
<td>(4.32)</td>
<td>(2.37)</td>
<td>(2.40)</td>
<td>(4.10)</td>
<td>(1.63)</td>
<td>(1.67)</td>
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<tr>
<td><strong>Per capita GDP</strong></td>
<td>2.9099</td>
<td>1.1207</td>
<td>1.0736</td>
<td>0.9183</td>
<td>0.6231</td>
<td>0.5600</td>
<td>0.7235</td>
<td>0.6738</td>
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<td></td>
<td>(6.66)</td>
<td>(12.25)</td>
<td>(14.01)</td>
<td>(9.08)</td>
<td>(5.47)</td>
<td>(7.84)</td>
<td>(9.46)</td>
<td>(6.16)</td>
</tr>
<tr>
<td><strong>Population</strong></td>
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<td>-0.0828</td>
<td>-0.1037</td>
<td>-0.0542</td>
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<tr>
<td></td>
<td>(1.04)</td>
<td>(1.58)</td>
<td>(2.06)</td>
<td>(1.05)</td>
<td>(8.18)</td>
<td>(8.40)</td>
<td>(5.71)</td>
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<td><strong>Dummy variable for urban province</strong></td>
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<td>—</td>
<td>—</td>
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<td>—</td>
<td>—</td>
<td>0.1293</td>
</tr>
<tr>
<td></td>
<td>(1.99)</td>
<td>—</td>
<td>—</td>
<td>(2.17)</td>
<td>(0.72)</td>
<td>—</td>
<td>—</td>
<td>(0.64)</td>
</tr>
<tr>
<td><strong>R^2</strong></td>
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<td>0.88</td>
<td>0.95</td>
<td>0.92</td>
<td>0.89</td>
<td>0.89</td>
<td>0.86</td>
<td>0.86</td>
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<tr>
<td><strong>N</strong></td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
</tbody>
</table>

*a All variables expressed in logarithms with t-values shown in parenthesis below the regression coefficients.

*b D = 1 for Beijing, Shanghai, and Tianjin.

*c Tibet and Hainan provinces are not included.

less confirm these hypotheses. There is a significant and elastic relationship between per capita budgetary revenue collections and per capita GDP. In 1990, a 10 percent higher level of per capita income tended to be associated with an 11.2 percent higher level of per capita revenue collections. Population size did show the expected negative relationship with revenues, but was not significant. So, we may conclude from these results that per capita budgetary collections are proportionally higher in wealthier provinces. Higher income goes hand in hand with a greater rate of urbanization in China, and urbanization implies a stronger ability to collect in China’s urban-based tax system. This may explain the more than proportionate revenue collection response to differences in per capita income. We have introduced a dummy variable to identify differences between the three most urbanized provinces (Beijing, Tianjin, Shanghai) and the rest of the country; however, there was not a significantly higher level of collections in 1990 in these provinces, after income and population differences had been accounted for.
There was some weakening in the relationship between collections and income in the period leading up to the 1994 reform. In 1985, four provinces with the highest levels of per capita income (Shanghai, Beijing, Tianjin, and Liaoning) raised 31.7 percent of revenues and accounted for only 6.4 percent of the national population. In 1990, these same provinces raised only 20.6 percent of locally raised revenues. In fact, virtually all of the higher-income provinces had growth rates in budgetary collections that were below the 1987–92 average (Bahl 1994). There are a number of possible explanations for the narrowing of the gap. One is that lower income provinces began to catch up in terms of their ability to collect taxes and in terms of the growth of their economies. Another is that higher-income local governments did a better job of transferring funds from the budgetary to the extrabudgetary fiscal accounts, hence showed a slower growth in budgetary revenues. A third explanation is that the enterprises were strong enough to negotiate more favorable contracts in the higher-income provinces. It is not possible to test any of these hypotheses because data are not available. In order to monitor these changes in local government tax effort, the central government would have needed data on the growth of each tax base and the collection efficiency for each tax, as well as detailed data on extrabudgetary revenue collections for all governments within each province.

Disparities are much less pronounced on the expenditure side of local budgets, suggesting that there is some equalizing effect of the transfer system. Per capita expenditures in 1990 varied from a high of 633 yuan in Beijing to lows of 106 yuan in Henan and 108 yuan in Anhui (Table 5.11). The five highest-income provinces, with 12.7 percent of the population, accounted for 19.8 percent of the expenditures in 1990. The five lowest income provinces, with nearly 19 percent of the population, accounted for only 14 percent of total expenditures (Table 5.10). The pattern of variation across provinces might be explained in the following way: Higher-income provinces spend more because of greater demand for public services by their citizens and their enterprises, their ability to raise more “local fixed” revenues, their ability to attract more grants, and very important, their ability to lower the flow of their revenue collections to the center. Provinces with smaller populations, other things being equal, would be expected to spend more on a per capita basis, because of the size of their fixed costs. Conversely, larger provinces may spend less on a per capita basis, because the fixed components of their costs are spread over a larger population base.

The expenditure regression results, presented for 1990 data, confirm these expectations (Table 5.12). About 90 percent of the interprovince variations in per capita expenditures can be explained by variations in per capita income and in population size. Both variables are significant and with the expected sign. The expenditure-income elasticity is about one-half the size of the revenue–income
elasticity, suggesting some degree of equalization in the system. In 1990, a 10 percent difference in per capita income was, on average, associated with a 5.6 percent difference in per capita expenditures. Population size was significantly and negatively associated with per capita expenditure level. Clearly, there is a “size effect” to be taken into account in estimating per capita expenditure needs. A dummy variable was introduced to test for a significantly higher level of spending in the three most urbanized provinces, but there was no significant result for 1990.

We might also ask whether the share of national expenditures made in each province changed significantly during the years leading up to the reform. The answer is that it did, as is shown in the first two columns in Table 5.13 for the 1987–92 period. There is no clear pattern to this change. 

The conclusion of this analysis of the pre-reform period is that differences in revenue collections pretty much mirror differences in income, suggesting that there is a great deal of equalization to be done through the tax sharing and grants system. The system of earmarked grants exacerbated the problem of disparity, because it distributed more assistance to higher-income than to lower-income provinces. The tax-retention system and the quota grants did move the system toward equalization and offset about half of the fiscal capacity advantage of richer provinces. A kind of horizontal transfer system was in effect. Still, significant disparities remain. If province A has a 10 percent higher level of per capita income than province B, we would expect that per capita expenditures in province A would be about 5.6 percent higher. The strong statistical relationship of per capita expenditure levels with per capita income and population suggests that budget levels are driven more by revenue capacity than by those demographic factors that indicate a greater level of needs in one province than another.

**Evaluation of the 1994 Reform**

The 1994 fiscal reform must be judged a success in terms of the usual norms for evaluating a tax structure change. However, this reform must also be evaluated in terms of its effects on the intergovernmental fiscal system, since most of the important features of that system are altered.

1. The tax rates and tax bases were changed; therefore, the local revenue bases were changed.
2. The tax-sharing rates between the central and local governments were changed.
3. The tax administration system was decentralized, thereby increasing the incentive for each level of government to improve its collection rate.
### Table 5.13. Changes in Provincial Expenditure Shares: 1987–1995

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>3.49</td>
<td>2.83</td>
<td>3.20</td>
<td>-0.29</td>
</tr>
<tr>
<td>Tianjin</td>
<td>2.19</td>
<td>1.81</td>
<td>1.93</td>
<td>-0.26</td>
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<tr>
<td>Hebei</td>
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<td>3.88</td>
<td>3.96</td>
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</tr>
<tr>
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<td>4.89</td>
<td>5.25</td>
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<td>3.71</td>
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<td>3.85</td>
<td>3.36</td>
<td>-0.92</td>
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<td>Hunan</td>
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</tr>
<tr>
<td>Gansu</td>
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<td>2.08</td>
<td>1.69</td>
<td>-0.52</td>
</tr>
<tr>
<td>Qinghai</td>
<td>0.86</td>
<td>0.72</td>
<td>0.60</td>
<td>-0.26</td>
</tr>
<tr>
<td>Ningxia</td>
<td>0.83</td>
<td>0.62</td>
<td>0.48</td>
<td>-0.36</td>
</tr>
<tr>
<td>Xingjiang</td>
<td>2.37</td>
<td>2.18</td>
<td>2.00</td>
<td>-0.37</td>
</tr>
<tr>
<td>Total</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>3.49</td>
<td>3.11</td>
<td>3.20</td>
<td>-0.33</td>
</tr>
</tbody>
</table>

Source: SSB, *Statistical Yearbook of China* (various years); and computed from data provided by the Ministry of Finance.
4. The ability of local governments to strike tax “bargains” with enterprises was significantly reduced and their incentive to do so was significantly lessened. This reduced local autonomy but it also improved the transparency of the fiscal system.

The 1994 reform changed the revenue-sharing system dramatically. The most important change is the designation of the value-added tax as a centrally collected tax that will be shared 75–25 between the center and the Provinces (Box 8). The enterprise income tax (other than that collected from the centrally owned enterprises) and the individual income tax are assigned fully to the local governments. Local governments now have responsibility for collection of all local taxes including income taxes. This is a major step toward an assignment system in China, though as noted before, local governments still have little or no authority to adjust the tax rate or the tax base.

Evaluation of the success of these measures is no straightforward matter, for three reasons. The first is that the objectives of the Chinese government, as

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**Box 8: The 1994 VAT Sharing Formula**

In fact, in the initial years the revenue sharing is different from the 75–25 target, because local governments were guaranteed that they would be held harmless at 1993 levels in the first years of the reform. Under the new system, there are four steps in determining the VAT revenue sharing between the central and the provincial governments.

1. The central government gets 75 percent of value added tax collections, and the local government gets 25 percent.
2. The center makes a “return” transfer to the local government of an amount adequate to keep them whole with respect to their 1993 “base,” which is the amount of their approved expenditures. The actual calculation of the transfer is the total 1993 budget from all shared taxes less the amount received from the 25 percent share of the VAT, and less the fixed local taxes.
3. The 1993 transfer amount to the central government (or from the central government in the case of deficit provinces) must be paid.
4. The yearly increment of the VAT is divided 25 percent to the local government and 75 percent to the center. Of the 75 percent central share, 30 percent may be given to the locals as an incentive for reaching their revenue targets.
regards intergovernmental fiscal reform, are different from those pursued in most countries, where the goal is to move fiscal discretion down to local governments and closer to the voters. In China, the central government was attempting to wrestle control of fiscal and macroeconomic policy back from the local government sector. The evaluation of the Chinese reform must begin with an assessment of whether this objective was achieved. Although it is also appropriate to consider the more usual issues that arise when one evaluates an intergovernmental reform—equalization and local autonomy, for example—it is crucial to recognize that these were not the driving forces behind the Chinese reform.

Second, it is necessary to emphasize again that evaluation of the reform depends on whose view one takes. Whenever such sweeping reforms in an intergovernmental system are made, a new balance in fiscal power is struck and both levels of government cannot be winners. For example, this reform can give the central government increased flexibility to use taxation as an instrument of macroeconomic policy, but it can do this only at the expense of further limiting the fiscal autonomy of local governments; or the new system can be more or less equalizing, but this means that some provinces benefit at the expense of others. Evaluation of the “success” of the 1994 reform, therefore, depends on whose eyes one looks through.

Third, the Chinese government has not yet made available the detailed data on the outcomes in the post-reform period. Hence, it is not yet possible to carry out a quantitative analysis of the new system of revenue sharing. The partial data now available for 1994 through 1996 may show only muted effects of the reform on the intergovernmental fiscal system, because of the hold-harmless provisions put in place during a “transition” period.

Central Control

Will the 1994 reform recentralize the fiscal system? The shift of the VAT to a central revenue source and the elimination of contracting would seem to guarantee this result. Note from Tables 5.2 and 5.8 that, after 1994, the central government collected between 52 and 56 percent of total revenues, and was in a “surplus” position. The local governments, on the other hand, were in a deficit position and thus forced to rely on shared tax allocations and grant distributions from the center. With the 1994 reform, China has moved to the top-down revenue-sharing approach, which is used by most countries in the world outside the former Soviet bloc.

In fact, the central government’s gain in control over the aggregate budget is understated here because of what appears to be a transitional revenue-sharing arrangement. In the longer run, increased fiscal centralization will occur for three important reasons:
Central-Provincial Fiscal Relations

The VAT, the most productive tax in the system, is fully administered by the central government, and its revenues will accrue to the center in increasing proportion. Much of the revenue-productive component of the business tax (wholesale and retail trade) has been moved to the VAT base.

Revenue sharing in China is now top-down rather than bottom-up, and the central government can more easily control the allocation of funds.

There is no longer a contracting mechanism that will allow local governments and enterprises to negotiate tax liabilities. This means that the tax measures undertaken for stabilization purposes now have a better chance to achieve their desired objectives.

Will the 1994 reform significantly recentralize revenues? How quickly can this happen? What conditions are necessary for the central government to sustain a claim on a greater share of total revenues, what bottlenecks could arise, and what are the most likely outcomes?

To provide a first answer to these questions, we have developed a very simple model and have simulated results under a set of plausible assumptions. The model has six equations.

Where $T'$ = total tax revenue in year $t$, $T_c'$ = central government tax revenue, $T_L'$ = local government tax revenue, $G'$ = revenues from earmarked grants, and $E_L'$ = local government expenditures,

1. $T' = T_c' + T_L'$
2. $T_c' = T_{c}' - T_{c}' - \beta_c (dY)$
3. $T_L' = T_{L}' - T_{L}' - \beta_L (dY)$
4. $G' = \alpha_Y Y'$
5. $E_L' = T'_L + G' + \alpha_L Y'$
6. $E_c' = T'_c - \alpha Y' - G'$

And where $E_c'$ = central government expenditures; $Y'$ = GDP in year $t$, $\beta_c$, $\beta_L$ = revenue-income elasticity of central and local taxes, respectively, and $dY$ = percentage change in GDP.

Equation (5.1) is the tax identity, that is, total taxes are the sum of local plus central government taxes. Equations (5.2) and (5.3) are revenue growth functions based on estimates of the revenue-income elasticities of central and local taxes respectively. Equation (5.4) expresses earmarked grants as a constant proportion of GDP. Equations (5.5) and (5.6) are the direct expenditures of central and local governments respectively. This model is based on two very simplifying assumptions: that revenue growth is driven by GDP growth and that the level of
expenditures is determined by the level of revenues available under current structures.

We have estimated values for the revenue-income elasticities for central and local taxes. For the central government revenue structure, which is now dominated by the value-added tax, we assume a pessimistic scenario elasticity of 0.75, and an optimistic scenario elasticity of unity. The pessimistic scenario seems realistic enough. For the 1978–93 period, the elasticity of all indirect taxes was .075. The optimistic scenario also can be justified. Central administration will raise the VAT elasticity, because opportunities for local governments to provide tax relief will be choked off and the switch to a credit–invoice system will improve the efficiency of collections. For local government taxes, we assume an elasticity of 0.6 for both the pessimistic and optimistic scenario. This assumption presumes a dramatic turnaround for the enterprise income tax, which has shown virtually no growth in recent years (see Table 2.1), but it is plausible because of the greater incentives for the local governments to collect the tax fully and because of the elimination of contracting with enterprises and local administration.

We assume that the level of earmarked grants in 1993, equivalent to 1.04 percent of GDP, will hold throughout the projection period. These funds are used primarily for construction projects, price subsidies, and emergency relief, and it seems reasonable that their growth be tied to overall growth in the output of the economy. If anything, this assumption could lead to an overestimate of the level of earmarked grants, because with robust growth in the Chinese economy, the need for these subsidies could diminish. A key assumption is the degree to which the VAT is shared with the local-level governments. Will the share eventually become 25 percent, or will the hold-harmless sharing rate, which in 1995 was equivalent to 2 percent of GDP, become the normal rate? The view in this book is that the central government cannot move quickly away from the current level of distribution to subnational governments and the sharing percentage will remain at 2 percent of GDP. We assume real growth in GDP at 9 percent per year (high growth) and 6 percent (low growth) over the forecast period, and an annual growth of 2 percent in population. The simulation begins with a deficit equivalent to 1 percent of GDP in 1995, which we hold constant at this percentage of GDP for the entire projection period. These assumptions are summarized in this matrix below:

**Simulation Assumptions**

<table>
<thead>
<tr>
<th></th>
<th>$\beta_c$</th>
<th>$\beta_L$</th>
<th>$\alpha_G$</th>
<th>$\alpha_L$</th>
<th>$d\gamma$</th>
</tr>
</thead>
<tbody>
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<td>Optimistic</td>
<td>1.0</td>
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<td>1.04</td>
<td>2.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>0.75</td>
<td>0.6</td>
<td>1.04</td>
<td>2.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>
These parameters are used to simulate the level and division of fiscal resources to the year 2000. The results, presented in Tables 5.14 and 5.15, show a trend of revenue centralization to the year 2000. Under the very conservative scenario (Table 5.14, top panel), the ratio of subnational tax revenue to GDP continues to fall (by assumption), but the central revenue share increases from 52.17 percent in 1995 to 53.76 percent in the year 2000. The central expenditure share, however, hardly changes. This is because of the assumptions that earmarked grants will have a unitary elasticity with respect to GDP and therefore will increase as a share of central government expenditures, and that the local claim on centrally collected revenues will remain a constant percentage of GDP. In other words, net transfers from center to local will grow in proportion to income, but tax revenue collections will not. This might be a world in which the bargaining power is tilting toward the provinces. The net result as shown by this simulation is that per capita central government expenditures will increase by 37 yuan (22 percent) in real terms, while real per capita local government expenditures will increase by 94 yuan (24 percent).

Under the more optimistic scenario (Table 5.15), the GDP elasticity of central revenue collections is assumed to be unity. The overall tax ratio still continues to fall, but the central revenue share increases, to over 56 percent in the year 2000. The central share of expenditures rises by about 1.5 percent, and per capita real expenditures of the central government increase by 60 yuan (37 percent) while per capita expenditures of local governments increase by 108 yuan (27 percent). Under this scenario, everyone prospers. Both the central and local governments gain in real expenditure terms, and the central share of the overall budget increases. This shows the importance of improved tax administration, because the only difference in these two simulations is the assumed higher-income elasticity of VAT revenues.

From these simulations, we can learn a number of things about the likely future of fiscal balance between the central and local governments in China.

- Subnational governments stand to benefit significantly from an income elastic VAT, if their share of VAT revenues remains constant. The downside of this possibility is that provincial and local governments might be willing to support real per capita expenditure increases with their share of increased VAT and earmarked grants, and not to increase income tax collection effort significantly.
- A high rate of growth in GDP will allow both subnational and central governments to realize real per capita increases in expenditures. Only if the growth rate in GDP falls, improbably, below 1.8 percent, would real per capita expenditures fall for both levels of government.
Table 5.14. Projected Central and Subnational Government Fiscal Balance: Simulations with Two Conservative Assumptions

<table>
<thead>
<tr>
<th>Year</th>
<th>Assumption A</th>
<th>Assumption B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>REVENUE SHARES (%</td>
<td>EXPENDITURE SHARES (%)</td>
</tr>
<tr>
<td></td>
<td>Central</td>
<td>Subnational</td>
</tr>
<tr>
<td>1995</td>
<td>52.17</td>
<td>47.83</td>
</tr>
<tr>
<td>1996</td>
<td>52.49</td>
<td>47.51</td>
</tr>
<tr>
<td>1997</td>
<td>52.81</td>
<td>47.19</td>
</tr>
<tr>
<td>1998</td>
<td>53.12</td>
<td>46.88</td>
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<tr>
<td>1999</td>
<td>53.76</td>
<td>46.24</td>
</tr>
<tr>
<td>2000</td>
<td>53.76</td>
<td>46.24</td>
</tr>
</tbody>
</table>

Assumption A:
Revenue-income elasticity of central taxes = 0.75
Revenue-income elasticity of local taxes = 0.60
GDP real growth rate = 9% per year
Population growth rate = 2% per year

Assumption B:
Revenue-income elasticity of central taxes = 0.75
Revenue-income elasticity of local taxes = 0.60
GDP real growth rate = 6% per year
Population growth rate = 2% per year

- The 1994 reform will lead to revenue centralization, and the degree of this centralization will depend largely on the relative sizes of the revenue-income elasticity of the VAT, and the revenue-income elasticity of net transfers. If net transfers grow in step with GDP, there can be relatively little fiscal centralization.29
- Real per capita expenditures of central and local governments increase at very different rates under the optimistic and pessimistic scenarios. If expenditure assignments for the two levels of government are left in place, this suggests less emphasis on the services of local governments (e.g., education and health) and more emphasis on the services provided by central government (infrastructure). A first principle of fiscal federalism is that expenditure requirements and not revenue-sharing should drive the levels of services provided. To begin the process of expenditure determination on the revenue side would be a significant policy error.
### Table 5.15. Projected Central and Subnational Government Fiscal Balance: Simulations with Two Optimistic Assumptions

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CENTRAL</th>
<th>SUBNATIONAL</th>
<th>CENTRAL</th>
<th>SUBNATIONAL</th>
<th>CENTRAL</th>
<th>SUBNATIONAL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>REVENUE SHARES (%)</td>
<td>EXPENDITURE SHARES (%)</td>
<td>PER CAPITA EXPENDITURES (YUAN)</td>
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<td>70.76</td>
<td>164.74</td>
<td>398.64</td>
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<td>46.99</td>
<td>29.08</td>
<td>70.92</td>
<td>172.52</td>
<td>420.82</td>
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<tr>
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<td>46.16</td>
<td>29.49</td>
<td>70.51</td>
<td>184.36</td>
<td>440.71</td>
</tr>
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<td>29.91</td>
<td>70.09</td>
<td>197.01</td>
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<tr>
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<td>30.32</td>
<td>69.68</td>
<td>210.53</td>
<td>483.75</td>
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<td>2000</td>
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<td>43.66</td>
<td>30.73</td>
<td>69.27</td>
<td>224.98</td>
<td>507.03</td>
</tr>
</tbody>
</table>

**Assumption A:**
- Revenue–income elasticity of central taxes = 1.0
- Revenue–income elasticity of local taxes = 0.6
- GDP real growth rate = 9% per year
- Population growth rate = 2% per year

**Assumption B:**
- Revenue–income elasticity of central taxes = 1.0
- Revenue–income elasticity of local taxes = 0.6
- GDP real growth rate = 6% per year
- Population growth rate = 2% per year

• The optimistic scenario could give the central government considerable latitude in redistributing resources among the provinces. For example, the central government could hold to its real level of per capita spending in 1995, and have, by the year 2000, about 100 yuan per capita (125 billion yuan) available for redistribution purposes.

• Centralization is retarded by a lower rate of growth in GDP, as is shown in the bottom panels of Tables 5.14 and 5.15. Under both the optimistic and pessimistic set of fiscal assumptions, a lower rate of GDP growth results in less fiscal centralization.

The results of this simulation hold some policy important implications for the central government. First, if significant fiscal centralization is to be achieved, under any reasonable set of assumptions about the growth in the economy and the improvement in tax collection efficiency, the growth rate in net transfers to
local governments must be reduced to less than that in GNP. Second, the changes in the fiscal system in 1994 have put in motion a process that will produce swings in the amount of resources available to each level of government, and in the real per capita spending outcomes. This requires that the government review the assignment of expenditure responsibilities of the central and local governments to determine whether these swings are in fact consistent with China’s economic development and social polices. Third, if formal net transfers to the provinces (earmarked grants and VAT) are cut back, resources would be available to fund an equalizing grants program of significant size. Fourth, continued robust economic growth may enable the central government to continue postponing fundamental intergovernmental reform. At real GNP growth rates in the 9 percent range, as are expected, the present system will generate real per capita expenditure increases to the year 2000. This suggests that China’s gradual and incremental approach to resolving fundamental problems with its fiscal system will probably continue.  

**Resources Available to Local Governments**

The resources available to local government under the reformed system will depend on the rate of growth in the economy, the rate of increase in total government revenue mobilization, and on the willingness of the central government to make transfers to local governments from its new-found revenue wealth. The simulations presented in Tables 5.14 and 5.15 demonstrate that even with an inelastic income tax, real per capita expenditures of local government can rise.

How realistic are the assumptions that lead to this conclusion? A real national growth rate of between 6 and 9 percent would appear to be a realistic assumption for China, and a VAT elasticity estimate of 0.75 will be low if administrative improvements and central administration have any positive effect. A revenue-income elasticity of 0.6 for local taxes is high, taking into consideration the historical performance of the enterprise income tax, but contracting has been eliminated and the tax structure has been dramatically changed. Moreover, the incentive effect will drive up the efficiency in collection of other local government taxes. There is some evidence that the overall elasticity has increased subsequent to the 1994 reform. For 1995–96, the elasticity of 0.92 observed for the entire revenue system is considerably greater than the 0.75 observed for the 1985–93 period. In short, the assumptions made for this simulation may be relatively conservative.

One could take another reading of these assumptions, and argue that the claim of the local government sector on total resources will be weaker in the future. Revenues from the more income-elastic VAT are now shared with local governments, but the present sharing arrangement seems to be a transition measure.
Lou (1997, p. 350) notes that, “For an interim period, the government has introduced a ‘return of revenues,’ where the central government not only shares the VAT with local governments, but also redistributes most of its share of revenues to local governments to assure 1993 revenue levels.” One possibility for the long run is that derivation-based VAT sharing will be replaced with some type of formula grant. Depending on how the grant is structured (see Chapter 7), the local government revenue system could become less buoyant. The 1994 reform does assign revenues from all income taxes to the local governments, but income taxes in China do not have as strong a revenue growth potential as VAT and are less stable over the business cycle. Local government revenue streams could become not only smaller, but less certain.

Unless there is a change in expenditure assignments, such a diminution of local government revenue streams could not be tolerated. Social policy would be harmed and the national economic development strategy could be compromised. Three reform options are open to protect local government revenue positions. First, the central government could assign a significant source of taxation to the local governments. The individual income tax, with an expanded base and piggybacked on the central income tax, may be the best available revenue source for Chinese provincial governments. Second, a more buoyant intergovernmental grant program could be established. For example, a portion of VAT collections could be earmarked for sharing among provinces on a formula basis. Third, the ad hoc “revenue return” program could be expanded. All these options are feasible ways to buoy up the revenue structure of local governments.

**Local Government Autonomy**

The 1994 reform did not give local governments increased fiscal autonomy. The power to set rates and define bases for all taxes remains with the central government. In the past, local governments had taken some autonomy by using “back door” approaches, such as providing preferential tax treatments to attract economic activity, or in return for infrastructure investment.

The 1994 reform eliminated the practice of enterprise tax contracts with local governments. There is no question that this is good tax policy. Tax burdens had varied widely depending on whether an enterprise had a contract, the type of contract, and the financial position of the local government that wrote the contract. The elimination of contracting substitutes a transparent tax system for a negotiated one, and places enterprises on a more equal footing.

