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Intergovernmental Fiscal Relations in China

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Is there a "best" way to divide fiscal responsibilities between China's central and local governments in China's three-tiered fiscal system?

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This paper — a product of the Public Economics Division, Country Economics Department — is part of a larger effort in the department to explore intergovernmental fiscal relations in developing and formerly socialist economies. Please contact Ann Bhalla, room N10-053, extension 37699 (February 1992, 58 pages).

The choice of the "right" fiscal relationship between central, provincial, and local governments depends on how a government weighs the benefits of decentralized economic development policies against the costs of having less effective central fiscal management.

Three strong forces justify more fiscal centralization in China's highly decentralized fiscal system at the present time:

• Bouts of inflation and recurrent fiscal deficits can be seen as calling for more central control over the budget.

• Reform of an economic system relies heavily on the use of tax policy as an allocative instrument to influence economic decisions. Local control of the implementation of the tax system can and probably has compromised some objectives of the central government's tax policy. Gaining tighter control over the revenue system will probably require reducing if not eliminating local government discretion in providing special tax concessions.

• If the center wants to move ahead with price reform and to encourage enterprise reform, it needs a more centrally controlled revenue sharing or assignment system that reduces the dislocating effects of such reforms.

Centralizing the fiscal system nevertheless reduces the potential for vesting more budgetary decisionmaking powers in local governments and can erode local and provincial governments' incentives for raising revenues, another goal of system reform. Moreover, there are major problems with introducing fiscal centralization in a country with a heterogeneous population of 1 billion and relatively little tradition of central government fiscal administration.

Bahl and Wallich conclude that a reformed system of intergovernmental finance must meet the center's needs for stabilization and the provinces' needs for revenue and equalized spending capacity. They argue that such equalization should be based on objective indicators of need and that a formula-based grant system best meets this latter objective. A reformed system must also underpin price and enterprise reform — and should be designed so as not to require major recalibration or adjustments while such reforms are taking place.

Bahl and Wallich also conclude that reform of the relationship of central and local governments should be supplemented by an improved system of financing local capital expenditures through borrowing, a system of benefit charges, and improved financial planning and tax administration.

CHINA

CENTRAL-LOCAL FISCAL RELATIONS [redacted]

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Introduction

1. The purpose of this paper is to analyze options for reform to the system of subnational finance in China--the central-local revenue-sharing system--with a focus, inter alia, on the support to system reform, macrostabilization, equalization and allocative effects.

2. Both the government and outside observers have come to realize that China's system of public financing requires change in order to better support the system reform. Under the previous system of strict central planning, the objectives of fiscal policy were limited: its allocative function was to administratively redistribute resources--derived mostly from enterprise surpluses--through the budget to enterprises and government units; its role in stabilization consisted mostly of expenditure or investment cutbacks to reduce aggregate demand pressures. Under the system reform, tax policy plays a role in both mobilizing resources for government spending purposes and for indirectly controlling the economic decisions of enterprises.1/

3. Matters such as central government tax reform are usually a concern of the national treasury. This is not the case in China. Perhaps more than in any other country in the world, China's national tax structure and system of intergovernmental fiscal relations are linked. The success of any central government tax reform will be determined by the policy reactions of local governments, and by local implementation of central policy. While uniform national tax laws are laid down in Beijing, subnational governments are responsible for tax administration, share in revenue collections, and may make policy by giving tax incentives to enterprises.

4. By the same token, any reform in the system of intergovernmental relations must be evaluated in a context of the objectives of the system reform. Enterprise and price reforms affect the tax base available for sharing in each province, revenues mobilized for each level of government must reach some prescribed target, and fiscal disparities among provinces must stay within some prescribed range. Finally, and underneath much of the clamor for a reform of the intergovernmental system, is to move government fiscal decisions "closer to the people." There is no question but that this goal of the system reform argues for a stronger local government sector.

5. The choice of the "right" central-local fiscal relationship will depend on how the government weighs the benefits of decentralized economic development policies against the costs of having less effective central fiscal management. There are three strong forces justifying more fiscal centralization in China at the present time: (a) inflation and recurrent deficits are interpreted by some government policymakers as calling for more central control over the budget; (b) if the center wants to move quickly with price reforms and to encourage enterprise reform, it will need a centrally controlled revenue system which reduces the dislocating effects; (c) the economic system reform relies heavily on the use of tax policy as an allocative instrument to influence economic decisions, and local control over the implementation of the tax system can (and probably has) compromised some of the objectives of central government tax policy. In order to gain tighter control over the revenue system, it will be necessary to reduce if not eliminate local government discretion in providing special tax concessions. To centralize the fiscal system, however, sacrifices possibilities of vesting

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1/ See Revenue Mobilization and Tax Policy, World Bank Red Cover Report, 1989, for a fuller treatment of tax reforms in China, and Finance and Investment, World Bank, Red Cover Report, 1988, for a description of China's fiscal system in the 1979-83 period.

more budgetary decision-making powers in local governments and can erode the revenue-raising incentives of provincial and local governments, which are also goals of system reform. Moreover, there are major problems with introducing fiscal centralization in a country with a heterogeneous population of one billion and relatively little tradition of central government fiscal administration.

6. This research is addressed to the question of fiscal decentralization in China, with a view to better understanding its present features, their consequences and possible reform options. The paper has three parts. The first outlines the present system of subnational finance in China; the second describes the impacts of this system on resource allocation and income distribution; and the third develops options and recommendations for reform. China plans such a reform following the ninth Plan period. As necessary background, the following paragraphs briefly review recent fiscal developments and the tax structure in China.

<u>China's Fiscal Reforms and Revenue Trends</u>

7. Fiscal policy in China has evolved in the context of overall system reforms undertaken since 1979. These emphasized decentralization of economic management, with greater autonomy given to provinces and state enterprises, and allowed the development of the non-state sector. Associated reforms were initiated in prices, the financial sector, and the foreign trade and payments system. Corresponding to the priorities implicit in enterprise and price reform, fiscal reforms focused on three main areas: (i) the reform of direct (enterprise) taxation; (ii) the reform of indirect taxes; and (iii) reform of the system of center-local fiscal relations.

8. Under the reforms of <u>direct taxes,</u> full profit remittance was replaced by a "profits tax," with enterprises allowed to retain a portion of their profits. The objective was to provide enterprises with incentives. Profit taxation was introduced in 1984 first as a flat rate tax (55 percent), supplemented by an "adjustment tax" designed to compensate for the impact on profitability of factors external to the enterprise, such as administered prices and distorted costs. Tax rates, therefore, varied significantly between enterprises, and gave rise to significant lack of uniformity when compared to tax systems in market economies.

9. The discretionary element soon took on increased importance under the "responsibility system," in which enterprises' tax liability was negotiated on a case-by-case basis through a "contract" designed to stimulate enterprise production and investment. Contracts called for a tax quota to be paid, with any profits above the quota amount taxed at a lower (sometimes zero) rate. Thus, as output and profits expand, the effective tax rate falls, and enterprises retain a larger share of total profits earned. At end-1989, some 90 percent of state-owned enterprises were subject to contracting, according to the Chinese Ministry of Finance sources. Since the introduction of contracting, the elasticity of enterprise income taxes has been below unity and the overall tax-GDP ratio has fallen. In the longer run, however, this practice may expand the tax base and tax receipts if it is successful in promoting growth and efficiency.

10. Contracts designed with the low marginal tax rate also introduce a strong procyclical aggregate demand element into tax policy. As production, profits and the economy grow, relatively more resources are kept by the enterprises which further increase demand. (These demand pressures exist whether the profits are reinvested or paid out as wages.) In contrast with other countries where the tax system is structured so as to restrain aggregate demand when the economy grows excessively rapidly, the stabilization effects of contracting in China could be said to be perverse. This would be less serious if the authorities had other effective macroeconomic instruments to con-

trol aggregate demand. The contracting system in its widely applied contract management responsibility system (CMRS) version has also reduced the central government's flexibility to introduce new direct tax policies in a timely manner. This occurs because tax contracts--fixed for up to five years--set a nominal revenue level. Even if the contract itself were fixed for a shorter period (this could be undesirable in that it would increase uncertainty for enterprises), the fact is that most contracts are negotiated by the provincial and local governments which have no macroeconomic responsibilities, and which therefore pursue developmental, not stabilization, objectives.

11. Indirect tax reforms have increasingly replaced a cascading sales tax (product tax) with a VAT accompanied by excises and a gross receipts tax on businesses (business tax). The restructuring of taxes on production was a necessary consequence of the elimination of profit remittance. Under profit remittance, the fact that prices did not reflect costs of production was not very important. However, under profit taxation, since enterprises kept a certain proportion of their profits, and the pricing system generated considerable profit differentials between enterprises, this had consequences for their investment and growth prospects. This inequality could have been reduced by price reform, but instead differential product taxes were used to offset the inequities arising from distorted prices. As the price of a good to its purchaser was fixed, an indirect tax could be used to reduce the price received by the producer and thus reduce excess profits. The main consideration in setting product tax rates in 1984 was to equalize profits (as a proportion of sales value) between products, with some modifications to encourage or discourage the production of particular goods. This approach led to a very large (over 260) number of different indirect tax rates. In China, therefore, indirect taxes also carry a discretionary element, since they are used to equalize intersectoral profitability.

12. Central-local fiscal relations also underwent major reform, pari passu with the regional decentralization which has been such an important aspect of overall reform. In China, local governments are responsible for collecting virtually all major taxes, with revenues "shared upward" to central government. The sharing proportions differ between provinces based on the outcomes of their negotiations with the central government. Over time the trend has been to allow provinces a larger share of the revenues they collect. The system in place from 1981-86 required a percentage (which differed by tax) of each tax to be shared with the center. More recently, contracts have been introduced which call for provinces to deliver a "tax quota" to the central government and allow above-quota collections to be retained at a higher rate, or fully retained.

13. These fiscal reforms have, in fact, had a major impact on revenue structure and trends. Direct taxes make up some 19 percent of total revenues (and 3.7 percent of GDP) while indirect taxes comprise 46 percent, or 9.3 percent of GDP. (Other tax and non-tax revenues, including trade taxes contribute 35 percent of the total--7 percent of GNP.) A notable result of the tax reforms and the decentralization of the fiscal regime has been the decline, continuous since the beginning of the reforms in 1979, in the ratio of total revenue in relation to GNP, from 34 percent in 1978 and 32 percent in 1979 to about 19.8 percent in 1989 (see Table 1). To some extent, this has been the intended consequence of policies to increase enterprise profit retention and enhance provincial autonomy. However, the declining trend also reflects the unintended consequences of the design of the reforms themselves, and the system of both provincial and enterprise contracting.

Table 1 CHINA: DEVELOPMENTS IN GOVERNMENT REVENUE - CONSOLIDATED GOVERNMENT
1978-89 a/
(In % of GDP)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total revenue	31.6	29.4	29.0	27.2	27.4	26.4	26.3	24.8	22.2	20.4	19.8
Direct Taxes d/	18.4	16.9	16.2	13.9	12.9	11.6	8.1	7.1	5.9	4.9	3.7
Profit tax	(1.1)	(1.0)	(0.9)	(0.9)	(1.0)	(1.3)	(7.6)	(6.7)	(5.0)	(4.5)	(3.4)
Profit Remittance	(17.2)	(15.9)	(15.1)	(12.9)	(11.5)	(9.9)	(0.5)	(0.4)	(0.4)	(0.4)	(0.3)
Indirect Taxes	11.4	10.8	10.9	11.1	10.2	10.1	11.2	10.8	9.6	9.2	9.2
Product tax	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(6.9)	(5.6)	(4.7)	(3.5)	(3.3)
VAT	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(1.7)	(2.4)	(2.2)	(2.8)	(2.7)
Business tax	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.5)	(2.7)	(2.7)	(2.9)	(3.1)
Agricultural tax	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.1)	(0.1)	(0.0)	(0.1)	(0.1)
Taxes on int. trade	0.7	0.8	1.1	0.9	0.9	1.5	2.4	1.6	1.3	1.1	1.2
Other taxes b/	0.3	0.2	0.2	0.5	2.4	2.0	3.4	3.3	3.2	3.1	3.3
Nontax revenue	0.9	0.8	0.7	0.8	1.0	1.1	1.1	2.0	2.2	2.1	2.5
Memo items:											
Extrabud. receipts:											
- of government	0.0	0.0	0.0	0.0	1.6	1.8	1.7	1.6	1.5	1.3	1.3
- of public agencies c/	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.3	0.2	0.2

Source: Ministry of Finance. (Note: Adjusted according to the IMF's Government Finance Statistics (GFS) format, which differs from Chinese budget).

a/ Consolidated central, provincial and local governments
b/ Includes taxes on extrabudgetary receipts, on extrabudgetary construction, and wage bonus tax.
c/ Excludes enterprise retained earnings and depreciation funds.
d/ Includes profit remittance 1978-84.

A. THE PRESENT SYSTEM OF SUBNATIONAL FINANCE IN CHINA

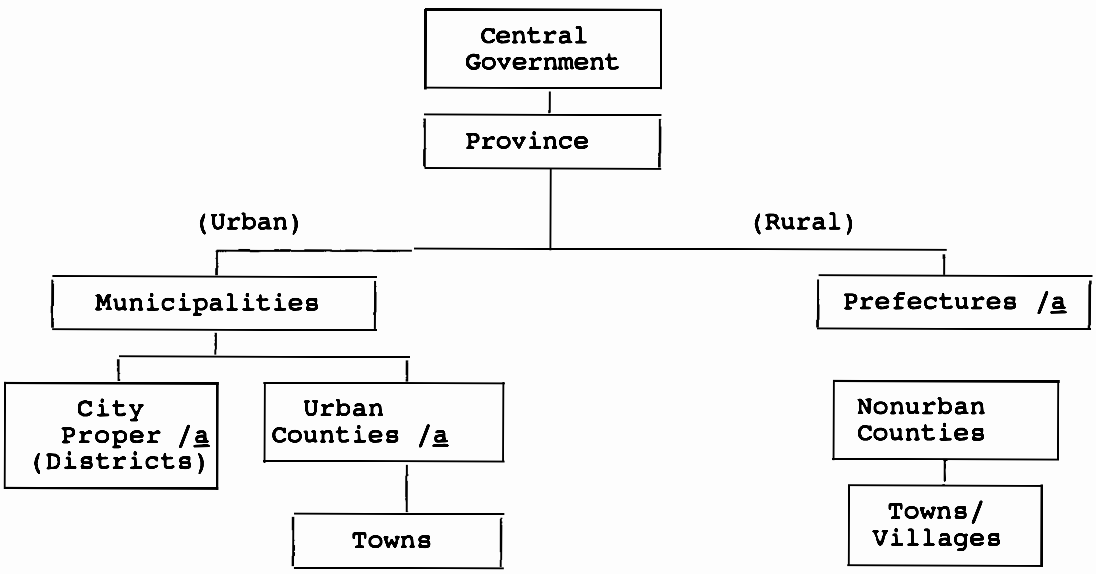
14. Despite its size and diversity, China has chosen a unitary system of government in which the Constitution does not expressly delineate the powers and responsibilities of the various levels of government. Yet the central, provincial and local levels of government have distinct powers and responsibilities, and in many respects the Chinese system functions as a federalism. Fiscal behavior varies enough across provinces to contravene national uniformity in China.

15. China's system of intergovernmental transfers is an important component of total public financing, perhaps more so than in any other country. China's shared tax system based on sales and profits taxes makes local government revenue in principle responsive to growth in income and prices. The distribution of tax shares among provinces is changing from a broad formula-based approach with an equalizing intent to an ad hoc approach characterized in recent years by substantial negotiation and a variety of special purpose discretionary grants. The Chinese system does not make wide use of categorical or cost reimbursement grants to stimulate spending for particular purposes, nor does it use formula-based grants formula-based grants which take account of the population characteristics of provinces.

Provincial Government Finances

16. In the Chinese system, the central government has direct relations with provincial governments. This system is roughly described in Chart 1. All governments within a province report directly (or indirectly) to the provincial government, and carry out their duties subject to provincial regulations. This system of vertical relationships creates a setting within the province which in principle would allow a very substantial degree of fiscal decentralization to the local government level. For example, in Zhejiang Province at the end of 1985, there were 8 provincial cities (municipalities), 66 counties, 3 country-level cities, 3 prefectures and 508 towns.

Chart 1: GOVERNMENT STRUCTURE IN CHINA



/a Indicates administrative, not governmental, status.

17. In some ways, the Chinese fiscal system is as decentralized as its governmental structure. Municipal and county governments' tax bureaus directly assess and collect about 65% of all taxes. Expenditure responsibility is less decentralized in that provincial and local governments account, on average, for over 60% of total direct expenditures. Only a few countries in the world can claim as great a degree of expenditure or revenue decentralization and none can claim this degree of decentralization in tax administration.2/

2/ The comparable ratios for the United States--which is a decentralized fiscal system by world standards--are 43% of taxes collected and 42% of expenditures made by state and local governments. The ratio of subnational to central government expenditure exceeds 75% in Denmark, Australia, Switzerland, Italy and Canada, but subnational government revenue autonomy is more limited. Roy Bahl, "The Design of Intergovernmental Transfers in Industrialized Countries," Public Budgeting and Finance, Winter 1986,

Table 2 shows recent trends in the share in revenues and expenditures of central and subnational governments.

18. The central government spends more than it collects. Central government expenditures, until recently, amounted to half or more of total government outlays (see Table 2). The central government's major areas of expenditure responsibility are defense, foreign affairs and foreign aid, national universities and research, central ministries, general administration, and large investment projects. In addition, the central government provides net revenue transfers to poor provinces.

Table 2: TAX COLLECTION AND EXPENDITURE OF CENTRAL AND LOCAL GOVERNMENTS, 1980-89

		Unified system				Revenue Sharing		Contracting		
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% center	19.3	20.6	22.9	29.7	34.9	37.0	39.3	35.3	36.4	37.5
% local	80.7	79.4	77.1	70.2	65.0	62.9	60.7	64.7	63.6	63.5
Total expenditures	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% center	53.6	54.0	49.9	50.0	47.5	44.0	41.2	39.5	35.9	n.a.
% local	46.3	46.0	50.1	50.0	52.5	56.0	58.7	60.5	64.1	n.a.
Ratio of Collection to GNP	25.0	22.6	21.6	21.4	21.4	21.7	23.1	20.1	18.9	18.1
Subnational	19.4	18.0	16.6	15.1	14.0	13.7	13.8	13.4	12.0	11.3
Central	4.6	4.6	5.0	6.3	7.4	8.0	9.3	7.3	6.7	(6.8)
Ratio of Expenditures to GNP	27.9	23.1	22.1	22.4	22.7	22.4	23.8	23.3	18.7	16.4
Subnational	14.9	12.4	11.5	11.2	11.9	12.5	13.9	12.9	12.0	n.a.
Central	12.9	10.6	11.4	11.2	10.7	9.8	9.8	8.4	6.7	n.a.
Central Government Share of:										
Collections	19.3	20.6	23.0	29.8	34.9	37.0	39.3	35.3	36.1	37.5
Expenditures	53.6	54.0	49.9	49.6	47.8	43.3	41.3	39.5	35.9	n.a.
Expenditure-Collection Ratio										
Center	309.5	267.6	222.8	172.5	141.0	115.7	104.9	115.0	99.5	n.a.
Subnational	64.9	59.3	66.7	74.1	82.7	88.9	101.8	96.1	99.6	n.a.

Sources: See Table 5.

Notes: On Chinese definition of revenues and expenditures, which do not correspond to GFS format data reported elsewhere in this report and in tables focusing on national level taxes.

19. The responsibilities of the provincial and lower-level authorities include their own investment projects, and most, but not all, public expenditures on education and health, local administration (and tax collection), culture, science and agricultural support, including irrigation, agricultural research, extension activities, and other rural expenditures. Since the inception of the economic reforms, there has been a gradual trend towards decentralizing expenditures, with the central government's share in total outlays declining and a corresponding increase in the expenditure share of local governments. Consequently the center's share of total expenditures has been declining over the decade from about 53% of total expenditures to 35%

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(Table 2). Little is known, however, about the types of expenditure shifts which have taken place.

20. Degrees of Autonomy: Revenues. Revenue collection and expenditure disbursement are not the only dimensions of fiscal decentralization and one can find many areas where fiscal decisions are subject to substantial central control and direction. By comparison with most countries in the world, subnational governments in China have little formal, or legal independence in matters of structuring their tax system or deciding on the level and composition of expenditures. All tax rates and bases are set centrally and so there are no truly local taxes--defined as those whose rate or base the subnational government can unilaterally fix--at the subnational level.3/ Moreover, the central government determines, for each province, a share of taxes to be turned over to the center. In effect, subnational tax collections in China are central government taxes whose revenues are allocated among provinces, municipalities and the central government.

21. Even with this degree of centralization in the rules, however, subnational governments have an important impact on spending levels and on the amount of revenues raised within their provincial jurisdiction. This follows because provinces design and implement the system of intergovernmental relations between the province and local governments. In particular, provinces determine the share of tax collections that will be retained by each local government. The allocation of loans to local enterprises and the distribution of grants to local governments are also determined by the provincial government. Moreover, because provinces can set the tax sharing rates for each local government, they may also indirectly affect the relative rate of tax collection or tax effort the local administration makes. Local governments have a substantial degree of autonomy to affect the level and composition of taxation, public service delivery and capital investment. This autonomy arises from the fact that they control tax collection and assessment with apparently a minimum of direct central or even provincial supervision. Local governments also have a substantial degree of freedom in awarding tax contracts to their enterprises. Responsibility for implementation of the tax system is a very powerful policy instrument in the hands of local government and indications are that they use it.

22. Expenditure Autonomy. Autonomy on the expenditure side of the budget is limited for provinces. Subnational government budgets are determined as part of a consolidated central, provincial and local budget and as such must satisfy the (negotiated) fiscal targets laid down by higher level government. The budgetary choices of provincial governments are further limited by expenditure rules, mandates and monitoring by higher level government.

23. Within the province, there is more room for discretion. At the local level, provincial governments are responsible for approving the budgets and financial plans of municipal and county governments. This means they can control the spatial distribution of expenditures within the province. There appears to be great variation in the system of province-local relations across provinces, suggesting the provincial governments have significant room to adjust fiscal decisions to accommodate local needs and preferences within the parameters set by the central government.

24. Within the system of "vertical" responsibility, each province must account to the central government for its activities. In this process of vertical accountability, the following principles restrain, or guide, budgetary choices of provincial governments: a) there cannot be a deficit;

3/ Local governments are entitled to set surtax rates on a small number of taxes. Local governments also collect a set of extrabudgetary fees and charges.

(b) current expenditures to maintain infrastructure have the highest priority among urban construction-related expenditures; (c) the provision of social overhead facilities such as education, scientific research institutes and hospitals take a high priority; expenditures on culture and education are mandated to increase by at least the same rate as total expenditures; (d) employment levels and wage rates are fixed by the central and provincial governments; (e) all revenues from the urban maintenance and construction tax must be spent for urban maintenance and construction, i.e., for public utilities and public facilities.

Budgeting and Financial Planning

25. In theory, China has a unified system of budgeting--covering all accounts--in which all the financial plans and accounts of the central and subnational governments are jointly presented.4/ Each provincial government in principle also has a consolidated budget which includes the budgets of all lower level local governments. However, in the provinces visited for this work, the budgets were neither fully unified nor fully consolidated.5/

26. Because government budgets do not fully include all revenue and expenditure accounts, it is difficult to construct an estimate of the total amount of revenues raised or expenditures made by the subnational governments in particular local areas. For example, extrabudgetary revenues and nonplan expenditures are reported in the budget, along with budgetary receipts and outlays. However, departmental revenues and grants received are generally not reported in the accounts. The transfers between, and overlaps among, the budgets of the general government, the SOEs and public utilities are not apparent. The example of transfers from the general government to the SOEs can illustrate the nature of the problem. The provincial government budget shows transfers to SOEs under the "technical transformation" heading, but it does not distinguish between grants and loans. Other transfers to cover SOE losses are shown as an expenditure in the general provincial budget and not as a transfer, unless the loss is "unplanned," in which case it is shown as negative profits' tax revenue (i.e., it is subtracted from revenues--not added to expenditures). A further complication is that grants to provincial and local governments do not appear to be shown separately in the budget.

27. With regard to the distinction made in some countries between capital and current budgets, each local (urban) government has a regular budget and a construction budget, but these do not correspond to a division of current and capital expenditures, and there is no separate reporting of capital financing. There does not appear to be an operative concept of capital budgeting.

Tax Administration

28. Provincial and city governments cannot vary the nominal rates of tax, nor may they redefine the legal tax base. However, they have almost complete autonomy in assessing and collecting taxes, and along with the lower level county government can and do give tax relief without having to seek approval from the Center. One could fairly say that subnational governments can substantially alter the level and pattern of effective tax rates paid by enterprises.

4/ "Unified" budgeting is used here to mean a budget which incorporates all accounts of any particular government unit. "Consolidated" uses the Chinese terminology and reflects the joint presentation of the budget of all levels of government.

5/ The provinces were Anhui, Jiangsu, Zhejiang, Shandong, Shanghai and Beijing (which have the status of a province).

29. The organization of tax administration in China centers around the activities of two organizations: the Tax Bureau and the Finance Department. There are separate Tax Bureaus and Finance Departments at the city, county and province levels. The functions of the Tax Bureau and the Finance Department seem clearly distinguishable in principle. The Finance Department conducts tax policy allowed by law at the provincial and local levels, and manages the expenditure side of the budget. The Tax Bureau is responsible for implementing central tax law and collecting taxes. In theory, both are at the same time organs of the central and local governments. In practice, the division of responsibility is not so clear, and the directives given to the Tax Bureau by the central government and its subnational government are not always consistent. Many of the Tax Bureaus' actions in the provinces visited for this work suggest substantial tension as a result of this system of "dual leadership." The assessment based on this field work is that the tax and finance bureaus are more likely to act as agents of the provincial or local governments than of the central government. The Finance Department plays the dominant policy leadership role within the provincial and local governments.

30. Provincial and local governments have a surprising amount of discretion in granting tax relief. Their activities in this regard are referred to as the policy of "stimulating enterprises through tax expenditures." Three types of tax expenditure, or methods of granting preferential tax treatments, are used. First, if the provincial government wants to promote a new product or a pioneer industry, it may authorize a reduced tax rate or a tax holiday for a number of years (usually not to exceed five years). Second, the Finance Bureau may enter into a contract arrangement with an enterprise for payment of a negotiated (as distinct from schedular) amount of taxes. Third, the Tax Bureau may grant ad hoc tax relief to enterprises on a case-by-case basis depending on the needs of the enterprise. There is every indication that provincial and local governments use this discretion to promote economic development in the local area, even though the preferences granted sometimes do not conform with the objectives of the central government and may seriously impair its revenue position.

Provincial and Local Revenues

31. Provincial governments have four revenue sources: own taxes and shared taxes; extrabudgetary funds; user fees; and capital grants. China's revenue sharing system is primarily a division of sales and profit taxes among the central, provincial, and local governments. Whereas in most countries the taxes are collected by the central government and then allocated to the lower level subnational governments, in China they are collected by the local governments and "shared-up" to the higher levels. The amount of shared tax revenue finally ending up at each level of government depends on the tax base and rate, tax administration, the sharing formulae between the province and its municipalities, and the sharing formula between center and province. To understand the revenue-sharing system in China, one must understand all of these dimensions.

32. Tax Revenues. By law, there are three categories of revenues--"fixed central government revenues," "fixed local government revenues," and "shared revenues." Box 1 shows the principal taxes in each of these categories prior to the 1988 proposed changes. In all three cases, however, rate determination and base definition are not under local control. Revenues collected from local taxes are, in principle, assigned fully to the local government and are referred to as "local fixed revenues." The actual practice of revenue sharing in China has not matched this scheme. Most "local fixed" and "shared" taxes have been subject to sharing, apparently because adherence to these categories caused a revenue shortfall to the central government. Since 1988, other minor changes have taken place in the allocation of these taxes to different levels

**Box 1: PRINCIPLES OF REVENUE ALLOCATION AND TAX SHARING
1985 REFORMS**

I. "Fixed Central Government Revenues":

1. Income and adjustment tax of all central government enterprises.
2. Business tax from railroads, bank and insurance company headquarters.
3. Profit remittances by all enterprises producing arms.
4. Price subsidies paid to producers of grain, cotton and oil (treated as a negative revenue of the central government).
5. Fuel oil special tax.
6. Income taxes, sales taxes and royalties from offshore oil activities of foreign companies and joint ventures.
7. Treasury bond income.
8. 70% of the three sales taxes collected from enterprises owned by the Ministry of Industry, the Ministry of Power, SINOPEC, and the China Nonferrous Metals Company.
9. All customs duty and all VAT and product taxes collected at customs.
10. Tobacco Tax and Business Tax on Tobacco.
11. Product tax on liquor and tobacco.

II. In 1985-87, the "local fixed revenues" were as follows:

1. Income tax and adjustment tax of locally-owned enterprises.
2. Income tax from collectively owned enterprises (ICIT).
3. Agriculture tax.
4. Rural market trading tax levied on private sector traders.
5. Local government grain trading loss (a negative tax).
6. Fines for delinquent taxes.
7. The Urban Maintenance and Construction Tax (UMCT).1/
8. Housing tax.2/
9. Vehicle utilization tax.
10. 30% of the sales tax revenue collected from enterprises owned by the Ministry of Power, SINOPEC, and the China Nonferrous Metals Company.
11. Individual income tax.
12. Wage bonus tax.
13. Self-employed Entrepreneurs Tax
14. Slaughter Tax.
15. Cattle Trading Tax.
16. Contract Tax.

III. Taxes shared between the central and local governments:

1. All sales taxes (valued-added, business, and product) revenues from all enterprises, except those expressly excluded as described above under I:6, 9 and 10.
2. Natural resource taxes.
3. Construction tax.
4. Salt tax.
5. Industrial and commercial tax, and income tax, levied on foreign and joint venture enterprises.
6. Energy and transportation fund tax.

1/ The Urban Maintenance and Construction Tax (UMCT) is set at 7% of total sales tax liability for for municipalities (5% for towns and 1% everywhere else).

of government. More generally, as central revenue needs grow, the shift of new taxes into the "central fixed" category is made.

33. Extrabudgetary Funds. Other sources of revenue for provincial and local governments, earmarked for capital purposes, are extrabudgetary funds. The amount of revenue involved is relatively small compared to other provincial and local revenue sources, and accounts for only 3% of total extrabudgetary funds (enterprise retained earnings are about 80% and extrabudgetary revenues of government agencies are about 17%) and less than 1.6% of government budgetary revenue.

34. User Charges. Though the public utility enterprises attempt to recoup a portion of costs through user charges, there has been no strong sentiment to raise rates to efficient (marginal cost) levels. In China, cost recovery is a much bigger matter than simply raising the level of the user charge. Water, sewerage and gas (LPG) charges, bus fares and housing cannot be adjusted independent of national wage and price policy and enterprise and tax reform policy. Perhaps as important, but less widely recognized, is the relationship between increasing the rate of user charge and the sharing of revenues among the three levels of government. An increased user charge--paid by enterprises or by individuals and compensated by an increase in wages--will lower profits and therefore the tax liability of enterprises. The result will be a shift in revenue power (a) from the central to the local level because the whole of the user charge "stays at home," and (b) from the general government to the public utility enterprises. Unfortunately, no data are available for making a good estimate of the percentage of total costs recouped by user charges, but it is probably quite low. Residential user charges have changed little since Liberation, though there has been some increase in the rates charged to enterprises. Within limits set by the central government, local governments can increase user fees, and have done so for commercial and industrial users.

35. Capital Grants and Borrowing. China has no regular, formula grant program to support capital projects; all grants are on an ad hoc basis. There is no mechanism or formal program for lending to local governments, and there is no formal mechanism that guides local governments in developing beneficiary financing schemes. Capital financing is done from some combination of current revenues, planned loans or grants, special exceptions to the restrictions on borrowing, and creative, ad hoc approaches to benefit financing.

36. Provincial and local governments in China cannot borrow. However, there appear to be ways to avoid these restrictions. Short-term borrowing (less than one year) and even some longer term credit financing does occur. In some cases, municipally owned enterprises borrow for infrastructure projects and in some cases the municipal government has pledged its general revenues to secure loans to its enterprises. Nevertheless, credit financing is quite limited. As a result, the "price" of capital construction is high because it must be financed from current revenues rather than loans, i.e., by current rather than future beneficiaries and by the general public rather than by direct beneficiaries.

Intergovernmental Fiscal Relations

37. There are three important dimensions to the system of intergovernmental fiscal relations in China. the first is the system of tax sharing, outlined above, which determines the amount of resources that will be allocated to the subnational government sector. The second is the distribution of these funds among provinces, and includes both the tax sharing formulae and the flow of grants and subsidies. The third is the system of horizontal fiscal relations within the province, the method by which the provincial government allocates fiscal resources among its counties and municipalities.

38. Central-Provincial Transfers. The central government determines the tax sharing arrangements with the provinces. The system in China is essentially a sharing of revenues from a specified set of taxes (Box 1), almost all of which are central government taxes that are collected by the local governments. The total size of the distributable pool is thus determined primarily by the amounts collected. The distribution of central revenues by province is then determined by a combination of (a) origin of collections, (b) formula, and (c) negotiation and ad hoc decisions. The exact sharing rate, which are in the

last analysis the result of a central-provincial negotiation, are presented in Table 3.6/

39. The basic sharing formula, first applied in 1985, and modified later to use a 1987 expenditure base, is:

$$\text{RATIO} = \frac{E(83)}{R(83)}$$

where Ratio = The share of collections to be retained by the province

E(83) = Actual amount of "Allowable" local government expenditures in 1983

R(83) = Actual amount of local fixed plus shared revenues collected in 1983

40. The results of applying this procedure are described in Table 3a for the 1985-87 period and in Table 3b for 1988-90. For example, allowable expenditures in Beijing were equivalent to 48.2% of total shared and local fixed revenues in 1985, hence Beijing in 1985 would be able to retain 48.2% of all it collected from those two categories of tax. Of course, all fixed central government revenues would have to be turned over to the center. As may be seen from Table 3a, 15 provinces were in such a surplus position in 1985, i.e., shared plus local fixed revenues exceeded allowable expenditures and the tax sharing ratio was less than unity.

41. The remainder of the provinces (with the exception of Guangdong) were in a deficit position. In these cases, the province was allowed to retain all of its fixed and shared revenue collections and the central government paid a subsidy equivalent to the size of the 1983 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, but this amount was to be increased by 10% per year. Apparently, 10% was taken as a number that would roughly approximate needed revenue growth. In fact, the 10% increment was given in 1986 but was reduced to 5% in 1987 and 1988 with the intention to eliminate it in 1989.

42. This approach has now undergone major changes, with a growing number of provinces contracting with the center for a delivery of a fixed tax quota, following the example of Guangdong, which retained all fixed local and shared collections, but turned over a fixed annual amount of Rmb 778 million to the center. This was a first step toward the proposed 1988 reforms, under the name of "provincial contracting."

43. Since 1988, most provinces have "bargained down" the center in contracts which reduce their obligations to share and transfer funds. The purpose of this program is to give these provinces greater incentives to collect more taxes. Since 1988, contracting has been applied in most of China's prosperous (and high-yield) provinces and cities including Jiangsu, Zhejiang, Hebei,

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6/ This formula has been adapted a number of times since 1984 to adjust for the transfer of state-owned enterprises from provincial to central ownership.

Table 3a. CHINA: REVENUE-SHARING SYSTEM BETWEEN THE CENTRAL AND PROVINCIAL GOVERNMENTS, 1985-1988

Provinces and regions	Percentage of total collections retained by Province			Province receives subsidy agreed from the Center a/			Fixed or contract delivery to the Center		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
	---------(%)----------			----------------(In millions of yuan) ------------------					
North China									
Beijing	48.2	49.55	49.55						
Tianjin	39.5	39.45	39.55						
Hebel	69.0	72.00	72.00						
Shanxi	97.5	97.50	97.50						
Inner Mongolia				1783*	1961.74	2059.83			
Northeast China									
Liaoning	51.1	52.66	52.66						
Jilin				397	396.62	396.62			
Heilongjiang	96.0							142.70	142.70
East China									
Shanghai	26.0	23.54	23.54						
Jiangsu	39.0	41.00	41.00						
An Hui	80.1	80.10	80.10						
Fujian				235		234.86	234.86		--
Jiangxi				239		239.46	239.46		
Shandong	59.0	77.47	75.0						
Central/South China									
Henan	81.0	81.00	87.10						
Hubei	66.5	100.00	100.00						
Hunan	88.0	88.00	88.00						
Guangdong							772.08	778.08	778.00
Guangxi				716*	788.03	827.43			
Southwest China									
Sichuan	89.0	100.00	100.00						
Guizhou				743*	817.57	858.45			
Yunnan				637*	925.88	972.17			
Tibet				750*	825.32	866.59			
Northwest China									
Shaanxi				270	270.26	270.26			
Gansu				246	245.60	245.60			
Qinghai				611*	671.88	705.47			
Ningxia				494*	543.14	570.30			
Xinjiang				1450*	1594.85	1674.59			

Source: Data supplied by MOF.

a/ Asterisk indicates subsidies were to increase by 10% per year after 1985. Two asterisks indicate quota contract delivery, also known as "provincial" contracting. No information available on amounts.

Information not available for the province's arrangements with the Center for 1988.

Beijing, Tianjin, Guangdong and Shanghai (see Table 3b). Under this system, a basic amount (quota) of shared revenues must be transferred to the central government while revenues collected over and above this quota may be kept in full by the province or city (see below).

Table 3b: China: Central-Local Revenue-Sharing Contracts 1988-90

	(i)	(ii)		(iii)		(iv)	(v)		(vi)
		Basic Sharing with Growth		Incremental Sharing			Fixed Quota with Growth		
	Basic Sharing Rate	Basic Retention Rate (%)	Contracted Rate of Increase (%)	Basic Retention Rate (%)	Marginal Retention (%)	Fixed Quota to State (Y 100 mn.)	Initial Amount to State (Y 100 mn.)	Contracted Annual Rate of Increase (%)	Payment to Deficit Provinces (Y 100 mn.)
Beijing	-	50.0	4.0	-	-	-	-	-	
Hebei	-	70.0	4.5	-	-	-	-	-	-
Liaoning	-	58.3	.5	-	-	-	-	-	-
Shenyang	-	30.3	4.0	-	-	-	-	-	-
Harbin	-	45.0	5.0	-	-	-	-	-	-
Jiangsu	-	41.0	5.0	-	-	-	-	-	-
Zhejiang	-	61.5	6.5	-	-	-	-	-	-
Ningbo	-	27.9	5.3	-	-	-	-	-	-
Henan	-	80.0	5.0	-	-	-	-	-	-
Chongqing/a	-	33.5	4.0	-	-	-	-	-	-
Tianjin	46.5	-	-	-	-	-	-	-	-
Shanxi	87.6	-	-	-	-	-	-	-	-
Anhui	77.5	-	-	-	-	-	-	-	-
Dalian	-	-	-	27.7	27.3	-	-	-	-
Qindiao	-	-	-	16.0	34.0	-	-	-	-
Wuhan/a	-	-	-	17.0	25.0	-	-	-	-
Guangdong (inc. Guangzhou)	-	-	-	-	-	-	14.1	9.0	-
Hunan	-	-	-	-	-	-	8.0	7.0	-
Shanghai	-	-	-	-	-	105.0	-	-	-
Shandong	-	-	-	-	-	2.9	-	-	-
Heilongjiang	-	-	-	-	-	3.0	-	-	-
Jilin	-	-	-	-	-	-	-	-	1.1
Jianxi	-	-	-	-	-	-	-	-	0.5
Shaanxi (inc. Xian)	-	-	-	-	-	-	-	-	1.2
Gansu	-	-	-	-	-	-	-	-	1.3
Fujian (beginning 1989)	-	-	-	-	-	-	-	-	0.5
Inner Mongolia	-	-	-	-	-	-	-	-	18.4
Guangxi	-	-	-	-	-	-	-	-	6.1
Tibet	-	-	-	-	-	-	-	-	9.0
Ningxia	-	-	-	-	-	-	-	-	5.3
Xinjiang	-	-	-	-	-	-	-	-	15.3
Guizhou	-	-	-	-	-	-	-	-	7.4
Yunnan	-	-	-	-	-	-	-	-	6.7
Qinghai	-	-	-	-	-	-	-	-	6.6
Hainan	-	-	-	-	-	-	-	-	1.4

Source: Ministry of Finance

/a 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 state. Data are not available on the other "independent cities", such as Nanjing, Ningpo, etc.

44. Another important change in the past two years has been to create "special cities" which have a direct relationship with the central government and whose revenue-sharing arrangement is independent of the arrangement which exists for their province. As of 1991, these include Harbin, Changzou, Shenyang, Dalian, Quingdao, Xian, Chengdu, Chongqing, Wuhan, Nianjing, Ningpo, Xiamen, Guangzhou, and Shenzhen.