However much this measure improves the functioning of the economy, it does reduce the fiscal discretion of local governments. Local governments in China had made the granting of tax incentives an integral part of their industrial policy, and they had used their discretion in matters of tax administration to leverage
more social overhead investment by enterprises. This was done largely at the expense of the central government, because these actions reduced the level of revenues transferred to the central government. And, with the transfer of full responsibility for the value-added tax administration to the National Tax Bureau, another important component of local government discretion in tax administration, one which apparently was widely used, was eliminated. The elimination of such preferential, discretionary tax treatments was necessary for macroeconomic purposes, but it clearly moved the fiscal system in the direction of centralization.

Are Taxes a Correct Revenue Choice for Local Governments?

 Provincial governments now have responsibility for the administration of both individual and enterprise income taxes, and all income tax revenues accrue to the provincial governments. The question is the viability of this assignment of tax revenues to local governments: Does it meet the tests of good local taxation, according to the norms outlined above and based on international experience?

**Individual Income Tax.** The individual income tax is a proper choice for local government financing. It is a choice made in other countries, as diverse as Korea, Uganda, the United States, Russia and Denmark. The great virtue of the individual income tax is that its burden is not likely to be exported across provincial lines. As a result, this assignment offers no significant built-in incentive for the local government to overspend, and it is administratively feasible since it is collected mostly from withholding.

Another very great advantage of the individual income tax as a subnational government levy is that it is amenable to local rate setting. Should the Chinese government move in the direction of allowing provincial governments some discretion in setting their levels of taxation, the local individual income tax would be a good choice for such policy. The province could simply piggyback on the nationally set rate and base. Such a surrate would almost certainly lead to interprovince and even intraprovince differences in income tax burdens. This could be justified on grounds that tax burdens should be higher in areas where there is a demand for different services, or where the costs of service delivery are different. There is a precedent in China for such a surrate. The urban maintenance and construction tax (UMCT) is levied as a percentage of VAT liability, with rates that vary according to the presumed quality of services provided in a particular location (though the tax rate is set by the central government).

An argument against local income tax discretion is the popular belief that income taxation is a major instrument of income redistribution, and that local governments should not play a role in pursuing this objective. The answer to this criticism is that local governments need only be able to set the surrate to reflect
differences in the "price" of local public services. The basic income tax structure, which addresses distribution concerns, remains a central government responsibility.

Local income taxation does pose several problems. For those outside the formal sector, for example, the self-employed, collection problems are notoriously difficult. In most less-developed countries, this sector escapes payment and creates an inequity with formal sector (government and state enterprise) workers. This causes economic dislocation toward the informal sector, and it erodes confidence in the tax system. The experience in other countries suggests that the "hard-to-tax" sector will pose a difficulty whether the local government administrations have some rate discretion or not. A local surrate, however, will widen the tax differential between those working in the formal and informal sectors, and will increase the rewards for successful evasion.

A second, and related, issue is that strict enforcement of the income tax may be a more difficult proposition for local government politicians to champion, because they are "closer" to the population than the central government politicians are. It is always difficult to enforce a new tax to which taxpayers are accustomed, and this will be especially difficult for a tax on workers who form such a powerful opinion group at the local level. Offsetting this to some extent is the fact that the individual income tax will be largely collected through withholdings and less visible than an income tax on nonformal sector earnings or a property tax. Another offsetting factor is that income tax revenues would be spent in the local area, and therefore would be more acceptable than a central government income tax. This suggests that local residents would be more willing to pay a local than a central income tax.

Finally, the present anemic yield of the individual income tax in China would lead one to weigh whether it could be revenue productive enough to become a mainstay of the local revenue system. The issue could be addressed by raising the threshold for tax liability, or by ceasing to index and allowing the population to grow into the tax system over time. Either change would require central government action to redefine the tax base to include all compensation properly. To ratchet up the effective rate of individual income tax without removing the tax treatment of wages and fringe benefits would magnify the inequities in the system. At present, the wages and fringe benefits of workers are not easily separable, and if non-wage compensation is left untaxed, a very great inequity will arise from the different treatment of state enterprise workers and those who receive a greater proportion of their income from wages and salaries. Moreover, a major tax-avoidance loophole will be left open for enterprises to lower the tax liability of their workers. Underlying this constraint on a stronger individual income tax is a more fundamental issue: The design of the individual income tax in
China must be linked to government policies concerning the pricing of housing and utilities and the provision of social services by enterprises. All of these factors suggest a gradual evolution of local income taxation, but they do not defeat the strategy to move to rely on it as a principal source of local government revenue.

**Enterprise Income Tax.** There are advantages to the assignment of the enterprise income tax to the subnational government level. Certainly, it is familiar to the local governments and to taxpayers, and its impacts on investment and employment have long ago been capitalized by enterprises. The taxable base is large, and the revenue yield potential is great. There may be economies in the collection and audit functions, because the same enterprises are liable for the VAT or the business tax. And most important, the enterprise income tax is a good choice—by the process of elimination. The VAT would be a particularly unwise choice for tax assignment to local governments and the individual income tax is too revenue limited, at least in the near future. There was no other good choice at the time of the 1994 reform. But the enterprise income tax is very problematic as a subnational government revenue instrument.

- Its burden can be exported, so provincial governments can see this as a way to fund local services with taxes borne by residents in other provinces. This will lead to overspending on public services by subnational governments that are home to enterprises that trade nationally.
- Revenues from the enterprise income tax may be influenced to a considerable degree by changes in government industrial policy and macroeconomic policy. Moreover, the enterprise income tax by its very nature is cyclically unstable. Because provincial and local governments are responsible for delivering so many people-oriented services (vs. economic development services), they can least afford to be tied to an unstable revenue base.
- Local government enterprise taxation invites provincial tax competition to attract jobs from other provinces. Competitive tax subsidies would not be in step with the objectives of the 1994 reform, which eliminated contracting in an attempt to move to a more transparent and uniform taxing system.
- As the Chinese economy continues to modernize, the problems with the enterprise income tax as a local levy will become more apparent. When it becomes common practice for enterprises to operate in more than one province, the government will be faced with two choices: to prorate the profits base for each enterprise among the provinces where it operates or to require separate accountings. The latter raises compliance and administrative costs, and the former opens the door for enterprises to engage in transfer pricing to lower their tax liability (McLure 1981).
These considerations would lead us to the conclusion that local governments in China will not be able to build their long-run fiscal base on the enterprise income tax. A more likely scenario for the future is a combination of individual income tax, user charges, and grants.

**Equalization**

There are significant fiscal disparities among the Chinese provinces, and the net impact of tax sharing and earmarked grants is to exacerbate these disparities (Bahl 1994). There is also a significant urban–rural inequality that is further widened by government tax-subsidy policy (Khan et al. 1993, pp. 33–35).

Evaluation of the equalization features of the revenue-sharing system is no straightforward matter, since the government’s objectives are not clear on this matter. We can ask, however, whether the 1994 reform is structured to increase or reduce fiscal disparities and whether the spread in the revenue collection rate and budgetary expenditures between rich and poor provinces has changed.

The 1994 fiscal reform does not properly address the issue of uneven taxable capacity among the provinces and will not reduce disparities in per capita expenditures. In fact, an unintended but quite possible long run effect of the fiscal reform of 1994 is a widening of the fiscal disparities among provinces. By giving the local governments 100 percent of revenues raised from income taxes within their boundaries, the new system retains the revenue advantage of the higher-income provinces that have the more profitable enterprises and the wherewithal to mount better administrative efforts.

**Revenue Disparities.** There is some evidence that disparities in revenue collections by local governments have increased as a result of the 1994 reform. Between 1990 and 1995, the revenue share of the five richest provinces rose from 26 to over 30 percent, while the share of the five poorest provinces fell from 12.3 to 10.5 percent (Table 5.10). One explanation for this result is that the distribution of income among the regions worsened. The share of GDP in the poorest provinces fell by about 2 percent, while the share in the richest provinces rose by about 1 percent. The population shares in rich and poor provinces remained about the same. Another reason for growing revenue disparities is that local revenue collections in the later year are primarily income taxes, whose base values are distributed unevenly across regions. Moreover, higher-income provinces are likely to have a stronger capacity to collect. The range in per capita revenue collections between the highest and lowest provinces in 1995 (1,552 yuan in Shanghai to 139 yuan in Anhui) was a multiple of 11.1 (Table 5.16) compared to 12.3 in 1990 (Table 5.11).

The relationship between income level and the local revenue collection rate
Table 5.16. Collection and Expenditure Disparities Among Provinces, 1995

<table>
<thead>
<tr>
<th>Province</th>
<th>Collections</th>
<th></th>
<th>Budgetary Expenditures</th>
<th></th>
<th>As % of total population</th>
<th>Per capita income rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As % of total</td>
<td>Per capita</td>
<td>As % of total</td>
<td>Per capita</td>
<td></td>
<td></td>
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<tr>
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<td>(yuan)</td>
<td>(yuan)</td>
<td>(yuan)</td>
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<td>2</td>
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<td>297</td>
<td>3.96</td>
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<td>14</td>
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<td>367</td>
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<tr>
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<td>447</td>
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<td>Median</td>
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</table>
might be compared with 1990 in a more systematic way. We have estimated a linear regression of per capita collections by local governments in 1995 against per capita GDP, population size, and urbanization across 28 provinces. Per capita GDP is included to measure the taxing power of the province, and population gives the impact of a size effect on local collections. Because data are not available on the urbanization rate in all provinces, we have used a dummy variable for the most highly urbanized city-provinces (Beijing, Shanghai, and Tianjin).

The results, presented in Table 5.12, show a strong significant relationship between per capita budgetary revenue collections and per capita income in 1995. The cross-section income elasticities are about unity: In 1995, a 10 percent difference in per capita income tended to be associated with a 9.2 or a 10.7 percent difference in per capita revenue collections, depending on whether the city-province dummy variable is included. Population size did show the expected negative relationship with revenues. The urbanization effect was highly significant, that is, even after accounting for their higher levels of income and their population size, Shanghai, Beijing, and Tianjin collect a significantly greater amount than do the remaining provinces.

These results show that higher-income provinces raise proportionately more in revenues, just as they did before the 1994 reform. In fact, comparison of the results from the 1990 and 1995 regressions (Table 5.12) shows some weakening in the relationship between collections and income. The cross-section income elasticity of collections is lower, the urbanization effect is weaker, and virtually all of the higher-income provinces had growth rates in budgetary collections that were below the national average (Bahl 1994).

**Expenditure Variations.** In 1995, per capita expenditures varied from highs of 1,234 yuan in Beijing and 1,837 yuan in Shanghai to 228 yuan in Henan and 226 yuan in Anhui (Table 5.16). Shanghai spent 8.1 times more than Anhui in 1995, compared with a multiple of 6.0 for the high- and low-spending province in 1992. The five highest-income provinces accounted for about 26 percent of the expenditures in 1995, up from 20 percent in 1990, whereas in the five lowest-income provinces, the expenditure share actually fell between 1990 and 1995 (Table 5.10). This cursory evidence suggests less expenditure equalization in the post-reform period.

Have the determinants of per capita expenditure levels changed? The regression results reported in Table 5.12 suggest a pattern similar to that found for 1990. In 1995, a 10 percent higher level of per capita income was, on average, associated with about a 7.2 percent higher level of per capita expenditures. The expenditure response was less in 1990, suggesting a trend away from equalization.
More populous provinces spent significantly less in per capita terms in both years. The introduction of an urbanization effect does not change this result.

This empirical analysis shows that per capita expenditure disparities are less pronounced than per capita revenue collection disparities, suggesting some degree of equalization in the system. However, this pattern is less true in 1995 than it was in 1990, suggesting that the reformed system may be less equalizing.\textsuperscript{36}

\textbf{Tax Effort}

A longstanding criticism of the present intergovernmental fiscal system is that there is inadequate incentive for revenue mobilization by local governments. For budgetary collections, this was true in the pre-reform system. The tax-sharing formula was based on a retention rate where a percentage of collections was paid to the central government. Local governments were in a position in which the rewards from aggressive collection efforts would be shared with the central government. A better route, found by most if not all subnational governments, was to move funds from the budgetary accounts to the extrabudgetary accounts. Another factor that may dampen subnational government tax effort is the central government's negotiated approach to revenue sharing and its propensity to change the rules. Ma (1995) attempts to model the process and concludes that the central government's failure to commit to preannounced revenue-sharing formulas created uncertainty on the part of local governments and induced a lower tax-collection effort.

Because the central government determines tax rates and tax bases in China, the usual routes to adjusting tax effort (raising rates, broadening the base, adopting new taxes) are not open. Can local governments influence tax effort? In the pre-reform system, they could, in many ways. The local administration could negotiate "revenue losing" contracts with enterprises, give tax incentives to local enterprises, and could urge the local tax collection service to be less vigorous in its efforts. The increased revenue from these initiatives would show up in the extrabudgetary accounts. The result was a tendency toward less effort on the budgetary than the extrabudgetary side. This is a textbook example of Casanegra's point that "tax administration is tax policy" (Casanegra 1987, p. 25).

Even in the reformed system, there may be inducements for local governments to lower their tax effort. Local governments may no longer write tax contracts, but they now control the administration of all income taxes. Though the giving of tax incentives imposes a dollar-for-dollar loss to local budgets, relief from the enterprise income tax still may be provided in order to compete with other provinces.

We have carried out a tax-effort analysis, following the general approach described in Lotz and Morss (1967) and Bahl (1971), and applied to China in Bahl
and Wallich (1992), Prime (1992), and Bahl (1994). The first step is to estimate an ordinary least squares (OLS) regression of the ratio of per capita local government revenue collections against per capita income and population size. The results of this analysis are presented in Table 5.12. This equation is then used to obtain an “estimated” value of per capita collections for each province. This could be interpreted as a measure of taxable capacity, that is, it is the amount the province would raise if it used its tax base to the same extent as other provinces do. The results are shown in Column (2) of Table 5.17. For example, in 1995 Hebei is estimated to have a capacity to raise taxes of 203 yuan per capita (predicted by the equation), but actually raises only 186 yuan per capita. Hebei, then, has a tax-effort index of 0.92, which is 8 percent below the average and ranks Hebei 21st among the provinces in tax effort in 1995.

The results presented in Table 5.17 show a wide variation in taxable capacity. According to this analysis, Shanghai and Beijing have a per capita taxable capacity equivalent to about 1,196 yuan and 795 yuan respectively, while Guizhou and Jiangxi have taxable capacities of 94 yuan and 146 yuan, respectively. Given the new reliance on income taxation by local governments, it is no surprise that taxable capacity levels correspond closely to income level. It is a different story with respect to tax effort, that is, with respect to how extensively provinces use their taxable capacity. The variation in tax effort ranges from highs in Yunnan and Guangdong, at 60 percent and 39 percent above the average respectively, to Jiangsu and Zhejiang, which are more than 30 percent below the average.

From these groupings and from simple correlation analysis, we can find no systematic pattern to this distribution of tax-effort indexes. Rich provinces are clustered at the high and the low end of the effort distribution, and poor provinces seem to be scattered from high to low tax efforts. The hypothesis of a high income elasticity of demand for services driving a high tax effort is not borne out by these results. At least in the early years following the 1994 reform, there is no indication that higher-income provinces are trying harder. A reasonable explanation for this finding is the hold-harmless provision in the transition period, where provinces are guaranteed enough revenue to cover some basic level of expenditures. This guarantee could contribute to holding back an aggressive collection campaign by higher-income provinces.

In an interesting analysis of why tax-effort indexes may differ among provinces, Prime (1992) evaluates five propositions:

1. Revenue collections by the local divisions of SAT do not properly reflect effort because the data are not strictly comparable across provinces. For one thing, subsidies to enterprises are shown as negative revenues and therefore tax effort may be understated in provinces where there is a preponderance
### Table 5.17. Estimated Tax Effort by Provinces: 1995

<table>
<thead>
<tr>
<th>Province</th>
<th>Actual Per Capita Budgetary Revenue Collections (Yuan)</th>
<th>Estimated Per Capita Budgetary Revenue Collections (Yuan)</th>
<th>Tax Effort Index</th>
<th>Per Capita Income Rank</th>
</tr>
</thead>
<tbody>
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</tr>
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</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>Inner Mongolia</td>
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<td>200</td>
<td>0.96</td>
<td>18</td>
</tr>
<tr>
<td>Liaoning</td>
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<tr>
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<td>16</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>273</td>
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<td>19</td>
</tr>
<tr>
<td>Shanghai</td>
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<td>1.30</td>
<td>4</td>
</tr>
<tr>
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</tr>
<tr>
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<tr>
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<td>17</td>
</tr>
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<td>Guangdong</td>
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</tr>
<tr>
<td>Guizhou</td>
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<td>25</td>
</tr>
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<td>22</td>
</tr>
<tr>
<td>Xinjiang</td>
<td>230</td>
<td>277</td>
<td>0.83</td>
<td>24</td>
</tr>
</tbody>
</table>

* Tibet and Hainan are excluded.
of loss-making enterprises. Another data incomparability arises because some provinces have a greater concentration of central enterprises (collections from central enterprises are not counted as local revenue collections). In such provinces, revenue collections are low relative to revenue capacity, because central enterprises contribute to the economic development (denominator) measure but not to the revenue collection (numerator) measure.

2. Some provinces rely on output that is priced by the central government, such as inputs to basic services, and therefore central government policy rather than local collection effort may hold revenue yield at levels below that which might be expected.

3. Different revenue-sharing arrangements provide different incentives for collection effort. The sharing on a derivation basis was applied with several different formulas during the pre-reform period, and some of these formulas gave more incentive for increased collections than did others. The post-1995 system has no such incentive, since the income tax is fully retained by the local governments.

4. Businesses and residents in higher-income provinces demand proportionately more services from government than do businesses and residents in low income provinces. This would imply a systematically higher level of tax effort in higher-income provinces.

5. Enterprises in certain provinces are better at bargaining than enterprises in other provinces, and in the former provinces, revenue effort appears lower than it really is, and more revenue is channeled into the extrabudgetary accounts.

Though Prime was studying the 1987 pattern of tax effort, she has identified a set of considerations that also hold in 1995. In most cases, however, data are not available to study her hypotheses empirically.

We have carried out a comparable analysis of tax effort in 1990 to give a comparison of the situation in the pre- and post-reform periods. The effort indexes presented in Tables 5.17 and 5.18 were constructed using exactly the same methodology. We can report that the expected level of tax effort for a province in 1995 is lower than its level in 1990. For example, a province with an average tax-effort index (1.0) in 1990, would be expected to have a level of 0.98 in 1995. We cannot find evidence to support the hypothesis that provinces with a lower-retention rate exerted a lower tax effort in the pre-reform period. There is no significant correlation between the index of tax effort and the ratio of expenditures to collections as shown in Table 5.19 (the latter is a rough proxy for the rate of revenue retention). Neither can we see a pattern for provinces exerting a very
### Table 5.18. Estimated Tax Effort by Provinces: 1990a

<table>
<thead>
<tr>
<th>Province</th>
<th>Actual Per Capita Budgetary Revenue Collections (Yuan)</th>
<th>Estimated Per Capita Budgetary Revenue Collections (Yuan)</th>
<th>Tax Effort</th>
<th>Per Capita Income Rank</th>
</tr>
</thead>
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<td>143</td>
<td>0.92</td>
<td>13</td>
</tr>
<tr>
<td>Shanxi</td>
<td>185</td>
<td>162</td>
<td>1.14</td>
<td>5</td>
</tr>
<tr>
<td>Inner Mongolia</td>
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<td>154</td>
<td>0.99</td>
<td>16</td>
</tr>
<tr>
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<td>292</td>
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<td>7</td>
</tr>
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<td>0.77</td>
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<tr>
<td>Henan</td>
<td>99</td>
<td>105</td>
<td>0.94</td>
<td>18</td>
</tr>
<tr>
<td>Hubei</td>
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</table>

a Tibet and Hainan are excluded.
### Table 5.19. The Ratio of Expenditures to Collections: 1987–1995

<table>
<thead>
<tr>
<th></th>
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<td>Exhibit: Hainan</td>
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</table>

\* n.a. = not applicable.

Source: Computed from data provided by the Ministry of Finance.
high and a very low tax effort. In both 1990 and 1995, only Yunnan Province had an observed tax–GDP ratio above the 90 percent confidence interval. Some would attribute this high tax effort to the ease of taxing and collecting from cigarette producers (Hofman 1993). By this same method, we may identify some higher-income provinces as having an inordinately low tax effort (Xinjiang in 1990, and Jiangsu and Zhejiang in 1995).

Summary

China’s 1994 fiscal reform was not billed as a fiscal decentralization initiative. In fact, just the opposite was an announced objective. But the reform program has profound effects on the balance of powers between central and local governments in one of the most important countries in the world. Though data are not yet available to do a full quantitative evaluation of the outcomes, the following are some stylized conclusions that might be drawn.

First, China is not a federal country, but its public financing system has features of a fiscal federalism. Using the Western model of evaluating reforms of a fiscal federalism, we might conclude that the Chinese reforms were neither efficiency enhancing nor equalizing. In fact, however, they were aimed primarily at redressing what was perceived by the center as too great a revenue distribution to the local governments, and at regaining control over macroeconomic policy. It would appear that these objectives have been achieved, at least in the short run.

Second, one cannot separate tax policy, tax administration, and intergovernmental fiscal structure in evaluating fiscal reform in China. The 1994 tax structure reform is good tax policy. But in assigning enterprise income taxes to local governments and continuing a derivation-based VAT, it gets lower marks as intergovernmental policy. The prospect, in the longer run, of assigning all VAT revenues to the center and of moving local governments to a heavier reliance on individual income taxes and grants is a better route. The new division of tax administration powers between local and central governments is good policy in that it eliminates much of the self-interest that led to divided loyalties among local tax administrators.

Third, there is little in the 1994 reform that will increase the fiscal autonomy of subnational governments in China. The new budget law does give some discretion over spending composition, but the revenue constraint is still imposed by the center. Subnational governments have no significant rate-setting powers. Yet by moving the tax structure away from a negotiated model toward a more objective system, the center has put in place the basis for a future fiscal decentralization. The former negotiated system, with divided tax administration responsibilities, would never have supported a Western type of fiscal decentralization.
Fourth, the long-term impact of the new revenue-sharing system and the new tax structure will produce an increased centralization of revenues. The subnational share will diminish in future years if the present arrangement is maintained. Either a new source of provincial and local government tax revenue must emerge, expenditure reassignment to the central government must take place, or the grant system must be expanded.

Fifth, the new revenue-sharing formula is more transparent than the previous negotiated system, and this is a major improvement. However, it is not equalizing, it does not provide incentives for increased revenue mobilization, and in the transition period, it retains some adverse features. As interim measures, the VAT continues to be shared on a derivation basis and earmarked grants are still distributed on an ad hoc basis. As Bird (1984, p. 217) so aptly noted in the context of the Colombian reform, “More good ideas have probably come to naught because of transitional difficulties than for any other reason except the political opposition of those who would lose as a result of the change.” The final test of the success of the revenue-sharing reform in China—at least from a Western view about what is good decentralization—is whether the transitional arrangements can be abandoned in favor of a fully objective system.

Sixth, the problem of transferring funds to the extrabudgetary accounts has been addressed, at least in the short run. The main mechanisms for this transfer pricing, contracts and tax administration discretion, have been removed. Whether this is a long-run solution will depend on the innovation of the local governments in finding new “back door” approaches, and the willingness of the central government to tolerate these breaches.

Finally, in the process of reforming its intergovernmental system, China ignored the basic principle that “finance follows function.” The reallocations took place on the revenue side, but relatively little attention was paid to the expenditure side. The result is that it is difficult to know if there is a proper budgetary match between local revenues and local expenditure responsibilities. It does seem clear, however, that the fiscal position of subnational governments is not so strong in the post-reform period as it was in the pre-reform period.
Appendix 5.1
Grading China's Decentralization by International Standards

Large countries tend to decentralize their governments, because the diseconomies of central management are great, because large countries tend to be culturally diverse, and because large countries have wide variations in the demand for government services among their provinces. China is a bit of a paradox in that it is the most populous country in the world, but it retains a highly centralized fiscal structure. Predictably, however, Chinese local governments, sometimes acting independently and sometimes acting with the consent of the central government, have taken "back door" approaches to fiscal autonomy. The 1994 reform eliminated some of these surreptitious routes to local autonomy, but took the first steps toward establishing a modern, assignment-based intergovernmental fiscal system.

Still, China is different. It is different in its objectives for decentralization, and it is different in terms of how it has gone about decentralizing. It might seem useful to highlight these differences by scoring China against a more conventional set of rules for fiscal decentralization. The criteria traditionally cited for effective decentralization, shown in the left column of Appendix Table 5.1.1, provide the basis for such a scorecard (Bahl forthcoming a). The specifics of conditions in China on each of these criteria, shown in the right column, are the basis for grading China's decentralization. If we are to grade in the conventional way, the conclusion from this evaluation is that China is in the very early stages of decentralization, and many of the features required for successful local governance are not yet in place.

The biggest difference between China and the decentralized systems in the West is the absence of popular representation. Local councils must be popularly elected and chief local officials must be locally appointed for the efficiency gains from decentralization to occur (Bahl and Linn 1992, chaps. 3, 12, and 13). Local officials must be accountable to those who elect them, and able to "vote out" those who do not live up to expectations. Without popular elections, the general population has no way of revealing its preferences for more or less or different public services. In China, chief local officials are still appointed, thus their accountability is still to the central government. The other major difference from the international practice is on the financing side: Local governments in China may not set tax rates or borrow for capital projects. Determination of the size of local government is largely a matter of central determination. The fundamental gain from decentralization is that the local population is able to choose that mix of services it wants and to tax itself at a level that it chooses. Consumers of public services thus declare a willingness to pay a particular level of taxes. While
### Appendix Table 5.1.1. Requirements for Effective Decentralization

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Situation in China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elected local council</td>
<td>Elections, but not popular elections</td>
</tr>
<tr>
<td>Locally appointed chief officials</td>
<td>Chief provincial and local government officials appointed by the next-higher level of government</td>
</tr>
<tr>
<td>Expenditure assignment clear</td>
<td>Expenditure assignment relatively clear to local government officials</td>
</tr>
<tr>
<td>Local governments with control over the level of some revenue sources</td>
<td>Local governments able to choose whether or not to levy certain taxes or charges, but with rates and bases of the major taxes beyond their reach</td>
</tr>
<tr>
<td>Local governments with some powers to borrow</td>
<td>Local governments not able to borrow directly</td>
</tr>
<tr>
<td>Locally approved budget</td>
<td>Local authority budgets not requiring approval, but with total revenues fixed by the center</td>
</tr>
<tr>
<td>Absence of mandates as regards local government employment and salaries</td>
<td>Guidelines provided by the central government</td>
</tr>
<tr>
<td>A transparent grant system with local governments understanding their entitlements</td>
<td>An ad hoc grant system. (The central government decides on the retention rates under the sharing system and on the distribution of earmarked grants.)</td>
</tr>
<tr>
<td>Local governments with the capacity to collect taxes and deliver services efficiently</td>
<td>Local governments with limited capacity to deliver services effectively, because of limited revenues and shortage of capital and skilled employees</td>
</tr>
<tr>
<td>Local governments keeping adequate books of account</td>
<td>Staff in many local authorities without the professional and technical ability needed to produce accurate and meaningful accounts</td>
</tr>
<tr>
<td>A central government with the ability to monitor the progress of effective fiscal decentralization</td>
<td>A fiscal planning unit that deals with intergovernmental fiscal relations in the Ministry of Finance, but without an underlying data system to support the work of the staff</td>
</tr>
</tbody>
</table>
the Chinese system is formally uniform and does not allow such variation, local
governments have been able to use informal approaches to vary the level of taxes
they pay for particular kinds of public services. So, one might conclude that the
basic idea of willingness to pay more for certain types of services has been quite
alive in China, but that the formal system has not legalized this possibility. In
fact, the 1994 reform discourages such initiatives.