45. There are now 6 basic variants of the "quota" and sharing arrangements in which provinces contract with the central government. Table 3b outlines them for the 1988-90 period, both for the provinces and for the cities with independent status. These six main types of contracts under which transfers are effected from the provinces to the central government can be characterized as:7/

(i) "Basic Sharing" - a fixed proportion of all revenue is remitted to the center;

(ii) "Basic Sharing with Growth Adjustment" - based on 1987 revenue, the localities retain a specified proportion ranging from 28 percent to 80 percent of any revenue that is within a certain percentage growth (ranging from 3.5 to 6.5 percent) from the previous year (revenue in excess of this growth rate is retained entirely by the province);

(iii) "Incremental Sharing" - a certain proportion is retained up to a quota, and then a different (usually higher) proportion of revenue is retained in excess of the quota;

(iv) "Fixed Quota Delivery" - a specific nominal amount is contracted to be transferred to the center with no annual adjustments;

(v) "Fixed Quota with Growth Adjustment" - a specified nominal amount is contracted to go to the center in the initial year; in subsequent years, the amount was to increase at a contracted rate (7 percent or 9 percent).

(vi) Deficit provinces continue to receive fixed subsidies.

46. As the sharing proportions in Table 3b show, the provinces in which significant revenue is collected (Shanghai, Liaoning, Beijing) retain a significant proportion of what they collect, and that incremental sharing and growth rates are quite low, the latter well below GDP growth.

47. While the provincial contracting arrangements can provide increased incentives to collect revenue, they do not eliminate the potential conflict of interest between local and central governments, nor do they alleviate a crucial problem associated with decentralization, that is, the loss of control and flexibility by the Center over the use of tax policy for microeconomic purposes.

48. Moreover, the provincial contracting system, if more widely applied, can lead to negative revenue consequences for the center. The fact that most important contracts are fixed in nominal terms has left an increased share of fiscal resources in the hands of local governments. This reduces the growth and, potentially, the real volume of resources in the hands of central government. Finally, the provincial contract arrangement introduces a pro-cyclical bias to the fiscal system. This occurs because the revenue received

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7/ There is, in fact, an infinite variety of these sharing and quota/incremental contracts and it is to some extent forced to categorize them in this fashion. Essentially, these are bargains, not a revenue-sharing "system."

by the central government under a "fixed nominal" contract remains relatively constant regardless of the underlying growth of economic activity.

B. PROBLEMS AND ISSUES IN CENTER/LOCAL FINANCE IN CHINA

49. China's experience with fiscal decentralization is marked by four patterns. First, as decentralization has proceeded, the share of taxes in GNP has declined. Second, the "fiscal surplus" available to the central government--the excess of its total direct expenditures over its direct revenue collections--has fallen (see Table 2). Third, local governments have taken a great deal of discretion in the implementation of tax policy, with important results: (a) the application of the "national" tax system varies widely from province to province, and (b) use of the tax system to promote provincial or local goals has not always been in keeping with central guidelines. This reduced central leverage over fiscal revenues has led to problems of macroeconomic management, an erosion of the revenue base, allocative distortions, and generally to a more ad hoc tax system. Fourth, revisions to the revenue sharing system have had the effect of improving the relative fiscal position of higher income provinces. This pattern of change raises some important problems which must be faced in restructuring central-local relations in China. Moreover, the current system may represent an important impediment to price reforms and reforms addressing enterprise restructuring, both of which are important system reforms in the next Plan period.

Compatibility with System Reforms

50. China's reform program in the Eighth Plan has the implementation of price reform and enterprise reform as its twin linchpins. The present system of central-local fiscal relations cannot support these reforms.

51. Consider first the area of price reforms. Since localities receive revenues from their locally owned enterprises, and also have an entitlement to all sales and excise taxes generated in their locality, local revenues can be markedly affected by price reform. Increasing market prices for intermediate goods, for example, would greatly improve the collection potential of profits and sales tax in provinces producing such goods. Provinces such as Shaanxi and other raw materials producers would benefit both by the increase in the tax base, and by the fact that their fixed nominal tax contract to the center was tailored to profits and value added tax yields estimated on the basis of lower pre-reform prices and profit levels.8/ Conversely, in the absence of retail price liberalization, provinces using basic raw materials would see their enterprises' profitability decline (and their tax yield correspondingly lower),9/ and would find it correspondingly harder to meet the terms of the contract. To illustrate the magnitude of these potential effects, the data in Table 4 show, for major sectors in China's input/output table, the provinces which are the largest producers of commodities subject to price controls. Column 4 shows an indication of the proportion of the total output nationwide, subject to such controls on the assumption that retail prices in general are

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8/ The interprovincial impact could be quantified using an input-output framework. A corresponding sharing or transfer system could also be devised which would modify tax contracts in line with the shifts in tax yields implied by price reform. However, since prices will continue to undergo adjustment, such transfer system would require ongoing adjustments following each price change.

9/ If both intermediate and final goods prices are liberalized, provinces which are predominantly intermediates-producing would gain, while "processing provinces" could come out about equal, gaining from the increase in final goods prices, but losing from the higher input prices.

Table 4: CHINA: PRICE CONTROLLED PRODUCTS: SHARES OF GROSS VALUE OF INDUSTRIAL OUTPUT (GVIO) OF THE LARGEST PRODUCING PROVINCES IN 1989
(percentage shares into total sectoral GVIO)

	(1) Province	(2) Total Share of Top 3 Provinces (%)	(3) Sales to Final Consumers (%)	Total GVIO by sector (Y billion)
Smelting and pressing of ferrous metals	Liaoning (17.1) Shanghai (12.7) Sichuan (8.3)	38.0	1	114.0
Smelting and pressing of nonferrous metals	Liaoning (9.9) Gansu (7.5) Shanghai (6.8)	24.2	1	47.15
Metal products	Jiangsu (12.1) Shanghai (10.0) Guangdong (9.4)	31.5	1	49.42
Electrical equipment and machinery	Guangdong (14.6) Jiangsu (11.7) Shanghai (10.6)	36.9	9	84.98
Electronic & telecom. equip.	Jiangsu (19.4) Shanghai (12.9) Guangdong (8.3)	40.7	-	55.12
Coal mining & dressing	Shanxi (19.3) Shandong (10.7) Henan (8.6)	38.6	26	40.81
Petroleum processing	Liaoning (19.7) Shandong (10.7) Heilongjiang (11.3)	43.1	5	45.73
Petroleum and natural gas extraction	Heilongjiang (37.2) Shandong (19.1) Liaoning (9.1)	65.4	5	36.24
Chemicals and allied products	Jiangsu (13.2) Liaoning (7.1) Shanghai (6.9)	27.2	2	137.53
Machine building industry	Jiangsu (12.7) Shanghai (10.9) Liaoning (8.4)	32.0	8	172.66
Food manufacturing	Jiangsu (9.9) Shandong (9.4) Hunan (7.9)	27.1	-	120.30
Textile industry	Jiangsu (18.7) Shandong (10.7) Zhejiang (10.5)	39.9	74	210.96
Paper making and paper prod.	Shandong (8.7) Guangdong (7.5) Liaoning (7.4)	23.5	39	37.21
Other industry	Guangdong (18.1) Jiangsu (14.1) Zhejiang (7.1)	39.3	66	7.24

Source: China: Statistical Yearbook 1990, pp. 405-18.

largely liberalized; intermediate sales are price controlled to varying degrees. The magnitude and distribution of the positive impact of price liberalization is a function of the wedge between market and controlled prices, and the share of price-controlled output in provincial GVIO. [Data on the largest users (who would be negatively impacted) are not available.]52.It is because tax contracts and quotas are fixed in nominal terms and based on the present provincial tax bases and estimated yields, that price reform implies shifts in the effective burden of fixed nominal contracts. If contracts were instead defined as a share of total collections (as they were earlier), the tax yield and the contracted amount due would change in the same proportion, and price reform would not give rise to these effects. The strong vested interests of some provinces in the existing status quo, could form a powerful impediment to price reform unless the fiscal system can be redesigned to compensate their losses.

53. The present system of intergovernmental contracting is similarly unsupportive of the enterprise reforms needed to strengthen industrial policy. As pointed out by many researchers on China, a major objective of China's industrial policy is to integrate its markets and reap the benefits of industrial specialization and economies of scale. The present fiscal system, by contrast, is a prime contributor to the widely-noted tendency for local governments to set up identical industries with inefficient plant scale and lack of regional specialization, since localities reap the taxes from enterprises they own. The preference for setting up processing industries--which yield higher value added under the present distorted centrally-guided price structure--is further encouraged by the design of the fiscal sharing system under which provinces retain incremental tax yields above a nominal tax quota.10/

54. The rationalization of industrial structure, and especially the improvements in scope and scale economies which can be achieved through a well-executed strategy of horizontal integration or cooperation between enterprises, enterprise mergers, and enterprise industrial groups, is difficult to implement in the current system. This is because the revenue-sharing system, under which revenues accrue to the level of government (provincial, local, etc.) owning the enterprise, interferes with mergers across localities, since this would require agreement on the sourcing and subsequent division of profits.11/ A system in which ownership plays no role in the accrual of fiscal revenue to localities would be preferable.

The Macroeconomic Perspective

55. Hitherto in China and other socialist economies, the stabilization aspect of tax policy was not a major concern, since most sources of macroeconomic instability--unforeseen (or unwanted) changes in investment, consumption and savings--were "controlled" by planners. The present reforms decentralize decision-making, and make it necessary for planners to give more consideration to the stabilization aspects of fiscal policy. This in turn requires improved management of the major tax instruments.

56. From a macroeconomic perspective, the present fiscal system has three shortcomings. First, provincial contracting has been an important factor contributing to the lower income elasticity of government revenues. Second, by locking in a relatively fixed revenue level for a multiyear period, contracts deprive the central and local governments of a flexible revenue source and, in fact, introduce a procyclical bias to the fiscal system. Revenue received by the central government under the prevailing "fixed tax quota" system remains relatively constant regardless of the underlying growth of economic activity. (Even where the center collects a small share of above-quota collections, its revenues still grow more slowly than GNP because the above quota sharing rate tends to be low.) By contrast, rapid economic growth

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10/ See China: Between Plan and Market, Red Cover Report 1990, World Bank for further discussion, and Tidrick and Chen, China's Industrial Reforms, Oxford University Press, 1988.

11/ Even in countries as advanced as the United States, the determination of the base for state-level corporate income taxes is a difficult proposition. Complicated formulae are used to prorate the base for firms with multi-state locations.

increases the revenues realized by local governments (which feel the full fiscal effect of booms).

57. Since local governments do not have demand management responsibilities, they may increase their spending when a booming economy produces higher revenues (producing the multiplier effect of a "balanced budget"), but would not, as might the central government, try to dampen aggregate demand. Alternatively, local governments could respond to economic booms by targeting collections to some fixed revenue level. In this case, those resources which would have been taxed are retained by enterprises to further fuel aggregate demand through the multiplier effect of a "tax cut." Either local response will be expansionary and procyclical. Similarly, but in reverse, in an economic downturn, provincial contracts which are fixed in nominal terms would produce a <u>drain</u> on local fiscal resources, reducing consumption and procyclically intensifying the downswing, unless, at the central level, this is offset by a compensating budgetary stance.

58. The third shortcoming of the present quota-based system derives from its lack of flexibility. The provincial quotas' three- to five-year terms lock the central government into a relatively fixed revenue level which is not fully responsive to growth in either output or prices. Thus, the central government is deprived of a flexible fiscal tool. The result is that the center has less discretion over net spending, and a less effective fiscal instrument for fine-tuning the economy. Local governments have been delegated the responsibility for tax administration, absent effective central monitoring and oversight, and the authority to grant tax relief within their jurisdictions. This effectively severs the link between revenue policy (and tax policy) set at the central level and collections at the local level, and has put local governments in the position of determining effective tax rates and collection levels.

59. The reduced flexibility over tax policy emerging as a result of this specific form of decentralized fiscal arrangement represents a potentially worrisome development. Because this decentralized fiscal arrangement gives local governments discretion in determining the total revenue take, the center cannot run a fiscal policy suitable for and responsive to differing economic conditions. The Chinese government must weigh the benefits of this form of fiscal decentralization against the costs of reduced capacity for central management and direction over tax policy.

60. To improve central management of revenues, expenditures, and stabilization policy, it may be necessary to reduce local governments' discretion over tax relief and to monitor their tax administration. The status quo with regard to central and local finances appears untenable in the long run, and mechanisms need to be developed--some combination of new taxes for local governments, a reassignment of existing taxes or a different sharing of tax bases, a different assignment of expenditure responsibilities--to serve better both central and local interests.

<u>Revenue Adequacy</u>

61. Fiscal decentralization has shifted economic resources from the general government sector to the enterprise sector. Specifically, while the yield of the Chinese tax system has kept pace with prices and population (i.e., there has been positive, but low, <u>real</u> revenue growth in the 1980s), it has <u>not</u> kept pace with growth in total real incomes or output. For the local government sector specifically, the ratio of taxes collected to GDP fell from 19.4 percent in 1980 to 10.8 percent in 1989, while for the center, it rose from 4.6 percent to 9.3 percent in 1986, before falling to 6.5 percent in 1989

(see Table 5 and Chart 1).12/ Since the inception of provincial contracting there has also been a decline in the share of revenues accruing to the central government. This shift in resources between central and local government does not appear to have been commensurate with any change in their respective expenditure responsibilities.

62. Judging overall revenue adequacy is difficult in the absence of concrete projections of expenditure needs. However, one can safely say that public service levels are deficient in all parts of China, and the infrasturcture gap is likely to be an especially critical problem in the future. Moreover, many reforms--especially those which attempt to replace enterprise-based services with privately or government-provided equivalents such as housing reform, social security reform and education financing--almost certainly will not be expenditure-neutral and may well increase the financial burden on all levels of government.13/

63. Judging whether the "balance" is right, i.e., whether the system generates sufficient revenues for the respective levels of government, is also difficult in the absence of estimates of expenditure needs for each level of government. However, the data do tell us that the balance is changing. The central government's share of revenue collections has increased (see Table 5) over the period 1980-86; however, this was not because of a strengthening of central government revenue-raising capacity. It is primarily because provincial and local government revenue collections as a percent of GDP fell by nearly half. This decline largely reflects a shifting of the financial resources to the enterprise sector. Since 1986, the balance of financial resources seems to have shifted back toward provincial and local governments as central government revenues collected also have begun to decline as a share of GDP. Real revenue collections by the central government declined by 4 billion yuan between 1986 and 1989.

64. Provincial and local collections over the 1980s have grown in real terms, but have not kept pace with GDP.14/ The reasons may include "tax preferences" given to enterprises, lax administration; central revenue-sharing policies which reduce local collection incentives (tax effort), or central policies which reduce enterprise profits (such as wage or price changes) and thereby the provincial tax base.

65. On the expenditure side, the center's direct share of expenditures (Table 5 and Chart 3) has fallen from 53 percent in 1980 to 36 percent in

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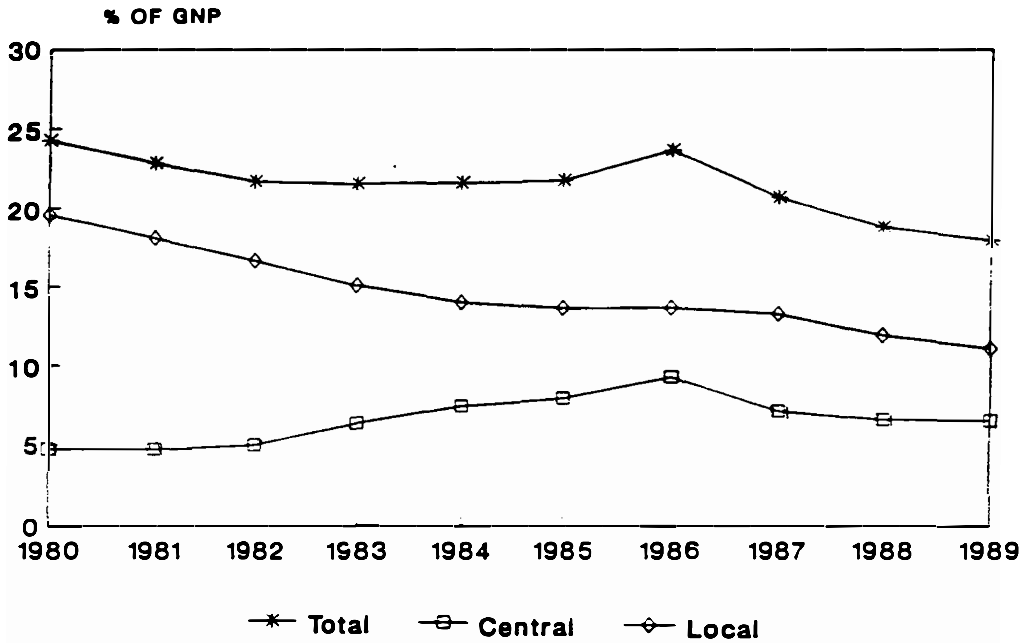
12/ The center's major collection vehicles include customs duties, revenues from centrally owned enterprises and joint-venture firms. Generally speaking, revenues collected by the center accrue to the center. Revenues collected by localities are in fact "central revenues" but subject to sharing.

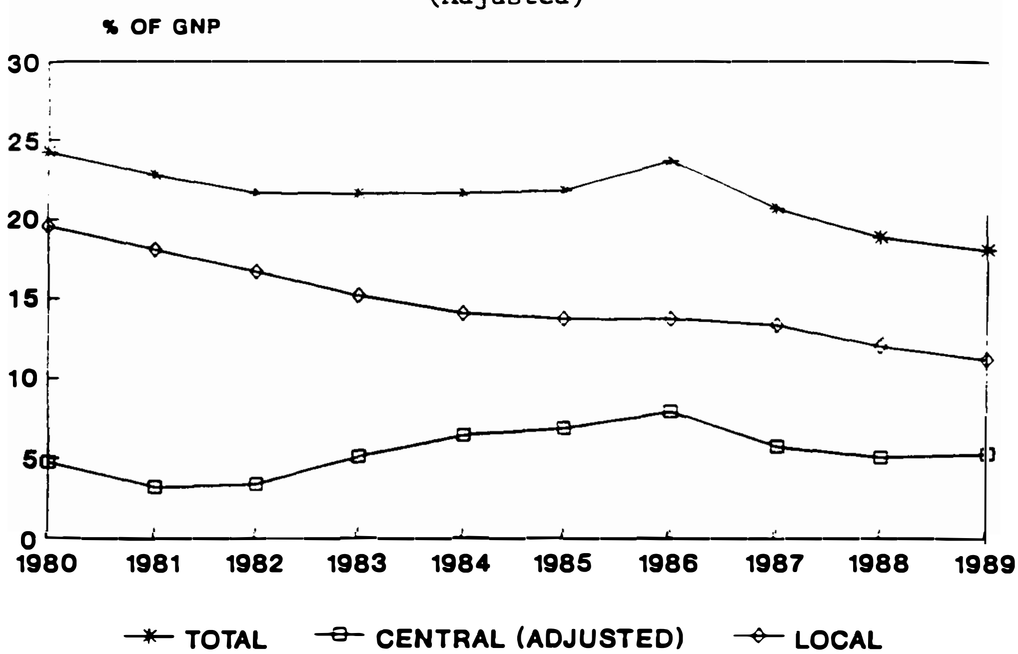
13/ One cannot safely say that the overall decline in the tax-GDP ratio means a reduction in government financial capacity. Against the 1980-89 decline of 4 percent of GDP, one must set off the reduced claim by enterprises on general government revenues.

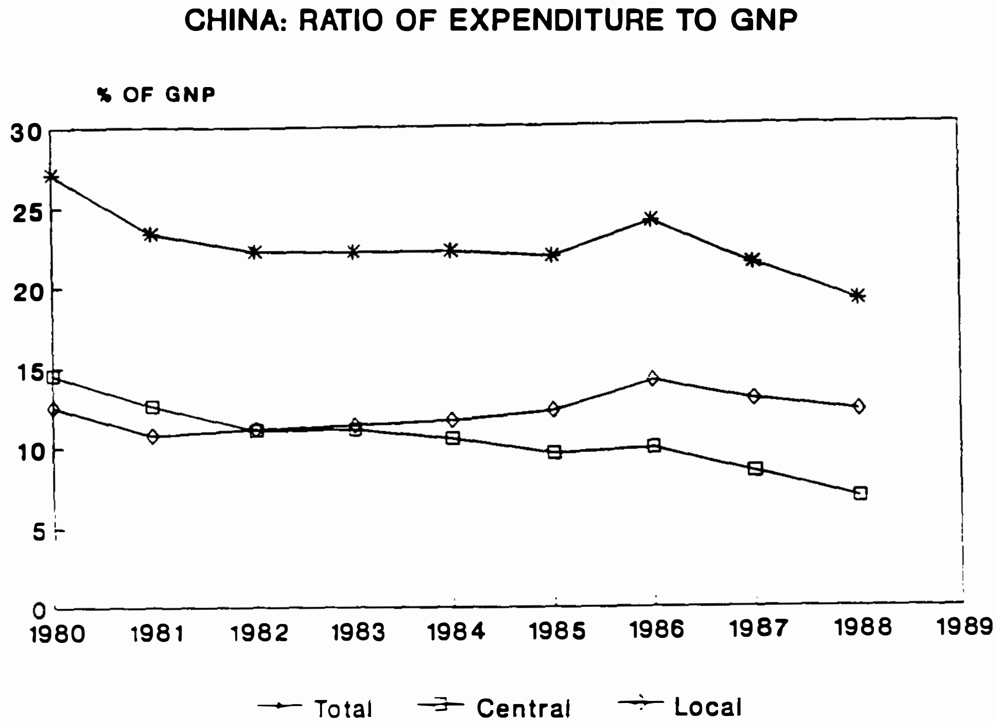
14/ Data note: Revenue data (unadjusted) presented in Table 5 include--as per the standard Chinese budgetary format--central government borrowing, both foreign and domestic in the revenue base. This substantially overstates (especially since 1982 when the borrowing became important) the true amount of central revenue. Obtaining a closer picture of the central revenue trend requires adjusting the central collections by the amount of central borrowing. Local data require no such adjustment, as local government revenues do not include borrowing. The results of this tabulation are shown in Table 4 under "central revenue (adjusted)."

CHINA: RATIO OF REVENUE TO GNP



CHINA: RATIO OF REVENUE TO GNP
(Adjusted)




CHINA: RATIO OF EXPENDITURE TO GNP
% OF GNP
30
25
20
15
10
5
0
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
Total
Central
Local

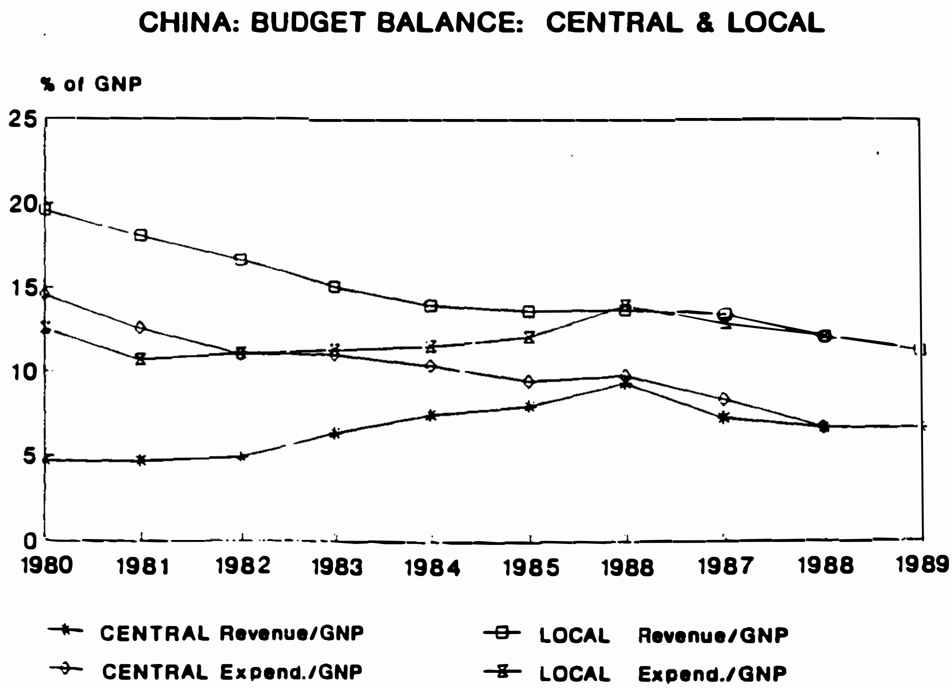

CHINA: BUDGET BALANCE: CENTRAL & LOCAL
% of GNP
25
20
15
10
5
0
1980
1981
1982
1983
1984
1985
1988
1987
1988
1989
CENTRAL Revenue/GNP
LOCAL Revenue/GNP
CENTRAL Expend./GNP
LOCAL Expend./GNP

Table 5: TAX COLLECTION AND EXPENDITURE
By Level of Government, 1980-90
billions of Rmb

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total revenues collected	108.5	108.9	112.4	124.9	150.1	186.6	231.0	236.0	262.8	285.9
Central government	21.0	22.5	25.8	37.2	52.4	69.0	91.7	83.3	94.5	107.2
of which: borrowing	--	7.3	8.4	8.0	7.7	10.0	13.9	16.9	23.1	22.0
Local government	87.5	86.5	86.6	87.7	97.7	117.6	134.3	152.7	168.3	178.7
of which: own	11.8	11.6	12.5	15.3	15.9	19.0	--	--	--	--
Total expenditure	121.2	111.5	115.3	128.4	153.6	186.5	233.0	242.5	263.5	295.0
Central	65.0	60.2	57.5	64.2	72.8	81.9	96.2	95.8	94.6	--
Local	56.2	51.3	57.8	65.8	80.8	104.6	136.8	146.7	168.9	--
Central collections deficit	-44.0	-37.7	-31.7	-27.0	-20.4	-12.9	-4.5	-12.5	-0.1	--
Funded by:										
Local collections surplus:	31.3	35.2	28.8	21.9	16.9	13.0	-2.5	6.0	-0.6	--
Central borrowing	--	7.3	8.4	8.0	7.7	10.0	13.9	16.9	23.1	22.0
Total revenue collections (adjusted)	108.5	101.7	104.0	116.9	142.4	176.6	212.1	219.1	239.7	263.9
Central	21.0	15.2	17.4	29.2	44.7	59.0	77.8	66.4	71.4	85.2
Local	87.5	86.5	86.6	87.7	97.7	117.6	134.3	152.7	168.3	178.7
(in percent)										
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Central	53.63%	53.99%	49.87%	50.00%	47.40%	43.91%	41.29%	39.51%	35.90%	-
Local	46.37%	46.01%	50.13%	51.25%	52.60%	56.09%	58.71%	60.49%	64.10%	-
Total revenues collected	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Central	19.35%	20.66%	22.95%	29.78%	34.91%	36.98%	39.70%	35.30%	35.96%	37.50%
Local	80.65%	79.43%	77.05%	70.22%	65.09%	63.02%	58.14%	64.70%	64.04%	62.50%
Total revenues collected (adjusted)										
Central	19.35%	14.95%	16.73%	24.98%	31.39%	33.41%	36.68%	30.31%	29.79%	32.28%
Local	80.65%	85.05%	83.27%	75.02%	68.61%	66.59%	63.32%	69.69%	70.21%	67.72%
(in % of GNP)										
Revenues collected/GNP	24.27%	22.81%	21.67%	21.59%	21.68%	21.85%	23.77%	20.78%	18.96%	18.17%
Central	4.70%	4.71%	4.97%	6.43%	7.57%	8.08%	9.43%	7.33%	6.82%	6.81%
Local	19.57%	18.12%	16.70%	15.16%	14.11%	13.77%	13.82%	13.45%	12.14%	11.36%
Central adjusted revenues	4.70%	3.18%	3.36%	5.05%	6.46%	6.91%	8.00%	5.85%	5.15%	5.42%
Expenditures/GNP	27.11%	23.35%	22.23%	22.20%	22.18%	21.84%	23.97%	21.35%	19.01%	-
Central	14.54%	12.61%	11.09%	11.10%	10.51%	9.59%	9.90%	8.44%	6.83%	-
Local	12.57%	10.74%	11.15%	11.38%	11.67%	12.25%	14.07%	12.92%	12.19%	-
Memo Items:										
Real revenues collected	108.5	107.0	110.1	120.4	137.2	156.4	183.8	177.6	180.2	179.5
Central	21.0	22.1	25.3	35.9	47.9	57.8	73.0	62.7	64.8	67.3
Local	87.5	85.0	84.8	84.6	89.3	98.6	106.8	114.9	115.4	112.2
Real revenue collection growth										
Central	5.25%	14.33%	41.96%	33.52%	20.75%	26.13%	-14.08%	3.41%	3.83%	-
Local	-2.89%	-0.18%	-0.29%	5.60%	10.38%	8.39%	7.54%	0.46%	-2.82%	-
GNP	447.1	477.5	518.6	578.4	692.4	854.0	972.0	1135.7	1385.8	1573.1
Deflator	100.0	101.8	102.1	103.7	109.4	119.3	125.7	132.9	145.8	159.3

Source: MOF

1988. As a percentage of GDP, the center's expenditures have fallen from about 14.0 percent in 1980 to 6.8 percent in 1988, with a corresponding, but substantially smaller decline in the provincial share, from 13.0 percent to 12 percent. Again, these declines are indicative of the shift in resources to the enterprise sector.

66. To get a true picture of what has happened to the balance of fiscal power in the Chinese intergovernmental system in the 1980s, the revenue and expenditure sides must be considered together. While the provinces' revenue and expenditures have both fallen as a percentage of GNP, their revenue share has fallen faster. As a result, the provincial "surplus" available for transfer to the center has shrunk in nominal terms (see Chart 4). In 1980, the center financed almost 50 percent of its total expenditures from local transfers, and provinces spent only two-thirds of what they collected and transferred the remainder to the center. By 1986, the provinces' direct expenditures were 1 percent greater than their collections and the center transferred net, to them, Y 2.5 billion (4 percent of its expenditures). By 1988, there was a transfer to the provinces of Y 0.6 billion. Thus, while in the past the center could spend more than it collected--in 1980, some 50 percent more--this discretionary expenditure authority has been eroded since 1986 (see Table 2).15/ There are many reasons for this. Provincial contracting has reduced the net transfer to the center, as has enterprise contracting which has reduced the revenue share being "passed up."

67. One might be tempted to interpret this as "greater balance," i.e., each level of government is now spending about what it raises. This would not be correct: any discussion of revenue adequacy needs to be put in the context of the expenditure responsibilities of each level of government. There are also important implications of this "self-sufficiency" of the national government sector for stabilization and equalization capabilities. This shift means that the central government's ability to use discretionary policy to redistribute fiscal resources among provinces, or to manage national budget finances (i.e., to run a surplus or deficit), is much more limited in 1989 than in 1980.

68. These trends also show that the central government has borrowed in order to maintain its expenditure share, i.e., to replace revenues provided earlier by the provinces. (First differences of provincial collections as a share of GNP have declined since 1986 approximately in parallel with increased central borrowing, and in 1989, by more than the center's borrowing.) Continuation of these trends could complicate macroeconomic management, as central borrowing to make up for reduced local transfers adds to demand pressures. And if these funds are not used for capital purposes, this practice shifts the payment for current services to future years.

Incentives for Tax Avoidance

69. The tax-sharing system in China presents provincial and local governments with mixed incentives to improve their tax administration efforts and may dampen revenue mobilization efforts. Simply put, high sharing rates may encourage tax avoidance: if provinces cannot keep all that they collect, they may not put much effort into collection. Many avenues are open for "tax avoidance" including concessions to help enterprises over hardship periods, tax holidays to encourage new activities, and enterprise contracts with reduced tax liabilities to generate a "supply-side" response--all within the spirit and the letter of the law. Local governments can also allow evasion by becoming more lax in assessment and collection efforts and permitting enterprises to underdeclare tax liability.

70. Local interests in stimulating local economic activities give rise to strong forces against collecting tax revenues, particularly those that must be shared with the center at a high rate. Local tax exemptions allow resources to remain under local jurisdiction, to be tapped through "voluntary"

15/ Expenditure data for 1989 and 1990 are not available.

contributions that are not shared with the center. Thus, while the effective tax and nontax burden on enterprises may not be reduced, budgetary revenue of the central government is eroded (see Annex 1 for a formal treatment). Whether the retention rates in China are high enough to encourage good tax administration is an open question. Higher retention rates may be needed to convince local governments to tax the marginal dollar into the public budget rather than leave it in enterprises' retained earnings.16/ Alternatively, it may not be feasible for the present shared tax system to coexist with local responsibility for tax collection and discretion in administration. While the quota arrangement can in principle provide incentives to collect revenue, the conflict of interest between local and central governments remains. There is also no guarantee that the "supply-side" response--assuming it is achieved through these contracts--will materialize in a way that can be easily predicted and coordinated with expenditure plans or other macro requirements.

Provincial Tax Effort

71. Collections data show that, on average, the richer provinces collected more revenue per capita than poorer provinces over the 1980-86 period (see Box Table 1 and Annex Table 4). However, revenue growth in six of the ten richest provinces was below the national average, while nine of the ten poorest provinces had above-average growth in revenue collections (See Annex Table 6). The extent to which provinces are exploiting their tax base thus clearly needs to be addressed (see Box 2 for a discussion of the measurement of provincial tax effort.) For policy purposes, the Chinese government wants to know not only which provinces have a greater capacity to collect revenues, but how extensively they use this capacity. Otherwise, there is the risk of subnational governments letting central transfers substitute for what otherwise would have been increased local government revenue mobilization.

72. A first approximation of revenue effort is the "tax ratio," i.e., the rates of revenues to gross output [see column (1) of Box table]. The "tax ratio" in Shanghai was 18 percent compared to 9.8 percent in Gansu and 8.7 percent on average for all provinces. This is only a partial measure of tax effort, because much of the interprovincial variation would be expected due to differences in taxable capacity relating to levels of income and urbanization. The tax ratio does not therefore show that higher-income Shanghai exerts more than twice the revenue effort of Gansu. In fact, comparing tax collections to estimated "taxable capacity" suggests that Gansu actually makes a greater revenue effort than Shanghai. In general, it would appear that many of the higher income provinces make a lower level of revenue effort: Jiangsu, Zhejiang, Shandong and Liaoning all make below average efforts and Shanghai is just about average. While tax collections are lower in provinces where per capita income is lower, many low-income provinces raise more revenue than might be expected given their economic base (column 3).

Incentives for Infrastructure Development

73. While infrastructure bottlenecks are a major problem facing almost all Chinese localities, the fiscal system accentuates the capital financing gap

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16/ Finance Minister Wang Bingqian stated that some people "evaded taxes, retained a larger share of profits than they were entitled to for their own enterprises, falsified accounts about losses to secure subsidies, and diverted state funds to uses other than those prescribed..." (1987 Budget speeches). Many of the provinces "hold back" on the proper level of tax remittance, authorizing preferential tax treatment of certain firms, and thereby lowering the total taxable base. In this way, the after-tax profits of locally owned firms may be increased and more resources may be "kept at home" in the province.

Box 2: PROVINCIAL TAX EFFORT

Taxable capacity of a province is measured as a function of its income level and its degree of urbanization. The higher the level of per capita income--proxied here by the per capita gross value of output--the greater the capacity to raise profit and sales taxes. Urbanization may also contribute to taxable capacity because urban economic activities are more easily reached by the administrative system (provide better tax handles) than do rural activities.1/ The results show that taxable capacity is significantly higher if per capita output is higher, and is positively (though not significantly) related to the level of urbanization. Using this estimated relationship, one can predict the tax ratio, based on a provinces's per capita income and urbanization. To take Beijing as an example, one could say that, based on the average practice and its own level of per capita output and urbanization, we would "expect" Beijing's revenue ratio, or taxable capacity, to be 12.78 percent.2/

Tax effort is the extent to which a province uses this capacity, and may be measured as the ratio of the actual rate at which output is taxed (Box Table 1, column 1) to estimated taxable capacity. To follow the example above, we expect Beijing to raise revenues equivalent to 12.78 percent of output (column 2), the province actually raised 15.24 percent in 1986 (column 1), hence there is an above average effort--specifically an effort which is 19 percent above average as is shown by the effort index of 1.19 in column 3 of the Table below. Shanghai, by contrast, raises questions about what would be expected and makes an average tax effort with an index of 1.01.

1/ The method used here follows the approach developed in Roy Bahl, "A Regression Approach to Tax Effort and Tax Ratio Analysis," International Monetary Fund Staff Papers, Vol. 18, No. 3, November 1971.

2/ The average relationship between the share of output raised and these two indicators of taxable capacity is determined from a linear OLS estimate as described in the following equation:

$$T/Y = 0.059 + \underset{(5.168)}{1.514\,(E\text{-}05)\,Y/P} + \underset{(0.600)}{0.0002\,u}$$

where T = tax collections
Y = gross value of industrial output
P = population
u = percent of population living in urban areas
$\bar{R}^2$ = 0.63, and t-values shown in parenthesis

Box Table 1: COMPARISONS OF TAXABLE CAPACITY AND TAX EFFORT BY PROVINCE

Province	Ratio of budgetary collection to gross output, 1986	"Taxable capacity" 1986	Index of tax effort 1.0 /a	Tax effort ranking	Percent of total population	Ranking: Per capita national income: 1985
Beijing	15.24	12.78	1.19	5	0.92	2
Tianjin	14.42	13.30	1.08	8	0.78	3
Hebei	7.52	8.90	0.94	15	5.33	14
Shanxi	8.93	8.48	1.05	9	2.52	12
Inner Mongolia	7.87	7.92	0.99	13	1.93	16
Liaoning	9.75	10.57	0.92	15	3.54	4
Jilin	7.75	9.09	0.85	18	-	8
Heilongjiang	7.82	9.09	0.86	17	3.18	5
Shanghai	18.06	17.95	1.01	11	1.17	1
Jiangsu	6.30	9.49	0.66	19	5.97	6
Zhejiang	7.93	9.18	0.86	17	3.87	7
Anhui	6.49	7.55	0.86	17	4.95	21
Fujian	9.35	8.05	1.16	6	2.61	17
Jiangxi	7.10	7.59	0.94	15	3.32	22
Shandong	5.44	8.70	0.63	20	7.39	10
Henan	7.45	7.42	1.00	12	7.41	25
Hubei	7.63	8.49	0.90	16	4.74	11
Hunan	8.06	7.73	1.04	10	5.40	19
Guangdong	8.51	8.33	1.02	11	6.01	9
Guangxi	8.90	7.43	1.20	4	3.72	28
Sichuan	7.18	7.52	0.96	14	9.79	26
Guizhou	8.79	7.18	1.23	3	2.85	29
Yunnan	12.35	7.28	1.70	1	3.27	27
Tibet	6.02	6.97	0.86	17	0.19	18
Shaanxi	7.86	7.84	1.00	12	2.88	24
Gansu	9.86	7.76	1.27	2	1.96	23
Qinghai	7.85	7.69	1.02	11	0.39	15
Ningxia	8.61	7.74	1.11	7	0.40	20
Xinjiang	6.25	8.14	7.68	-	1.31	13

/a Tax effort = tax collections as a percentage of taxable capacity.

and discourages local governments from spending a greater share of their budgets for capital purposes. Only two taxes are specifically earmarked for capital construction and maintenance: the UCMT and the public utility surcharge. In theory and rhetoric, these taxes are intended to encourage spending to improve the capital stock, but they remain a very small share of total local resources and of total capital construction financing.

74. A second constraint is the absence of a formal mechanism for local governments to borrow for capital construction, even if repayment potential is not in question. Long-lived and expensive projects must be financed from current general revenues, ad-hoc grants from higher-level governments, accumulated savings from current revenue, or enterprise "contributions." The inability to borrow shifts the full burden of financing a project with future benefits onto current taxpayers and the general public, rather than on future users of the facility and specific beneficiaries. This raises the price of infrastructure investments and enhances the relative attractiveness of expenditures with current benefits.17/

75. Second, there are no formal programs of "benefit" or "user" charges to finance capital projects. Even where project beneficiaries exhibit a strong willingness to pay, there is no mechanism to tap this willingness, so that desired projects may go unfinanced. Instead, localities have turned to ad-hoc levies and "fiscal predation" of enterprises, both of which contribute to the erratic and nontransparent nature of the revenue system.

Equalization Properties

76. Income distribution issues also arise because of the design of the present system of intergovrnmental relations. Income inequalities appear to have increased between rich and poor provinces in China, and may have been accentuated by fiscal decentralization which benefits better-off provinces through increased local tax retention powers. In many countries, the fiscal system is pointed toward reducing income differences among provinces, the goal being to raise the poorer provinces' fiscal capacities and per capita expenditures, so that the inhabitants of rich and poor provinces receive a more comparable level of services. In many countries, equity is promoted by grants or transfers specifically targeted to poor areas, as distinct from transfers directed at achieving vertical balance.

77. China's revenue-sharing system does not appear to go very far towards equalizing per capita expenditures. A major reason is the inherent conflict between equity and incentives for revenue collection which have led to low contract quotas, the benefits of which accrue to better-off provinces. The objective of equity would be served if better-off provinces remitted more in order to transfer greater amounts to poor provinces. The government has not yet faced up to this inherent conflict in designing the current system. In fact, one could make the argument that the current system is intended to enable provinces to maintain a historical, benchmark level of expenditures, which were themselves unequally distributed in the first place. The result is that greater emphasis has been given to stimulating tax effort and to supporting historical levels of expenditure than to promoting interprovincial fiscal equalization.

78. A hypothetical example (see Box 3) illustrates that, although the revenue-sharing system in China makes net transfers to poorer provinces, these do not go far towards equalizing fiscal capacities between richer and poorer

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17/ There is a similarly low capital expenditure share in the extrabudgetary accounts, suggesting a similar effect at work. See also Remy Prud'homme: "Urban Finances in Shanghai," IBRD mimeo, for a discussion of urban and local financing reforms.