Fiscal decentralization requires expenditure autonomy. Voter-citizens must
be able to get that package of services they are willing to pay for. In decentral­
ized Western economies, this typically works by giving local governments au­
tonomy for delivering a specified set of services. In the extreme version, local
governments approve their budgets and operate without central mandates such as
prescribed levels of local government employment and compensation rates and
required levels of certain services. In fact, most Western economies do impose
some expenditure mandates to deal with externalities, and some Western econom­
ies give local governments control over only a minor set of functions. In China,
the mandates are more severe, and though control over the budget process has
been loosened, it remains significantly tighter than in most decentralized West­
ern economies.

Truly decentralized systems are transparent. Local governments clearly un­
derstand their revenue-raising powers and their expenditure assignments. With­
out transparency, local governments cannot effectively plan their fiscal programs
and therefore cannot be truly accountable to their electorate. In China, expendi­
ture assignments, between center and locality, as well as between government
and enterprise, are not clear. Nor is the grant system transparent. Local govern­
ments may not understand their entitlements under either the earmarked grants
program or the revenue-sharing program. The 1994 reform has moved a step
away from a negotiated system, but a significant degree of arbitrariness remains
in the system, mostly centering around the hold-harmless provisions in the new
sharing formula for the VAT and the consumption tax.

There also are capacity problems to be overcome. The ability of local govern­
ments to absorb more fiscal responsibility varies widely. Some provincial and
municipal governments in China have well developed systems of fiscal adminis­
tration, while others (especially in the rural area) are very weak. That the central
government presently has a limited ability to monitor the progress of local gov­
erment fiscal behavior also presents a problem.

Finally, there is the issue of the ability of the central government to lead de­
centralization. In countries where fiscal powers are being devolved to local gov­
ernments, there is need to monitor their progress. It is important to understand
changes in fiscal disparities and tax effort, to pick up impacts of the business
cycle, to estimate the effects of grants on expenditure programs, to determine
repayment potential of borrowers, and to monitor the compliance of the local governments with central law (e.g., balanced-budget requirements). The monitoring system in China is presently not strong enough to support a thorough and timely monitoring of the fiscal conditions of local governments.

One conclusion from this examination of the Chinese program, in terms of the standard requirements for effective decentralization, is that China is at a very early stage in the process. Indeed, most of the requirements for decentralization are not in place. On the other hand, some significant recent changes in the fiscal system could set the stage for fiscal decentralization. The 1994 reform did eliminate the practice of "every province for itself" autonomy. The first steps toward decentralization also have been taken on the expenditure side, which is the right place to begin. Local governments now have more autonomy in terms of the budget-approval process, they have significant discretion to determine the expenditure mix, and local governments are now subject to relaxed guidelines as regards public expenditure mandates.

Looking beyond 1997, two views could be taken of the future of fiscal decentralization in China. One is that the 1994 reform was a recentralization of the fiscal system that weakened the hand of the local governments. The other view is that this reform replaces a negotiated system with a structure on which a decentralized system could be built. If decentralization were a long-run goal of the Chinese government, then the following reforms are now more within reach than they were before 1994:

- A transparent grant system, based on formula rather than ad hoc distributions and derivation;
- Taxation by an assignment system and, possibly, with some local discretion to add surrates to national bases;
- The individual income tax as an important source of local government revenue; and
- Local borrowing powers, at least for the largest and most prosperous provinces.
Appendix 5.2

China's System of Intergovernmental Transfers in International Perspective

Local government revenues in China are all part of a system of intergovernmental transfers. Since local governments are unable to influence either the tax rate or the tax base, there are no truly “local taxes.” However, the system of transfers from central to local governments has several components with different features. It is interesting to compare the Chinese system with those existing in other countries. Such a comparison might help us answer the following rhetorical question: Based on the international experience, what goals might we expect the Chinese system to accomplish best?

Intergovernmental transfers have two dimensions: the rules for determination of the size of the divisible pool and the rules for dividing this pool among eligible local government units. Some have referred to the pool dimension as regulating the vertical fiscal balance between the central and subnational governments and the allocation dimension as controlling the horizontal fiscal balance.

Bahl and Linn (1992, chap. 13) developed a taxonomy of grant systems that takes both of these dimensions into account (see Appendix Table 5.2.1). Consider first the determination of the size of the total amount to be distributed in a given year, that is, the divisible pool. The international practice suggests three basic approaches: a specified share of national (or state) government tax revenues, an ad hoc decision (such as an annual appropriation voted by parliament), or the reimbursement of approved expenditures. Once the amount of the distributable pool is determined, allocations among local governments are typically made in some combination of four ways: by returning shares to the jurisdictions from which the taxes were collected, that is, using a derivation principle; by formula; by reimbursing costs; or on an ad hoc basis.

This two-way classification gives a taxonomy of twelve potential grant types; eight of which are more or less common in developing countries (Table 5.2.1). For example, the total national allocation for a type B grant is based on a share of a national tax, but the distribution among local governments is made by formula. Thus in the Philippines, 40 percent of national internal revenue collections are distributed among local governments on the basis of population, land area, and equal shares. Type C grants differ in that the distribution is on the basis of project costs; for example, a fixed percentage of a national tax may be distributed among local governments on the basis of the cost of public works projects or the cost of teachers’ salaries.

The Chinese system of transfers has three distinct types of transfers to local governments: the “fixed local taxes,” the VAT and consumption taxes, and ear-
Appendix Table 5.2.1. Alternative Forms of Intergovernmental Grant Programs

<table>
<thead>
<tr>
<th>Method of Allocating Divisible Pool Among Eligible Units</th>
<th>Method of Determining Total Divisible Pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin of Collection of Tax</td>
<td>Specified Share of National or State Government Tax</td>
</tr>
<tr>
<td>Formula</td>
<td>A</td>
</tr>
<tr>
<td>Total or Partial Reimbursement of Costs</td>
<td>B</td>
</tr>
<tr>
<td>Ad Hoc</td>
<td>C</td>
</tr>
</tbody>
</table>

marked grants. The “fixed local taxes” are transfers because the subnational governments have no control over the tax rate and base. The fixed local taxes in China include the enterprise and individual income taxes, but also include a number of smaller levies. The revenues from these taxes (except for those collected on centrally owned enterprises) are fully assigned to local governments. These are type A transfers as shown in Table 5.2.1, because the total grant pool is determined as 100 percent of all income taxes collected, and the distribution is by derivation.

The second form of transfer in China is a sharing of the VAT and consumption tax. Since the basic sharing rate is 25 percent of VAT, we can say that the distribution pool is partly determined on a shared tax basis. And since there is an additional distribution determined by “approved” budget costs in the base year, we can say that the distributable pool is partly set by cost reimbursement. The VAT sharing is allocated among provinces by derivation (type A) and the additional return transfer is based on cost reimbursement (type K).

The third form of transfer in China is earmarked grants. The total amount of these grants is determined on a year by year basis, but these do not appear to be related to any particular tax, or to commit the government to cover any particular level of expenditures. We can say that these are ad hoc grants insofar as the determination of the grant pool is concerned. The distribution of these grants among provinces depends on the purpose of the grant. Subsidies are distributed according to centrally determined subsidy rates, but capital project and special grants are distributed according to needs as defined by the central government. In both cases, the amounts received are based on the level of costs to be covered, where the amount of reimbursable cost is largely determined by the center (type G).

One cannot see a guiding principle implicit in the Chinese system of intergovernmental transfers. The system appears to have been developed partly out of
compromise. The A, G, and K transfers that make up the system are a mixture of those that favor central control and those that give subnational governments some degree of certainty. The type A grants give local governments a fixed claim on central revenues and would tend to be the choice of subnational governments in determining the size of the grant pool. These transfers also have the feature of being unconditional, and hence give subnational governments significant discretion in the use of these funds. The type G and K grants, on the other hand, are controlled by the central government to a much greater degree. Both the ad hoc determination of the grant pool and the cost-reimbursement distribution give the center the opportunity to control the amount being distributed and to set standards to guide the expenditures.

The various transfers in the system have offsetting effects on the equalization of public service levels across provinces. The distribution by derivation (type A) favors higher-income provinces and reinforces interregional disparities in fiscal capacity. The type G (earmarked) grants also reinforce regional disparities, as was noted above. The deficit grants (type K) apparently are structured to favor provinces with weak fiscal capacity. The net result, as shown above, is that the revenue advantage of higher-income provinces is reduced only slightly by the transfer system.

As China's decentralization program matures, so also must its system of transfers. While most countries do have elements in their system with conflicting objectives, and China is no different in this regard, a unified system with reinforcing rather than offsetting impacts would better serve government policy.
CHAPTER 6

Provincial–Local Fiscal Relations

In China, as in much of the world, the relations between the provincial governments and their subordinate units are an overlooked dimension of fiscal federalism. Yet in countries as large as China, this may well be the heart of the matter in terms of assessing the allocative and equity impact of the intergovernmental fiscal system. Surely the distribution of financial resources within Sichuan Province with its population of over 100 million people is as important a concern to Chinese intergovernmental fiscal policy as the revenue-sharing agreement that allocates central funds among the 30 provinces. In fact, 8 Chinese provinces have populations of more than 50 million, which would rank them among the 20 largest countries in the world.

There are good reasons for concern with subprovincial finance. Provincial governments may be following policies that run counter to those of the central government; for example, they may define revenue-sharing arrangements that discourage revenue mobilization by their underlying local governments, they may pursue industrial policies that are out of step with national industrial policy, or they may be following equalization strategies that offset those of the central government. Or they may be following policies that reinforce central government initiatives. Either way, the central government must take provincial–local relations into account in its policy design.

Neither are provincial–local fiscal relations irrelevant when it comes to the formulation of macroeconomic policy. The central government uses fiscal policy as a lever to induce certain kinds of economic behavior, and hence needs to understand how these policies might be offset by countervailing provincial government actions. Local government industrial policies may stimulate investment in fixed assets at exactly the same time that the central government is pursuing macropolicies to reduce investment, or a central reduction in the enterprise income tax rate might induce provinces to encourage their local governments to move in with increased extrabudgetary charges on enterprises.
Fiscal Policy in China

There are many dimensions to the finances within the provinces: expenditure assignments, “local taxation,” revenue sharing, off-budget revenues and tax administration. For each one, there are formally stated powers and responsibilities of local governments. Typically, these are very limited. But there are also the informal approaches to fiscal autonomy that local governments have taken with what appears to be the tacit consent of the center. The economic circumstances of provinces are different enough so that there is great variety in how these policy tools are used; it would be difficult to point to the system of subprovincial finance in China, but one can point to patterns that have become an important part of the provincial intergovernmental fiscal system.

In this chapter, we delineate some of this variety and examine its implications for the overall functioning of the fiscal system in China. Case studies are presented to illustrate the similarity and differences in the approaches taken and to draw on comparative data where available. Throughout, we are concerned with how the 1994 reform changes local government finance.

The Structure of Local Government

There are five levels of local government in China, as described and diagrammed in Box 9. Under the tier of 30 provinces, which includes the three major cities of Beijing, Shanghai, and Tianjin, is a familiar urban and rural stream of governance. The former is headed by cities, and the latter by prefectures. Though the prefectures function as local government units, they are not provided for in the constitution, and several provinces have phased them out in favor of city governments. Certain cities have been given provincial status, the “line item cities,” but this status does not extend to all fiscal matters (see Box 9 and Chapter 5).

Each level of government in the system is “controlled” by the next-higher level, and with relative freedom, each unit may control the activities of its subordinate unit. This control includes shaping the tax-sharing arrangements, determining grant distributions, and defining the split in expenditure responsibility between each higher and lower level of government.

The choices made about tax sharing, grants, expenditure assignment, and the like, vary widely, and some provinces are more centralized than others. However, the fiscal system in every province is at least partly negotiated, with the result that provincial-level budgetary controls are often less binding than they appear. Sometimes this is because it is convenient for the controlling unit not to challenge the independent actions of the lower-level government, sometimes the control mechanism is not in place, and sometimes there is an ambiguity in the law that permits local discretion. For whatever reason, cities, counties, and prefectures often operate independently of the higher-level governments. The
Box 9: The Structure of Local Government in China

Government administration in the People’s Republic of China is divided into five levels: (1) central; (2) provincial, with 27 provinces and the 3 cities of Beijing, Tianjin, and Shanghai, which have provincial status; (3) prefectural, with 151 prefectures and 185 prefectural-level cities; (4) county, with 1,903 counties and 279 county-level cities; and (5) township, with 56,000 townships and towns, and city districts (see diagram). Fiscal administration largely corresponds to the governmental structure, that is, there are finance and tax offices in all but the smallest local government units. Two changes were introduced in the 1980s. First was the introduction of “line item” cities. Since 1984, 9 cities have been given direct fiscal relations with the central government, making their budgetary status equivalent to that of provinces (and Beijing, Shanghai, and Tianjin municipalities). These 9 cities are Chongqing, Dalian, Harbin, Ningbo, Qingdao, Shenyang, Shenzhen, Wuhan, and Xiamen. Consequently, the number of “provincial level” budgetary units increased to 39. The second change was that, in response to the rapid growth and diversification of rural economies, the government decided in 1985 to set up fiscal administration at the township level. Previously, fiscal administration extended downward only to the county level. By 1992, nearly 47,000 offices had been set up, covering 96 percent of townships and towns.

Government Structure in the People’s Republic of China

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*a* Includes Beijing, Shanghai, and Tianjin municipalities.

*b* In some provinces, the prefectures have been eliminated, and rural counties are directly under city administration; e.g., Guangdong, Hainan, Jiangsu, and Liaoning provinces.

townships are newer and seem to have less autonomy than the other units of local government.

**Expenditures and Local Budget Autonomy**

Cities, counties, and townships are directly responsible for about three-fourths of all government budgetary expenditures in provinces and about 55 percent of all government expenditures in China (see Table 6.1). The locus of expenditures within provinces has shifted toward the lower levels in recent years, following the same pattern as that between the center and province. This is due in large part to the movement of enterprise investment financing off the budgetary accounts and on to enterprise accounts or to the banking sector, and to the growth in social service expenditures. Enterprise-related expenditures tend to be a provincial government responsibility, and social services tend to be a responsibility of lower-level governments.

Local governments are bound to their provinces in the same way as provinces are to the center. The total revenue limit for the budget is fixed by the next-highest level of government, but the lower-level government may alter expenditure composition within prescribed limits. The same types of limits and mandates apply to the subprovincial as to the provincial level:

- Wage levels for local government employees are fixed.
- The number of employees of provincial and local governments are limited by the provincial government.
- The provincial government sets the price subsidy rates.
- The central government requires that the townships set up finance departments and treasuries in accordance with central specifications regarding personnel, and the like.
- Neither the provincial government nor the lower-level governments may budget for a deficit.\(^5\)

These mandates are formally binding, but special exceptions and tax administration adjustments and the aggressive use of off-budget financing significantly relax these constraints. Because higher-level governments have not had the resources or the inclination to enforce the rules, subprovincial governments have claimed a significant amount of control over their budgets. Because this discretionary freedom is obtained through negotiation, and because in some cases it is not even legal, it is difficult to document the practice. Most of the evidence reported by various students of Chinese public finance is anecdotal or based on individual case studies.

Some hard evidence that local governments have taken on some budget au-
## Table 6.1. Revenues and Expenditures by Level of Government: 1993

<table>
<thead>
<tr>
<th>Level of Government</th>
<th>Budgetary Revenue Collections (%)</th>
<th>Budgetary Expenditures in Provinces (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center</td>
<td>34</td>
<td>—</td>
</tr>
<tr>
<td>Province</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Prefecture-city</td>
<td>29</td>
<td>44</td>
</tr>
<tr>
<td>County</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Township</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>101&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>102&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> The percentage distribution of revenues shown in column (1) refers to all government expenditures, whereas the percentage distribution shown in column (2) excludes central government direct expenditures.

<sup>b</sup> Does not add to 100 percent due to rounding.

*Source: Columns (1) and (2) from Wong, Heady, and Woo (1995).*

Autonomy is the prevalence of (unplanned) local government deficits, that is, the budget deficit restriction is regularly bypassed. For example, the Local Budget Division in Yunnan estimates that in 1994, about 25 percent of the prefectures and 40 percent of the counties ran deficits (Bahl and Wallace 1995). In Hebei, over 70 percent of all local governments ran deficits in 1991; and in Gansu, three-fourths of the counties depended on subsidies to balance their budgets (Wong, Heady, and Woo 1995). The deficits occur for several reasons. First, there may be an overprojection of revenues, because the economy has not performed as well as expected or because forecasting is flawed. Second, some of the poorer places intentionally budget for a deficit with the expectation of receiving a deficit grant. Third, there are unexpected expenditure requirements (e.g., expenditure needs resulting from a major natural disaster) that justify a deficit.

When a deficit does occur, the higher-level government must decide if it was incurred for a “reasonable” or “unreasonable” purpose before a decision is made as to how to cover the shortfall. If it is decided to cover part of the shortfall, then a specific grant may be given. (This is referred to as a “year end” grant). Other methods of financing the deficit include:

- Using the extrabudgetary funds of the local government.
- Taking short-term bank loans. These loans are mostly used to cover the wage bill. No higher-level government approval is required here, and the loan may come from the industrial bank.
- Borrowing from a higher-level government. This appears to be the most important source of funds for covering a deficit.
Local governments have much more freedom in making expenditures in the extrabudgetary accounts than in the budgetary accounts. It is reported to be common for extrabudget spending to be 50 to 100 percent as large as budgetary spending; however, data on extrabudgetary revenues and expenditures at individual levels of government are not readily available. Most analyses of off-budget spending have come from case study reports. Wong, Heady, and Woo (1995) find that in 1992, off-budget finance added 40 percent to the budget at the provincial level in Hebei and 57 percent at the prefecture and city level. The World Bank (1993, pp. 220–22) reports that off-budget finance increased provincial and local government spending by 27 percent in Inner Mongolia in 1991.

Subprovincial Taxation

A significant share of public financing in China is in the hands of subprovincial governments. As reported in Table 6.1, city, county, and township governments accounted for more than half of all revenue collections in China in 1993. The provincial governments exert oversight and influence over the process, but make a relatively small share of the collections.

Because tax structure and tax administration procedures are nationally set, the system of local government financing appears uniform. In fact, however, it is anything but uniform. The implementation of the tax system in past years and the continued aggressive use of extrabudgetary financing have led to a significant variation in fiscal practices among the provinces. Perhaps the greatest fiscal discretion is exercised in the use of off-budget accounts. Subnational governments have had a relatively free hand in designing these charges, usually levied against enterprises (see Box 10). The result is that identical enterprises would not be likely to pay the same amount of tax in any two Chinese provinces.

Property Taxation

The property tax is almost universally viewed as a suitable source of local government revenue. Most analysts see the county or city level as the most appropriate home for property taxation (Bahl and Linn 1992, chap. 4). By virtue of their familiarity with the local economy and because of their other regulatory responsibilities (e.g., land use controls, building permits), local governments have the best chance to identify properties subject to taxation, to identify ownership and changes in ownership, to track changes in properties that might affect their tax status (e.g., new construction), and to set up an adequate collection apparatus.

The property tax can also meet other tests for a good local tax. It can finance local services whose benefits are not easily exported, it can have a considerable revenue yield, it does not compromise macroeconomic policy, and it is relatively
Box 10: “Would you like that with fees?”

McDonald’s Restaurants in Beijing pay 31 fees on average, of which only 14 are legal, and all this beyond the normal taxes due. With those fees, McDonald’s supports not only the normal Beijing municipal services, but also air shelter repairs, river cleaning, public festival decorations, and Communist Party propaganda. The restaurant also pays for not having security guards—which is still cheaper than having one.

The illegal fees and fines and various apportioned charges that the many central, municipal, county, and township authorities impose on enterprises and individuals increasingly affect normal business operation, so much so that it is now seen as a deterrent to foreign investors. This has prodded the State Council to issue a circular on July 7, 1997, “On Abolishing Illegal Fees and Fines and Various Apportioned Charges for Enterprises.” The circular orders that any illegal charges, fines, fund collections, foundation projects, and other apportioned charges to the enterprises must be abolished.

Abolishing the fees is easier said than done, however. The key reason is that, notwithstanding some excesses, many of the illegal fees pay for useful services, or pay the wages for civil servants who cannot be fired. These fees are collected by the following units: 37.5 percent collected by neighborhood offices; 22 percent by agencies involved in health and safety, food and drinks trade; 18.5 percent collected by district police and public security agencies; and 22 percent by other units.

Some Examples of Fees on McDonald’s:

<table>
<thead>
<tr>
<th>Fee</th>
<th>Payment Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Water Treatment Fee</td>
<td>¥0.12 /ton on 80 percent of planned volume</td>
</tr>
<tr>
<td>Management Fee for Food and Drinks Industry</td>
<td>0.3 percent of turnover</td>
</tr>
<tr>
<td>Traffic Safety</td>
<td>¥36 per year/vehicle</td>
</tr>
<tr>
<td>Sanitation</td>
<td>¥5,000–10,000 per year/restaurant</td>
</tr>
<tr>
<td>“Greenification Fee”</td>
<td>¥10 per staff member/year</td>
</tr>
<tr>
<td>Air Raid Shelter Maintenance Fee</td>
<td>Participation of 1–2 percent of staff members, in lieu of which a payment of ¥1,500–5,000 per restaurant</td>
</tr>
<tr>
<td>River Dredging Fee</td>
<td>¥several thousand to several tens of thousands per restaurant</td>
</tr>
<tr>
<td>Family Planning Fee</td>
<td>¥2.5 per year/staff member of childbearing age</td>
</tr>
<tr>
<td>Fire Protection Points</td>
<td>Purchase of 400 points is required per 60 persons</td>
</tr>
</tbody>
</table>

insensitive to the business cycle. Some would see the property tax as equitable in that it reaches wealthy landowners and is likely to be progressive in its distribution of burdens. Nevertheless, despite these advantages, relatively few countries in the world rely heavily on the property tax. As a share of total taxes, industrial countries raise 3.8 percent from the property tax, and developing countries raise 2.72 percent. The United States is an outlier, raising 11.3 percent of total government revenues from the property tax, virtually all by local-level (city, county, and special district) governments.

There are good reasons for the property tax not being more heavily used (Bahl 1979). In developing countries and in many transition countries, the tax base covers only enterprises and a small portion of residential dwellings. Since larger enterprises may shift a part of the tax burden to residents of other regions, the property tax does not completely pass the correspondence test. The other major drawbacks to the property tax are that it is notoriously difficult to administer fairly, and it is widely and wildly unpopular with taxpayers.

**Feasibility in China.** One might question the feasibility of a local property tax in China. Constraints abound. There is no private ownership of land, no formal market for the exchange of properties, land use rights have traditionally been assigned rather than purchased, and local governments do not have an administrative system in place to handle a modern property tax. There are reasons the base of the tax might be quite narrow. A property tax could be seen as another burden on enterprise profits that are already strapped. It could not be levied too heavily against government or enterprise housing because rents are already factored into controlled wages.

All of the above are reasons that the setting may not be right. Nevertheless, the Chinese seem committed to pushing ahead with a version of property taxation. A land use tax was adopted in China in the late 1980s, and though it is not a significant revenue producer, it may serve other objectives quite well. The government rhetoric is to use the charge for land use to raise revenue, to tax away location rents that may give one enterprise a competitive advantage over another, and to improve the efficiency of urban land use by forcing enterprises to pay for their space.

**Tax Base and Rate.** The base of the property tax in most countries is the value of land and/or buildings, with assessments typically set on a basis of comparative sales. Property values cannot serve as the tax base in China, however, because there is no formal market where properties are bought and sold. The base of the land use tax in China is the physical area of land assigned to each user. Techni-
cally, it is a specific tax on square meters of land used, rather than an ad valorem tax on percentage of value.\(^9\)

However, parcels are implicitly valued using a presumptive method (the tax per square meter rises with the desirability of the location), and the land tax effectively functions as an ad valorem levy. Urban areas are divided into taxing zones and the “preferred” zones are taxed at a higher rate per square meter. Since the higher taxed zones are meant to be those where enterprises are more profitable, other things being equal, this approach roughly simulates taxing location values. The differential tax treatment depends on both the boundaries of the tax zones and the tax rates chosen for each zone.

In an econometric analysis, Bahl and Zhang (1989) show, for a sample of cities in Shandong Province, that there is a profit gradient for Chinese commercial enterprises, that is, the rate of profitability declines with distance from key public services.\(^10\) A property tax per square meter that declines with distance from key services captures some location rents.

Buildings are not subject to tax. This is good policy if the goal of the property tax is to generate a more intensive use of land in prime urban areas. Those who hold excessive vacant land, or make poor use of their space, pay the same tax rate per unit of land as those who build multistory buildings, move space-intensive activities to the suburbs, or lease excess land.

The exemptions from the land use tax are the usual: government and military properties; social organizations and undertakings that generate no revenue, for example, schools and research institutes; religious buildings and parks; infrastructure and green space; railroads, airlines (except the terminals), port warehouses; agricultural land; mines and oil fields; and wasteland and reclaimed land (exempt for five to ten years).

**Structural Issues.** What should be the level of the property tax rate in China? It could be argued that the rate should be set high enough to capture a significant portion of the costs of locally provided services. This would make the property tax a benefit charge and a significant source of local government revenue in China. In practice, the tax rate is set on a judgmental basis and constrained by some subjective notion of “affordability.” In structuring the tax, government officials felt that the enterprises could carry only a nominal rate of tax without seriously compromising their financial condition. Some analysts question whether affordability is as much of a constraint on the land use tax rate as many officials have made it out to be (Bahl and Zhang 1989, and World Bank 1990).

To be sure there is great variation in profitability among enterprises, and some (public utility companies) are intentionally held to negative profits, while consumer
or producer prices are subsidized. Others may have a narrow profit margin simply because they are inefficient. But this would not seem a good reason for low rates of land tax for all firms. If enterprises that realize planned losses are to be subsidized, surely there is a better way to do it than by providing free land. One way to answer this question—how high to set the rate—is to view the property tax as a user charge for urban services. The rate should be set at a level sufficient to cover some “target” level of local government costs. At present, the rate is set so low that the property tax is no more than a very marginal contributor to local financing.