Box 3: EQUALIZATION PROPERTIES OF CHINA'S PROVINCIAL CONTRACTING

China's present revenue-sharing system involves Central-Provincial contracts of three types: (i) for high- and middle-income provinces, the center requires a "quota" delivery and applies a zero or near-zero above-quota sharing rate on above-quota collections, to provide collection incentives where taxable capacity is greatest; (ii) for some, mostly middle-income, provinces, there is "proportional sharing," in which the same sharing rate is applied both to the quota collections, and above-quota collections. This has been mostly phased out now and replaced with a simple "fixed quota delivery as in the high income provinces;" and (iii) a lump-sum transfer is given to most poor provinces.

An important question is whether this approach helps to equalize expenditure capacities in the various provinces. The example below explains this in a hypothetical case. The simulation tracks the growth in expenditure capacity (i.e., the amount that the local governments are able to spend) under this system over a 3-year period in which revenues are assumed to grow by 20 percent annually. Provincial expenditure capacity is defined as collections, plus or minus the transfers to/from the central government. The transfer to deficit provinces is assumed to be Y 50, fixed for five years.

The simulations show that: (i) in the deficit provinces that retain all revenues collected and receive a fixed transfer, expenditure capacity grows the slowest; (ii) in provinces where proportional (25 percent) contracting applies, expenditure capacity grows at the same rate as revenues (20 percent); and (iii) under the fixed-quota contract, expenditure capacity grows faster than collections. By implication, the richer (high tax yield) provinces' expenditure capacity grows far faster than the deficit provinces that receive direct transfers. At the end of year 3, the expenditure capacity under the fixed contract system has grown by nearly 60 percent; that under proportional sharing by 44 percent; and that of the transfer recipients, by nearly 30 percent.

Box Table 1: HYPOTHETICAL EFFECTS OF REVENUE SHARING ON EXPENDITURE CAPACITY (Yuan)

	Collections	Transfer to/from center	Expenditure capacity	Index of expenditure capacity ($E_n \div E_o$)
Example 1: Deficit Province (Receives Fixed Nominal Transfer)				
Year 1	100	+50	150	100
Year 2	120	+50	170	113
Year 3	144	+50	194	129
Example 2: Proportional Contract (25% sharing)				
Year 1	200	-50	150	100
Year 2	240	-60	180	120
Year 3	288	-72	216	144
Example 3: Contract System (Pays 25% of Base Year Collections, Fixed In Nominal Terms)				
Year 1	200	-50	150	100
Year 2	240	-50	190	128
Year 3	288	-50	238	158

provinces. If, in addition, the poorer provinces cannot or do not make the same tax effort as better-off provinces, the disparity in budgetary revenues available would be even wider. (See Annex 2 for a formal treatment of the counterequalizing effects of the system.) China's actual experience shows that expenditures in China's richer provinces grew faster than in the poorer ones, and per capita expenditures in better-off provinces are also significantly higher (Annex Tables 4 and 6).

79. For a tax-sharing system to be effective in equalization, it must first identify what is to be equalized, and then it must find some objective measures to allocate resources to achieve these objectives. Indicators of interregional differences and/or economic status must be made explicit in the allocation criteria of the transfers. For example, in Brazil and India (two countries with wide regional disparities) some 50 percent of the funds allocated among the states are based on "indicators of need." Indonesia and Malaysia use other even more detailed indicators of need, such as an index of physical infrastructure (road and transport network, etc.) and social infrastructure (schools, hospitals, etc.), per-capita income and population.18/

C. OPTIONS FOR REFORM

80. The economic system reform requires a change in the roles of central and local governments in China. China needs an intergovernmental system which:

- is consistent with maintaining an appropriate income elasticity of revenues
- provides incentives for public infrastructure development;
- which supports central government macroeconomic management;
- will influence resource allocation in line with national goals and priorities;
- will promote income distribution goals; and, most importantly,
- supports and is consistent with system reforms such as price and enterprise reforms.

Some Alternatives

81. The foundations are now being laid for a reform of the intergovernmental fiscal system, and a number of specific measures have recently been considered. While a decision was made in the December 1990 Plenum of the Communist Party to retain the present system for another five years (i.e., through 1995), the present system is not fully adequate for either level of government and fiscal reform remains a very live discussion.

82. Several different fiscal reform proposals either are under discussion in government or have been considered in the past. These are:

- Strengthening the local tax base by designating more taxes as strictly local and not subject to sharing;
- The reassignment of certain taxes (responsibility for both policy and administration) to the central government, and others to the local government;
- A local surcharge on the national government profits or sales taxes;
- Continued revenue sharing with a reduction of provincial sharing rates to increase local tax effort, supported by an equalizing transfer system.

18/ A survey of formula transfers is included in Roy Bahl and Johannes Linn Urban Public Finance in Developing Countries, Oxford University Press, forthcoming.

- Continued revenue sharing with an increase in the provincial sharing rates to increase central revenues, accompanied by a transfer system.

- A more piecemeal reform of the present system.

83. There is no easy choice among these models. Certainly one could not look to the experience elsewhere in the world to find one system that works best. Alternative structures of intergovernmental finance differ widely among countries, and the "right" choice depends on political considerations, regional differences, constitutional requirements and administrative capabilities. The most basic issues that differentiate systems are the command of each level of government over fiscal resources, and the resultant independence in spending these resources.

84. Whatever the tax assignment between levels of government, fiscal <u>transfers</u> are usually required to get a better correspondence between revenue-raising capacity and expenditure needs. "Vertical balance" of revenues and expenditures--the amount raised and the amount spent at each level of government--is seldom perfect, and it ought not to be, for several reasons: first, central governments (particularly in developing countries) have a decided advantage in revenue raising. However, many expenditures are better planned and delivered by the local level, where local preferences can be considered and the service can be better "fitted" to the local situation. For this reason alone, intergovernmental transfers are needed. A second justification for intergovernmental transfer is to finance services with "externalities," such as those which contribute to meeting national health or education objectives, and those where purely local financing could lead to underprovision from a regional or national perspective. Third is the equalization issue. With wide variations in resource endowments, intergovernmental compensating transfers may have a <u>redistributive role</u> to play among regions. There also is a political motive. Intergovernmental transfers allow the central government to maintain control over revenues--depending on how the grant system is designed--while delegating expenditure delivery responsibility to local governments. For all of these reasons, one would expect to find intergovernmental transfers as part of the fiscal system in all but the smallest and most centralized countries.19/ Box 4 outlines some international experience with different systems.

<u>Box 4:</u> FISCAL FEDERALISMS AND CENTRALIZED SYSTEMS

More countries are organized as unitary than as federal systems. Under a unitary system, there is not a legal statement of the powers and responsibilities of subnational governments, and provincial government fiscal powers are given through direct central regulation. The important issue here is "fiscal autonomy," the control over sufficient resources to plan and manage the provision of local public services without continuous interference and control by higher level authorities. The size of local government (expenditure) and the revenues of local government are important indicators. However, the degree of autonomy may also be defined by: (a) whether there is latitude in revising tax rates and bases; (b) whether borrowing powers are circumscribed; (c) whether the local budget is subject to higher level approval and monitoring; and (d) whether the local officials are appointed by a higher level government.

Evidence suggests that there is considerable divergence on the <u>expenditure side</u> from country to country. On the whole, local governments in most OECD countries and responsible for the delivery of most direct services to citizens, such as primary and secondary education, health, social welfare, housing, and the provision of local services such as street repair, refuse removal, and the like. Local governments in many developing countries have similar responsibilities but more often the central government takes a larger role, with overlapping functions in some cases.

19/ This is also true in the U.S. where federal grants to state and local government expenditures account for 16 percent of total state and local government revenues and 10 percent of total federal government expenditures.

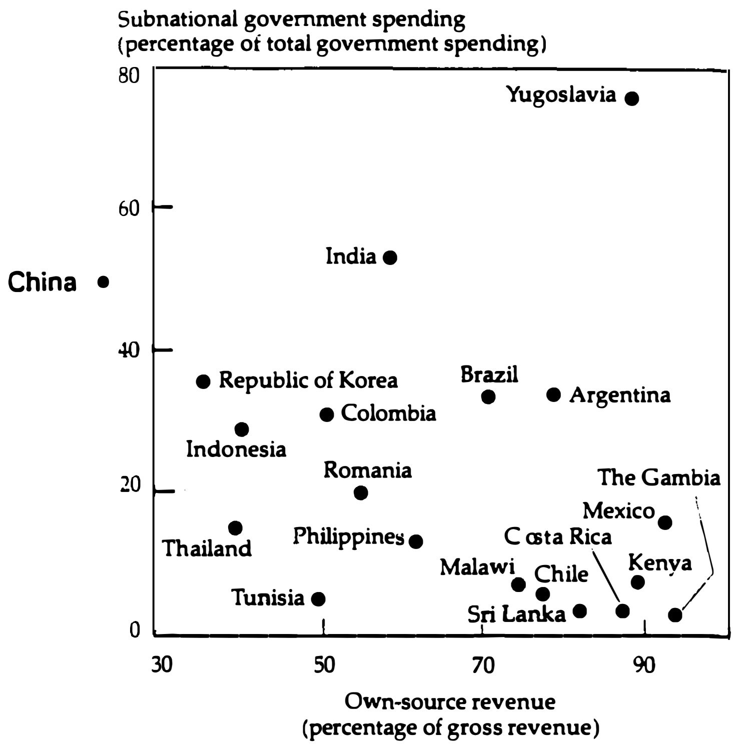
Box 4: FISCAL FEDERALISMS AND CENTRALIZED SYSTEMS (Continued)

The size and pattern of local government revenues also varies greatly from country to country. One common element, however, is that in no country do local taxes come close to financing local expenditures. In nine (European) countries for which information is available, local taxes accounted on average for 41 percent of local revenue in 1988. Non-tax revenue (such as user charges) for 20 percent and grants for 39 percent. There is also considerable variation from country to country in the role of grants: in most countries grants include both general grants, often with an explicit equalization element, and specific grants of many varieties.

Local government authority to adjust tax rates and to enact new taxes is limited in most countries, but is more limited in developing countries. In general, the national or state law prescribes the tax bases available (or unavailable) to local governments and sets maximum rates within which local governments must operate. These restrictions usually hold even for the largest cities. When the rate ceilings are binding, local governments have little revenue discretion and are dependent on the higher level government for approval of every revenue proposal. A similar arrangement holds for the adjusting of user charges for most major services, e.g., water rates, bus fares, rents. The issue then becomes whether or not the approving central or state government will permit the requested increases in rates and charges. Experience varies but some countries have consistently refused requests for local rate increases, e.g., cities in Bangladesh have been held at 1960 property tax rates despite repeated requests for increments. All countries are not subject to such stringent controls. Brazil and Venezuela are among the exceptions in that municipal laws are not subject to approval by higher level governments, though some tax changes do require approval by a central agency.

A number of conclusions are suggested by the range of outcomes sketched above. First, national governments clearly exercise considerable discretion in deciding how large a role local governments play, the extent to which local activities are financed from local revenues, and the types of taxes levied by local governments. Chart 1 below shows, for a variety of countries, the relative importance of the subnational fiscal sector in overall national finance, and the degree of fiscal autonomy which the sector has, as measured by the importance of its "own revenues" in total spending. The size of the subnational sector in China, at 45%, is not insignificant. With respect to the degree of revenue autonomy, formally defined, China's subnational governments are relatively revenue dependent, with own-source revenues only 11 percent of their total revenues. This compares with the subnational sector in countries such as Korea, and Indonesia, which are also large in the overall financial picture but are not self-financing. De facto, China's localities are, comparatively, much more revenue independent than these most. At the other extreme are countries such as Chile, Kenya and Sri Lanka, whose subnational governments' importance in the overall fiscal picture is small, but which are self-financing.

Chart 1: Subnational Finance: Revenue Independence and Scale of Subnational Sector



Source: R. Bahl and J. Linn, op. cit, and R. Bird and C. Wallich; "Local Government Finance in Hungary" World Bank Working Paper, forthcoming; Chart source: 1988 WDR, World Bank.

Principles of Tax Sharing and Tax Assignment

85. There is no ideal assignment of taxes between central and local governments. However, there is general agreement that responsibility for setting the rate and base of certain tax sources is more appropriate for local governments and while for other taxes, the national government should have such responsibility. These principles of "tax assignment" relate to the respective responsibilities of central and local governments in resource allocation, income redistribution, and macroeconomic stabilization and growth. In developing countries there is the issue of the administrative capabilities of local governments; in large and diverse countries there is an issue of tax harmonization; and in China, there is the added dimension of compatibility of the state-local system with China's economic reforms.

86. The stabilization-growth objective of the government fiscal system clearly calls for central control over the money supply and most debt management. Taxes on international trade and a substantial share of income and general sales taxes should also reside with central governments. The central government must have the tax instruments to deal with a central deficit or with inflation. This does not mean that local governments should not have access to sales or income taxes. Rather it means that the assignment of these taxes between levels of government should recognize the need for the central government to use tax policy in controlling the macroeconomy. Where local governments do have taxes with stabilization properties, stabilization policy may be made more difficult if local government expenditure policy conflicts with the center's stabilization objectives. The converse of this is that central governments can live with more unstable sources of revenue because they can borrow to make up the shortfall. Local governments, by contrast, require relatively stable sources of revenue.

87. There are "special" taxes that ought to be assigned to the central government, if they are at the center of national policy. The tax on motor fuels, and perhaps that on major natural resource-based exports, are examples.

88. If the assignment of taxing powers were to be made solely on a basis of macroeconomic control considerations, local governments would not have access to any of the broad-based taxes. But government also has an allocative function, i.e., it decides on how much of national (local) resources shall be spent on which government-provided goods. Here local governments should play a greater role, it can be argued, because they are closer to the people and better able to take the pulse of the local population for public services. The efficiency argument for local government revenue raising powers would be based on the types of local services delivered:

- general purpose local services whose benefits do not spill across local boundaries should be financed by general purpose local taxes;
- services that are locally delivered and can be "priced," e.g., public utilities, should be financed with user charges; and
- services with benefit spillovers should be financed either directly by the central government or via revenue sharing.

The Chinese system does not even approximate these norms, indicating that efficiency considerations play little role in the assignment of functions to local governments.

89. In China, there are other important efficiency considerations that pull the assignment of taxing power toward centralization. It is important that the fiscal system accommodate the enterprise restructuring through mergers, conglomerates, joint ventures or joint stock companies. This suggests, a priori, that enterprise income taxes should be central government taxes. To

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89. In China, there are other important efficiency considerations that pull the assignment of taxing power toward centralization. It is important that the fiscal system accommodate the enterprise restructuring through mergers, conglomerates, joint ventures or joint stock companies. This suggests, a priori, that enterprise income taxes should be central government taxes. To the extent that price reforms generate major shifts in value added across provinces, a case can be made for centralizing a portion of the VAT, and using its proceeds to offset these effects, at least until the transition is largely complete.

90. There are also equalization norms that can be used to guide the decision about which taxes should be local and which should be central. The distributive function of government would seem to be an argument for a centralized taxing system in China. If there are wide disparities in income and wealth across provinces, as there are in China, then local taxing powers can exacerbate these disparities. Central taxing powers coupled with an equalizing distribution of transfers can partially offset these disparities, as can the subsidization of "priceable" public services. The present situation in China is one where such equalization has been an important part of the system, but where the present trend is in the direction of less equalization through the fiscal system.

91. The capacity to administer taxes is always an important constraint to the assignment of taxing powers in low income countries. If local governments cannot effectively assess and collect the taxes, then the system will tend toward centralization. This is not an issue in China because the tax system is already administered by the local government sector. In fact, the administrative question in China is whether the central government is able to effectively control and monitor the local tax administration system. The present situation is one of de facto local government taxing powers because the central government is unable to control the local administration (or because it has chosen not to).

92. A final consideration is tax harmonization. There are certain taxes that simply ought to be central because it is too difficult to try and harmonize them across provinces. The two most important examples are customs duties and company income taxes. In the former case, the revenue would accrue to the entry province, or every province would levy an entry tax on commerce.20/ Neither are workable alternatives. In the case of company income taxes, the problem with allowing provinces to levy separate rates is how to assign the tax base and therefore revenues to each province.21/ In China there is the special problem of how to compensate for firms whose profits are a result of national subsidy. Box 5 summarizes one possible approach to tax assignment.

93. The conclusion from this discussion is that there is no "best" way to divide taxation responsibility between the central and local governments. The

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20/ Indian cities levy such a tax, known as "octroi." It is charged against all products entering or passing through the corporate boundaries of a city. It is revenue productive but widely criticized for being disruptive to interstate trade and corrupt in its administration.

21/ U.S. states levy separate company income taxes, and divide the taxable base for multistate firms according to a complicated three factor formula. In Switzerland, local jurisdictions (the cantons) are allowed to levy corporate income taxes as well as personal income taxes and natural resource taxes.

Box 5: PRINCIPLES OF TAX ASSIGNMENT

The table below outlines one possible arrangement of tax assignments that derives from the principles just outlined. As shown in the table, taxes usually levied at the national level include resource taxes and personal income taxes. Customs duties are also almost always national-level taxes because of their strategic importance, as are resource and income taxes because of their important role in stabilization and distribution policy. In theory, customs duties and income taxes could be levied at uniform rates in all localities with the same result, but this would be harder to administer. Sales taxes are often thought to be best levied at the provincial level, if the region is big enough to avoid revenue loss from consumers shopping across the border in provinces with lower taxes. The revenue growth from sales taxes is usually stable. Excises and surcharges are also appropriate as provincial taxes.

Box Table 1: TAX ASSIGNMENT

Central level taxes	Provincial and local taxes
Personal income tax	Surcharges /a
Corporate income tax	Sales taxes
Natural resource taxes	Excises
Excises	Property Taxes
Customs duties	User fees charges
	Surcharges /a

/a Preferably at rates standardized across localities to avoid inequities across regions and distortion of prices.

The actual practice of tax assignment does not always parallel the above principles. For example, in Switzerland and the United States, local jurisdictions (the cantons and states) are allowed to levy corporate income taxes as well as personal income taxes and natural resource taxes.

case for centralization is usually built around macroeconomic considerations and equalization, and the case for local government taxing powers around efficiency considerations. The "best" way to do things depends on how the government weights these considerations. In China, the weighting has come out, de jure, in favor of a very centralized system, i.e., provincial and local governments have very little tax policy autonomy. It might be argued that the present arrangement is too centralized for China at its present stage of development and the time is now right to grant more local autonomy.

94. As noted above, there are several problems with the current Chinese version of fiscal centralization. First, local government revenues are procyclically unstable, while those of the center are too fixed. Second, local governments' free hand in the implementation of tax policy enables them to effect major changes in the incentive structure facing economic agents. Third, most local financing is from shared taxes, and the present sharing formulae are moving away from equalization of interprovincial expenditure capacity. Finally, the present system complicates price reforms, because of its revenue impact on different provinces (there would be major gainers and losers), and interferes with enterprise reforms in that new organizational modes such as joint ventures or mergers, especially across taxing jurisdictions, are effectively discouraged.

Considerations in Weighing the Options

95. The major questions to be faced up to in evaluating the choices for fiscal decentralization are whether local governments will take on more responsibility for financing local services (in particular, whether local

governments will be given some degree of revenue-raising autonomy); whether tax administration can remain a local government responsibility; and whether the intergovernmental transfer system should include a formula-based transfer program.

96. The six models under discussion each have differing implications for consistency with and support to reforms, stabilization policy, equalization potential, resource allocation, tax administration, and the extent and nature of the autonomy given to provinces. Their pros and cons are evaluated in turn in the following section and summarized in Box 7. Whatever model is chosen, or even if the present system is essentially retained, there must be provision for (i) the institution of new methods of infrastructure financing, (ii) improved fiscal planning, and (iii) a strengthening of the local tax administration.

<u>Options</u>

(i) <u>Option 1: Tax Reassignment: A Centralized Version</u>

97. Reassignment of taxing authority--giving local governments the power to introduce their own taxes and to set tax rates--is one reform possibility that would fit the objectives outlined above: it could raise more revenue and, if tax rates can be set by localities rather than by central mandate, it could make local officials more accountable to their populations for the quality of services delivered. Successfully implemented, it could stimulate the tax collection of local governments. This approach, applied in its extreme form, would call for fully separate central and local taxes, and an end to the shared tax system. The three questions to resolve would be: which taxes to give to each level of government, how to administer the center's taxes (since they are currently collected by local governments), and how to design an appropriate transfer system.

98. One possibility, call it "Version A", is a very centralized approach under which the enterprise income tax and the product, business, and value-added taxes would become fully central revenues. Provincial governments would be given minor taxes (e.g., the 13 "fixed local taxes" assigned to them in 1985) and allowed to introduce new local taxes and user charges. There would be separate central and subnational tax administrations because local governments would be unlikely to aggressively collect central taxes in which they do not receive a share.

99. If provincial and local governments were given only the minor taxes, they would be unable to finance all services for which they are now responsible. One response to this mismatch would be for the central government to assume direct responsibility for provision of certain services. This option is not in keeping with the tenets of system reform and increased decentralization; the adjustment costs would be very great; and, moreover, China is simply too large and diverse a country for a centralized public expenditure system to be managed efficiently. A more likely solution is to allow local governments some additional taxes and to create a regular program of central grants to make up the revenue shortfall. The grant could be distributed on a formula basis, with the elements of the formula chosen to reflect provincial income, or need (see below). For example, the grant distribution among provinces might be based on some combination of per capita income level, population size, some indicator of infrastructure needs, urbanization, etc.

100. A very great advantage of this centralized version of tax assignment is the flexibility that it gives to the central government to influence interregional equalization and the sectoral composition of investment. It also puts the government in a better position to use the tax system for macrostabilization goals. And, because it merges responsibility for tax structure and tax administration, the tax system can be used to achieve

allocative goals. The latter point is especially important: the tax "levers" that the central government designed would be more effective. This option--since the center would receive all profits and sales taxes--would also reduce the fiscal impact of price reforms and make changes in enterprise organizational forms irrelevant to provincial government finances. The biggest disadvantages to this approach are the loss of provincial and local control over revenues, the reduced incentive for revenue mobilization by local governments, and the increased expense associated with two separate tax administration machineries and with the maintenance and operation of a grant system.

101. This approach is used by most low-income countries that have unitary forms of government, but it may not be feasible for China. There are few local taxes currently in place, and together they account for 19 percent of total taxes collected, 9 percent of provincial and local expenditures, and about 1.5 percent of GNP in 1985 (see Table 5).22/ To increase the local tax share significantly beyond this would imply allowing local governments to introduce new taxes with significant revenue potential (see below) or making a formal reassignment of one or more major taxes to the local governments [discussed as Option (ii) below], alternatives which do not seem likely.

102. Of the various options for increasing local revenue-raising powers, the land use tax is prominently mentioned. The rationale for levying this tax is straightforward. Since land owned by the state has a location value, it is appropriate to charge for its use, and to charge according to its location so as to avoid the overuse of land relative to other factors of production. The problem with a land-use tax lies less with its justification in a socialist economy than with its implementation. Valuing property and location value is difficult when there is no formal market in which land is bought and sold. Similarly, taxes may not induce a better use of urban land when enterprise location mobility is very limited. The adequacy of the existing cadastre and the problems of recordkeeping are additional issues. Finally, there is the question of the land tax's revenue potential. Unless levied at a high rate, it is unlikely to have any significant revenue impact or to influence decisions; however, a high rate may not be feasible due to constraints or lags in other system (e.g., price) reforms.23/

103. User charges can generate more local resources, cover the cost of services, and charge users for benefits received. Transport, water supply, gas and housing are each frequently cited as important services where present charges are nominal. While at first glance, increased user charges might seem to be a way of financing certain services, the situation in China is more complicated, and it is not clear how large a revenue boost there would be. Increased user charges would lower the profitability of consuming enterprises and thereby profits tax revenue, since services are tax-deductible costs. This would be partially, but not completely, offset by an increase in sales and profits tax revenues from the public utility enterprise, since public utilities are typically taxed at preferential rates. Localities may well receive a net reduction in revenues if public utility user charges are increased. However, it also could be that, where government subsidies to the utilities have been necessary, increased user charges will relieve some pres-

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22/ The "13 own taxes" are the Urban Maintenance and Construction Tax (UMCT), vehicle utilization tax, the profits tax on collectives, land occupancy tax, vehicle tax, house tax, slaughter tax, animal trading tax, free-market transaction tax, salt tax, agriculture tax and local vehicle utilization tax.

23/ For a detailed discussion of the land tax use in China, see Roy Bahl and Jun Zhang, mimeo, World Bank, 1988, "Land Use Taxes in China."

sure on the general local budget. In short, the net impact of increased user charges in the local government budget is not at all clear.

(ii) Tax Reassignment: Decentralized Version

104. Another approach (call it "Version B") would reassign to local governments one or more of the productive tax bases, such as the sales or profits tax. This would provide sufficient or nearly sufficient revenues for the higher income provinces, and only an equalizing supplementary grant scheme would be necessary. This solution would give provincial governments a considerable amount of discretion in determining the level of revenues and expenditures, and would increase the economic decision making role of local governments. There is precedent for this more decentralized approach. The assignment of broad provincial and local taxing powers can be found in large countries such as the United States, Brazil, Colombia and Nigeria, where state and local governments raise 25 to 50 percent of all taxes.

105. The major issue is the choice of taxes to hand over to subnational governments. In practice, the central government is unlikely to give up either of the two major taxes, and it is not at all clear that it should. The sales tax is the major revenue producer in China and will almost certainly not be decentralized, although it would be a good candidate for this. Most central governments levy a general sales tax (the United States is the most notable exception), though many share the proceeds with subnational governments.24/ The profits tax would be a good choice in that it is revenue-productive, but, as a purely local government revenue, it would raise a number of problems. Local budgets would be at the mercy of the typically cyclical behavior of profits and the impact of central government macroeconomic, price and wage policy on the tax base. Local governments whose enterprises continue to be affected by central price controls would be sorely disadvantaged. Moreover, the assignment of the profits or product taxes to provinces would lead them to be very unequally affected by system reform. Price reforms that affected, say, intermediate goods-producing provinces would benefit them vis-a-vis user-provinces. Full local retention of the profits tax could continue to discourage new corporate forms, until rules for the sourcing of profits across business units are devised.

106. The second major issue is determining the required revenue base. This requires, first, clarifying the expenditure responsibility of the central and local governments, respectively. In China, these responsibilities are not clearly separated; and the issue of revenue adequacy cannot be discussed separate from expenditure responsibility. The assignment of the profit or sales tax to local government would almost certainly require separate central and local administrations, requiring duplicate audits, reporting requirements, and the loss of economies of scale in tax administration.

107. Finally, this option would be counterequalizing, in that the highest income provinces would generate the greatest amounts of revenue. For disadvantaged communities, a program of compensating grants will be required. The challenge is to design a compensation program that will equalize, but not dampen the incentive to mobilize local revenues. As the experience in many countries will attest, designing and implementing such a system is difficult.

24/ Note that if the VAT were made into a provincial tax, rates would have to be uniform in all provinces to avoid special administrative problems.

(iii) The "Local Surcharge" or Tax Base Sharing Option

108. As an alternative to reassigning taxes or allowing localities to levy new taxes, localities could be given the option of "surtaxing" the present national taxes at a prescribed higher (local) rate. This model involves a sharing of the tax base, and is fundamentally different from a reassignment of taxing power. Provincial governments would be permitted to levy (within a range) a surtax rate on the enterprise, product, business, and/or value-added taxes. In the case of the enterprise tax, a basic rate (say 35 percent instead of the present 55 percent) would belong to the central government; provincial governments could levy an additional rate of up to, say, a maximum of 20 percent. Alternatively, the subnational tax might be levied as a percentage of the central tax liability, in much the same way as the present UCMT is now calculated as a percent of sales tax liability. (Box 6 illustrates how a local surcharge might work). The UCMT offers an interesting precedent for this approach, differing from the proposal here only in that the surtax rate is fixed by the central government.

109. Whether revenues under this option would be adequate to meet provincial expenditure needs depends on how the surtax limits are set. If, on average, rates were set to reflect expenditure needs (again, these would have to be defined), higher-income provinces could generate adequate revenues but the lower-income provinces could not. Equalizing formula grants would be required to compensate for the low fiscal capacity of some provinces. If local tax administration is retained under a base-sharing program, provincial and local governments could not be permitted to engage in any tax relief policies that would affect the base or rate of the central government tax. If provincial governments chose to provide tax preferences, this could be done only by reducing their own tax base or surcharge rate. The effect of this principle is illustrated in the two cases in Box 6 below.

Box 6: PROFIT AND SALES TAX SHARING UNDER A BASE-SHARING MODEL

The simple numerical example here describes one version of how an enterprise would be treated under such a system. The central sales and profits tax rates are assumed to be 10 and 20 percent, respectively, and, to make matters simple, the tax bases are gross sales and gross profits, respectively. In case A, the provincial government chooses rates of 5 and 15 percent, with no preferential treatments, with the result that it collects Rmb 950 from this enterprise by comparison with Rmb 1,600 for the central government.

	Case A	Case B
Gross Sales (Rmb)	10,000	10,000
Central sales tax at 10%	1,000	1,000
Provincial sales tax at 5%	500	-
Provincial sales tax at 3%	-	300
Less Production Expenses	5,500	5,500
Equals Gross Profits (Rmb)	3,000	3,000
Central profits tax at 20% a/	600	600
Provincial profit tax at 15%	450	-
Provincial profit tax at 10%	-	320
Total Central Revenue (Rmb)	1,600	1,600
Total Local Revenue (Rmb)	950	620

In case B, the provincial government offers a preferential treatment to this enterprise and limits the sales and profits tax rates to 3 and 10 percent, respectively. Central revenues would not be affected, Rmb 1,600 is still raised in Case B, but local revenues would be reduced to Rmb 620 because of the tax abatement.

[a] We make the assumption that provincial and local government sales taxes would be deductible for provincial and local income taxes but not for central income taxes.

110. A choice would have to be made as to which taxes to surcharge. The sales and profits taxes would be the candidates in China. One could make strong arguments for the sales tax: (a) a major problem with an income tax surcharge would be prorating profits between provinces in the case of multiplant firms; (b) a sales tax would cover more firms (those making profits as well as those not making profits), hence the financing of local services would be more broad-based; (c) more efficient enterprises would not be penalized with a higher rate of profits tax; and (d) local accounting practices are such that total sales value can probably be estimated more accurately than total profits.25/ The principal argument in favor of the profits tax is that it is a better ability-to-pay indicator.

111. Compared to the local tax option and more balanced tax reassignment models discussed above, this approach implies less central governance of the tax base and considerably more local fiscal self-determination. There are disadvantages to this shared-base approach. Provinces with a stronger economic base would have an advantage and the supplementary grant program would have to be created and maintained. The local tax administration system would have to be carefully monitored by a better management information system (MIS) than presently exists to ensure proper collection of the center's tax share. The central government would also give up some control over the tax system's stabilization and allocative properties at the margin, especially if the enterprise tax were surtaxed, and therefore would have less leeway in using tax policy to pursue stabilization and macroeconomic goals or to address allocative objectives. A major consideration in structuring a surcharge would be how to recalibrate the system (through grants or other mechanisms) to offset the effects of price reforms on fiscal disparities. To the extent that provinces continue to generate a major share of revenue from profits tax surcharges, this could impede enterprise reforms.

112. On the other hand, the surcharge has great advantages over the alternative of designing and implementing a fully new tax. The administrative structure to assess and collect the surcharge is already in place and at the right rate it can be a substantial revenue producer, and would give local governments some revenue autonomy. Compared to a low-yield land tax, a profits or sales tax surcharge are clearly superior as revenue-raising measures. Thus, despite the disadvantages, one might be able to make a good case that this could be an appropriate approach for China. It would allow provincial governments to continue to use taxes to promote local industrial policy, while allowing the central government to retain some control over the level of taxation and complete control over the definition of the tax base. This system would give the local governments a significant incentive to improve the efficiency of their tax administration. It might also be argued that, by comparison with the present system, central government macroeconomic control would not be compromised markedly.

25/ In the case of turnover taxes, the addition of a local surcharge poses few conceptual or practical difficulties. An invoice-based VAT could raise some difficulties. One problem is that provinces specializing in intermediate goods would almost certainly prefer to "export" taxes to other provinces rather than zero-rate their own "exports." A true destination VAT would require some kind of adjustment for taxes on "imported" goods, as will now be the case in EEC countries. However, it is doubtful that local governments would wish to give credit for "foreign" taxes on inputs purchased from other provinces. While the experience of VAT harmonization in the European Community offers some parallels here, it appears unlikely that a regionally rate-differentiated VAT could operate satisfactorily in China without central control. See Tait, Alan, VAT: International Experiences and Problems, 1986.

(iv) Higher Provincial Retention Rates

113. Another way to increase subnational revenues is simply to change the sharing formula, i.e., to allow local governments to retain a greater percentage of what they collect. The central government is already moving in this direction by increasing the marginal retention rates for provinces with a greater taxable capacity, and by entering into special contracting arrangements with certain provinces (e.g., Shanghai). The sharing rate is in fact used as a policy instrument within provinces, where retention rates for cities vary widely. (Low-income cities/counties usually are given a higher retention, with lower retentions applied to the richer urban areas.)

114. This approach has the strong supports many of China's provincial governments. Its effects, however, are uncertain and require further analysis. On the positive side, substantial revenues would remain at the local level and resources available for allocation to local projects would increase. A greater local tax share would create a greater sense of local autonomy, and local officials would have a greater incentive to improve tax administration. System reform which gives more autonomy to enterprises combined with an increased sharing rate would reduce the gains from collusion between local governments and enterprises and would increase overall resource mobilization. In all of these cases the issue is whether the magnitude of the response would be significant.

115. Increased local retention also has serious drawbacks. The central government could view an increased provincial share as a further drain on its total revenues. This would exacerbate the center's budget problem and reduce its ability to reallocate revenues among provinces. This proposal would, therefore, involve a trade-off between encouraging more revenue mobilization by local governments on the one hand, and lessening the redistribution of fiscal resources from richer to poorer areas, on the other. Therefore, it could well turn out to be a counterequalizing measure. Finally, inasmuch as price reforms will affect provinces tax bases, according to whether they are producing or consuming goods which are liberalized or continue to be subject to controls, higher local retention will need to be linked with some method of recalibrating the provincial quotas to offset the impact of price reform on the revenue base.

(v) Lower Provincial Retention Rates

116. The obverse approach is the choice of the center. A lower provincial retention rate would, it is hoped, give the center more revenue, assuming localities do not respond by reducing their tax collection efforts. The greater revenue base could improve the center's ability to reallocate revenues among provinces and equalize resources through a grant system. It could provide the center with more resources for nationally important investment projects, or projects spanning several provinces, and would strengthen its ability to use fiscal policy for stabilization purposes. The major question here is whether central revenues would rise, or whether local government reductions in tax effort would be the dominant impact. Provincial and local resistance to this option would be strong.

(vi) Reforming the Present System

117. All of the schemes reviewed above are "big" changes. They call for eliminating the existing tax-sharing system, giving local governments some rate-setting autonomy, creating a grant system, and changing the nature of responsibility for tax administration. Another possibility is that reform will go more slowly, and a decision will be made to eliminate some of the most objectionable features of the present system while developing its strengths. Among the advantages of the current system are that its local orientation fits some of the goals of decentralization. It recognizes that provincial

officials are in a good position to determine how tax relief can best stimulate the local economy, leaving it to them to decide between tax contracts to stimulate production, a tax holiday to protect a pioneer industry, a one-year abatement to help an enterprise through a cash flow problem, etc. There is an efficiency case for the ad-hoc approach since each local government is able to trade between preferential tax treatments and revenues for general government services.

118. On the other hand, there are arguments against the ad-hoc, decentralized approach. First, because local governments can grant tax relief, the present system probably reduces, rather than increases, general government revenues, at least in the short run. Second, its ad-hoc nature produces a very uneven pattern of effective tax rates across enterprises. Whether this horizontal inequity is acceptable depends on the objectives of the local economic plan. Third, the ad hoc approach interferes with efficient tax administration. Proliferation of special treatments for enterprises makes the tax system more complicated and more difficult for local officials to administer. Moreover, there is almost certainly some tendency to be lax in assessments when there are so many possibilities for special treatment.

119. But perhaps the most severe criticism of the ad-hoc approach is that it destroys the notion of a <u>system</u> of taxation. The central government increasingly discusses the possibilities of using the tax system as a "lever" to influence economic activity. However, if local governments can change the pattern of effective tax rates without agreeing such changes with higher level governments, then the intent of using the tax system to influence economic activity can be defeated. There is a direct trade-off between the central government's objectives to indirectly influence the allocation of resources in the economy, and decentralization in the form of power to grant tax relief.

120. The central policy question becomes whether it is possible to allow local governments some revenue powers as an incentive to increase revenue mobilization and, at the same time, allow them to retain the power to grant abatements, holidays, and relief through contracts. To the extent the government's objective is to create more uniformity in its system, the proper strategy is to move toward eliminating the ad-hoc power of local government to influence the distribution of effective tax rates. To the extent decentralization is more important than the use of taxes as an economic lever, there might be some argument for a continuation of the present practice. The granting of increased taxing powers <u>and</u> a continuation of the present ad-hoc practices, however, are not compatible.

121. These considerations suggest that, if the current system is to be "patched up," the areas where reform is most needed are:

- rationalizing the rates of central-provincial revenue sharing;
- rationalizing the system of provincial grants;
- bringing the implementation of central tax policy under control; and
- modernizing the system of tax administration and financial management.

122. The following changes should be made in the system of central-provincial <u>sharing rates.</u> First, the trend to fixed nominal quotas should be eliminated, and a sharing ratio should be determined on some objective basis rather than in an ad-hoc way. If one province's retention rate is to be lower than another's, the difference should be based on objective indicators. A formula should be substituted for the present negotiated and judgmental approach. For example, the formula might compensate for lower fiscal capacity or greater fiscal need, or reward greater revenue mobilization (see next section).

Second, the tax-sharing ratios should remain fixed for a number of years to provide local governments with some certainty, and to discourage the sharing ratio from being a subject of annual negotiation. Third, the provincial and local governments should know the sharing ratio before the beginning of the fiscal year, to ensure better fiscal planning and the realization of any incentive effects.

123. Additionally, the grants system should be rationalized,i.e., it should be made more regular, should have a known distribution formula, and should be coordinated with the shared tax system (see below). One possibility would be to set up a "Grants Commission" along the lines of those in India and Australia, to study and recommend a fixed, five-year program of revenue sharing. In the interim, and before price reforms are completed, the grants system must incorporate some objective compensating mechanisms for the impact of price reforms on provinces revenue base. Finally, the enterprise tax should not be allowed to accrue to the level of government owning the enterprises. This interferes with merger, exploitation of scale economies and other interjurisdictional joint venture.

124. The central government must also rationalize its delegation of <u>administrative powers</u> to provincial governments through a better monitoring and tax information system. Before the central government can evaluate the costs and benefits of tax relief, it must understand the pattern of taxation that is being applied and the existing distribution of effective rates. At present, the central government has no information system that can produce this information. It would be fair to say that the central government does not have a good idea about the impacts of its overall system.

125. Box 7 summarizes some pros and cons of the various options developed and ranks them according to their effectiveness in reaching the selected objectives of stabilization, equity, and incentives for revenue mobilization. Some form of tax sharing or base sharing rates higher on most indicators than does reforming the present system, or simply changing the present retention rates.

<u>Other Essentials for Center-Local Fiscal Reform</u>

126. <u>A System of Transfers.</u> Whatever the choice of a new intergovernmental fiscal system, it is not likely that the new revenue authority will match expenditure responsibility for every province. There will be a need for some kind of intergovernmental transfer system. In some ways this is a happy compromise between centralization and decentralization. A system of transfers permits central governments to retain control over the taxes on the more productive bases but it guarantees state or local governments a flow of revenues and can have a significant impact on interprovincial equity. On the other hand, transfers can make local governments less accountable for their fiscal decisions (they can increase spending without increasing taxes); hence, there will be less incentive to improve local government operations or be innovative in service delivery. In the case of China, special attention also needs to be paid to the impact of price reforms on the revenue base of the different provinces and how the transfer system can help offset the impact the price changes on fiscal capacity.

127. With respect to allocative effects, a transfer system should be structured so as to encourage efficient management and fiscal planning by local governments. From this perspective, shared taxes with or without a "formula" distribution offer the best possibilities for designing a transfer system which enhances local fiscal planning. If the transfer system is intended to influence budget priorities, other types of transfers may be better. Partial cost reimbursement grants which lower the relative price of one government service relative to others offer the best possibility for stimulating spending (teacher salary grants and public works grants are

Box 7: WEIGHING THE SIX OPTIONS IN CHINA

The table below summarizes how these approaches rate against the criteria that are generally used to evaluate an intergovernmental fiscal system.

Box Table 1: ECONOMIC EFFECTS OF ALTERNATIVE APPROACHES

	Equity	Revenue mobilization	Macro-stabilization	Allocative efficiency	Reform compatibility
(i) Tax reassignment - "A"	N /a	L	H	L/N	H
(ii) Tax reassignment - "B"	L	N/L	L/N/H	H	N/L
(iii) Local surcharge on central taxes	L/N	H	N/L/H	N/H	N
(iv) Increased local retention rate	L	H/N	L	H	N/L
(v) Decreased local retention rate	H /a	L/N	H	L	N/H
(vi) Reforming present system	L	L	L	L	L

/a Equity impact depends on the accompanying transfer system.