Should land be taxed according to actual use or according to its highest value in a particular zone? The aim of the land use tax in China is to charge enterprises for the use of land and to create a more efficient distribution of urban land use. To accomplish this goal, actual land use should be ignored in determining the tax liability. Under the Chinese system, only location should matter for taxable properties. Unfortunately, in the early days of the implementation of the land use tax, special preferences for certain land uses were used to establish tax liability (Bahl and Zhang 1989). This is similar to the “classified” property taxes used in many countries (different assessment ratios for different land uses) and defeats the objective of promoting efficient land use.

Who should establish the tax rate and should there be different tax rates in different Chinese cities? In effect, there already are differences because larger cities are allowed to set higher rates, and because cities may decide on the zone boundaries and therefore on rent gradients. The next step in the evolution of the property tax is to allow cities complete freedom in choosing the tax rate. When this happens, property tax liabilities can then begin to reflect the cost of those public services that enhance the location value of the land.

Administration. Property taxes in all countries pose great administrative difficulties. There are four important facets of property tax administration: identification of properties and persons to be taxed, record keeping, valuation or determination of the base to be taxed, and collection. All of these administrative steps pose difficulties in China.

The first requisites are that every liable property and its occupant be identified and that up-to-date records be maintained. For the land use tax in China this implies the need for a tax map for every city, showing: (1) the exact location and land area for every parcel, (2) the occupant(s) assigned to each parcel, and (3) the building area attributable to each occupant. (The latter is necessary for purposes of assigning tax liability.) The more complicated the design of the tax, the more the information that will be necessary. Do up-to-date land use records presently exist in China? Because land is a state asset in China and has not been priced for
so long, there is only incomplete documentation. Few Chinese cities have land maps that show the total number of plots, area and structures for each parcel and the name of the assigned user. Some cities have begun to work on such documentation, but records remain very incomplete.\textsuperscript{11}

Urbanization and economic development complicate record keeping. Chinese cities are growing rapidly, and keeping up with changes in land use, occupants, and new construction is a monumental task. Maintenance of these records will require coordination among the industrial and commercial bureaus, the land acquisition office, and the construction, urban planning and tax bureaus. Perhaps more than any other levy, the land use tax will require cooperation among the municipal bureaus.

The Chinese system of land use taxation does not require separate valuation of every parcel of land. An elaborate assessment procedure is not required. The basic land and occupancy records are all that is required to assess the tax. However, there is a need to draw the zone boundaries and regularly adjust the relative tax rates and zone boundaries both to increase revenues and to account for the changing pattern of location values in the city. Suppose, for example, that the local government significantly improves certain roads or builds a new railhead or that bus routes are extended into previously hard-to-access areas. These amenities will change the pattern of location rents and profits. In such cases, an adjustment in zone boundaries, an increase in the number of zones, or a further differentiation in rates would be in order.

Collection also poses difficulties. What sanctions does a local government impose on its enterprises for failure to pay? This is a complicated matter. Withdrawal of the right to use the property seems out of the question. Moreover, there is a fungibility issue. Payment by an enterprise of a larger property tax to the local government may result in a smaller payment of income tax (because of deductibility). Or, the local government itself might offset the property tax by providing a special tax incentive, or it might reduce some special charge that has been levied against the enterprise. Complicating all of this is an almost-certain hesitance among local political leaders to take punitive actions against major enterprise land users who fail to pay.

\textbf{Property Tax Policy.} Clearly, there is a future for the property tax in China. A level playing field on which all enterprises compete and accelerated privatization both require that all firms pay for their land use. The pressures of urbanization on infrastructure, the environment, and the general quality of life also require better organization of economic activity within cities. The administrative assignment of land use will, in time, be replaced with a market-determined assignment. Other conditions for an effective property tax will also begin to come into play:
increased mobility of enterprises and sufficient retained profits to purchase land use rights in more appropriate locations, as dictated by the profit motive,
• improved land records and better evidence on land values,
• a growing market for land,
• a willingness of local governments to penalize enterprises for choosing inefficient locations, and
• a willingness to allow local governments to determine their own tax rates for land use.

The property tax in China is structured properly, at least for the immediate future. A notional assessment based on land area seems appropriate for now. The more conventional approach, individual parcel valuation, is too expensive a task for the return it would yield at the present time. If resources are available for improved tax administration and computerization, the focus is better placed on the income taxes and VAT. A land use charge based on some notion of a rent gradient accomplishes what Chinese local governments need to accomplish at the present time, that is, to set the stage for a more proper land tax in the future and to introduce the notion of a land market to all land users. The possibility of a land tax with a significant revenue yield is still well in the future.

**Taxing Powers for Local Governments?**

Should city-, county- and township-level governments have rate-setting powers, and if so, which taxes should be assigned to them? If one follows the basic rules of efficiency for local government taxes (see Chapter 5), many of those financing instruments assigned to local governments in the 1994 reform would pass the test. The enterprise income tax, however, is not a good candidate for subprovincial taxation.

The individual income tax is a good candidate for provincial and, possibly, even local government taxation in China. The basic efficiency test, that expenditure benefits and tax burdens be confined to the same boundaries, is generally met. Most services provided by provincial and lower-level governments have a benefit zone that more or less conforms to the taxing zone, and most of the burden of the individual income tax falls on residents. The individual income tax is administrable, as it would be levied as a withholding tax on larger enterprises, and the collection machinery is already in place.

This tax could be set up as a piggyback on the national tax, or even on the national and provincial tax, and should be structured as a flat-rate tax. It could be viewed as a charge for service delivery by local governments, and as such it would seem appropriate for local governments to charge differential rates. If subprovincial local governments were given some authority to set rates within
Box 11: A Piggyback City or County Government Income Tax

The tax could be structured as a flat-rate tax levied on the same tax base by all three levels of government. Suppose Mr. Xu has an annual, taxable income of 10,000 yuan. Further, suppose the central government mandated a rate of 12 percent. Suppose also that the provincial and city-county governments were given the option to charge a rate of up to 10 percent on a base of central income tax liability.

If the province and city-county chose to levy the maximum rate, Mr. Xu’s tax bill would be 1,440 yuan, calculated as follows:

(a) 12 percent of 10,000 = 1,200 yuan in central tax
(b) 10 percent of 1,200 = 120 yuan in province tax
(c) 10 percent of 1,200 = 120 yuan in city-county tax

The revenues in (a) and (b) would go first to the provincial government and would then be distributed within the province, according to provincial government policy. The revenues in (c) would go to the collecting unit.

limits (as is proposed above for provinces), then local officials would be more accountable to their constituents for the quality of services delivered and migration to higher-rate urban areas would be discouraged. A sketch of how a local piggyback income tax might work is presented in Box 11.

There would be problems with a municipal- or county-level tax of this type. One of the most formidable is whether the liability should be by place of employment or place of residence. The present state of tax administration practice in China would seem to dictate the former. But this will create problems where workers commute from one jurisdiction to another and consume government services from both. Although this is a nagging problem, it can be resolved by some form of compensation or tax-sharing arrangement among the jurisdictions involved.

Revenue-Sharing Within Provinces

Under the present system, revenue sharing within provinces is a matter left to the discretion of the provincial governments. The way the system works is that each level of government decides on the allocation among its subordinate units, for example, provinces to cities and prefectures, prefectures to counties, counties to towns, and so on (see Box 9). Provinces that receive no guidelines from the
central government in setting the sharing rates with their lower-level governments may design their internal tax-sharing and grant systems as they see fit, and they are constrained in these matters only by provincial politics, their own economic plans, and the total amount of revenue available for sharing. The central government does not require a submission of final accounts for individual local governments within each province, and there is no central data system where such information is readily available. With so much discretion, it is not surprising that provincial governments have developed many different systems of revenue sharing. Some provinces seem to stress equalization, others seem to promote regions with greater economic development potential, others seem to emphasize incentives for resource mobilization, and in a few instances, the division of revenues seems almost random.

Many provinces extend the central–provincial revenue-sharing approach to their cities and counties. Wong, Heady, and Woo (1995 pp. 99–105) surveyed the subprovincial revenue-sharing schemes in several provinces during the pre-reform period, and found a similarity with the contract-responsibility system that governed central–provincial revenue sharing. Wealthier city and county governments (in Guangdong, Sichuan, and Hebei provinces) paid a quota to the province and then shared any increment according to an incentive agreement. Bahl and Wallace (1995) found a similar arrangement in Yunnan Province, as did Bahl (1990) for Jiangsu Province. Inner Mongolia, on a quota transfer system with the central government, gives quota transfers to nine deficit-prefectures and receives quota transfers from three surplus-prefectures (World Bank 1993, annex 3.5).

One should not jump too quickly to the conclusion that provincial revenue-sharing arrangements are alike, or that a change in the central–provincial revenue-sharing arrangements will lead to like adjustments at the subprovince level. Every province has a different set of economic development concerns, and a different pattern of regional disparities that it must deal with, and the revenue-sharing formulas will reflect these differences. Two provinces may mimic the general revenue-sharing approach taken by the center, but the distribution of resources within those provinces may be very different, and each may be very different from the central–provincial distribution.

The second reason is that the provincial government can use several instruments to shape the distribution of fiscal resources among its cities and counties. The provincial government can:

• affect the size of the expenditure budget of local governments by changing subsidy rates,
• directly deliver more or fewer services to lower-level governments,
• alter the flow of grants to lower-level local governments,
• change the tax-sharing retention rates, or
• tighten tax administration procedures.

The revenue-sharing adjustments that provincial governments made in the aftermath of the 1994 reform was only one response among a set of responses. To understand the impact of the reform, one would have to know the detail of the policy changes on all of these fronts.

The design of an intraprovincial revenue-sharing system is no simple matter. In deciding on the allocation of fiscal resources to prefecture-, city-, and county-level governments (as in most provinces) or to urban districts and counties (as in Shanghai, Beijing, and Tianjin), provinces must make several decisions:

1. The proportion of total revenues that will be shared with lower-level governments and the proportion that will be retained by the provincial government;
2. The extent to which the revenue sharing will take the form of tax retention or direct transfers from the province;
3. The tax retention rates for subprovincial governments; and
4. The distribution of grants among subordinate governments. Underlying all of this is the decision about the balance to be sought among the objectives of equalization, the stimulation of revenues, support of economic development, and the direction of investment.

Arguably, the most important influence on the design of this revenue-sharing system is the degree of fiscal disparity within the province. The Chinese subnational government financing system is based on the taxation of urban enterprises. The provincial government must design a system that allows it to extract enough revenue from the urban collections to provide for its own needs and for subsidies to the rural governments. In provinces where fiscal disparities are very great, the revenue-sharing system may require a small number of urban governments to support the fiscal capacity efforts of most local governments in the province. While such urban-to-rural transfers can be politically unpopular and can direct funds away from more productive urban investments, they are commonplace.

Another major concern in the design of the system is that, if the urban governments are asked to transfer too much of their revenue collections to equalization pools, they may react by slowing the overall rate of revenue mobilization. There are a number of avenues open to local governments to avoid what they may consider to be excessive sharing. They may grant tax incentives in return for fiscal favors, transfer revenues to extrabudgetary accounts, trade enterprise taxes for services, and perform other maneuvers.
How did provincial governments react to the 1994 reform? Had they followed the lead of the new structure of central–provincial relations, the spirit of their reaction would have been to turn a portion of the income tax and the VAT–consumption tax collections back to their subordinate governments on a derivation basis. The proportion turned back would have depended on the assignment of expenditure responsibility and the revenue needs of the poorest counties. One would expect to see the provincial governments protecting a share of industrial and commercial taxes for direct expenditures and for sharing with the poorer provinces. The urban governments would be most harmed by equalization policies, because they are the source of the major portion of the taxes collected.

Unfortunately, it is not possible to describe how all provinces have reacted to the 1994 reform. Data are not yet available on all of the dimensions of the sharing arrangements, and many provinces are still in a transition mode.

The Case of Beijing Province

The population of Beijing City (Province) is 10 million, and the land area is 16,000 square kilometers. The city is divided into 10 districts and 8 urban counties. The system of revenue sharing between the city and its 18 subordinate units has changed significantly since the 1994 reform.13

At the time of the 1994 reform, Beijing adopted a form of provincial–local revenue sharing that generally followed the model laid down by the central government.

1. The business tax on state enterprises is shared between the city proper and its districts on a basis of ownership, that is, the districts retain the collections from district enterprises, and so on. Revenues from business taxes on nonstate enterprises are retained fully by the districts on a derivation basis. However, business tax revenues collected in the two most developed commercial districts accrue fully to the city level.

2. Twenty-five percent of total base-year collections from the VAT is retained by the districts on an ownership basis. Again, the two most “developed” districts are excluded from local sharing (their share goes to the city). Of incremental VAT revenues, 30 percent is retained by districts, and the two most developed districts do share in this. Hence, for district-owned enterprises, including all collective enterprises, the district gets 25 percent of the base-year collections, and the center gets 75 percent. The city gets the 25 percent from the two excluded districts. In the case of the VAT revenue increment, the district gets 30 percent, the center gets 70 percent, and the city gets nothing.

3. All fixed local taxes on state enterprises are shared with the districts on an
ownership basis. This includes the enterprise income tax. Revenue from the individual income tax is retained according to the ownership of the enterprise that withholds the tax. In the case of nonstate enterprises, the revenues belong to the district. However, the collection costs associated with making this a district revenue have been very high, and there are questions as to whether this arrangement is feasible in the long run.

4. Beijing distributes both equalizing grants and conditional grants among its counties and districts. The equalizing grants are distributed among the districts based on the difference between their 1993 budgets ("the base") and the amount of shared revenue that they receive. (This is referred to as a "tax return" grant.) If shared taxes exceed the base amount, no equalization grant is given. In 1994, five counties received such a grant. The specific grants are earmarked for support of agriculture, investment projects, and education. These are distributed according to a needs-based formula.

5. The city receives an earmarked grant from the center for food subsidies, heating coal, and the like. Some of these expenditures are made directly through the city budget and some are made directly by the districts, supported by a transfer from the city.

In 1993, the central-provincial sharing arrangements were structured differently, and Beijing emulated this arrangement in its fiscal relations with districts. The city (province) received an amount equivalent to 50 percent of the previous year’s collections from all shared taxes (business, product, value-added taxes, and income taxes from all state-owned enterprises). Beijing also received a percentage of the increment from these shared taxes, calculated as follows: The center was guaranteed a 4 percent increment; and collections above this increment were split 50–50 between Beijing City and the central government.

City-district sharing was quite different from the present system. Indirect taxes collected from district-owned enterprises were subject to a different retention rate for each district. These retention rates were determined by a needs-based formula. Under this formula, five districts were allowed to retain all indirect tax revenue collections. The enterprise income tax was shared on an ownership basis (50 percent of collections to the city or district, depending on the ownership of the enterprise, and the other 50 percent to the central government). Revenues from the individual income tax were turned over to the city. The remaining fixed local taxes were retained on a derivation basis. There has been no change in the method of distributing earmarked and conditional grants.

A reasonable hypothesis is that the provincial government adjusted to the 1994 reform by maintaining its preexisting distribution of revenues among the districts. The overall division of revenues did not change. In 1993, the district tax authorities collected 5.4 billion yuan in revenues and were allowed to retain 3.2 billion
Fiscal Policy in China

yuan. The 59 percent retained in 1993 was reported to be at about the same level in 1994 (Bahl and Wallace 1995).

After the reform, income taxes were assigned to local governments on an ownership basis, suggesting that the city and its more prosperous districts would be the beneficiaries. Indirect tax revenues were divided by ownership, and fixed local taxes by derivation, suggesting the same result. However, the city claimed all indirect tax revenues collected in the two wealthiest districts and received a significant transfer from the center, which provided the resources to fund the equalization grant at a higher-level than in 1993. Unfortunately, data are not available to compare the change in the distribution between 1993 and later years.

The Case of Yunnan Province

Yunnan Province has a population of 38 million, of which one-third are members of 25 minority nationalities. The land area is 394,000 square kilometers, but 94 percent of it is mountainous. There are 17 prefectures, of which 8 are minority autonomous regions, and 127 counties, of which 73 are classified as “poor” counties.14

Central–Provincial Revenue Sharing

Yunnan is a special case of revenue sharing, because consumption taxes are so large a percentage of its total revenue. In 1994, tobacco products accounted for 73 percent of total revenue collections there. The method of central–provincial revenue sharing is by a “special arrangement” with the central government, based on estimated consumption tax collections. The actual collections for 1994 were 11,340 million yuan, and an estimate for 1993 of what the consumption tax would have yielded was 7,540 million yuan, although the consumption tax did not exist in 1993.

In 1994, the sharing arrangement was as follows. Of the 1993 base of 7,540 million yuan, 100 percent was “handed over to the central government” and then returned completely to the province. The 1993–94 increment of 3,700 million yuan is shared with the central government. The sharing formula for the increment is: 75 percent of the increase goes to the central government, and 25 percent goes to the province. If the province falls short of its revenue increase target of 20 percent, the central government must then share 30 percent of its 75 percent with the province. If the revenue increase is greater than 20 percent, the province gets 60 percent of the central 75 percent share. The province therefore gets 47.5 percent of the increment if it fails to meet its target, and gets 70 percent of the increment if it exceeds its revenue target.

VAT sharing is based on a system similar to that for consumption tax sharing. The “base level” of VAT collections is shared 75–25 between the central govern-
ment and the provincial government. The base amount is then returned to the local government as a “revenue return” amount. The base is set at what the VAT would have yielded in 1993 had the 1994 law been applied.

The *incremental* amount is shared, first, 75–25, central–local. The central government’s 75 percent is then shared 70–30 central–local if the local revenue target is reached and 40–60 if the target is surpassed. The base for the next year becomes the basic amount of VAT and consumption tax for 1994 plus the total amount of the VAT and consumption tax increment received in 1994.

**Provincial–Local Revenue Sharing.**

The province is divided into four levels of government: provincial government, 17 prefectures, 127 counties, and townships. There are 2 prefectural level cities, 8 minority autonomous regions, and 7 nonurban districts in Yunnan. The first 10 have elected governments, and the other 7 are more on the order of administrative districts of the province. The cities and autonomous regions have a locally elected Peoples’ Congress (PC), while the administrative districts have working committees of the provincial PC. All 17 subunits have budgets that are approved by the local PC, or by a provincial PC working group. Two mayors and 8 governors are elected by the PC, and the executives of the other 7 subunits are appointed by the provincial government.

The stated objective of the provincial government is to reduce the involvement of the provincial government and increase the involvement of the three subordinate levels: city, prefecture, and county. An impediment to decentralization, however, is the significant level of fiscal disparities. Half of the total revenue raised in the province comes from 6 prefectures. Equalization is a major concern of the provincial government.

Consumption tax and VAT sharing between the provincial and lower-level governments in Yunnan Province is similar to that between the central and provincial governments. Tax sharing is on a derivation basis. The fixed local taxes belong to the lower-level local governments, and the provincial government does not share in these revenues. Sharing of the enterprise income tax is by ownership, and sharing of the other taxes is by derivation (except in the case of business tax paid by provincially owned banks and insurance companies, where the revenues are assigned to the provincial government).

There are two intergovernmental transfer systems operating in the province. One is a small horizontal equalization program that appears to be a holdover from the pre-1994 contract-responsibility system. The 5 “surplus” prefectures transfer revenues into a sharing pool and these revenues are distributed among the remaining 12 prefectures. The contributions to the pool break out as follows: 2 prefectures give 30 percent of revenue collections to the province; 2 prefectures
give 15 percent; and 1 prefecture gives 10 percent of revenues collections to the province. The distribution of this pool among the “deficit” provinces is done on a judgmental basis.

The second, more significant grant to local governments is the direct transfer from the provincial government of two types of grants received from the center. “Deficit” grants of 0.7 billion yuan were received from the central government in 1993 as a fixed subsidy. The province augmented this amount and actually distributed a total of 1.4 billion yuan in fixed grants to the local governments. The distribution of the subsidy among prefectures is determined by a “formula” that compares revenues available and expenditure needs. The expenditure needs indicators are based loosely on standards for “normal” expenditures. Those with larger gaps between standard expenditures and revenues receive a larger share of the grants (the gap in grants received ranged from a high of 80 percent of revenue to a low of 40 percent of revenue). Earmarked grants, the other type of grants, received from the center, were 0.8 billion yuan, but a total of 2 billion yuan was distributed by the province to the local governments. These earmarked grants are allocated based on approved capital investment, subsidy distributions, and the rest.

Counties are subordinate to prefectures; it is up to the prefecture to decide on the revenue-sharing arrangements with counties. Bahl and Wallace (1995) tracked revenue sharing arrangements to the county level with a case study of Lunan County within Yunnan Province. The chain of tax revenue sharing is plotted below:

<table>
<thead>
<tr>
<th>Tax</th>
<th>Central–Province</th>
<th>Province–Prefecture</th>
<th>Prefecture–County</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT</td>
<td>Derivation</td>
<td>Derivation</td>
<td>Ownership</td>
</tr>
<tr>
<td>Consumption</td>
<td>Derivation</td>
<td>Derivation</td>
<td>Ownership</td>
</tr>
<tr>
<td>Business</td>
<td>Derivation</td>
<td>Derivation</td>
<td>Ownership</td>
</tr>
<tr>
<td>Enterprise income</td>
<td>Ownership</td>
<td>Ownership</td>
<td>Ownership</td>
</tr>
</tbody>
</table>

Interpreting row 1, for example, the VAT is shared between the central and provincial government on a basis of derivation, and a derivation basis is also used for determining the share of each prefecture. However, the amount of VAT that may be retained by Lunan County is based on ownership of the enterprises. Since smaller local governments tend to own smaller enterprises, the county share is relatively small. Only the enterprise income tax is shared on a different basis (ownership) at all levels.

**Local Finance: Kunming City**

Kunming, the capital city of Yunnan Province, has 3.67 million people living in its 15,000 square kilometers. The prefecture (city) has 2 city districts, 2 county districts, and 8 more rural districts that belong to the city. Two of the counties are
autonomous minority counties. Each of the 12 districts has its own budget, and all townships under the districts have budgets. About one-third of the total population lives within the city districts. GNP for the prefecture for 1993 was 18.3 billion yuan. One-fourth of the GDP of Yunnan Province is earned in Kunming City, where about 10 percent of the provincial population is resident. Over 70 percent of GDP is generated from processing tobacco, machinery, and food, with less than 10 percent from agriculture, and tourism accounting for between 20 and 30 percent.

**Prefecture Revenue and Expenditures.**

Expenditures by the city are divided among four main categories:

- **Economic development**: 30 percent
- **Public security and administration**: 20 percent
- **Education, scientific, culture, etc.**: 30 percent
- **Construction and maintenance**: 20 percent

Most revenue comes from industrial and commercial taxes:

- **Industrial and commercial taxes**: 95 percent
- **Agriculture**: 3.5 percent
- **Other income sources**: 1.5 percent

The city receives its base amount of VAT and consumption tax and shares the increment with the central government in the same way as described above for the province. Indirect taxes are received by the city on a derivation basis, and enterprise income taxes on an ownership basis. The city allocates to its districts a share of the base and increment of the VAT and consumption taxes, and most fixed local taxes, using the derivation principle. That is, a share of indirect taxes remains in the jurisdiction where it is collected irrespective of ownership. Enterprise income taxes are distributed according to ownership. This distribution leaves a significant disparity in collections between rich and poor areas, which is equalized using the following method.

1. Using 1985 as a base year, the districts are classified as having “high,” “middle,” and “low” fiscal capacity, based on the difference between expenditures and revenues. The high-revenue districts are surplus districts in 1985, the middle districts are balanced, and low districts are in a deficit position.
2. The 1994 distributions of the base and increment are made to the districts according to an index based on the ratio of revenue to expenditures.
3. The high-capacity districts had to return a portion of their total revenue based on their index, and the low-revenue districts received a subsidy. This system was used before and after the 1994 reform.
Local Finance: Lunan County

Lunan County is a minority autonomous county in Kunming Prefecture with 208,000 people, and a land area of 1,725 square kilometers. The economy of the county is mainly agricultural. The county has 10 townships, each with an independent budget. The townships have populations ranging from 17,000 to 30,000 persons.

The county approves its own budget, although total revenues available are essentially fixed by the center. The county is under the direction of the prefecture city for determination of its total employment level, and it faces certain limits on the employee compensation it may pay.

The county does not approve the township budgets. It only offers general guidance on the budget process based on the "national plan." The local Peoples' Congress of each township approves the budget, which must be balanced. There are some budget guidelines and standards in place, such as a unified standard for employee compensation. Also, the number of employees in each township is set by the county government.

County Revenues. In 1994, total expenditures of the county were approximately 60 million yuan and recurrent revenues were a little more than 40 million. The "deficit" was financed by grants from higher-level governments. Kunming City provided the county a "one time" grant of 10 million yuan. The total revenue picture for Lunan County for 1993 is described in Table 6.2.

In 1993, agricultural taxes had accounted for about 60 percent of the county government's own-source revenues. These are all fixed local taxes and the most productive are shown in Table 6.3.

Revenue Sharing. The vertical relationship between county and townships carries the same constraints as that for the county-city, and the city-prefecture. The county controls the resource flow to the lower-level governments, and the county-level Peoples' Congress is authorized to arrange revenue sharing within the county in any way it chooses.

Reaction to Reforms. The 1994 tax reform did not have much impact on Lunan County finances and revenue sharing, because the VAT is not an important source of revenue there. The fiscal relations between Lunan and Kunming City are a combination of the new revenue-sharing policies and the old contract system. Kunming City shares the VAT and consumption tax on a derivation basis with the county in the same manner that the province shares with the city (prefecture). In 1994, the total industrial and commercial taxes retained by the county
### Table 6.2. Revenue Structure in Lunan County, Yunnan: 1993

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>Amount (Million Yuan)</th>
<th>% Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial and commercial taxes(^a)</td>
<td>9.97</td>
<td>17.4</td>
</tr>
<tr>
<td>Agricultural taxes</td>
<td>21.45</td>
<td>37.3</td>
</tr>
<tr>
<td>Enterprise income tax(^b)</td>
<td>1.25</td>
<td>2.2</td>
</tr>
<tr>
<td>Fees: education surtax, special revenues</td>
<td>0.52</td>
<td>0.9</td>
</tr>
<tr>
<td>Other revenue</td>
<td>3.11</td>
<td>5.4</td>
</tr>
</tbody>
</table>

**Revenue return from higher level**

<table>
<thead>
<tr>
<th></th>
<th>Amount (Million Yuan)</th>
<th>% Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base amount</td>
<td>5.58</td>
<td>9.7</td>
</tr>
<tr>
<td>Increment amount</td>
<td>0.57</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Total revenue**

42.45

**Grants**

One-time grant 10.0

Specific grants 5.0

**Total revenue including grants**

57.45 100.0

\(^a\) To this total, VAT contributes 2.5 million yuan and business tax, 5.5 million yuan.

\(^b\) There are no tobacco-processing plants in the county; nor are there any central or provincial enterprises.

Source: Data supplied by local authorities; Bahl and Wallace (1995).

### Table 6.3. Agricultural Sector Taxes in Lunan County, Yunnan: 1993

<table>
<thead>
<tr>
<th>Type of Tax</th>
<th>Explanation</th>
<th>Revenues (Yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>Tax base is the amount of grain produced. Poor farmers pay tax in grain, which is then sold.</td>
<td>2.97 million</td>
</tr>
<tr>
<td>Special products</td>
<td>Tax base is gross sales of certain products, e.g., tobacco, flowers, fish.</td>
<td>17.85 million</td>
</tr>
<tr>
<td>Agriculture field use</td>
<td>Land use payment. Tax base is land area and tax rate 6 yuan/m(^2).</td>
<td>560,000</td>
</tr>
<tr>
<td>Contact tax</td>
<td>Transfer tax of 6 percent on purchase price of houses.</td>
<td>70,000</td>
</tr>
</tbody>
</table>

Source: Data provided by Lunan County officials.
were 9.97 million yuan (including most indirect taxes: 2.5 million in VAT and 5.5 million in business tax).

The county shares the VAT and consumption taxes with the townships based on “ownership of the businesses that initially generate the tax.” This return is different from the derivation basis of sharing between the city and county. After this return-transfer has been made, the townships may owe the county government a “transfer up,” as in the old contract system. This parallels the system used by higher-level governments in Yunnan. Based on 1988 expenditure–revenue ratios, the townships are split into rich, middle-class, and poor townships. The rich townships had a 1988 expenditure–revenue ratio less than one, the middle ones were balanced, and the poor ones were greater than one (or the deficit group). Based on these ratios and classifications, the rich townships must make a transfer to the county, and the poor townships receive a grant. The actual amounts of transfer, however, are based on negotiation.

**Extrabudgetary Funds.** A number of extrabudgetary funds are included in the county fiscal structure. The largest is a surtax on the agricultural special products tax, equal to 10 percent of the tax liability of these enterprises. The county received more than 1 million yuan from this source in 1994. This extrabudgetary revenue is earmarked for agricultural development (roads, irrigation, etc.). An additional extrabudgetary revenue is a direct transfer from the tobacco producers to the county. This accounted for between 2 and 4 million yuan between 1992 and 1994.

**Revenue Sharing in Jiangsu Province**

The Chinese system of provincial–local relations is complex and mixes a variety of fiscal instruments. Some of these instruments, such as revenue distribution based on enterprise ownership and local taxation, favor higher income and more economically developed local government areas. Other fiscal instruments—tax sharing, special grants and horizontal transfers among local governments—are potentially equalizing, but this depends on how they are structured. Moreover, as the case studies for Yunnan and Beijing above show, equalizing and counterequalizing fiscal instruments may all be part of the intergovernmental fiscal system in a single province.

Most analyses focus on the distributional feature of each instrument. The more relevant question regarding equalization within provinces may be how all these instruments combine to effect the distribution of government revenues and expenditures between rich and poor places, and between urban and rural areas. In this case study of Jiangsu Province for 1995, we take a purely empirical approach
Table 6.4. Fiscal Disparities Among 11 City Regions in Jiangsu Province: 1995

<table>
<thead>
<tr>
<th>CITY REGIONS</th>
<th>POPULATION (MILLIONS)</th>
<th>PER CAPITA INCOME RELATIVE</th>
<th>PER CAPITA REVENUE COLLECTIONS</th>
<th>PER CAPITA EXPENDITURES</th>
<th>RATIO OF EXPENDITURES TO REVENUE AS % GDP</th>
<th>REVENUE AS % GDP</th>
<th>TAX-EFFORT INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanjing</td>
<td>5.22</td>
<td>1.48</td>
<td>1249</td>
<td>694</td>
<td>0.56</td>
<td>11.31</td>
<td>1.70</td>
</tr>
<tr>
<td>Wushi</td>
<td>4.29</td>
<td>2.37</td>
<td>1122</td>
<td>456</td>
<td>0.41</td>
<td>6.33</td>
<td>0.91</td>
</tr>
<tr>
<td>Shuzhou</td>
<td>8.51</td>
<td>0.65</td>
<td>297</td>
<td>211</td>
<td>0.71</td>
<td>6.16</td>
<td>1.01</td>
</tr>
<tr>
<td>Changzhou</td>
<td>3.37</td>
<td>1.48</td>
<td>854</td>
<td>399</td>
<td>0.47</td>
<td>7.71</td>
<td>1.16</td>
</tr>
<tr>
<td>Shouzhou</td>
<td>5.73</td>
<td>2.11</td>
<td>940</td>
<td>431</td>
<td>0.46</td>
<td>5.96</td>
<td>0.86</td>
</tr>
<tr>
<td>Nantong</td>
<td>7.84</td>
<td>0.80</td>
<td>347</td>
<td>220</td>
<td>0.63</td>
<td>5.85</td>
<td>0.94</td>
</tr>
<tr>
<td>Lianyungang</td>
<td>3.60</td>
<td>0.58</td>
<td>274</td>
<td>263</td>
<td>0.96</td>
<td>6.35</td>
<td>1.05</td>
</tr>
<tr>
<td>Huaiyin</td>
<td>1.03</td>
<td>0.36</td>
<td>173</td>
<td>163</td>
<td>0.94</td>
<td>6.47</td>
<td>1.13</td>
</tr>
<tr>
<td>Yanchang</td>
<td>7.84</td>
<td>0.55</td>
<td>197</td>
<td>192</td>
<td>0.97</td>
<td>4.77</td>
<td>0.79</td>
</tr>
<tr>
<td>Yangzhou</td>
<td>9.39</td>
<td>0.86</td>
<td>368</td>
<td>245</td>
<td>0.67</td>
<td>5.72</td>
<td>0.91</td>
</tr>
<tr>
<td>Zhenjiang</td>
<td>2.63</td>
<td>1.45</td>
<td>578</td>
<td>342</td>
<td>0.59</td>
<td>5.33</td>
<td>0.80</td>
</tr>
<tr>
<td>Median</td>
<td>5.73</td>
<td>0.86</td>
<td>3.69</td>
<td>2.63</td>
<td>0.63</td>
<td>6.16</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Coefficient of variation:

- Per capita GDP divided by the mean level of per capita GDP for the 11 city regions.
- Standard deviation divided by the arithmetic mean.
- This coefficient of variation is computed on per capita GDP rather than on the per capita GDP relative.

Source: Jiangsu Statistic Bureau, 1996.

Table 6.4 shows the fiscal disparities among 11 city regions in Jiangsu Province, illustrating the variation in per capita income, revenue, expenditures, and other fiscal indicators. The disparities are highlighted through the ratio of expenditures to revenue and the revenue as a percentage of GDP, with tax-effort indexes providing insight into the fiscal capacity of each region.

City Regions

As may be seen in Table 6.4, the population in the 11 city regions (which encompasses the entire population of the province) varies from about 1 million to 10 million, and per capita GDP in the richest city is nearly 7 times that in the poorest city. The richest city (Wushi) collects 1,122 yuan in per capita revenue and spends 456 yuan per capita. The remainder is used for provincial government direct expenditures, including redistribution by the province to other local governments. The poorest city (Huaiyin) collects only 173 yuan per capita and spends 163 yuan per capita (still less than it collects). As we show below, these very great disparities in fiscal capacity are partially redressed by the intergovernmental revenue-sharing system.
### Table 6.5. Linear Regressions on Selected Fiscal Variables for City Regions and Local Governments in Jiangsu Province: 1995

<table>
<thead>
<tr>
<th></th>
<th>Constant</th>
<th>Per capita GDP</th>
<th>Dummy variable ( = 1 for city)</th>
<th>R²</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City region regressions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Per capita revenue collected</td>
<td>-3.68</td>
<td>1.10</td>
<td>—</td>
<td>0.91</td>
<td>11</td>
</tr>
<tr>
<td>(2) Per capita expenditure</td>
<td>0.11</td>
<td>0.63</td>
<td>—</td>
<td>0.75</td>
<td>11</td>
</tr>
<tr>
<td>(3) Ratio of expenditure to collections</td>
<td>8.40</td>
<td>-0.48</td>
<td>—</td>
<td>0.89</td>
<td>11</td>
</tr>
<tr>
<td><strong>All local governments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Per capita revenue collected</td>
<td>3.85</td>
<td>1.02</td>
<td>0.07</td>
<td>0.92</td>
<td>76</td>
</tr>
<tr>
<td>(2) Per capita expenditure</td>
<td>0.38</td>
<td>0.57</td>
<td>0.86</td>
<td>0.84</td>
<td>76</td>
</tr>
<tr>
<td>(3) Ratio of expenditure to collections</td>
<td>8.90</td>
<td>(0.48)</td>
<td>0.14</td>
<td>0.89</td>
<td>76</td>
</tr>
</tbody>
</table>

- All variables are expressed in logarithms. T-values are shown in parentheses below regression coefficients.
- "City region" is defined here as the total of all local governments assigned to the administrative control of the city.
- "Local governments" are defined here as the 65 counties and the 11 city governments.
- Source: Jiangsu Statistic Bureau, 1996.

The regression results across the city regions, reported in the top panel of Table 6.5, summarize the degree to which the fiscal system equalizes.

1. A 1 percent higher level of per capita GDP is associated with a 1.1 percent higher level of per capita revenue collections. Higher income city regions have a significantly and proportionately stronger fiscal capacity. This is not unexpected because higher-income regions are more urbanized, and the Chinese tax system is structured primarily to reach the urban base.

2. A 1 percent higher level of per capita GDP is associated with a 0.63 percent higher level of per capita expenditures. Even after transfers from the
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provincial level, higher-income places spend significantly more. However, expenditure disparities are much less pronounced than revenue-collection disparities, indicating that a substantial amount of redistribution takes place through the intergovernmental fiscal system.

3. The ratio of expenditures to total revenues collected is negatively related to the level of per capita GDP; that is, if a city region has a higher level of per capita GDP, it will end up spending a lower share of what it collects than will a city with a lower level of per capita GDP. Again, this indicates that the fiscal system is characterized by some degree of transfer from richer to poorer regions.

Do higher-income city regions make a weaker tax effort? One might suppose that since smaller shares of collections find their way into local budgets, the local governments would reduce collection efforts and try to transfer funds to off-budget accounts. Using the same regression method to measure tax effort that was presented in Chapter 5, we can conclude that they do not. From the equation reported in row (1) of Table 6.5, we can derive a predicted value of fiscal capacity in each city region, that is, the amount of revenue we would expect each city region to receive in its budget. Dividing this predicted value for taxable capacity by actual per capita revenue collections, we derive an index of tax effort as shown in Table 6.4 in the far-right column. We can find no correlation between this index and the expenditure-collection ratio. Note that two of the four richest cities exert a below-average tax effort, while Nanjing shows the highest tax effort among the 11 city regions.

Cities and Counties

We may carry this analysis one step further to consider the fiscal disparities among local government units, that is, city governments and their constituent local governments. In Jiangsu, each of the 11 city regions has a central city government, and together they have 65 constituent counties. The counties vary greatly in their capacity to raise revenue and in the amount of expenditures they make. In Table 6.6, we show the variation among the 65 counties to be considerably greater than the variation in these same variables among the 11 regions. In particular, the richest county has a per capita GDP 12 times greater than the poorest, raises nearly 30 times more in revenue, and spends 10 times as much.

There also are significant variations within the city regions. The average level of disparity between the city proper and the county, in each region, is described in Table 6.7. In 7 of the 11 regions, the average level of city income is twice that of the counties. For example, the average level of income in Nanjing’s counties is equivalent to about 32 percent of the average income level in Nanjing City. The disparity in revenue collection between county and central city is greater
### Fiscal Policy in China

**Table 6.6. Fiscal Disparities Among 64 Counties in City Regions in Jiangsu Province: 1995**

<table>
<thead>
<tr>
<th>County</th>
<th>Per capita revenue collections</th>
<th>Per capita expenditures</th>
<th>Ratio of expenditures to revenue</th>
<th>Population (10,000s)</th>
<th>Per capita GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiangning</td>
<td>363.46</td>
<td>244.94</td>
<td>0.67</td>
<td>74.01</td>
<td>7,403</td>
</tr>
<tr>
<td>Jiangpu</td>
<td>297.62</td>
<td>211.83</td>
<td>0.71</td>
<td>29.85</td>
<td>4,055</td>
</tr>
<tr>
<td>Riuhu</td>
<td>168.68</td>
<td>141.17</td>
<td>0.84</td>
<td>68.35</td>
<td>3,709</td>
</tr>
<tr>
<td>Rishuihua</td>
<td>359.15</td>
<td>301.50</td>
<td>0.84</td>
<td>40.66</td>
<td>5,906</td>
</tr>
<tr>
<td>Gaozhen</td>
<td>232.73</td>
<td>238.05</td>
<td>1.02</td>
<td>43.05</td>
<td>4,689</td>
</tr>
<tr>
<td>Jiangyin</td>
<td>780.87</td>
<td>316.31</td>
<td>0.41</td>
<td>113.72</td>
<td>17,865</td>
</tr>
<tr>
<td>Yixing</td>
<td>482.12</td>
<td>233.96</td>
<td>0.49</td>
<td>109.11</td>
<td>11,937</td>
</tr>
<tr>
<td>Shishan</td>
<td>1,038.78</td>
<td>367.90</td>
<td>0.35</td>
<td>98.88</td>
<td>21,444</td>
</tr>
<tr>
<td>Feng</td>
<td>118.75</td>
<td>159.76</td>
<td>1.35</td>
<td>101.51</td>
<td>2,643</td>
</tr>
<tr>
<td>Pi</td>
<td>159.80</td>
<td>165.28</td>
<td>1.03</td>
<td>112.66</td>
<td>3,216</td>
</tr>
<tr>
<td>Tongsan</td>
<td>180.55</td>
<td>156.52</td>
<td>0.87</td>
<td>129.90</td>
<td>4,823</td>
</tr>
<tr>
<td>Shining</td>
<td>92.83</td>
<td>132.11</td>
<td>1.42</td>
<td>121.21</td>
<td>2,436</td>
</tr>
<tr>
<td>Xingyi</td>
<td>136.82</td>
<td>157.74</td>
<td>1.15</td>
<td>91.13</td>
<td>3,567</td>
</tr>
<tr>
<td>Pizhou</td>
<td>101.49</td>
<td>109.65</td>
<td>1.08</td>
<td>149.60</td>
<td>3,174</td>
</tr>
<tr>
<td>Liyang</td>
<td>318.43</td>
<td>233.82</td>
<td>0.73</td>
<td>77.39</td>
<td>7,890</td>
</tr>
<tr>
<td>Jiantan</td>
<td>378.32</td>
<td>251.05</td>
<td>0.66</td>
<td>54.06</td>
<td>7,612</td>
</tr>
<tr>
<td>Wujiang</td>
<td>614.18</td>
<td>330.76</td>
<td>0.54</td>
<td>121.54</td>
<td>13,473</td>
</tr>
<tr>
<td>Changshu</td>
<td>939.14</td>
<td>404.32</td>
<td>0.43</td>
<td>104.36</td>
<td>15,153</td>
</tr>
<tr>
<td>Zhangjiang</td>
<td>866.95</td>
<td>414.32</td>
<td>0.48</td>
<td>85.05</td>
<td>22,459</td>
</tr>
<tr>
<td>Kuanshan</td>
<td>880.53</td>
<td>464.10</td>
<td>0.53</td>
<td>58.05</td>
<td>17,254</td>
</tr>
<tr>
<td>Wujiang</td>
<td>640.59</td>
<td>271.44</td>
<td>0.42</td>
<td>77.72</td>
<td>17,029</td>
</tr>
<tr>
<td>Taichang</td>
<td>97.15</td>
<td>301.67</td>
<td>0.38</td>
<td>44.89</td>
<td>18,947</td>
</tr>
<tr>
<td>Wushan</td>
<td>668.65</td>
<td>316.95</td>
<td>0.47</td>
<td>97.10</td>
<td>13,510</td>
</tr>
<tr>
<td>Haian</td>
<td>247.86</td>
<td>180.74</td>
<td>0.73</td>
<td>99.00</td>
<td>4,593</td>
</tr>
<tr>
<td>Rutong</td>
<td>206.70</td>
<td>172.07</td>
<td>0.83</td>
<td>113.46</td>
<td>5,211</td>
</tr>
<tr>
<td>Qijiang</td>
<td>286.83</td>
<td>183.63</td>
<td>0.64</td>
<td>116.41</td>
<td>6,873</td>
</tr>
<tr>
<td>Rugao</td>
<td>178.03</td>
<td>128.74</td>
<td>0.72</td>
<td>145.18</td>
<td>3,435</td>
</tr>
<tr>
<td>Tongzhou</td>
<td>249.22</td>
<td>151.50</td>
<td>0.61</td>
<td>145.86</td>
<td>5,451</td>
</tr>
<tr>
<td>Haimen</td>
<td>279.44</td>
<td>178.13</td>
<td>0.64</td>
<td>103.43</td>
<td>6,530</td>
</tr>
<tr>
<td>Ganyu</td>
<td>131.70</td>
<td>137.94</td>
<td>1.05</td>
<td>99.89</td>
<td>4,007</td>
</tr>
<tr>
<td>Tonghai</td>
<td>117.93</td>
<td>129.82</td>
<td>1.10</td>
<td>105.44</td>
<td>3,452</td>
</tr>
<tr>
<td>Guanyun</td>
<td>107.28</td>
<td>128.48</td>
<td>1.20</td>
<td>97.15</td>
<td>2,776</td>
</tr>
<tr>
<td>Huaiyin</td>
<td>89.13</td>
<td>133.11</td>
<td>1.49</td>
<td>79.88</td>
<td>2,338</td>
</tr>
<tr>
<td>Guannan</td>
<td>101.57</td>
<td>131.92</td>
<td>1.30</td>
<td>68.16</td>
<td>1,941</td>
</tr>
<tr>
<td>Shuyang</td>
<td>63.79</td>
<td>104.47</td>
<td>1.64</td>
<td>156.93</td>
<td>1,816</td>
</tr>
<tr>
<td>Xiyian</td>
<td>195.19</td>
<td>133.96</td>
<td>0.69</td>
<td>109.77</td>
<td>2,237</td>
</tr>
<tr>
<td>Lianshui</td>
<td>76.89</td>
<td>133.33</td>
<td>1.73</td>
<td>98.56</td>
<td>1,817</td>
</tr>
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</table>
Table 6.6 Continued

<table>
<thead>
<tr>
<th>County</th>
<th>Per capita revenue collections</th>
<th>Per capita expenditures</th>
<th>Ratio of expenditures to revenue</th>
<th>Population (10,000s)</th>
<th>Per capita GDP</th>
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</thead>
<tbody>
<tr>
<td>Xihong</td>
<td>222.60</td>
<td>181.33</td>
<td>0.81</td>
<td>96.89</td>
<td>2,892</td>
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<tr>
<td>Haozhou</td>
<td>170.03</td>
<td>198.64</td>
<td>1.17</td>
<td>36.74</td>
<td>3,000</td>
</tr>
<tr>
<td>Xiyu</td>
<td>88.45</td>
<td>160.75</td>
<td>1.82</td>
<td>70.50</td>
<td>2,589</td>
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<tr>
<td>Jinhu</td>
<td>203.55</td>
<td>207.16</td>
<td>1.02</td>
<td>34.63</td>
<td>4,497</td>
</tr>
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<td>129.46</td>
<td>121.60</td>
<td>0.94</td>
<td>113.22</td>
<td>2,752</td>
</tr>
<tr>
<td>Huai'an</td>
<td>78.72</td>
<td>120.05</td>
<td>1.52</td>
<td>117.87</td>
<td>2,755</td>
</tr>
<tr>
<td>Suburban</td>
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<td>127.72</td>
<td>0.80</td>
<td>114.70</td>
<td>4,280</td>
</tr>
<tr>
<td>Xiangshui</td>
<td>103.17</td>
<td>148.03</td>
<td>1.43</td>
<td>54.32</td>
<td>2,622</td>
</tr>
<tr>
<td>Binhai</td>
<td>85.50</td>
<td>138.10</td>
<td>1.62</td>
<td>106.15</td>
<td>1,900</td>
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<tr>
<td>Funin</td>
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<td>136.23</td>
<td>1.36</td>
<td>107.99</td>
<td>2,553</td>
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<tr>
<td>Xiyang</td>
<td>148.94</td>
<td>159.58</td>
<td>1.07</td>
<td>101.89</td>
<td>4,186</td>
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<td>Jianhu</td>
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<td>200.18</td>
<td>1.08</td>
<td>79.49</td>
<td>3,721</td>
</tr>
<tr>
<td>Dafeng</td>
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<td>204.92</td>
<td>0.73</td>
<td>73.93</td>
<td>6,144</td>
</tr>
<tr>
<td>Dongtai</td>
<td>206.74</td>
<td>152.69</td>
<td>0.74</td>
<td>117.59</td>
<td>5,336</td>
</tr>
<tr>
<td>Baoyin</td>
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<td>141.21</td>
<td>0.94</td>
<td>91.03</td>
<td>3,646</td>
</tr>
<tr>
<td>Huanjiang</td>
<td>304.69</td>
<td>200.61</td>
<td>0.66</td>
<td>55.69</td>
<td>6,854</td>
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<td>Yizhen</td>
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<td>410.90</td>
<td>0.43</td>
<td>58.74</td>
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<td>Taizhou</td>
<td>1,727.10</td>
<td>1030.92</td>
<td>0.60</td>
<td>26.97</td>
<td>14,702</td>
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<td>Xinhua</td>
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<td>115.21</td>
<td>0.93</td>
<td>153.42</td>
<td>3,231</td>
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<td>Gaoyou</td>
<td>182.63</td>
<td>164.89</td>
<td>0.90</td>
<td>83.15</td>
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<tr>
<td>Taixing</td>
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<td>165.33</td>
<td>0.63</td>
<td>142.12</td>
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<tr>
<td>Jinjiang</td>
<td>438.38</td>
<td>253.47</td>
<td>0.58</td>
<td>66.02</td>
<td>8,487</td>
</tr>
<tr>
<td>Jiangdu</td>
<td>326.53</td>
<td>190.55</td>
<td>0.58</td>
<td>106.92</td>
<td>5,937</td>
</tr>
<tr>
<td>Jiangyian</td>
<td>245.35</td>
<td>176.32</td>
<td>0.72</td>
<td>106.42</td>
<td>4,546</td>
</tr>
<tr>
<td>Dantu</td>
<td>306.75</td>
<td>246.80</td>
<td>0.80</td>
<td>42.20</td>
<td>9,109</td>
</tr>
<tr>
<td>Danyang</td>
<td>509.30</td>
<td>271.95</td>
<td>0.53</td>
<td>80.78</td>
<td>10,030</td>
</tr>
<tr>
<td>Yangzhong</td>
<td>606.11</td>
<td>417.82</td>
<td>0.69</td>
<td>27.66</td>
<td>13,973</td>
</tr>
<tr>
<td>Juyaog</td>
<td>217.98</td>
<td>183.56</td>
<td>0.84</td>
<td>60.17</td>
<td>7,014</td>
</tr>
<tr>
<td>Mean level</td>
<td>330</td>
<td>218</td>
<td>0.88</td>
<td>90.31</td>
<td>6,720</td>
</tr>
</tbody>
</table>

Coefficient of variation: 92.69, 61.62 (41.13), 36.32, 77.61

Range: Minimum 63.79, 104.47 (0.35), 26.97, 1,816; Maximum 1,727.10, 1,030.92 (1.82), 156.93, 22,459

Source: Jiangsu Statistic Bureau, 1996.
Table 6.7. Disparity Between Central City and Surrounding Counties: By City Region in Jiangsu Province: 1995

<table>
<thead>
<tr>
<th>CITY REGION</th>
<th>PER CAPITA GDP</th>
<th>PER CAPITA REVENUE COLLECTIONS</th>
<th>PER CAPITA EXPENDITURE</th>
<th>RATIO OF EXPENDITURE TO REVENUE</th>
<th>CITY SHARE OF TOTAL CITY REGION POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanjing</td>
<td>32.2</td>
<td>12.9</td>
<td>19.2</td>
<td>149.3</td>
<td>0.51</td>
</tr>
<tr>
<td>Wushi</td>
<td>84.5</td>
<td>34.3</td>
<td>33.4</td>
<td>97.3</td>
<td>0.25</td>
</tr>
<tr>
<td>Shuzhou</td>
<td>27.6</td>
<td>11.8</td>
<td>26.8</td>
<td>226.5</td>
<td>0.17</td>
</tr>
<tr>
<td>Changzhou</td>
<td>73.5</td>
<td>23.1</td>
<td>37.3</td>
<td>161.6</td>
<td>0.24</td>
</tr>
<tr>
<td>Shouzhou</td>
<td>121.7</td>
<td>51.1</td>
<td>49.6</td>
<td>96.9</td>
<td>0.18</td>
</tr>
<tr>
<td>Nantong</td>
<td>35.3</td>
<td>14.5</td>
<td>18.0</td>
<td>124.4</td>
<td>0.08</td>
</tr>
<tr>
<td>Lianyungang</td>
<td>37.7</td>
<td>10.9</td>
<td>13.8</td>
<td>127.0</td>
<td>0.16</td>
</tr>
<tr>
<td>Huaiyin</td>
<td>30.4</td>
<td>9.2</td>
<td>19.2</td>
<td>207.7</td>
<td>0.05</td>
</tr>
<tr>
<td>Yianchang</td>
<td>67.1</td>
<td>41.2</td>
<td>45.9</td>
<td>111.4</td>
<td>0.16</td>
</tr>
<tr>
<td>Yangzhou</td>
<td>31.7</td>
<td>31.1</td>
<td>23.1</td>
<td>74.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Zhenjiang</td>
<td>43.0</td>
<td>16.7</td>
<td>27.3</td>
<td>163.2</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Source: Jiangsu Statistic Bureau, 1996.

than the disparity in per capita income, in every city region. Per capita expenditures in cities are higher than per capita expenditures in counties; in fact, no county spent even half as much as the central city. In 8 of the 11 regions, counties had the expected higher expenditure–collections ratio, again signaling an equalization component in the intergovernmental fiscal system.

We may examine the extent to which the provincial fiscal system equalizes when these disparities among the lower-level units of government are taken into account. Linear regressions on per capita revenue collections and expenditures, and the expenditure–revenue ratio are reported in the bottom panel of Table 6.5. The independent variables are per capita GDP and a dummy variable (=1) to indicate that the observation is a city (= 0 if a county). The sample has 65 individual county units and 11 city governments proper. The results show that:

- Per capita revenue collections are significantly higher in central cities than in counties, and significantly higher in higher-income places, even when the “city effect” is accounted for.
- Per capita expenditures are significantly higher in cities than in counties, even when we control for per capita income level. This might be attributed to some combination of the far greater fiscal capacity of cities, their stronger capability to deliver services, and perhaps to the broader range of func-
tions that they provide. The relationship between per capita income and per capita expenditures, controlling for city versus county, is also significant and positive. Higher-income places spend more per resident, irrespective of city or a county status.