Definitions:
H = Positive economic effects or improvement with respect to present system.
N = Neutral
L = Negative economic effects

Reform option (i), assigning certain taxes to localities, has many attractions: it has a neutral impact on the center's ability to conduct stabilization policy since local governments will be assigned only minor taxes. Compared to the present system, the central government's fiscal management position would be stronger. It is likely to encourage local government tax effort since localities will retain all their revenues, but, the local administration would now have less incentive to collect central taxes, and would likely have to be replaced by a central government administration. Since poorer local governments will have a smaller tax base, the local tax option is likely to be counterequalizing. However, a transfer program could offset this. It is highly compatible with price and enterprise reforms, assuming an appropriate transfer system is in place.

The decentralized version of the reassignment of taxes, option (ii), could be positive or negative from the point of view of macroeconomic management, depending on which taxes are given to the local governments. In China, it is unlikely that the provinces will be given access to a major revenue source, hence the macroeconomic management function may not be harmed. On the other hand, if important revenue sources are not passed down, it is difficult to see why provinces should improve tax effort. Similarly, the increased self-reliance of provinces suggests low equalizing potential, unless the central government simultaneously introduces increased transfers. This option ranks lower than (i) on compatibility with reforms.

Option (iii) is neutral to low on macroeconomic grounds depending on which tax bases are surtaxed and how the enterprise income tax is administered. It must even improve things to the extent its introduction is coincident with a sharing out of local tax concessions including contracting. From an equalizing point of view, however, its properties are poor (in the absence of transfers), in that the tax base in poorer provinces is likely to be smaller than in better-off provinces. From a revenue point of view, the credentials of the surcharge option are strong, depending on the latitude of the local governments in rate determination. Its allocative properties are positive because local governments would have more flexibility to choose a level of taxes and a level of expenditures. It is not highly compatible with reforms, unless contracting can also be eliminated.

Option (iv) of an increased local tax share has appeal from the perspective of its impact on revenue mobilization. It rates low on equity. On the stabilization side, it rates low, inasmuch as provinces obtain a (guaranteed) larger share of major taxes. From an allocative perspective, the more local control, the closer will the local budget match local preferences, hence it rates high. It also rates low in terms of compatibility with reforms. Option (v), reduced local retention, would have the opposite effects.

Lastly, there is the reform of the present system; its disadvantages from the perspective of revenue mobilization and tax effort have been described in some detail. We have also noted that its properties, from the perspective of the central government, falls short of what is needed for stabilization and reduces scope for discretionary central expenditure policy and equalization.

examples of such programs). Conditional, earmarked formula grants are another approach. Their effectiveness depends on the income elasticity of demand for the expenditure in question, whether the expenditure would have been made in any case, and whether local revenues are "fungible."26/

128. The impact of transfers on tax effort, and the possibility that grants may affect local revenue mobilization, needs attention in transfer design. Ideally, one would make the transfers stimulative, so that the transfer has the net effect of increasing total local government expenditures. One way to do this is to build tax effort directly into the allocation formula, so that governments which exert a relatively greater tax effort, receive a larger grant. This has been tried in a number of countries, but without great success.

129. An important feature of grants is the extent to which they equalize fiscal capacities and public service levels. Typically the objective is to equalize the expenditure capacity of local governments to finance needed services. Usually, full expenditure capacity equalization is not realistic, since disparities in fiscal capacity are simply too large to be fully offset. So, most grant systems try and allocate relatively more funds to those areas that are thought to have the least capacity to finance services, or to those that have the greatest expenditure needs. With respect to the former objective, allocation is usually by formula and relies on some measure of financial capacity. In this respect, per capita income figures are an important ingredient in such revenue-sharing formulae. Expenditure "needs" also can guide the distribution of grants, but need is a subjective concept and most governments have chosen objective proxy measures rather thansophisticated indicators. Population is often used as a crude indicator of needs (i.e., equal per capita allocations of central government assistance are thought to address variations in needs). Land area, to reflect the costs of covering a more dispersed population, and equal shares, to reflect the fixed costs of government, are common measures. Some countries try to allocate special shares to provinces with especially heavier concentrations of the poor. It is not clear, however, that any of these approaches has led to more equalization in the distribution of resources across provinces in developing countries. In the last analysis, it has not been possible in most countries to find satisfactory indicators of capacity and need for inclusion in the formula.

130. An important purpose of the grant system is to ensure adequacy of revenues for local governments. "Adequacy" is defined in light of two considerations: (i) that transfers be large enough to redress the imbalance between the revenue bases and expenditure responsibility assigned to local governments, and (ii) that transfer revenues should grow at least in proportion to the growth in local population and prices, i.e., that transfers allow local governments to hold real per capita expenditures constant. This, in turn, depends on: (a) how the growth in the pool of funds available for transfers is determined; (b) how the distribution among local governments is made; and (c) whether the central government actually makes the full monetary distributions called for by the transfer system. Box 8 outlines some international experiences with transfers and formula grants.

131. Finally, until price reforms are completed, the transfer system will need to address the impact of price reforms on the revenue base of each province. In principle, there should be positive and negative offsets, with some provinces (e.g., intermediates-using, processing provinces) ceribus paribus receiving higher transfers than other (e.g., intermediates-producing) provinces. Empirically, this will require estimates of the revenue base

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26/ See Bahl and Linn, Chapter 13, forthcoming; and Shah, A., "Fiscal Federalism in International Perspective," World Bank Working Paper.

Box 8: FORMULA GRANTS

Four basic approaches to allocating central revenue resources among local governments are: (i) tax sharing, (ii) ad-hoc distributions, (iii) reimbursement of the costs of specified undertakings, and (iv) by formula.

Formula grants are popular because they are objective and easily understood, and because they give the central government the opportunity to target the distribution of funds among local governments in ways consistent with national policy. An added advantage is that as local governments outgrow their needs for revenue sharing, or as their needs change relative to other local governments, the grant distribution is automatically adjusted by the formula and no discretionary government action is called for.

Formula grants are usually pointed towards either a recognition of variations in expenditure needs or of differences in fiscal capacity, i.e., in the ability to raise revenue while making an average effort. Expenditure needs are proxied in many ways including per capita income, population, infrastructure adequacy, and the like. The distribution of education grants in Colombia is based primarily on the population size of each province. Philippine general-purpose grants are distributed according to population and land area. Transportation grants to Brazilian state and local governments are allocated according to population, land area, and the consumption of imported fuels. The distribution of India's excise tax grant has made use of a poverty index. Grants to compensate some provinces for low-income and low-fiscal capacity are often distributed partially by the reciprocal of per capita income. This is done in Brazil and India. Yet other formula grant systems have explicitly included a tax effort measure to induce provinces to increase their rate of revenue mobilization (examples are the United States, Nigeria, India).

The disadvantages to the formula grant are that the choice of the grant elements can be influenced by politics. Moreover, the choice of a formula may be limited to what data are available, and as such may reflect neither true expenditure need for fiscal capacity. Moreover, detailed and timely data are almost never available at the local government level.

Source: Roy Bahl and Johannes Linn; Urban Public Finance in Developing Countries; forthcoming.

exante, and the impact of the price change on enterprise profitability and retail sales.

132. Borrowing Powers. Reform of China's center-local system should also address the need to improve financing sources for capital outlays, which involve investment in long-lasting infrastructure, e.g., public utilities and road infrastructure. Local governments in China make no use of borrowing to finance capital projects. In most countries, local governments borrow to finance infrastructure development. This is done in a variety of, albeit restricted, ways--bond finance, from a central government loan fund, from a development bank capitalized by the central government, etc. Usually, the central government sets the terms of the loan, defines the acceptable uses of debt finance and controls the flow of loan funds. In the United States, local governments have greater autonomy in deciding how much to borrow, under what terms and from whom.

133. There is potential for local governments to carry debt in China, at least from the point of view of adequacy of repayment potential for long-lived projects. However, borrowing powers need to be accompanied by a substantially reformed system of local financing--taxes that were more responsive to income growth--and price reform to ensure benefit charges are able to cover costs (see below).

134. Benefit Charges. The other financing possibility is self-financing, i.e., services that are to be financed in part by beneficiary charges. There are many forms of benefit charge, e.g., road and bridge tolls, pollution charges, full cost recovery from public utility users. Indeed, while there is no formal benefit charge program in China, there is evidence of many

innovative self-financing schemes. Many local governments have taken advantage of particular opportunities to finance capital projects with charges to beneficiaries, but these seem to have been developed on a case-by-case basis and there is no common practice. The time may be right for China to make increasing use of benefit charges. Infrastructure needs are acute and enterprises are willing to pay for capital improvements. What is needed now is central government guidance in establishing such programs and encouraging their use.

135. Tax Administration. The present system of tax administration will not support the objectives of China's economic reform. China's tax structure has very recently been modernized (a profits tax and a value-added tax have been introduced since 1984) but its tax administration has not kept pace. Tax administration will become more difficult with the growing number of small private firms and collectives--which are the hard-to-tax sectors in China.27/

136. Without a survey of administrative problems, it is difficult to be specific about the elements of a reform program. There are, however, four general areas for improvement. The first is personnel policies and training programs and the development of an adequate number of qualified tax administrators. The second relates to the need to adapt the administrative system to accommodate the changing economic system. The growing private and collective sector implies a greater need to identify new tax-paying enterprises and track their activities, hence the need for a tax-paying numbering system, more information on transactions, more government attention to assessment and audit, and computerization. Third is a reexamination of the tax system to see whether its complications block effective administration. It may be that the first step toward better administration is a simplification of the tax structure. In particular, it is difficult to imagine that the present income tax system with its contracting feature could ever be efficiently administered.

137. The fourth area is the most difficult to address: should the government create for itself a separate central tax administration similar to that which exists in most countries? The arguments in favor of this are strong. Under the present system, there are inadequate incentives for aggressive assessment and collection efforts. A centralized system would eliminate this problem by taking local governments out of the business of collecting central government taxes. Another advantage is that procedures could be standardized across the country and the processes of manual preparation, monitoring, and gathering and reporting statistics would all realize economies of scale. The central government is more able to bring specialized technical assistance (including the development of a computerized tax information system) to the whole system of tax assessment and collection, and is in the best position to modernize the tax administration to keep it in step with the modernization of the tax structure. It is important that China's new tax structure be implemented so that it achieves the intended economic impacts, and that it be implemented in a uniform way across the country. Finally, there are advantages that relate to the staffing of an efficient tax administration service. Among these are central organization of the training programs, the ease of transferability of personnel within a centralized system, and the greater possibility of promotion and advancement within a central revenue service.

138. There are also disadvantages. If coupled with increased local fiscal autonomy, there would have to be some local tax administration for local taxes. Separate central and local systems would involve duplication of effort

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27/ For a discussion of tax administration in China, see Revenue Mobilization and Tax Policy, Red Cover Report, 1990, World Bank.

and inevitably a weaker, "second-class" local administration. Another problem is that a central revenue system in China would be an enormous bureaucracy, and inevitably would have to decentralize to accommodate the great diversity in tax administration needs within the country. The biggest disadvantage to centralization is that intimate familiarity with the local economy and its tax-paying base can be lost. For example, most central sales and income tax systems in low income countries do not have a very broad coverage of firms, whereas locally administered systems seem more able to identify and assess smaller firms.

139. Perhaps a better course would be to reform the tax administration to capture the best features of centralization and decentralization. A few principles that might be considered are: (a) general procedures for taxpayer identification, recordkeeping, and assessment should be centralized, and all related manuals should be centrally prepared and updated; (b) a major staff training program should be centrally designed and implemented; (c) a "statistics of taxation" series should be organized centrally and regularly produced to help in monitoring the performance of the tax system and the administrative efforts of each decentralized local unit; (d) assessment, collection and audit responsibilities should remain at the local level, but procedures should be established by the Central Government and regulated through the provincial level; (e) a computerized tax information system should be developed, and (f) tax sharing is a good scheme to stimulate local tax effort but the local shares should be the same for all taxes so as not to encourage different levels of administrative effort for different taxes.

<u>Conclusions</u>

140. This paper argues that a reformed revenue-sharing system must meet the center's needs for stabilization and the provinces' needs for revenue and equalization of expenditure capacity. It has also argued that equalization should be based on objective indicators of need and that a formula-based grant system best meets this objective. A reformed system must also underpin price and enterprise reforms, and not require major recalibration or adjustments, because such reforms are taking place. These three elements are the foundations of an improved system of local finance. The central-local reforms would be supplemented by local borrowing powers, a system of benefit charges, and improved financial planning and tax administration.

CHINA

CENTER-LOCAL FISCAL RELATIONS

Procyclical Effects of Contracting with Provinces for Revenue Collection

1. The provincial contracting arrangement can be formalized to illustrate the type of problems discussed in the text and the factors affecting revenue elasticity. The tax remittance/transfer to the center by a province in year i (PT_i), is

$$PT_i = ab(C^*) + am\ (C^*-C_i)$$

ab = provinces' quota contracted sharing rate
am = marginal, above-quota sharing rate (which may be zero) ($am \leq 0 \leq ab$)
C^* = provincial quota collections
C_i = actual provincial collections

Assuming that the provinces' transfer to the center is based on some share of actual taxes collected in the base year (C_{-1}) (in fact, the post-1985 sharing ratios are based on 1983/84 base-year actual tax collections in a province), then the provincial transfer (PT):

$$(1)\quad PT_n = ab(C_n^*) + am(C_n-C_n^*)$$

$$(2)\quad C_o^* = (1+g)C_{-1}$$

Since the quota in subsequent years is a function of the previous year's quota:

$$C_1^* = (1+g)C_o^*;\ \text{and}$$

$$C_1^* = (1+g)\ \ (1+g)C_{-1})$$

Then $C_n \equiv C_{-1}(1+g)^{n+1}$

If C_o (actual provincial collections) grows at a constant rate (Q), then:

$$(3)\quad C_n = C_{-1}(1+Q)^{n+i}$$

If GNP grows at a constant rate (B), then:

$$(4)\quad GNP_n = GNP_{-1}(1+B)^{n+1}$$

To see the evolution of provincial taxes (PT) turned over to the central government as a share of GNP (PT/GNP),

substituting,

$$\frac{PT_n}{GNP_n} = \frac{ab[C_{-1}(1+g)^{n+1}] + am\{[(1+Q)^{n+1}C_{-1}] - [C_{-1}(1+g)^{n+1}]\}}{(1+b)^{n+1}GNP_{-1}}$$

$$\equiv \{[ab-am]\frac{(1+g)^{n+1}}{(1+B)^{n+1}} + am\frac{(1+Q)^{n+1}}{(1+B)^{n+1}}\} \bullet \frac{C_{-1}}{GNP_{-1}}$$

Thus:

(a) PT/GNP remains constant only if: $g = B = Q$ [i.e., if the growth rate implied in the contract (g) is the same as the rate (B) of GDP and the rate of growth of actual provincial collections (Q)]; and

(b) the center's tax/GNP ratio will grow only if: $g \geq B$ [i.e., if the growth rate in the contract (g) is greater than the GDP growth rate (B)].

Assuming for the time being that GNP and provincial tax collections grow at the same rate [which would imply provincial exploitation of the tax base at a constant rate (so that $B \equiv Q$)], the expression simplifies to:

$$(6) \quad \left\{[ab-am]\frac{(1+g)}{(1+B)} + am\right\} \bullet \frac{C_{-1}}{GNP_{-1}}$$

Thus:

(a) PT/GNP remains constant only if $g=B$, i.e., if the contracted growth rate in the provincial agreement is equal to GDP growth.

(b) PT/GNP will fall if $g<B$, i.e., if the contracted growth rate in the provincial agreement is less than GDP growth. In fact, the PT/GNP falls, exponentially, according to length of the provincial contract. Note that, if the contracts were set with reference to a specific growth rate over the actual taxes delivered to the center each year [i.e., $ab(C_{i-1} - C_i)$ instead of $am(C^* = C_i)$] instead of over-base-year taxes, this decline in relation to GNP would not occur.

2. Detailed data on the magnitude of the growth rates specified in incremental/above-quota tax delivery requirements is incomplete. In two provinces, Shanghai and Guangdong, accounting, respectively, for 15 and 6 percent of total provincial tax collections (1986), the above-quota growth rate specified in the contracts were zero (in Guangdong) and 9 percent (in Shanghai). By contrast, Guangdong and Shanghai's provincial GVIAO and, by implication the tax base, grew far more rapidly in the 1980-89 period.28/

3. If, in addition, the provinces' actual tax collection effort also wanes, say, due to the effects of enterprise negotiation or, simply lax tax effort on the part of the province, such that collections grow less rapidly than GNP (i.e., $Q<B$), then the tax received by the center will decline exponentially in a dual fashion, i.e., (a) due to the impact of a low contracted growth rates ($g<B$); and (b) due to the fact that the exploitation of the contracted base is growing slower than GNP ($Q<B$).

28/ This has been adapted from Blejer and Szapary, IMF, 1989, op. cit, who used their notation and framework to describe the effects of enterprise tax contracts under the corporate income tax. The notation and methodology have been adapted here to analyze provinces' contracting.

CHINA

CENTRAL-LOCAL FISCAL RELATIONS

Counterequalizing Properties of Provincial Tax Contracting

1. Using the same notation as Annex 1, we defined provincial expenditure (PE) can be stated as:

$$PE = C_i - [abC^* + am(C_i - C^*)]$$

substituting as before,

$$PE = C_{-1}(1+Q)^{n+1} - \{[abC_{-1}(1+g)^{n+1}] + am\,[C_{-1}(1+Q)^{n+1} - C_{-1}(1+g)^{n+1}]\} + L$$

where L = fixed lump-sum transfer

$$\equiv C_{-1}(1+Q)^{n+1}\,[1+am] - [ab-am]C_{-1}(1+g)^{n+1} + L$$

$$\frac{PE_n}{GNP_n} \equiv \frac{[(1+Q)^{n+1}(1+am)]}{(1+B)^{n+1}} - \frac{[(ab-am)(1+g)^{n+1}]}{(1+B)^{n+1}} \bullet \frac{C_{-1}}{GNP} + \frac{L}{(1+B)^{n+1}}$$

2. Thus, for a given collection rate, $\bar{Q}$: provincial expenditure capacity will grow relative to GNP as the growth in collections (Q) exceeds the growth in the contract (g). For those provinces with fixed contract delivery (g=0), expenditure capacity will grow at the rate of Q. For those provinces where g>0, expenditure capacity grows at a rate related to (Q-g). For a given collection rate, in those provinces where g=0, but a transfer from the central government is received, expenditure capacity does not grow relative to GNP inasmuch as the growth rate in the lump-sum transfer is zero.