• The amount of expenditure per yuan of revenue raised (final row in Table 6.5) is not significantly different between cities and counties, but the expenditure share does fall with per capita GDP, that is, higher-income places end up spending a smaller share of what they raise than do low-income places. One explanation of this is the equalization program of the province, that is, the higher-income places are allowed to retain less, by formula. Another is that much of the revenue is distributed according to ownership, and the provincial government enterprises tend to be located in urban areas.

• We might posit the following: If a local government in Jiangsu has a 10 percent higher level of per capita GDP, we would expect its per capita revenue collections to be about 10 percent higher, but because it retains a smaller share of these collections, its per capita expenditure level would be about 5 percent higher. If it is a city, it will raise about 11 percent more and spend about 9 percent more. The remainder will be transferred to the province for the direct expenditures of the provincial government and for redistribution to lower-income counties.

What this analysis shows is that, on balance, the intergovernmental fiscal system in Jiangsu was equalizing in 1995, the first year after the reform. Higher-income local governments did collect significantly more revenue, but the combined effect of tax-retention rate differences and the distribution of grants reduced the expenditures advantage of richer places. In sum, we may judge that the degree of equalization within Jiangsu Province is quite similar to that observed for China and all its 30 provinces.

This analysis reports only the budgetary transactions of local governments. Certainly, the equalization features of the system would provide an incentive for higher-income local governments to engage in some form of transfer pricing to retain a greater share of what is locally collected. To the extent that this happens, this empirical analysis leads us to overstate the degree of fiscal equalization that actually occurs.

Revenue Sharing in Sichuan Province

A comparison of the results from Jiangsu with Sichuan are illustrative. Sichuan is relatively poor with a per capita GDP of 2,516 yuan in 1995, about 40 percent of the level of per capita GDP in Jiangsu. While Jiangsu is a donor province in
that some of the revenue collections within the province are sent to the center, Sichuan is a deficit province that has traditionally retained all revenues collected and received a subsidy as well. An interesting question to explore is whether there are differences between rich and poor provinces in the extent to which their intraprovince fiscal policies equalize and/or encourage increased tax effort.

There are significant differences in the degree of disparity within the provinces. The median population size of a local government in Sichuan is about two-thirds that in Jiangsu, but the largest city (Chongchin) is about 60 percent more populated than Jiangsu’s largest city region. As may be seen from the coefficient of variation reported in Table 6.8, the per capita GDP disparity among the 23 city regions in Sichuan is about the same as that within Jiangsu. The implication from this result is that Sichuan Province has about the same equalization job to do as does Jiangsu. As we show below, however, they go about this job in very different ways.

In Sichuan, all city region local governments are in a “deficit” position, that is, they spend more than is collected within each of their areas. In Jiangsu, all local governments are in a “donor” position, that is, a share of the collections made within their boundaries is allocated to the province. The provincial government plays a very different role in Sichuan from that played in Jiangsu.

The disparities in per capita GDP in Sichuan are accentuated by a stronger revenue performance of the higher-income local governments. This is done to a greater extent than in Jiangsu. The results of the regression analysis reported in Table 6.9 show that a 10 percent higher level of per capita GDP is associated with a 12.3 percent higher level of revenue raised (vs. 11 percent in Jiangsu). A 10 percent higher level of per capita GDP is associated with a 9.2 percent higher level of per capita expenditures (vs. 6.3 percent in Jiangsu). One might read this analysis as showing that Sichuan “did a better job” of equalizing per capita expenditure levels, because they offset the revenue-raising advantage of the higher-income cities to a greater extent. On the other hand, the end result of the fiscal equalization process was that per capita expenditure disparities were much smaller in Jiangsu than in Sichuan.

Local governments in Sichuan all spend more than they collect (see Table 6.8). The size of the expenditure–revenue ratio may be viewed as the degree of subsidy provided to the local unit, that is, it is the percentage increase in revenues that must be “transferred in” in order to maintain the desired level of expenditures. These “deficit grants” vary widely in amount, from 4.38 in Guanzhi to a low of 1.19 in Chendu. There is a significant negative relationship between the expenditure–revenue ratio and the level of per capita GDP (see Table 6.9), therefore, we can say that significantly larger subsidies go to poorer places. This
<table>
<thead>
<tr>
<th>City Regions</th>
<th>Population (millions)</th>
<th>Per capita income relative</th>
<th>Per capita revenue collections</th>
<th>Per capita expenditures</th>
<th>Ratio of expenditures to revenue</th>
<th>Revenue as % GDP</th>
<th>Tax-effort index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chendu</td>
<td>9.72</td>
<td>2.19</td>
<td>306</td>
<td>362</td>
<td>1.19</td>
<td>4.16</td>
<td>0.95</td>
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<tr>
<td>Chongchin</td>
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<td>1.63</td>
<td>226</td>
<td>282</td>
<td>1.25</td>
<td>4.64</td>
<td>1.06</td>
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<td>3.10</td>
<td>1.11</td>
<td>154</td>
<td>190</td>
<td>1.23</td>
<td>5.04</td>
<td>1.16</td>
</tr>
<tr>
<td>Panzihua</td>
<td>0.96</td>
<td>5.25</td>
<td>732</td>
<td>991</td>
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<td>8.98</td>
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<td>150</td>
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<td>Deyang</td>
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<td>254</td>
<td>1.50</td>
<td>3.77</td>
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<td>1.05</td>
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<td>Guangyuan</td>
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<td>161</td>
<td>1.86</td>
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<td>0.70</td>
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<td>4.36</td>
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<td>1.96</td>
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<td>69</td>
<td>118</td>
<td>1.70</td>
<td>4.33</td>
<td>0.99</td>
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<tr>
<td>Funin</td>
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<td>0.78</td>
<td>109</td>
<td>190</td>
<td>1.75</td>
<td>4.41</td>
<td>1.01</td>
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<tr>
<td>Chianjiang</td>
<td>2.78</td>
<td>0.56</td>
<td>78</td>
<td>205</td>
<td>2.65</td>
<td>4.63</td>
<td>1.07</td>
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<tr>
<td>Yibin</td>
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<td>114</td>
<td>188</td>
<td>1.65</td>
<td>5.24</td>
<td>1.21</td>
</tr>
<tr>
<td>Guangan</td>
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<td>0.45</td>
<td>63</td>
<td>111</td>
<td>1.76</td>
<td>3.31</td>
<td>0.76</td>
</tr>
<tr>
<td>Dachuan</td>
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<td>139</td>
<td>1.79</td>
<td>3.76</td>
<td>0.86</td>
</tr>
<tr>
<td>Bazhong</td>
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<td>55</td>
<td>110</td>
<td>2.02</td>
<td>3.60</td>
<td>0.83</td>
</tr>
<tr>
<td>Yaan</td>
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<td>0.84</td>
<td>117</td>
<td>244</td>
<td>2.09</td>
<td>3.73</td>
<td>0.86</td>
</tr>
<tr>
<td>Aba</td>
<td>0.79</td>
<td>1.25</td>
<td>174</td>
<td>600</td>
<td>3.45</td>
<td>5.73</td>
<td>1.34</td>
</tr>
<tr>
<td>Guanzhi</td>
<td>0.85</td>
<td>0.96</td>
<td>134</td>
<td>585</td>
<td>4.38</td>
<td>5.79</td>
<td>1.37</td>
</tr>
<tr>
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<td>0.82</td>
<td>114</td>
<td>312</td>
<td>2.75</td>
<td>5.04</td>
<td>1.16</td>
</tr>
<tr>
<td>Median</td>
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<td>0.82</td>
<td>114</td>
<td>190</td>
<td>1.70</td>
<td>4.36</td>
<td>1.00</td>
</tr>
<tr>
<td>Coefficient of variation</td>
<td>0.69</td>
<td>0.52</td>
<td>0.95</td>
<td>0.80</td>
<td>0.39</td>
<td>0.27</td>
<td>0.28</td>
</tr>
</tbody>
</table>

*a* Per capita GDP divided by the mean level of per capita GDP for the 23 city regions.

*b* Standard deviation divided by the arithmetic mean.

*c* This coefficient of variation is computed on per capita GDP rather than on the per capita GDP relative.

*Source:* Sichuan Statistic Bureau, 1996.
Table 6.9. Linear Regression on Selected Fiscal Variables for City Regions in Sichuan Province: 1995

<table>
<thead>
<tr>
<th>City Region Regressions&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Constant</th>
<th>Per Capita GDP</th>
<th>R&lt;sup&gt;2&lt;/sup&gt;</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Per capita revenue collected</td>
<td>-5.00</td>
<td>1.23</td>
<td>0.88</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(12.19)</td>
<td></td>
<td></td>
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<tr>
<td>(2) Per capita expenditure</td>
<td>1.87</td>
<td>0.92</td>
<td>0.48</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.44)</td>
<td></td>
<td></td>
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<tr>
<td>(3) Ratio of expenditure to collection</td>
<td>3.12</td>
<td>-0.32</td>
<td>0.20</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.28)</td>
<td></td>
<td></td>
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</tbody>
</table>

<sup>a</sup> All variables are expressed in logarithms. T-values are shown in parentheses below the regression coefficients.
<sup>b</sup> "City region" is defined here as the total of all local governments assigned to the administrative control of the city.

Source: Sichuan Statistic Bureau, 1996.

is different from the Jiangsu ratio, where there was no significant relationship. We can find only a weak relationship between the expenditure–revenue ratio and the level of tax effort in Jiangsu.

The differences between Sichuan and Jiangsu give an important insight into the potential long-run effects of the 1994 revenue-sharing reform. If the government eventually phases out the “hold harmless” provision of the 1994 revenue-sharing allocation, provinces such as Sichuan will have much less wherewithal to equalize. Over time, the deficit grant from the center will be replaced by locally raised taxes and by a smaller share of VAT collections. Because every city region in Sichuan depends on the province for a subsidy to maintain historical expenditure levels, a shrinking subsidy pool at the provincial level will probably lead to lower expenditures than would have been the case otherwise, and perhaps to greater tax effort at the local government level. However, there will probably be less equalization, as the provincial government will receive a smaller transfer from the center and play a lesser role in supporting expenditure levels. In Jiangsu, where the equalization needs do not appear to be as great, the 1994 reform will provide the provincial government with more resources because of the buoyancy of the income and business tax bases, and because the province should realize an increased return on the shared VAT. The conclusion is inescapable: China must establish some form of equalizing grant program.
Innovative Financing: Guangzhou Municipality

The Guangzhou economy is one of the most dynamic in the world, with growth rates in real GDP above 15 percent. Domestic and foreign investment are increasing, the population is growing and will reach 7 million by the close of the century, and the industry structure is modernizing and increasingly export oriented. The Guangzhou municipal government (GM), is placing considerable emphasis on upgrading its public infrastructure to accommodate this growth. Present plans are to invest about 38 billion yuan in new infrastructure during the 1996–2000 period (as compared to 62 billion yuan in regular budgetary expenditures over this same period). For a governmental unit with no significant direct borrowing powers, this is a remarkable target.

Fiscal Capacity and Fiscal Pressure

The city has no taxing authority beyond what it is given by the central government, is not able to adjust all user charges freely, and cannot undertake major borrowings for long-term capital projects. GM must rely on a combination of user charges, benefit charges, and privatization to mobilize resources for capital development. Those officials who plan infrastructure for the GM are implementing a sizeable program of public investment and are financing it with an innovative use of these revenue sources. Few cities in the world could have put together such a program, and fewer still could implement it and remain financially healthy.

On the other side of the coin, growth always brings new expenditure requirements with it. Where and when per capita income is rising, as it is in GM, citizens demand a better quality of public services to go with their new lifestyle. Because of the special problems that come with life in a large urban complex, these demands become even more complex and arguably more expensive, such as mass transit, garbage disposal, and public safety. Industry and commerce also require a more modern public infrastructure to be productive and competitive, and transition countries such as China always have a large backlog of unmet needs. GM faces all of these expenditure pressures, but because of its strong growth record, expectations are high. The question is whether in forming a capital spending program to respond to these pressures, the city could be placing itself in danger of becoming financially overextended.

The Structure of GM Financing

The municipality relies heavily on VAT and the business tax. In 1994, these taxes accounted for 82 percent of total government budgetary revenues. The remaining "local" taxes are a collection of smaller levies, but their rate and base
also are set by the central government. The largest of these is the urban construction and maintenance tax (UCMT), which is a 7 percent surcharge on VAT, business tax, and consumption tax liability of enterprises. It accounts for only 6 percent of total GM revenues. The enterprise income tax is quite a small source of revenue in Guangzhou; in fact, it does not yield enough to pay the subsidies to enterprises that incur refundable losses.

Budgetary expenditures are heavily concentrated in education, health, and culture facilities (17.7 percent), and subsidies to individuals and transfers to higher-level governments (30.7 percent). City maintenance, capital construction, enterprise transformation, and police and court expenditures together add up to about 25 percent of the total. Capital construction accounts for only 5 percent of budgetary expenditures, suggesting that most of the capital budget is outside the normal budgetary process.

The unique feature about GM (and about many large local governments in China) is its level of extrabudgetary revenues and expenditures (most of which are used for capital financing). Chinese local governments have taken a great deal of control over extrabudgetary revenues, in terms of how they are raised, how they are monitored, and how the proceeds may be used. Each city has its own approach to raising extrabudgetary resources, and Guangzhou has been especially aggressive in its approach.

There is no single, separate budget for extrabudgetary revenues and expenditures. In fact, GM officials likely do not know how much is actually raised by all departments in the city. The amounts that are known, however, are sizeable. In Guangzhou, the extrabudgetary revenues take three forms: user and benefit charges, land lease revenues, and privatization revenues. Eight examples of the use of these financing instruments are described below:

1. The public utility surcharge is collected at a rate of 8 percent of passenger fares on buses, taxis, ferries, and so on. Collection is by an office of the passenger transportation administration (Construction Committee). It is also collected at 8 percent against utility bills for electricity, and so forth. This is collected directly from the companies by the Finance Department.

2. The civil construction fee is 5 percent of "fixed asset investment," that is, at 5 percent of the "total investment value" of all new buildings. Some preparation costs (e.g., for roads, utilities, and so on) may be deducted from the base on which the tax is calculated. This tax is collected by the Construction Committee.

3. A transport surcharge is to be collected on each vehicle registered in Guangzhou, at the time of the annual licensing. In addition, a toll is pro-
posed on vehicles not registered in Guangzhou. This will be collected by the Construction Commission at toll booths set up at roads leading into the city. (Apparently there is a similar levy in Shanghai.) According to estimates, the transport surcharge could yield about 0.6 billion yuan during the 1996–2000 period.

4. The road surcharge is an extrabudgetary revenue earmarked for road construction. Originally, it was earmarked for retiring debt for building the road to the airport.

5. Bridge tolls are extrabudgetary revenues. All seven bridges are now (or will be) toll bridges.

6. The "drainage facility use fee" is paid only by enterprises. Government and residences are exempt from this tax. The Construction Committee, which collects this fee, estimates that potential revenues are 28–30 million yuan. Enterprises pay on a base of 80 percent of water used at a rate of 0.12 yuan per ton.

7. A taxi surcharge is based on 0.5 yuan per ride. A second taxi charge is for a taxi license. Both are collected by the Construction Commission and the first is earmarked to cover costs of the Metro Transit System.

8. The hotel surcharge is 5 percent of hotel bills, and it is earmarked for Metro construction. This tax was enacted in 1992 and is collected by the tax bureau.
CHAPTER 7

Next Steps in the Reform

The 1994 fiscal reform was the most important since 1983, and certainly the most comprehensive, in that it covered tax policy, tax administration, and revenue sharing in one package. But this reform left many problems unaddressed and it is in many ways a transition program. Fiscal reform in China always proceeds in increments. In this chapter, we describe the unfinished agenda of changes necessary if fiscal policy is to support the economic system reform fully. The following are priority areas for reform that the Chinese government should consider in its next rounds of fiscal reform.

- Define the proper role of the government sector and the enterprise sector and rearrange the present system of expenditure responsibilities to match these roles.
- Determine the division of expenditure responsibility between central and local governments that best fits the system reform, and reassign sufficient revenues to cover these responsibilities.
- Alter the tax structure to reach the yield and elasticity targets set by the central government.
- Define and implement a system of local taxation that has enough autonomy to make local government officials appropriately accountable to their constituents.
- Revise the system of revenue sharing to reflect the desired balance between equalization and incentives for increased revenue mobilization.
- Establish a capital financing facility for local governments that may include a local borrowing component.
Government and Enterprises

There remains a considerable ambiguity in China about the division of service provision responsibility between government and state-owned enterprises (SOEs). State enterprises continue to provide a wide range of government services, and government is still involved in a wide range of what are usually private-sector activities in Western economies.

In market economies, it is argued that resource allocation can be improved if government assumes responsibility for those services where the tests for public provision are met, that is, there are significant externalities, large fixed costs constrain competition in the private sector, important income-distribution concerns are present, or it is otherwise in the national interest to have the service provided by government. If services meet these "publicness" tests, but are still produced through the private sector, the efficient operation of the economy will be compromised:

- Services with positive spillovers will be underprovided and those with negative spillovers will be overprovided.
- Income redistribution services will be underprovided.
- Duplication in the provision of services by the government and enterprises will diminish efficiency and economy in government.

The enterprise sector in China has long provided a broad array of services that in Western countries would be provided by the government sector. In some cases, "the range of services provided is so broad that an SOE resembles a self-contained social community" (Wong, Heady, and Woo 1995, p. 151). Enterprises may provide clinics, kindergartens, transportation, income maintenance for the elderly, and many other quasi-public functions. The levels of expenditure involved can be quite significant. Recent studies suggest that enterprise-provided consumer goods account for between one-fourth and one-third of total personal income of SOE employees (Wong, Heady, and Woo 1995, p. 151). Housing subsidies have been estimated at about 4 percent of GNP or 16 percent of worker compensation (Wang 1991). Though in most cases these services are justified as indirect compensation for workers in the enterprise, they also have public benefits in that they reduce the public financing pressures on local governments. In addition, enterprises often construct and maintain infrastructure that benefits the general public.

One might argue that the distortions created by enterprise financing of these services are not all that unusual and possibly not all that problematic. Many services (day care, clinics, housing, recreation) primarily benefit employees of the enterprise and therefore are actually fringe benefits. Moreover, the provision of
infrastructure and social services by enterprises might be thought of as analogous to a local government contracting out for the delivery of certain services, and in fact, enterprises are compensated for the provision of some services. For example, enterprises that operate schools are exempt from the education surcharge. Finally, because local governments are restrained in their public-expenditure choices, the degree to which efficiency is compromised by private provision is unclear.

The continued provision of government services by enterprises however, creates special problems and concerns and raises some important policy questions:

- Does enterprise provision of such services justify a lower tax burden for SOEs? How much would taxes need to rise were local government to absorb these functions from SOEs?
- Are there technical efficiency losses associated with providing these services through SOEs? Could local governments provide the same services more efficiently because of economies of scale?
- Is a system fair in which employers of profitable SOEs receive these benefits at higher levels than employees of less-profitable enterprises or employees of the government?
- Is part of the cost of SOE-provided fringe benefits financed by government subsidies, and could this be justified?
- Should enterprise-provided fringe benefits be taxed as income to workers? If so, how can the monetary value of these benefits be measured, and should the same tax status be extended to benefits provided to government workers?

The reverse problem also exists in China: Government sometimes assumes what are private-sector responsibilities in market economies. Examples in China are well known: Local government subsidies cover enterprise losses; bank loans to enterprises are sometimes mandated by local governments; there is de facto profit sharing with local government through negotiation of preferential tax burdens with enterprises, and through collusion to transfer taxable revenues to extrabudgetary accounts; and some inputs (labor, capital, utilities) are provided at subsidized rates. The results of this misassignment are that some enterprises are given a competitive advantage over others, resources are misallocated, depending on how the relative price of capital and labor is affected by these government decisions, and incentives to profit making are dampened. This system encourages state enterprises to borrow more heavily than they otherwise would—because government intervenes to make credit available and because government bears a portion of the risk—thus fueling the overinvestment problem.

As the system reform proceeds in China and as the intergovernmental fiscal system matures, it will be essential to rationalize the responsibilities and fiscal
powers of the government and the enterprise sectors. The present system contributes to poor investment choices, a failure to develop the private enterprise system, significant inequities in services received by certain enterprise workers and a significant route to avoidance of the individual income tax.

Central and Subnational Governments

The division of powers and responsibilities between central and local government has long been a problem in China. The government has held to a very centralized and uniform fiscal system, but at the same time it has encouraged negotiation and has tolerated local government departures from this uniformity. The result has been that important benefits of centralization, macroeconomic control, and uniformity have not been captured. On the other hand, the benefits of decentralization—local choice of public service levels and taxation—also have not been captured because local governments have used their discretion with "back door" and ad hoc approaches. The result has been a continuous process of reform by the central government in trying to curb the excesses of this negotiated system, and inventiveness on the part of local governments in trying to beat the system. While the 1994 reform is a significant move in the direction of a transparent intergovernmental fiscal system, it does not have the characteristics of a stable system. It would be unrealistic to believe that local governments will not countermove and try to swing the balance of power back in their direction.

Revenue Assignment

China seems to be moving away from a pure revenue-sharing system and toward a combination of sharing and revenue assignment. But, as is always the case with fiscal reform in China, the movement is gradual and partial, and attended by significant experimentation. The 1994 reform took two major steps in clarifying the assignment of revenue responsibility. Revenues derived from the income and business taxes were assigned fully to provincial governments, and responsibility for administration of all local taxes was also assigned to the provincial governments. Revenues from VAT and responsibility for administration are now assigned to the central government. These are, generally, good choices in tax assignment (Bahl 1998; McLure 1987a). All power to define tax bases and set the tax rates, however, remains with the central government.

Value-Added Tax. The value-added tax in China, as in most countries in transition, is a central government tax meant to be levied in a uniform way. The government has decided that it will be a uniform, centrally administered tax, and few would disagree with this choice (McLure, Martinez-Vazquez, and Wallace, forthcoming).
Previously, subnational government control over the administration of value-added taxation provided an incentive for provincial governments to adopt revenue-protection policies that could harm the workings of the economy, and defeat the goal of uniformity.

The 1994 reform took a significant step toward making the VAT a nationally uniform levy. The central government assumed administrative control of the VAT. It should no longer be possible for local governments to use administrative discretion to protect local revenues, since local tax preferences as to a central government tax are presumably not possible to effect. Information is not available on the experience in the first years of the VAT reform, so we cannot say with certainty that centralization has completely removed local government influence from determination of the tax liability faced by enterprises. Officially, the ability to provide VAT rate reduction now requires central government approval, and administrative discretion now rests solely with the central tax service, which is more insulated from influence by the local enterprise owners. On the other hand, the same officers who administered the tax in the past remain in control.

The derivation-based revenue sharing of the VAT was left in place. Using a type of "hold harmless" formula (see Chapter 5), a significant portion of the VAT collected in the province is retained. And though this arrangement was declared a transition measure only, the revenue flow is important enough that it almost certainly will become institutionalized and serve as a basis for the next round of reform. This would probably be a mistake. Derivation sharing on VAT revenues leaves in place an incentive to adjust economic and tax policies to encourage local industry to "buy and produce locally." In China, these protectionist style industrial policies have taken the form of lower rates of VAT provided through special tax preferences or discretion in tax administration (IMF 1994). Moreover, provincial and local governments might use incentives to attract high value-added industries even though such industries do not match the comparative advantage of the region (Qiang 1995).

**Individual Income Tax.** Revenues from the individual income tax and administrative responsibility for this tax have been assigned to the subnational governments. This is in keeping with best principles of taxation. The burden of the individual income tax is mostly borne in the local area. There also are administrative efficiencies. The provincial and local governments and their tax administrations are most familiar with the economic situation of the local enterprises that withhold the tax, and collection rates are likely to be enhanced by local administration. A reasonable hypothesis is that the individual income tax is being groomed to become a major revenue source for Chinese provincial and local governments.

However, there are income-redistribution objectives for individual income
taxation that are not a proper responsibility of subnational governments. In its present form, the Chinese individual income tax structure is built around a highly progressive marginal rate structure and a very high exemption level. One might say that its present objective is primarily redistribution. How could China reconcile the income-distribution objective, which suggests centralization, with the proposal for provincial and local income taxes as a quasi user charge for local services provided?

The answer is that these goals for the income tax will not conflict if the proper tax structure is designed. There would seem to be two choices for tax structure open to the Chinese government for long-run reform of the individual income tax. One route is holding to the present system, whereby the central government determines the rate and base of the income tax and can introduce whatever degree of progressivity is desired. Presumably, all taxpayers would be subject to this same regime (though tax administration differences among provinces may lead to different effective rates). The threshold level of taxable income would be significantly lowered. In this scenario, the assignment of all revenues to the subnational governments on a derivation basis would serve the interpersonal income-distribution concerns of the central government. This approach fails in two ways. It is counterequalizing across regions, and it offers no local choice as to the level of the tax rate. A resident would pay the same income tax rate in Shanghai as in Yantai, even though the marginal cost of delivering local public services would be quite different.

The second route is for the subnational governments to be given some control over the income tax rate. This tax could work as follows: The tax base would be nationally uniform and defined by the central government. The central government would also prescribe a minimum and maximum rate, and local governments would be given discretion to choose from within this range. The central government would be responsible for collection. In this case, the efficiency test for a local tax is met, because the benefits of services received in the local area are financed with a tax whose burden is borne by residents of that local area. The income-distribution concern can be resolved by making use of a shared central-local base with provincial governments.

Enterprise Income Tax. The efficacy of subnational government income taxes on enterprises is more questionable. Under the new system in China, this is the centerpiece of provincial government revenues. Each province is entitled to keep collections arising within its boundaries. As the Chinese economy develops and enterprises begin to operate in many provinces, as comparative advantage tells us they will, the problem of allocating profits among the provinces will appear. The United States has learned well the great problems that come with trying to
prorate the net income of national companies across state boundaries (Fisher 1996; McLure 1981).

Other problems with a subnational government enterprise income tax are no less worrisome: The tax base (profits) is cyclically unstable, and provincial and local government revenues can be significantly affected by changes in central government tax or industrial policy. The enterprise income tax is a mainstay of the Chinese finance system, and this is not likely to change, even with the next round of reform. But, in the long run, it cannot be the primary source of income for local governments. Local industrial policy and enterprise income taxation are too closely intertwined, the profitability outlook for SOEs is guarded, and the tax administration is not yet up to the task of extensive coverage of the nonstate sector.

**Expenditure Assignment**

On paper, the assignment of expenditure responsibilities among central, provincial, and local governments is approximately correct. Functions with national benefits (e.g., defense) are central, those with regional benefits (e.g., hospitals, universities) are provincial, and services with local benefits (e.g., primary education, clinics) are assigned to municipalities and counties.

The problem that remains to be dealt with is the governments' failure to identify a proper correspondence between this division of expenditure responsibility and the division of revenues. While there was much discussion in the pre-reform period about the central government being "revenue starved," this presumed imbalance was not often discussed in terms of the gap between revenues and expenditure needs. It is therefore not clear whether the 1994 reform improved or worsened this fiscal balance. The 1994 reform was more focused on the revenue than the expenditure side. Even though the revenue balance was shifted dramatically toward the central government, no changes were made in the assignment of expenditure responsibility. This is a major reason why the 1994 reform may be unstable.

There is need for the government to focus more carefully on the measurement of expenditure needs at each level of government and to establish a financing system that will maintain a proper balance. The 1994 reform does not share revenue increases based on expenditure needs, and therefore it is not likely to improve fiscal balance.

**Tax Structure**

Though there were major changes in the tax structure in 1994, other rate and base changes are necessary. Whether these changes should be made, and when, depends on which of the goals of structural reform the government wishes to em-
phasize. Among the choices are to make one-time discretionary changes to increase the yield of the revenue system to achieve some new target level, to increase the built-in revenue–income elasticity so that government revenues will grow automatically at some predetermined (higher) rate, and to remove distortions that bias investment and production decisions in undesirable ways. The following would seem the most likely candidates for the next round of structural reform.

**Individual Income Tax**

The individual income tax can play a major role in the Chinese fiscal system, and quite possibly will some day become the principal source of revenue for local governments. The next step in Chinese tax reform will be to convert this tax from a negligible source of revenue to one that is a significant source of public financing.

The annual floor exemption level must be reduced from 9,600 yuan, which is equivalent to 211 percent of the national average wage, to a level that involves a greater proportion of the taxpaying population. The average annual wage of a worker in a state enterprise is 4,797 yuan, which would seem a more appropriate threshold level. A new, lower threshold level can be introduced in one of two ways: by not adjusting the exemption level for the effects of inflation in the coming years, or, by lowering the exemption level. The first is not feasible because of the time it would take for a significant portion of the labor force to be brought into the base. This means that a new income tax exemption level must be chosen, based on:

- the guaranteed subsistence level that the government chooses,
- the administrative capability to reach lower-income taxpayers,
- the extent to which user charges are adjusted to reflect real costs of subsistence (rent and utilities), and
- the results of wage reform.

Five other issues should be considered in structuring the individual income tax. First, the Chinese government might accept the proposition that for some period of time this will be primarily a payroll tax. Even with significant improvements in tax administration, the self-employed (small businesses) will be difficult to reach in China. Collection efforts will initially have to concentrate on employees in larger companies and in government.

Second, China might consider the merits of a flat-rate tax with little more than a standard exemption. This structure has the virtue of enabling the application of a single rate to all sources of income, and therefore even dividends and interest can be subject to final withholding. Moreover, a flat-rate tax is easier to index, and any deductions that are allowed will not provide greater benefits to higher income taxpayers.
Many will take issue with the proposal for a flat rate income tax for China. The basic argument against a flat tax is that the individual income tax is an important income-distribution instrument and requires a progressive rate structure. This is not a good argument for several reasons. For one thing the individual income tax is now a subnational government revenue source, and one of its primary objectives is the financing of locally provided services. If the authority to set the individual income tax rate is turned over fully to provincial and local governments, then it makes little sense to hold to income redistribution as a primary goal of the tax. Even if the central government retains control over the tax rate, the individual income tax is not a good instrument for redistributing income. One issue is that, with most of the self-employed not in the tax base, as almost certainly will be the case in China for some years to come, income-distribution objectives cannot be well served in any case. There also is the point that a flat-rate tax has a zero bracket and therefore does exhibit some degree of progressivity.

Third, the principle of final withholding should be followed, and final returns should not be necessary. This is a relatively simple matter in the case of a flat tax. Should a flat rate tax not be adopted, then a schedular system with a single rate for nonwage income is the next best system to support final withholdings.

Fourth, the tax should be designed to minimize the possibilities of avoidance. Few countries follow this dictum. This is so, because tax designers in their desire to be fair and to reward favorable actions by companies and individuals, and because politicians in their desire to reward special interest groups, often leave too many avenues open to avoid taxes legally by altering economic behavior. Sometimes the tax is designed with such complication that proper administration becomes very costly. China will face an especially difficult problem with avoidance, in part because the players, enterprises and individuals, have had a long experience with negotiated systems where ingenuity is rewarded with a lower tax burden. The problem of taxing fringe benefits will be especially difficult in China, because they constitute such an important part of compensation. To tax these benefits would impose a significant burden on workers and force up the wage, but not to impose the tax will be to encourage enterprises to substitute fringe benefits for wage compensation and thereby continuously erode the tax base. There are many ways the Chinese government can structure the tax so as to reduce the gains from tax avoidance and to discourage tax evasion. These measures include (1) keeping the top marginal rate low and thereby reducing the rewards of tax avoidance, (2) flattening the rate structure, thereby lessening the penalty for claiming income fully, (3) strengthening the administration (see Chapter 4), and (4) minimizing the number of exemptions and deductions used.

Finally, there is the goal of simplification. The government could keep the administrative cost and the compliance cost down by creating a simple income
Next Steps in the Reform

tax structure. China has the opportunity to avoid the problems of complication and special treatment that so many other countries have taken on. In the building of the individual income tax, there are a number of ways to reduce complexity:

1. Adopt a flat rate structure.
2. Limit personal deductions to a single standard deduction, irrespective of family size. China’s unique family planning policies of the past make this more fair than it would be in most countries, and it is difficult to police personal allowances in any case. There is the problem of the extended family, but one might argue that this is offset on the income side by the greater earning power of the family unit.
3. Allow no further deductions on the individual income tax. No matter how noble the cause of the proposed deduction, the central criterion is whether the tax administration can be sure that abuses will not outweigh legitimate claims.
4. Invest heavily in a modern individual income tax administration system and adopt the basic principles of administering a modern system (see Chapter 4).

Enterprise Income Tax

There are horizontal inequities in the enterprise income tax that distort economic decisions. The tax code still treats domestic enterprises differently from foreign-owned enterprises and joint ventures. The latter are taxed at significantly lower rates. Such distortions may channel funds away from domestic investment, for tax reasons rather than for reasons related to the intrinsic worth of the investment. Moreover, the differentially lower rate may not be necessary to attract foreign investment, because of the availability of tax credits in the home country and the relatively high rates of return in China. A full unification of the tax structure on foreign and domestic enterprises is an appropriate next step in the reform of the enterprise income tax.

A more difficult question is the treatment of labor and capital cost deductions. While depreciation rates are accelerated with the 1994 reform in China, they still do not catch up with capital consumption rates allowed in other countries. In addition, all interest expenses are not deductible (see Chapter 4). The net result of these provisions is that true profits are overstated and capital investment is discouraged. By contrast, for nonstate firms (and in a few other special cases), loan repayment is still treated as a deductible expense, thereby overstating capital costs and understating profits. Clearly, the government ought to remove these impediments to a proper declaration of capital costs. One hears much in China about the need to control overinvestment, but such ad hoc tax measures are not the way to do it. These tax preferences and penalties distort investment decisions
away from favorable investment choices as well as from unfavorable ones. The uniform accounting rules governing Chinese enterprises and the enterprise income tax should be based on proper depreciation rates, full deductibility of interest costs, and no deductibility of loan principal repayment.

The failure to allow for full deductibility of labor costs is a more defensible Chinese policy. Because there is no broad-based individual income tax, wages are fixed, and much compensation is received in the form of nontaxed fringe benefits, the wage paid to labor deviates significantly from its true market price. It would be difficult, at the present time, to make the argument that full labor-cost deductibility ought to be allowed on efficiency grounds. However, with the adoption of a broad-based individual income tax, and with wage and housing reform in the offing, the issue of labor cost deductibility will need to be rethought.

**Value-Added Tax**

The restructuring of the indirect tax system in China followed the best principles of public finance in that it moved the tax structure toward simplification and horizontal equity, and it may have achieved its goal of increasing the built-in revenue–income elasticity. In adopting a modern form of value-added tax as the centerpiece of its tax system, China has moved into the international mainstream of taxation.

There remain two important structural changes to consider for the value-added tax. The first is to allow full credit for taxes paid on capital inputs. Most countries in the world have adopted this feature as part of their value-added tax (Cnossen 1998a). The Chinese government has moved slowly, not allowing the capital goods credit because it would impose a significant revenue cost and because it would not dampen investment.

Are these good reasons to hold back on fully converting to a consumption VAT? The revenue constraint could be dealt with in some combination of three ways. Compensating revenue increases could be generated by bringing more of the services sector into the tax net through administrative improvements. The revenue cost could be softened by phasing in the capital purchases exemption, as has been done in several European countries. The tax rate could be increased. Though the latter is probably the most unpopular choice, the present Chinese VAT rate is not high by international standards, especially since China does not have a broad-based individual income tax.\(^4\)

The Chinese government frequently invokes its concern with overinvestment as a justification for tax structure changes. The fact that tax credit on capital input purchases is not allowed under the Chinese VAT does raise the relative price of capital and presumably discourages investment. But it discourages both desired and undesired forms of investment. It also places capital intensive firms in an unfavorable competitive position with respect to pricing their goods for
domestic consumption and in export markets, and it complicates administration because capital goods must be identified in order to determine true tax liability. Moreover, it is only one of a number of tax policies that affect the relative price of capital: some increasing it and some reducing it. There are better ways to deal with over-investment: make the general tax regime neutral with respect to the investment decision; adopt a more realistic approach to rationing credit for capital investments.

The other VAT reform measure to be considered is to bring the services sector more fully into the tax net. This would have considerable advantages: (1) the growing services sector can add significantly to the base elasticity of the VAT and this inclusion of services could lessen pressures for a rate increase, (2) credit could be allowed for taxes on a greater variety of overhead-type inputs thereby reducing horizontal inequalities in the VAT, (3) the pyramiding of taxes on service inputs as occurs under the present VAT-business tax would be eliminated, and (4) the distribution of VAT burdens among households at different income levels is likely to become more progressive. Taxing services in the VAT adds two major problems. One is the administrative difficulties of registering and assessing the small enterprises involved. The other is finding a suitable revenue replacement for the revenue loss to the local government business tax.

An appropriate indirect tax policy package for China might include the following:

- Absorb the service sector into the VAT on a selective basis, depending on administrative feasibility.
- Allow VAT credit for all inputs purchased from firms in the net.
- Subject smaller firms to a flat charge.
- Permit local governments to levy a benefit charge for local public services, along the lines of the present urban construction and maintenance tax (UCMT), which is based on VAT liability. Permit local governments to choose the rate of this charge, but not to allow it as a credit against VAT liability.

Subnational Taxing Powers

Provincial and local governments have no formal taxing powers in China. All rates and bases of major and minor taxes are centrally set. This gives the central government maximum control over the use of taxation in macroeconomic policy, and it gives the central government maximum control over the distribution of resources among provinces. On the other hand, it leaves local government with little direct control over the size of the local budget.

There is a compromise—tax base sharing—whereby local governments may
be given some fiscal autonomy without significantly reducing the control of the central government. Allowing local governments to set the tax rate within limits would have a number of advantages: It would let local residents decide on how much government they would like to have and how much they are willing to pay for; it would force local decision makers to be more accountable to local populations for how efficiently services are delivered; and it would give local governments an alternative to the “back door” approaches that have been used in lieu of formal taxation measures. It would be a reasonable first step toward passing significant taxing powers along to local governments.

Which taxes could best fall under this “tax base sharing” approach? The best candidate is the individual income tax. If the central government were to decide on a flat-rate tax, then the local surcharge could be a simple add-on to it. If the central government decides to stay with a progressive rate tax structure, then the local governments might better add a flat surcharge to tax liability. Either way, the local government tax should be viewed as a charge for urban services and not be confused with the income-redistribution objectives of the central government.

A second possibility is to piggyback on the value-added tax. Subnational governments could be given authority to add on to the present UCMT rate, up to some maximum rate. The present UCMT is an ad valorem levy on either VAT or business tax liability that varies from 1 to 5 percent, and revenues are fully retained by the local governments. An additional, optional amount on this surrate (say up to 10 percent of total VAT or business tax liability) could be quite revenue productive. This also would be a user charge for local services, that is, it is consistent with the argument that enterprises benefit from local public services approximately in proportion to their labor and capital expenditures and their profits. This surtax would not be a part of the VAT regime, in that it would not be allowed as a credit. Therefore, it would not compromise the VAT liability of enterprises, nor would it compromise VAT administration.

There are disadvantages to the VAT surcharge. It is a less efficient alternative than the piggyback on the individual income tax, because part of the burden of the VAT is exported to residents of other regions. The collection machinery is in place for the tax, but this also is problematic. If the tax is collected along with the VAT, which seems appropriate, then the central government tax authority will be collecting a surtax whose revenues accrue fully to the local governments. There is little incentive for the central government tax service to maximize collection efficiency under such an arrangement. The fear on the part of provincial governments would be that any undercollection of VAT would be passed on fully to the local governments. The surtax could be collected by the local government to get around this problem, and this would fit the current practice followed in some provinces where local governments already collect the UMCT, but this suggests a costly duplication.
The business tax, already a local government revenue, could be viewed as a charge to businesses for local services delivered. It could be subjected to a higher rate, at the discretion of subnational governments. Because most of the businesses covered by this tax are local traders and service providers, this levy could approximately pass the local burden test. A collection machinery is in place, and enterprises have accepted this levy.

The property tax is a good candidate for differential local rates. The Chinese version of the property tax (a per square meter charge) is meant to reflect differences in land values, which in turn may reflect differences in the quality and quantity of public services provided. To date, the tax is structured so that local government may set rate differentials within cities. The national government sets the overall rate level, and so there is no local government discretion that leads to rate differentials among urban areas. But surely such differentials do exist, because the cost of providing services and location benefits differ from city to city. Local governments can do a better job of identifying appropriate rate levels than can the central government. The result of allowing differential local rates almost certainly would be a higher cost of doing business in areas where services are more advanced and in more urbanized areas. This is exactly the kind of allocative effect one would hope to achieve with the property tax.

**Goals of Revenue Sharing**

The 1994 reform changed the Chinese revenue-sharing system significantly. The main goal of the reform was to recentralize the fiscal system, that is, to bring the level and division of revenues back under central control. The changes introduced have already begun to achieve that recentralization. By 1995, the central government’s share of total revenue collections was up to 67 percent (compared to 39 percent in 1992). If one believes in “flypaper effects” (money sticks where it hits), then it seems clear that the provincial governments lost considerable leverage over the fiscal system as a result of the 1994 changes. Clearly, the short-run impact has been a step back from subnational government fiscal autonomy. The “back door” was closed, and the front door was not opened.

Paradoxically, the 1994 reform sets the stage for a more workable fiscal decentralization. Revenues are now clearly assigned, much of the informal and negotiated approach to gaining local discretion over budgetary resources has been cut off or made unnecessary, and each level of government now collects its own taxes. The central government is now in a position to define a revenue-sharing system that is more transparent and to give increased fiscal autonomy to local governments.

There is no one best system of revenue sharing. What is best depends on what the government wants most to achieve. But getting a clear statement of the goals
is no easy task in China. The many participants in the intergovernmental fiscal system often have quite different objectives. For example, proponents of maintaining maximum flexibility to pursue national economic policy will almost certainly want a highly centralized and not very transparent system, while those who push for more local autonomy will be looking for a more transparent system. And, it is almost certain that the central and local government sectors will disagree strenuously about how the revenue-sharing system should be structured. It is politically easier to leave the objectives unstated, so as not to provoke open debate, but this also creates problems because there are no clearly prioritized guiding principles.

Chinese policy could be well served if it focused on the following issues in establishing priorities for reforming the revenue-sharing system:

- **Equalization.** Many feel that the disparities in standards of living among the Chinese provinces are a threat to continued economic development, and that a reduction in these disparities is necessary to retain a consensus for the government’s economic programs.

- **Incentives for Resource Mobilization.** A major problem confronting fiscal health in China is that the share of government revenue in total output is too small and is not growing adequately.

- **Macroeconomic Control.** With a high degree of political sensitivity to inflation, and with local government being an important albeit indirect contributor to the consolidated budget deficit, it is crucial that the central government maintain a high degree of control over the fiscal system.

- **Transparency.** If “back door” approaches to fiscal policy are to be eliminated, then it is necessary that the fiscal system be transparent. Both central and local governments should know the rules and understand their responsibilities and entitlements.

### Equalization: A Proposed Revenue-Sharing System

Fiscal capacity disparities in China can be reduced with an intergovernmental transfer program that places more emphasis on equalization. The 1994 fiscal reform does not have a strong, equalizing component. Equalization is achieved primarily though the transitional, hold-harmless feature built into the 1994 reform. This is not a sustainable element of the revenue-sharing system.

Nor does income tax assignment to local governments reduce the revenue gap between rich and poor provinces, for two reasons. First, taxable capacity is greater in rich than poor provinces. Second, the tax administration capacity is stronger in higher-income provinces. The sharing of VAT on a derivation basis is counter-
equalizing for the same reasons. The assignment of other fixed local taxes on a
derivation basis also accentuates disparities, because revenue from these taxes
depends on fiscal capacity and tax administration efficiency. The present ear­
marked grant system does not offset the advantages that derivation-based tax
sharing gives to the richer places. In fact, earmarked grants in the pre-reform
period were distributed in a way that favored higher income provinces.

Almost any scenario for intergovernmental fiscal reform in China requires an
equalizing grant system. Certainly, the transitional, hold-harmless system must
be replaced. If the proposal made above for local government taxing power is
accepted, then the case for an equalizing grant system is even greater. The ques­
tion is how such a system is designed. The answer is that one must begin with a
clear statement of the goals for the new system, that is, equalization, revenue
mobilization, local government accountability, and the rest, and let the goals lead
the design.9

There are choices and constraints in building an equalizing grants system. The
two major features that define such a system are the way in which the total
grant pool is determined, and the way in which this total is distributed among the
provinces (see Appendix 5.2). The Chinese government must systematically evalu­
ate the alternative approaches to structuring both of these dimensions of the grant
system.

An Equalizing Grant System

With respect to the sharing pool, let us assume that the principal goal is to allo­
cate enough revenue to the provincial governments to ensure adequate financing
of expenditure needs, and to allow the subnational governments to share in the
revenue buoyancy of the central tax system. The best way to meet this goal would
be to allocate a fixed proportion of the VAT (or of all central government rev­
enues) to the subnational governments. The growth in revenues from VAT should
provide a relatively stable source of income. The downside of a revenue-sharing
pool based on VAT revenues is that it denies the central government some sig­
nificant amount of revenue growth, and it could compromise central macroeco­
nomic policy by reducing the center’s control over total spending. And, as the
central government adjusts the VAT rates and base, the sharing pool will be af­
fected.

On the question of the distribution of this total grant fund among provincial
governments, equalization can best be satisfied by a formula-based approach. The
use of a formula also satisfies the requirement that the grant system be trans­
parent.

We have developed a simulation of the possible impact of such a system; it is
meant to show the outcomes had such a grant program actually been in existence
in 1995. This hypothetical grant system has two components: a formula-based equalization grant (with the total grant pool equal in amount to 25 percent of VAT and consumption tax in the penultimate year), and a supplementary equalization grant adequate in amount to restore all low-income provinces to 1995 levels of spending. High-income provinces will be allowed to tax themselves to achieve higher levels of spending (or to forgo the taxes if they choose to spend less). We define a “low income” province as one with a per capita income less than the national average provincial per capita income in 1994. The rules of this grant-distribution system are as follows:

- The sharing pool for the basic grant for 1995 is 25 percent of the total revenues collected from the VAT and consumption taxes in 1994. It is not uncommon to use the penultimate year in such formulas to eliminate the need to base grant distributions on estimated revenue yields.\(^{10}\)
- The allocation formula for the grant funds has two equally weighted components: population and the inverse of per capita income. The latter ensures that lower-income provinces receive a proportionately larger per capita amount of transfers.
- A supplementary, equalizing grant is added to the basic formula grant to cover any shortfalls between 1995 actual expenditures and the sum of regular revenues and the hypothetical basic grant. The rules for the supplementary program are the following: first, provide a per capita grant sufficient in amount to fill the gap for all provinces with per capita GDP below the national average. Second, for those provinces with above-average incomes, permit a surcharge on income tax liability with a maximum rate of 30 percent, and then cover any remaining gap with a general grant.
- The three city-provinces would not be eligible for the supplementary grant program and would be permitted to exceed the 30 percent income tax surcharge.

The results of the simulation are shown in Table 7.1, hypothetically for 1995. Zhejiang, for example, would receive a per capita basic grant of 45 yuan (column 3). If this formula had been in effect in 1995, the basic grant would have covered only about 11 percent of per capita total expenditures in Zhejiang. The gap between 417 yuan in actual per capita expenditures (column 1), and the sum of 270 yuan in local revenue (column 2) plus 45 yuan in basic grants (column 3), is 102 yuan per person. This financing gap is filled by (an optional) tax surcharge of 81 yuan per person (column 5), equivalent to 30 percent of local taxes collected in 1995 (column 6). The remainder of the gap is filled by a supplementary grant of 21 yuan per person (column 4). By contrast, Henan Province has a below-
### Table 7.1. Revenue Sharing Under a Formula Grant Including Population and Per Capita Income: 1995

<table>
<thead>
<tr>
<th>Province</th>
<th>Expenditures (1)</th>
<th>Budgetary collections (2)</th>
<th>Basic grant (3)</th>
<th>Supplementary grant (4)</th>
<th>Local tax surcharge (5)</th>
<th>Rate of local income tax surcharge (%) (6)</th>
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<td>230</td>
<td>92</td>
<td>258</td>
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</tbody>
</table>

*Tibet and Hainan are excluded.*
average income and therefore would receive a per capita basic and supplementary grant equal to its per capita financing gap of 91 yuan (column 3 plus column 4), and would not be asked to impose a special tax.

Note that a financing gap exists for all but one province (Ningxia). The simple correlation coefficient between the per capita gap and per capita GDP (−0.61) shows that the financing gap is greater for lower-income provinces, even though the inverse per capita GDP is included in the formula.

The net result of this hypothetical formula grant program, the basic grant and the supplementary component, may be summarized with the following stylized facts:

1. Provinces would spend at the 1995 levels shown in column (1) of Table 7.1.
2. In order to maintain this level of spending, local governments in eight provinces would need to impose a special surtax on local government tax liability as shown in columns (5) and (6) of Table 7.1.
3. This program would have cost the central government a total of about 142 billion yuan, had it been in existence. In 1995, the central government actually transferred 180 billion yuan to the local governments to cover their deficits. The difference represents the increased local government taxation of 38 billion yuan, which would have raised the ratio of tax revenue to GDP from 10.54 percent to 11.27 percent in 1995.
4. This program is equalizing. It shows a simple correlation of −0.4163 between the sum of per capita basic and supplementary grants and per capita income.

**Inclusion of a Tax-Effort Feature**

One problem with this structure is that it does not provide a stimulus for increased revenue mobilization. For example, a low- to middle-income province could reduce its level of income tax effort, and in the following year receive a larger amount of additional aid to fill the gap. Indeed, under this scheme, provinces with low incomes can actually reduce their tax effort and have the difference picked up by the central government as a kind of deficit grant. Conversely, there is no “reward” for local governments whose expenditures are higher because they mobilize more resources through a greater tax effort. Their only inducement is that local revenue mobilization is required to maintain 1995 expenditure levels.

To remedy the tax-effort problem, we have adjusted the basic revenue-sharing formula so that 40 percent is allocated by population, 40 percent by the inverse of per capita GDP, and 20 percent by tax effort. The total amount
distributed by this formula is set at 180 billion yuan, that is, the total amount of the allocation made in 1995 under the equalization grant described above. There is no supplementary grant.

The results of this allocation are presented in Table 7.2. The outcomes of this simulation may be read from the table, just as in the case of the formula grant presented above. Columns (1) and (2) are the same as Table 7.1. Column (3) shows the amount that would be allocated under the formula that included tax effort. Column (4) shows the per capita financing gap implied, that is, the amount each province would need to cover 1995 expenditures. Columns (5) and (6) express this gap, respectively, as a percentage of provincial GDP and provincial income tax collections. The latter suggests the income tax surrate necessary to cover the gap.

This simulation suggests that a tax-effort feature in the grant system would lead to a small shift in resources toward those provinces that exert a stronger tax effort. Some of these are the high-income provinces. Whereas under the population–income allocation, the five highest-income provinces received 5.98 percent of total grants, under the formula that includes tax-effort, they receive 6.81 percent. At the margin, however, the rewards for increased tax effort are not great under this program. For example, if Anhui Province raised its tax-effort index from 0.93 (7 percent below the national average) to 1.00, and if all else remained constant, its grants would rise by 87.8 million yuan. That is, for every 1,000 yuan in increased tax collections, 139.16 yuan in increased grants would be received. At tax-effort weights of 50 and 100 percent in the formula, the grant reward for a 1,000 yuan increase in taxes rises to 347.89 and 695.78 yuan respectively. What we might conclude is this. Because the variation in tax effort is relatively small, and because the total amount of the grant pool is not great, even large weights on the tax-effort component will not provide a great inducement to increase taxes. Still, there would be some increase in tax effort. If every provincial government did cover its remaining fiscal gap by increased taxes, there would be an overall increase in taxes of 110 billion yuan. Under this scheme, the tax share of GDP would be 12.82 percent, an increase of 1.93 percent of GDP over the actual, observed ratio in 1995. This increased revenue mobilization would bring China to the international average level of taxation.

The question is whether increased revenue mobilization would be worth the equalization cost. This scheme illustrates the significant trade-off between the equalization features of the grant system and the degree to which revenue mobilization is induced. In Figure 7.1, we have indexed equalization on the vertical axis, as the simple correlation coefficient between per capita income and per capita grants as simulated under this grant program. On the horizontal axis, we show the percentage of total grants allocated according to tax effort (the remainder
### Fiscal Policy in China

#### Table 7.2. Revenue Sharing Under a Formula Grant Including Population, Per Capita Income and Tax Effort: 1995

<table>
<thead>
<tr>
<th>Province</th>
<th>Expenditures (billion yuan)</th>
<th>Budgetary collections (2)</th>
<th>Basic grant (3)</th>
<th>Per capita gap (4)</th>
<th>Gap as % of GDP (5)</th>
<th>Gap as % of tax collections (6)</th>
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<td>Beijing</td>
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<td>921</td>
<td>245</td>
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<tr>
<td>Sichuan</td>
<td>245</td>
<td>148</td>
<td>104</td>
<td>-6</td>
<td>-0.24</td>
<td>-4.03</td>
</tr>
<tr>
<td>Guizhou</td>
<td>243</td>
<td>104</td>
<td>258</td>
<td>-119</td>
<td>-7.65</td>
<td>-113.84</td>
</tr>
<tr>
<td>Yunnan</td>
<td>589</td>
<td>246</td>
<td>196</td>
<td>146</td>
<td>5.87</td>
<td>59.34</td>
</tr>
<tr>
<td>Sha'Anxi</td>
<td>292</td>
<td>146</td>
<td>211</td>
<td>-64</td>
<td>-2.75</td>
<td>-44.10</td>
</tr>
<tr>
<td>Gansu</td>
<td>334</td>
<td>139</td>
<td>302</td>
<td>-107</td>
<td>-5.57</td>
<td>-77.09</td>
</tr>
<tr>
<td>Qinghai</td>
<td>599</td>
<td>179</td>
<td>899</td>
<td>-487</td>
<td>-16.44</td>
<td>-267.69</td>
</tr>
<tr>
<td>Ningxia</td>
<td>448</td>
<td>175</td>
<td>938</td>
<td>-665</td>
<td>-25.71</td>
<td>-379.77</td>
</tr>
<tr>
<td>Xinjiang</td>
<td>580</td>
<td>230</td>
<td>250</td>
<td>100</td>
<td>2.52</td>
<td>43.28</td>
</tr>
</tbody>
</table>

Total (billion yuan) 475 | 295 | 180 | 0 | 0.00 | 0.00

*a 40 percent on population, 40 percent on inverse per capita income, and 20 percent on tax effort.

*b Tibet and Hainan are excluded.
is divided equally according to population and inverse per capita income). The negative slope on the relationship confirms this trade-off; as the tax-effort weight in the basic formula increases, the equalization index falls.

Next Steps in a Fiscal Program for China

China is far from being finished with fiscal reform. When the next round of reform is introduced, the government will build on what was learned from the 1994 reform and will be guided by the goals of the continued economic restructuring. The following are fiscal adjustments that could well serve Chinese economic policy:

1. Absorb all quasi-government services from enterprises and eliminate explicit and implicit subsidies (including loan guarantees) to enterprises.
2. Determine the division of expenditure responsibility between central and local governments that best fits the system reform, and reassign revenues sufficient to cover these responsibilities. Begin the process with the expenditure-assignment question.
3. Allow subnational governments significant autonomy in determining their rates of personal income tax. The base should be determined by the central government, with a piggyback option for the lower-level governments.
Fiscal Policy in China

4. Allow provincial and local governments discretion in setting the level of user charges, particularly in urban areas.

5. Develop the land use tax as a more important revenue source for local governments, and give local governments total discretion in choosing the rate of tax.

6. Alter the tax structure to reach the yield, elasticity, and burden targets set by the central government.
   (a) Adopt a flat-rate individual income tax with a broad coverage and with few if any deductions.
   (b) Allow all costs of doing business as deductions under the enterprise income tax and liberalize the depreciation allowance.
   (c) Do not differentiate in the tax treatment of foreign and domestic corporations.
   (d) Move to a consumption-version of VAT by allowing full credit for taxes paid on capital expenditures.
   (e) Bring the services sector more fully into the VAT net.

7. Revise the system of revenue sharing to reflect the desired balance between equalization and incentives for increased revenue mobilization.
   (a) As local income tax and user charge powers are established, derivation-based tax sharing should be phased out.
   (b) VAT revenues should be dedicated to the central government, but a portion should be earmarked for revenue sharing.
   (c) The principal revenue-sharing instrument should be a transparent, formula-driven grant.
   (d) Higher-income local governments should be required to match some portion of grants from the center.
   (e) A transparent equalization feature needs to be built into the intergovernmental transfer system, but this equalization feature needs to be aimed at a target level of equalization and a targeted balance between equalization and the stimulation of tax effort.

8. Establish a modern fiscal information system to track the fiscal performance of the subnational governments.

9. Invest heavily in the modernization of the tax administration system. China is a little more than one decade removed from a profit-remittance and turnover-tax system, and much of the learning necessary for a tax system to succeed has now occurred. A modern structure of VAT and income taxation are now emerging, and the government needs to accelerate the pace of modernization of the tax administration. It is necessary to upgrade procedures, but more urgently to adopt appropriate computerization technologies; this should be the highest priority of the government. Few courses of action available to government can offer such a return.
10. On the size of government in China, a reasonable conclusion is that it needs to increase to some extent. An increase of 1 to 2 percent of GDP would bring China up to international standards. A greater increase would be required to erase some important public service deficiencies. Revenues will not automatically grow to cover the gap, hence a one-time revenue-increasing program will be necessary. China needs a tax reform program that will ratchet revenues up to a higher level and will also give the revenue system its target elasticity. There are many possibilities for base broadening and rate increases that will produce this effect.

What we have learned in this study of Chinese fiscal policy is that nearly all mistakes can be covered by a strong economy, and that a strong economy can buy the time necessary for the transition to a more market-based fiscal system to succeed. In the former Soviet states, the fiscal system transition occurred while real output was falling, and the results have been problematic. China is simply on a different path.

Chinese fiscal policy from the transition to 1994 has included the violation of just about every principle of “good tax policy.” Taxes were negotiated, the intergovernmental fiscal system was anything but transparent, the revenue system had a very low elasticity, tax administration had been weak and enforcement uneven, local government built up extrabudgetary accounts, while the central government looked the other way, and regional disparities grew. But these problems did not stymie strong economic growth during this period; real revenues grew and fiscal deficits remained small. Unlike the former Soviet states, which adopted full-blown Western systems early in their transition, the Chinese have taken their time.14

The time has come for China to take the next step in developing its fiscal system and to remove some of the anomalies that remain. As the economy now privatizes at a greater rate, transparency and the removal of discriminatory practices will need to replace the remaining negotiation and ad hoc taxing arrangements; assignment of expenditures will need to be rationalized; the revenue-sharing system will need to be altered to recognize regional disparities in the revenue raising capacity of local governments; local governments will need to be given some capacity to finance their own services, and to be accountable for what they finance; and the tax administration will need to be up to the task of implementing a modern fiscal system.
Chapter 1

1. Throughout this book, the term "subnational governments" or "local government" will be used to refer generally to all governments below the central level. When the discussion turns to particular levels of subnational government, the terms "province," "prefecture," county, city, township, etc., will be used.

Chapter 2

1. In a recent *World Economic Outlook* (IMF 1997a, annex A), the IMF estimates world growth in real output to be about 4.2 percent in 1997, while that in China is estimated at about 9.5 percent.

2. It is interesting to note that over roughly this same period, the average tax ratio increased in both developing and industrialized countries. Using the IMF *Government Finance Statistics Yearbook*, and 1993–94 rather than 1983–84 as a reference period, we calculated the ratio of taxes to GDP for all countries where comparable data were available. The sample included 20 industrialized countries and 56 developing countries. The median tax ratio rose from 29.6 to 31.8 percent in the industrialized countries over this period, and from 17.1 to 19.4 in the developing countries.

3. Estimated from a linear regression of tax revenues on GDP with both variables expressed in logarithms. Technically, this is a *buoyancy* rather than an *elasticity* coefficient because no adjustments have been made for discretionary changes. See Goode (1984), pp. 92–95. It is virtually impossible to get a true estimate of the built-in elasticity of any tax in a transition country like China, where not only tax rates and bases are changing but where administrative practices are regularly adjusted. We use the term "elasticity" throughout this book to refer to the ratio of the percentage change in revenues to the percentage change in income net of all discretionary changes. The same ratio calculated without removing discretionary changes is referred to as the "buoyancy."

4. Revenues were abnormally high in 1993 as local governments redoubled collection efforts and encouraged prepayments in order to inflate their revenue base for the new revenue-sharing formula. This is also reflected in the abnormally low level of budgetary collections in 1994.

5. Various analysts estimate the tax ratio to be higher by 1 to 2 percent of GNP, depend-
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1. For a description of the contract system, see World Bank (1990, annex 2) and Koo, Li, and Peng (1993).
2. Central government approval was not required, nor were the local governments required to report the details of contracts to the center.
3. Wong, Heady, and Woo (1995, p. 141) point out two major differences between the contract system and the profit-remittance system: The contract system allows the enterprise to retain a significantly greater share of profits and it involves a multiyear commitment by the government.
5. While the scale of contracting in China is unique—it effectively replaced the income tax on state-owned enterprises—the concept is not so unusual. This is not so different from the approach to industrial competition taken by states in the United States. There, states will often agree with particular companies to a contract package that includes tax relief, construction of factories, preferential land prices, infrastructure provision,
Notes

and in some cases, even tax-relief guarantees to repay enterprise debt (Meyer and Oshiro 1996; Wasylenko 1997). The incentives are often tailored to meet the needs of individual firms.

6. A typical contract might have an SOE paying the normal 55 percent rate up to a maximum level. Above this level, a much lower marginal rate would become effective. Remembering that the revenue-income elasticity (\( \eta \)) may be calculated as \( \eta = \frac{MTR}{ATR} \), it is obvious that this type of contracting arrangement will lead to a low elasticity.

7. Cnossen (1996) reports that statutory corporate tax rates for 21 industrial countries vary between 28 percent and 56 percent around a median of 36 percent.


9. There are some minor differences between SOEs and other enterprises in the definition of the tax base.

10. Preferential treatment also can be given to enterprises in minority areas.

11. The marginal tax rate schedule for domestic enterprises is as follows:

<table>
<thead>
<tr>
<th>INCOME</th>
<th>MARGINAL TAX RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 30,000 yuan</td>
<td>18 percent</td>
</tr>
<tr>
<td>Next 70,000 yuan</td>
<td>27 percent</td>
</tr>
<tr>
<td>Over 100,000 yuan</td>
<td>33 percent</td>
</tr>
</tbody>
</table>

The two lower rates are temporary and will be phased out. For joint ventures and foreign-owned enterprises, the tax rate is 33 percent. Of this, 30 percent is for the central government and 3 percent a local government surcharge. The tax rate in the special economic zones is 15 percent.

12. The energy and transportation fund contribution and the budgetary-adjustment fund contribution are still paid by collectives and private enterprises. These taxes were continued on collectives and private firms in order to lower the overall revenue cost of the reform, while giving SOEs immediate tax burden relief. The construction tax is still levied on certain types of extrabudgetary construction at rates varying from 5 percent to 30 percent. Revenues collected are assigned to the subnational government.

13. During 1992, the Ministry of Finance adopted accounting regulations that were designed to standardize accounting practices and bring them into closer conformity with Western financial reporting (Winkle, Huss, and Xi-Zhu 1994). These regulations are the beginning of what will eventually become a complete code of financial reporting practices for Chinese enterprises. Eventually, these uniform accounting practices will lower the cost of tax compliance by enterprises, and will lower the cost of assessment and administration by the local and central tax authorities. But while the accounting regulations issued to date govern the operation of enterprises, they are not used to define taxable income.

14. For more descriptions of the development of sales taxes in China, see World Bank (1990), pp. 28–34.

15. Sharing of indirect taxes on a derivation basis means that the amount retained by a province depends on the amount collected in that province. There are many exceptions, exemptions, and special rules, particularly related to VAT sharing, and these are covered below and in Chapter 5.
16. Six major classes of manufactured products subject to product tax were liquor, cigarettes, agriculture products, and chemical, electrical, and rubber goods production.

17. Presumptive crediting leads to such a subjective determination of tax liability that it is probably closer to correct to say that the Chinese VAT was really a form of turnover tax.

18. This share of GDP is not low by comparison with value-added tax practices in central European countries. Cnossen's (1998b) study of nine countries in the mid-1990s suggests a median of 8.3 percent and a range from 10.1 percent (Estonia) to 5.7 percent (Romania).


20. Arguably, the best analysis of the 1994 reform is in the work of Xu Shan Da. His papers laid out the objectives of the reform and provided a clear view of the intent of each piece of the comprehensive program. See Xu 1995; Xu and Lin 1995; and Xu et al. 1993. See also State Tax Bureau (1992). The World Bank work on public finance in China, led by Christine Wallich in the late 1980s, also played an important role. Some of the basic ideas in her report (World Bank 1990) were modified by the Chinese and became part of the reform program.

21. Some special tax policies were put in place during the transition period, and these are revenue dampening. Credit on indirect taxes on existing inventory will be allowed over a five-year period, and 10 percent of transportation costs will be creditable against VAT liability (even though transportation is subject to the business tax). Xu (1995, p. 17) estimates that these two factors result in a reduction of the effective indirect tax rate from 6.93 percent to 5.59 percent.

22. One would expect the revenue responsiveness of the tax system to GNP to be higher in the reform year, because of the discretionary rate and base changes taking place. In fact, in the reform year (1994–1995), each 1 percent increase in GDP was associated with a 0.88 percent increase in tax revenue (compared to 0.53 in the pre-reform period). The elasticity was even higher in the post-reform period, because of some combination of the higher built-in elasticity of the new structure and the improving administration of the new tax system in the second year of its operation.

23. There also was a compensating reduction in the VAT rate on natural resources from 17 percent to 13 percent.

24. If enterprise income tax revenues were restored to 1987 levels, relative to GNP, total government tax revenues would have been about 22 percent higher in 1992.

25. Xu (1995, p. 5) argues that the 17 percent rate of China's VAT is roughly equivalent to the high-end rates in European countries that use a consumption form of VAT.

26. Some of the simplifications enacted in 1994 have not yet taken place. The securities exchange tax, and the inheritance and gift tax are not levied; and the urban real estate tax and the vehicle license tax have not been abolished. Also, some items that were subject to product tax were not merged into the VAT, but are subject to the agriculture and forestry tax. Presumably, these are all transition measures.

27. SAT officials in Yunnan Province commented on the ease with which the switch to the credit-invoice method of assessment was made. They attributed this to several training classes for officials and the strict regulations for the use of invoices. The
enterprise accountants were required to attend two classes and were given an examination on the new system, that is, on how to calculate the tax and how to provide the necessary supporting documents (Bahl and Wallace 1995).

28. It is not possible to assess the administrative readiness in all of China, but clearly there was significant preparation in some provinces. See note 26 for examples. Beijing City also reports an aggressive program of organizing for the transition to the credit-invoice method. This featured 1,500 training courses held for SAT staff beginning in late 1993, and about 4,000 training classes for accountants of enterprises. All told, 63,000 people were involved. The SAT ran newspaper advertisements and opened a telephone line to answer questions. More than 140,000 enterprises were registered for the new system.

29. One could also argue that fringe benefits are partly if not wholly capitalized into lower wages.

30. Examples are the Netherlands, Belgium, and Hungary. The Federal Republic of Germany allowed the credit but imposed a special investment tax that was eventually phased out.

Chapter 4

1. According to LTB officials in Beijing, the new system performed quite well during its first year of operation (Bahl and Wallace 1995). There was a significant increase in local tax revenue. The reason cited is that the city now has more incentive to urge its tax bureau to increase the rate of compliance on local taxes. It was argued (by local officials) that the SAT had not really directed a great effort toward collecting the local taxes, because the revenue amounts were so small relative to the major levies, and because in any case, the revenues would not accrue to the central government. Some anecdotal evidence was given by Beijing LTB officials to indicate the degree of increase in compliance, but no hard evidence was available to assess revenue impact. Beijing officials reported that, (1) in late 1994, 20 million yuan in back taxes was collected; and (2) collections from the individual income tax in the third quarter of 1994 were 52 million yuan, compared to 70 million yuan in the preceding 6 months (Bahl and Wallace 1995).

2. The central government has responsibility for collecting income taxes from centrally owned enterprises.


5. Even in the period before the 1985 reform, tax evasion was rampant. Bachman (1983) reports that over 40 percent of all Shanghai enterprises evaded taxes. In a survey of 10 provinces in the early 1980s, it was found that 47 percent of state-owned enterprises and 63 percent of supply and marketing cooperatives had violated the tax rules.

Chapter 5

1. In describing the operation of the existing past system, I draw heavily on my earlier work on this subject in Bahl and Wallich (1992), and Bahl (forthcoming). The best work on this subject in recent years is that of Bert Hofman of the World Bank. Much of his original contribution is contained in World Bank reports, and it has become a
Notes


2. These descriptions are drawn from fieldwork interviews carried out by the author over a period of years and reported on in World Bank (1993) and State Statistical Bureau (1991–97). For an especially good description of expenditure responsibilities in China, and the budget structure, see the annexes to World Bank (1993).

3. The consolidated budget of the province does not reach below the city, county, and prefecture level. A good discussion of the legal and institutional framework for the Chinese budget may be found in World Bank (1993, annexes 2.1 and 2.2).

4. This applies to regular staff. Subnational governments may employ significant numbers of temporary workers, who are not covered by these mandates.

5. The detail on the proportion of each tax that is shared, central, or local is provided for 1987 and 1988 in World Bank (1990, tables 3 and 4).

6. Revenues collected from banks and insurance companies go directly to the province based on ownership. The remainder is distributed according to point of collection.

7. The province may choose the rate within this range. In urban Yunnan, for example, it is 10 percent, and in the remainder of the province, it is 5 percent.

8. The land use tax is discussed in more detail in Chapter 6. See Bahl and Zhang (1989).

9. This historical growth pattern includes VAT and product tax collections. Presumably, the growth rate will be lower in the post-reform period when these are counted as central government revenues.


11. The amount of transfer back to the province under the new revenue-sharing arrangement would depend in part on the base level of expenditures in 1993. Local governments then rushed to increase spending levels for the base year.


13. A system of informal (negotiated) transfers also exists outside the formal revenue-sharing system. Not much is known about the magnitude of these transfers, but some analysts suspect that they are significant in size.

14. This description is elaborated in Qiang (1993).


16. This is discussed in some detail in World Bank (1993, pp. 211–12).

17. The elasticities were estimated from a linear regression of budgetary tax collections on GNP, with both variables expressed in logarithms, but no adjustments made for discretionary changes.

18. A good example of this problem in China is the relative attraction of investment in the tobacco and alcoholic beverage sectors vs. durable goods production.

19. This argument was also made by Xu (1995, pp. 1–25).

20. “Net transfer” is measured here as the sum of local government budgetary collections and earmarked transfers from the central to the local governments, less shared tax transfers from the local governments to the central government.

21. Most research points to a widening of the income inequality in China, both interpersonal and interregional. See World Bank (1997).

22. Hofman (1993) has pointed out that virtually all of the variation in per capita collections
can be explained by a squared per capita income term. Bahl (1994) and Bahl and Wallich (1992) also found a positive income effect for 1985 and 1987.

23. By comparison, the range in 1991 per capita state and local government expenditures in the United States (excluding Alaska) was from $6,525 in New York to $2,715 in Arkansas. The highest income province in China is nearly six times better off than the lowest, whereas the comparable spread in the United States is only 2.4 times.

24. No significant relationship was found between the share of total expenditures and either per capita income or population size.

25. China may not be so different from other large countries in this respect. There is mixed evidence of equalization in the intergovernmental transfer systems in developing and transition countries. In some cases the transfers do not appear to favor lower-income provinces or states where needs may be greatest. Bahl and Wallace (1994) could not find evidence in a regression analysis for Russia that tax-sharing rates and grants were tilted toward oblasts with lower fiscal capacity and greater expenditure needs. Oliveria and Velloso (1994) cannot find evidence of equalization in a multivariate analysis of Brazilian states, but Shah (1991) does find evidence of equalization in the Brazilian transfer system. Transfers among the Nigerian states are allocated primarily by population and equal shares, with little direct concern for levels of expenditure need or fiscal capacity (Phillips 1994). Bagchi (1995) and Rao (1995) find more positive results for India and conclude that the scheme of intergovernmental transfers has significantly corrected the fiscal disabilities of the least-endowed states.

26. The data in Table 5.8 also indicate a local surplus in 1993, but this is an “announcement effect.” In anticipation of the 1994 reform, local governments increased revenue collections in 1993 to establish a larger base for the new revenue-sharing system (Xu 1995, p. 18).

27. A top-down revenue-sharing approach, which is used in most of the world, refers to a system where the central government collects the revenue and then shares it among local units. A “bottom-up” approach, used in many socialist countries, involves collection at the local level and sharing to higher-level governments. If one believes in a “flypaper effect” (money sticks where it hits), the difference between these approaches has very great implications for fiscal centralization.

28. It should be remembered that these regression estimates are made on revenue data that include discretionary changes and that include only budgetary revenues. If discretionary changes in tax rate and tax base had been excluded, then the elasticity estimate would have been lower. If the extrabudgetary revenues had been included in the revenue series, quite likely the elasticity would have been higher.

29. Other simulations have come to this same conclusion (Bahl 1994; Mihaljek 1997).

30. The issue that might force reform sooner is the growing regional disparities. We carry out a set of simulations in Chapter 7 that show the implications of the 1994 reform for disparities in the future.

31. The exception is enterprise income taxes that are collected from centrally owned enterprises, which belong to the central government.

32. See Box 8 for an explanation of the difference in the concept of local collections between 1990 and 1995.

33. Tibet and Hainan have been dropped from this analysis as special cases.
34. These relationships also held for the 1985–90 as reported by Bahl and Wallich (1992), Bahl (1994), and Hofman (1993). Hofman shows that virtually all of the variation in per capita revenue collections can be explained by a squared per capita income term.

35. One must not jump to a conclusion that the 1994 system leads to a better pattern of equalization. It means only that the VAT had a strong “rich province” bias. But if VAT collections are essentially returned to the provinces on a derivation basis, then there will be little change between the reformed and the old system.

36. This is not a complete test of the equalization potential of the 1994 reform for two reasons. The first is that 1995 is a transition year in that the local income tax bureaus are still relatively new. The second is that the transitional revenue-sharing arrangements provided for a hold-harmless set of transfers to ensure that equalization did not lessen over this period. A better test of the equalization features of the 1994 reform will come with the availability of complete fiscal data for 1996.

37. It should be remembered that the 1990 definition of “locally raised revenue” was different from the 1995 definition (see Box 8).

38. The results presented here for 1990, and by Prime (1992) for 1987 may be misleading, because only budgetary tax effort is measured. Tax effort can be significantly higher if the subnational governments are raising revenues from the off-budget accounts. There are no data for a proper evaluation of overall tax effort.

Chapter 6

1. An exception is the excellent and continuing work of Christine Wong (West and Wong 1995; Wong 1997; and Wong, Heady and Woo 1995), who has regularly pointed to the policy importance of subprovincial finances.

2. Sichuan (113 million), Guangdong (69 million), Hunan (64 million), Hubei (58 million), Shandong (87 million), Anhui (60 million), Jiangsu (71 million), and Hebei (64 million).

3. In comparison with the United States, China has relatively few local government units. In total, China has about 5 local governments for every 100,000 persons, whereas in the United States there are about 33 local governments for every 100,000 persons.

4. On January 1, 1997, Chongqing became the fourth city (after Beijing, Tainjin, and Shanghai) to gain provincial status.

5. “Deficit” in this use means the difference between planned expenditures and planned revenues, with the latter including the regular transfers from higher-level governments.

6. The correspondence test is passed if the boundary around an area where the benefits from a service are received is the same as the boundary around the area where the tax burdens are borne.

7. A biennial survey done for a number of years in the United States attempted to determine the least-popular tax (ACIR 1995). Consistently, the honor went to the local property tax and the federal income tax. Opposition to the property tax in the United States reached a peak in the late 1970s with major revolts in many states that resulted in lowering reliance on the tax.

8. For a detailed discussion and analysis of the Chinese land use tax, see Bahl and Zhang (1989).

9. Using physical area as the basis for property taxation is not an unusual practice, espe-
cially for transition countries. For a discussion of area-based property taxes in Slovakia and The Czech Republic, see Bryson and Cornia (1998).


11. One might ask why land use records are necessary if only land area is to be taxed. The answer is that the Chinese law has provided for exemption of several types of uses and for differential tax treatments of others.

12. In Russia, where county-level local governments rely heavily on a withholdings tax on payrolls, this problem occurs. It is particularly acute where a municipality borders on two provinces, since there is no horizontal sharing mechanism in Russia. No adjustments are made, and at present all the revenue remains with the local government at the place of employment. In the United States, the same problem occurs where commuters from bedroom suburbs work in cities or cross state lines. The solution has been to charge a differential city tax rate to commuters and residents, or to work out some formula for sharing a regionwide tax.


14. The material in this section is based on field interviews in Yunnan Province (Bahl and Wallace 1995).

15. The sum of the enterprise income tax and the VAT, product, and business taxes.

16. About half of the revenue collected from enterprises comes from state-owned enterprises:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-owned enterprises</td>
<td>40 to 50 percent</td>
</tr>
<tr>
<td>Collectives</td>
<td>40 percent</td>
</tr>
<tr>
<td>Private business</td>
<td>about 10 percent</td>
</tr>
<tr>
<td>Combination ownership (joint-stock companies)</td>
<td>&quot;small amount&quot;</td>
</tr>
</tbody>
</table>

17. The county therefore receives its base consumption tax (100 percent) and VAT (75 percent) in the form of a revenue-return from the city. The county keeps 25 percent of the VAT base amount. The increment of the VAT and consumption tax is also shared with the county, in the same way that the city and province share. This means that 30 percent of the consumption tax increment comes to the county in the form of a transfer, as does 30 percent of 75 percent of the VAT increment. If the target revenue growth is surpassed, then the sharing is 60 percent of the increment.

18. Much of this discussion is drawn from Bahl (1995).

19. A "user charge" is one levied on citizens against actual use of a service; e.g., water use as read from a water meter or a bus fare. A "benefit charge" is only indirectly related to use of an asset or a service as, e.g., a taxi license.

Chapter 7

1. The Russian federal system also assigns individual income tax revenues to the local governments. Individual income taxes in Russia account for about 10 percent of total national revenues (Bahl and Wallace 1994).

2. Local governments would keep the rates low on those individuals who might migrate, or on those who might not choose a particular province for the location of their enterprise, and those who might be drawn to the province to benefit from the increased
services. This mobility argument, often used in industrialized countries, is less powerful in China because mobility is limited. However, there is now a considerable and growing "floating population."

3. If the rate is low, the problem arises of a spread between the rate charged an individual and that charged an enterprise. If the difference between the two rates is too great, various forms of tax avoidance will be encouraged.

4. Cnossen's review of the world practice (1998a, 1998b) places China's basic rate toward the lower end of the normal rate band of 15 to 25 percent.

5. There are a few exceptions. Local governments may choose to levy the slaughter and entertainment taxes, and then have some discretion in choosing the rate of land use tax. In terms of revenue yield, these are very minor taxes.

6. There is some question as to how an urban service surcharge should be structured under a progressive-rate tax. If levied at a flat percentage of tax liability, it would require a larger payment from those with higher incomes. If levied at a flat rate against taxable income, it would charge all payers an equal percentage of income for urban services. The third choice would be a flat yuan amount for each taxpayer. In all cases, those below the income tax threshold would not pay any tax.

7. There are examples of higher-level governments collecting on behalf of their subordinate units, without incident. U.S. state governments frequently collect sales tax additions by local governments, but usually, the bases of the state and local government taxes are identical, and a small commission charge is paid to the state government for collection services.

8. Data are not available to evaluate the degree of equalization in the post-reform system. See Chapter 5 for a discussion of the 1994 reform.

9. A special problem, which we do not consider here, is the sharing of the resource rents from natural resources. For a good discussion of this issue, see McLure (1994).

10. This is done, for example, in the Philippines.

11. The financing gap is the sum of columns (4) and (5).

12. We have used the measure of tax effort for 1995 as developed in Chapter Five above and reported in Table 5.17.

13. This is not a fair experiment, because the provinces did not choose their 1995 level of taxes with knowledge that increased tax collection would be rewarded with an increase in grants.

14. The World Bank (1990), together with the Chinese government, carried out a comprehensive tax reform study in the late 1980s. Many of the recommendations of that study were taken by the Chinese in the reform enacted five years later.


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