Table 1: TAX COLLECTION AND EXPENDITURE
By Level of Government, 1980-90

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990B
Total revenues	108.5	108.9	112.4	124.9	150.1	186.6	231.0	236.0	262.8	285.9	
Central government	21.0	22.5	25.8	37.2	52.4	69.0	91.7	83.3	94.5	107.2	
of which: borrowing	--	7.3	8.4	8.0	7.7	10.0	13.9	16.9	23.1	22.0	
Local government	87.5	86.5	86.6	87.7	97.7	117.6	134.3	152.7	168.3	178.7	
of which: own	11.8	11.6	12.5	15.3	15.9	19.0	--	--	--	--	
Total expenditure	121.2	111.5	115.3	128.4	153.6	186.5	233.0	242.5	263.5	0.0	
Central	65.0	60.2	57.5	64.2	72.8	81.9	96.2	95.8	94.6	--	
Local	56.2	51.3	57.8	65.8	80.8	104.6	136.8	146.7	168.9	--	
Central collections deficit	-44.0	-37.7	-31.7	-27.0	-20.4	-12.9	-4.5	-12.5	-0.1	107.2	
Funded by:											
Local collections surplus:	31.3	35.2	28.8	21.9	16.9	13.0	-2.5	6.0	-0.6	178.7	
Central borrowing	--	7.3	8.4	8.0	7.7	10.0	13.9	16.9	23.1	22.0	
Total revenues (adjusted)	108.5	101.7	104.0	116.9	142.4	176.6	212.1	219.1	239.7	263.9	
Central	21.0	15.2	17.4	29.2	44.7	59.0	77.8	66.4	71.4	85.2	
Local	87.5	86.5	86.6	87.7	97.7	117.6	134.3	152.7	168.3	178.7	
(in percent)											
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Central	53.63%	53.99%	49.87%	50.00%	47.40%	43.91%	41.29%	39.51%	35.90%	ERR	
Local	46.37%	46.01%	50.13%	51.25%	52.60%	56.09%	58.71%	60.49%	64.10%	ERR	
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Central	19.35%	20.66%	22.95%	29.78%	34.91%	36.98%	39.70%	35.30%	35.96%	37.50%	
Local	80.65%	79.43%	77.05%	70.22%	65.09%	63.02%	58.14%	64.70%	64.04%	62.50%	
Total revenues (adjusted)											
Central	19.35%	14.95%	16.73%	24.98%	31.39%	33.41%	36.68%	30.31%	29.79%	32.28%	
Local	80.65%	85.05%	83.27%	75.02%	68.61%	66.59%	63.32%	69.69%	70.21%	67.72%	
Revenues/GNP	24.27%	22.81%	21.67%	21.59%	21.68%	21.85%	23.77%	20.78%	18.96%	18.17%	
Central	4.70%	4.71%	4.97%	6.43%	7.57%	8.08%	9.43%	7.33%	6.82%	6.81%	
Local	19.57%	18.12%	16.70%	15.16%	14.11%	13.77%	13.82%	13.45%	12.14%	11.36%	
Central adjusted revenues	4.70%	3.18%	3.36%	5.05%	6.46%	6.91%	8.00%	5.85%	5.15%	5.42%	
Expenditures/GNP	27.11%	23.35%	22.23%	22.20%	22.18%	21.84%	23.97%	21.35%	19.01%	0.00%	
Central	14.54%	12.61%	11.09%	11.10%	10.51%	9.59%	9.90%	8.44%	6.83%	0.00%	
Local	12.57%	10.74%	11.15%	11.38%	11.67%	12.25%	14.07%	12.92%	12.19%	0.00%	
Memo Items:											
Real revenues	108.5	107.0	110.1	120.4	137.2	156.4	183.8	177.6	180.2	179.5	
Central	21.0	22.1	25.3	35.9	47.9	57.8	73.0	62.7	64.8	67.3	
Local	87.5	85.0	84.8	84.6	89.3	98.6	106.8	114.9	115.4	112.2	
Real revenue growth											
Central	5.25%	14.33%	41.96%	33.52%	20.75%	26.13%	-14.08%	3.41%	3.83%	Err	
Local	-2.89%	-0.18%	-0.29%	5.60%	10.38%	8.39%	7.54%	0.46%	-2.82%	Err	
GNP	447.1	477.5	518.6	578.4	692.4	854.0	972.0	1135.7	1385.8	1573.1	
Deflator	100.0	101.8	102.1	103.7	109.4	119.3	125.7	132.9	145.8	159.3	

Table 2a: SHARING ARRANGEMENTS IN 1987 BY TYPE OF TAX
(in %)

Tax category	"Shared"	"Fixed Central"	"Fixed Local"
Industrial-Commercial Taxes			
1. Product and VAT:			
a. Enterprises owned by four Ministries	30	70	0
b. Tobacco products produced by centrally owned enterprises	0	100	0
c. Other general taxes	100	0	0
d. Product tax and VAT on imported goods	0	100	0
e. Refund of product tax and VAT to central government foreign trade company	0	100	0
f. Refund of product tax and VAT on export goods, to industrial enterprises and local foreign trade enterprises	100	0	0
2. Business Tax			
a. Enterprises owned by four Ministries	30	70	0
b. Railway, central tobacco enterprises, bank headquarters	0	100	0
c. General business tax	100	0	0
d. Self-employed urban and rural households in industry and commerce	100	0	0
3. Consolidated Industry and Commerce Tax			
a. Offshore oil enterprises	0	100	0
b. Other enterprises	100	0	0
c. Imported products	0	100	0
Other Taxes			
4. Special Adjustment Tax	0	100	0
5. Collective Enterprises Income Tax	100	0	0
6. Self-Employed Households in Industry and Commerce	100	0	0
7. Individual Income Tax	100	0	0
8. Individual Income Adjusted Tax	100	0	0
9. Joint Venture Income Tax			
a. Offshore oil	0	100	0
b. All other	100	0	0
10. Foreign Enterprise Income Tax			
a. Offshore oil	0	100	0
b. All other	100	0	0
11. Urban Construction and Maintenance Tax	0	0	100
12. Vehicle Utilization Tax	100	0	0
13. Local Vehicle Utilization Tax	0	0	100
14. House Tax	100	0	0
15. Slaughter Tax	100	0	0
16. Animal Trading Tax (livestock transactions)	100	0	0
17. Free Market Transaction Tax	100	0	0
18. Natural Resource Tax	100	0	0
19. Central Resource Tax	0	100	0
20. SOE Bonus Tax	100	0	0
21. SOE Wage Adjustment Tax	100	0	0
22. Institutions Bonus Tax	100	0	0
23. Collectives Bonus Tax	0	0	100
24. Construction Tax	100	0	0
25. Special Fuel Using Tax (crude oil burning tax)	0	100	0
26. Deduction and Refund of Fuel Tax	100	0	0
27. Salt Tax	100	0	0
28. Revenue from Penalties and Fines			
a. Customs duty categories	0	100	0
29. Agriculture Taxes			
a. Animal husbandry	100	0	0
b. Forestry and special products	100	0	0
c. Central land occupation tax	0	100	0
d. Local land occupation tax	0	0	100
30. Income Tax			
a. SOEs income tax	100	0	0
b. SOEs adjustment tax	100	0	0
c. SOEs profit remittance	100	0	0
d. Subsidies for planned losses	100	0	0
31. Contribution for Energy Transportation Projects			
a. Paid by central SOEs	0	100	0
b. Paid by local SOEs	0	100	0
32. Interest Income	n.a.	n.a.	n.a.
33. Earmarked Revenue	n.a.	n.a.	n.a.
34. Revenue from Loan Repayment for Capital Construction	n.a.	n.a.	n.a.
35. Revenue from Other Sources			
a. Other revenue from joint ventures	100	0	0

Table 2b: SHARING ARRANGEMENTS IN 1988 BY TYPE OF TAX
(in %)

Tax category	"Shared"	"Fixed Central"	"Fixed Local"
Industrial-Commercial Taxes			
1. Product and VAT:			
a. Enterprises owned by four Ministries	30	70	0
b. ~~Tobacco products~~ produced by centrally owned enterprises	0	100	0
c. Other general taxes	100	0	0
d. Product tax and VAT on imported goods	0	100	0
e. Refund of product tax and VAT to central government foreign trade company	0	100	0
f. Refund of product tax and VAT on export goods, to industrial enterprises and local foreign trade enterprises	100	0	0
2. Business Tax			
a. Enterprises owned by four Ministries	30	70	0
b. Railway, central tobacco enterprises, bank headquarters	0	100	0
c. General business tax	100	0	0
d. Self-employed urban and rural households in industry and commerce	100	0	0
3. Consolidated Industry and Commerce Tax			
a. Offshore oil enterprises	0	100	0
b. Other enterprises	100	0	0
c. Imported products	0	100	0
Other Taxes			
4. Special Adjustment Tax	0	100	0
5. Collective Enterprises Income Tax	100	0	0
6. Self-Employed Households in Industry and Commerce	100	0	0
7. Individual Income Tax	100	0	0
8. Individual Income Adjusted Tax	100	0	0
9. Joint Venture Income Tax			
a. Offshore oil	0	100	0
b. ~~All other~~	100	0	0
10. Foreign Enterprise Income Tax			
a. Offshore oil	0	100	0
b. ~~All other~~	100	0	0
11. Urban Construction and Maintenance Tax	0	0	100
12. Vehicle Utilization Tax	100	0	0
13. Local Vehicle Utilization Tax	0	0	100
14. House Tax	100	0	0
15. Slaughter Tax	100	0	0
16. Animal Trading Tax (livestock transactions)	100	0	0
17. Free Market Transaction Tax	100	0	0
18. Natural Resource Tax	100	0	0
19. Central Resource Tax	0	100	0
20. SOE Bonus Tax	100	0	0
21. SOE Wage Adjustment Tax	100	0	0
22. Institutions Bonus Tax	100	0	0
23. Collectives Bonus Tax	0	0	100
24. Construction Tax	100	0	0
25. Special Fuel Using Tax (crude oil burning tax)	0	100	0
26. Deduction and Refund of Fuel Tax	100	0	0
27. Salt Tax	100	0	0
28. Revenue from Penalties and Fines			
a. Customs duty categories	0	100	0
29. Agriculture Taxes			
a. Animal husbandry	100	0	0
b. ~~Forestry and spe~~cial products	100	0	0
c. Central land occupation tax	0	100	0
d. Local land occupation tax	0	0	100
30. Income Tax			
a. SOEs income tax	100	0	0
b. SOEs adjustment tax	100	0	0
c. SOEs profit remittance	100	0	0
d. Subsidies for planned losses	100	0	0
31. Contribution for Energy Transportation Projects			
a. Paid by central SOEs	0	100	0
b. Paid by local SOEs	0	100	0
32. Interest Income	n.a.	n.a.	n.a.
33. Earmarked Revenue	n.a.	n.a.	n.a.
34. Revenue from Loan Repayment for Capital Construction	n.a.	n.a.	n.a.
35. Revenue from Other Sources			
a. Other revenue from joint ventures	100	0	0

Table 3: REVENUE-SHARING SYSTEM BETWEEN THE CENTRAL AND LOCAL GOVERNMENTS, 1985-87 /a

Provinces & regions	Fixed percentage of total revenue retained by province			Province retains all own revenue and receives fixed amount from the center			Province retains own revenue and pays fixed amount to the center		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
	-------- (%) --------			------------------ (Yuan million) ----------------					
North China									
Beijing	48.20	49.55	49.55						
Tianjin	39.50	39.45	39.45						
Hebei	69.00	72.00	72.00						
Shanxi	97.50	97.50	97.50						
Inner Mongolia				1,783	1,961	2,059			
Northeast China									
Liaoning	51.10	52.66	52.66						
Jilin				397	396	396			
Heilongjiang	96.00							142	142
East China									
Shanghai	26.00	23.54	23.54						
Jiangsu	39.00	41.00	41.00						
Zhejiang	55.00	55.00	60.81						
Anhui	80.10	80.10	80.10						
Fujian				235	234	234			
Jiangxi				239	239	239			
Shandong	59.00	77.47	75.00						
Central/South China									
Henan	81.00	81.00	87.71						
Hubei	66.50	100.00	100.00						
Hunan	88.00	88.00	88.00						
Guangdong							772	778	778
Guangxi				716	788	827			
Southwest China									
Sichuan	89.00	100.00	100.00						
Guizhou				743	817	858			
Yunnan				637	925	972			
Tibet				750	825	866			
Northwest China									
Shaanxi				270	270	270			
Gansu				246	245	245			
Qinghai				611	671	705			
Ningxia				494	543	570			
Xinjiang				1,450	1,594	1,674			

/a Subsidies were to increase by 10 percent per year after 1985.

Source: Data supplied by Ministry of Finance.

Table 4: REVENUE AND EXPENDITURE DISPARITIES AMONG PROVINCES (1985)

	Budgetary revenue collections		Budgetary expenditures		Ranking: Percent of total popu-lation	Per capita national income
	Per capita amount (Rmb/person)	Percent of total	Per capita amount (Rmb/person)	Percent of total		
Beijing	609	4.97	344	3.15	0.92	2 /a
Tianjin	597	4.10	334	2.58	0.78	3 /a
Hebei	81	3.84	75	3.98	5.33	14
Shanxi	95	2.12	135	3.40	2.52	12
Inner Mongolia	72	1.22	170	3.27	1.93	16
Liaoning	231	7.24	154	5.44	3.54	4 /a
Heilongjiang	98	2.76	135	4.27	3.18	5 /a
Shanghai	1,492	15.43	346	4.02	1.17	1 /a
Jiangsu	135	7.14	81	4.83	5.97	6 /a
Zhejiang	145	4.95	93	3.57	3.87	7 /a
Anhui	58	2.56	66	3.24	4.95	21 /b
Fujian	92	2.13	113	2.93	2.61	17
Jiangxi	56	1.66	81	2.68	3.32	22 /b
Shandong	88	5.74	67	4.90	7.39	10 /a
Henan	63	4.16	64	4.73	7.41	25 /b
Hubei	102	4.27	88	4.17	4.74	11
Hunan	70	3.33	71	3.83	5.40	19
Guangdong	112	5.92	107	6.41	6.01	9 /a
Guangxi	52	1.71	77	2.84	3.72	28 /b
Sichuan	57	4.99	63	6.13	9.79	26 /b
Guizhou	49	1.23	80	2.28	2.85	29 /b
Yunnan	80	2.33	108	3.51	3.27	27 /b
Tibet	40	0.07	517	0.98	0.19	18
Shaanxi	68	1.72	92	2.63	2.88	24 /a
Gansu	81	1.40	118	2.29	1.96	23 /b
Qinghai	60	0.20	248	0.96	0.39	15
Ningxia	70	0.25	237	0.94	0.40	20 /b
Xinjiang	62	0.72	210	2.73	1.31	13
Total		100.00				

/a Among 10 richest provinces.
/b Among 10 poorest provinces.

Source: Data supplied by MOF.

Table 5: BUDGETARY EXPENDITURE BY PROVINCE
(in billion yuan)

	1983	1986	Percent increase	Per capita income ranking: 1985
Beijing	19.61	44.27	125	2 /a
Tianjin	20.49	34.85	70	3 /a
Hebei	28.27	53.82	90	14
Shanxi	24.01	41.17	71	12
Inner Mongolia	22.83	43.89	92	16
Liaoning	34.17	75.51	120	4 /a
Heilongjiang	30.71	61.47	100	5 /a
Jiangsu	32.29	66.16	104	6 /a
Shanghai	19.03	56.95	199	1 /a
Zhejiang	21.94	50.95	132	7 /a
Anhui	20.38	46.18	126	21 /b
Shandong	32.41	67.94	109	10
Henan	30.06	69.20	130	25 /b
Hubei	28.32	58.02	104	11
Hunan	25.31	54.29	114	19
Sichuan	36.64	87.74	139	26 /b
Jilin	19.41	50.12	158	8 /a
Jiangxi	17.27	36.63	112	22 /b
Shaanxi	18.81	35.59	89	23 /b
Gansu	15.53	30.01	93	15
Fujian	17.55	37.62	114	17
Guangxi	18.84	42.22	124	28 /b
Yunnan	24.03	47.31	97	27 /b
Tibet	5.88	8.97	61	18
Qinghai	7.39	12.22	65	15
Ningxia	6.95	12.02	73	20 /b
Xinjiang	18.61	35.12	89	13
Guangdong	37.65	89.55	138	9 /a
Guizhou	15.55	30.39	95	29 /b
Total	649.00	1,380.00	112	

Source: Computed from data provided by Ministry of Finance.

Table 6: PERCENT INCREASE IN REVENUES AND EXPENDITURES, BY PROVINCE FOR 1983-86

Province	Budgetary Expenditures: Percent increase	Budgetary Expenditures: Relative (average=100)	Budgetary Expenditures: Rank	Budgetary Collections: Percent increase	Budgetary Collections: Relative (average=100)	Budgetary Collections: Rank	Ranking: Per capita national income (1988)
Beijing	125.75	111.92	8	61.05	127.30	18	2 /a
Tianjin	70.08	62.38	27	40.68	84.83	22	3 /a
Hebei	90.38	80.44	22	40.62	84.69	23	14
Shanxi	71.47	63.61	26	18.59	38.77	26	12
Inner Mongolia	92.25	82.10	21	129.18	269.38	2	16
Liaoning	120.98	107.68	10	12.49	26.05	28	4 /a
Heilongjiang	100.16	89.15	17	109.07	227.43	5	5 /a
Jiangsu	104.89	93.36	15	119.67	249.53	4	5 /a
Shanghai	199.26	177.35	1	15.86	33.06	27	1 /a
Zhejiang	132.22	117.68	5	32.40	67.55	24	7 /a
Anhui	126.59	112.67	7	64.18	133.83	15	21 /b
Shandong	109.63	97.57	14	58.33	121.63	19	10
Henan	130.21	115.89	16	135.57	202.70	1	25 /b
Hubei	104.87	93.34	16	77.75	162.14	12	11
Hunan	114.50	101.91	11	21.15	44.10	25	19
Sichuan	139.47	124.13	3	50.71	105.75	20	26 /b
Jilin	158.22	140.82	2	42.38	88.38	21	8 /a
Jiangxi	112.10	99.77	13	62.79	130.94	16	22 /b
Shaanxi	89.21	79.40	23	125.74	262.19	3	23 /b
Gansu	93.24	82.99	20	81.64	170.24	9	15
Fujian	114.36	101.78	12	62.74	130.82	17	17
Guangxi	124.10	110.45	9	88.88	105.33	8	28 /b
Yunnan	96.88	86.23	18	74.96	156.30	13	27 /b
Tibet	52.55	46.77	29	-85.42	-178.12	29	18
Qinghai	65.36	58.17	28	65.68	136.96	14	15
Ningxia	72.95	64.93	25	81.28	169.50	10	20 /b
Xinjiang	88.72	78.96	24	108.44	226.13	6	13
Guangdong	137.85	122.69	4	105.62	220.24	7	9 /a
Guizhou	95.43	84.94	19	81.17	169.27	11	29 /b

/a Among 10 richest provinces.
/b Among 10 poorest provinces.

Table 7: CHANGES IN THE RATIO OF EXPENDITURES TO COLLECTIONS: FOR 1983-86 BY PROVINCE

Province	Ratio 1983	Ratio 1986	Change 1983-86	Ranking: Per capita national income (1988)
Beijing	0.52	0.73	0.21	2 /a
Tianjin	0.53	0.64	0.11	3 /a
Hebei	0.78	1.05	0.27	14
Shanxi	0.99	1.44	0.45	12
Inner Mongolia	3.27	2.74	-0.53	16
Liaoning	0.39	0.76	0.37	5 /a
Jilin	1.37	1.70	0.33	8 /a
Heilongjiang	1.42	1.29	-0.13	5 /a
Shanghai	0.12	0.32	0.20	1 /a
Jiangsu	0.43	0.67	0.24	5 /a
Zhejiang	0.53	0.74	0.21	7 /a
Anhui	0.91	1.30	0.39	21 /b
Fujian	1.42	1.29	-0.13	17
Jiangxi	1.28	1.52	0.24	22 /b
Shandong	0.63	1.09	0.46	10
Henan	0.82	1.26	0.44	25 /b
Hubei	0.70	1.01	0.31	11
Hunan	0.86	1.14	0.28	19
Guangdong	1.04	1.09	0.05	9 /a
Guangxi	1.36	1.67	0.31	28 /b
Sichuan	0.89	1.30	0.41	26 /b
Guizhou	1.78	1.85	0.07	29 /b
Yunnan	1.40	1.58	0.18	27 /b
Tibet	12.25	128.14	115.89	18
Shaanxi	1.29	1.48	0.19	23 /b
Gansu	1.42	1.52	0.10	15
Qinghai	4.80	3.81	-0.99	15
Ningxia	3.90	3.28	-0.62	20 /b
Xinjiang	3.31	3.44	0.13	13

Table 8: OLS REGRESSION RESULTS FOR CHINESE REVENUES AND EXPENDITURES AGAINST SELECTED INDEPENDENT VARIABLES: BY PROVINCE FOR 1985
REGRESSION COEFFICIENTS /a

Equation	Dependent variable	Logarithms (L) or Linear (N)	Constant	Per capita output (100 RMB)	Percent of population living in urban areas	Population	$\bar{R}^2$	N
1.	Per Capita Revenue	L	-5.049 (8.53)	1.357 (0.114)	0.333 (0.129)	...	0.91	29
2.	Per Capita Revenue	L	-5.608 (7.06)	1.391 (11.790)	0.314 (2.241)	0.053 (1.052)	0.91	29
3.	Per Capita Expenditures	L	5.433 (11.38)	0.436 (6.154)	0.106 (1.362)	-0.443 (-14.783)	0.93	29
4.	Ratio of Expenditures to Revenues Raised	L	6.739 (11.322)	-0.558 (6.315)	-0.168 (1.728)	-0.308 (8.242)	0.82	29
5.	Ratio of Revenues to Total Output Value	N	0.059 (6.454)	1.514 (E-05) (5.168)	0.0002 (0.600)	...	0.63	29

/a T-statistic shown in parentheses below the regression coefficient.

CHINA

CENTRAL-LOCAL FISCAL RELATIONS

Bibliography

Bahl, Roy and Jun Zhang, mimeo, World Bank, 1988, "Land Use Taxes in China."

Bahl, Roy and Johannes Linn, Urban Public Finance in Developing Countries, Oxford Univ. Press, 1992.

Bahl, Roy, "A Regression Approach to Tax Effort and Tax Ratio Analysis," International Monetary Fund Staff Papers, Vol. 18, No. 3, November 1971.

Bahl, Roy, "The Design of Intergovernmental Transfers in Industrialized Countries," Public Budgeting and Finance, Winter 1986, Volume 6, Number 4, pp. 3-22.

Bird, Richard and Christine Wallich, "Local Government Finance in Hungary" World Bank Working Paper, 1991, forthcoming.

Blejer, Mario, and George Szapary, "The Evolving Role of Fiscal Policy in Centrally Planned Economies: The Case of China," 1989, IMF, Washington, D.C.

Prud'homme, Remy, "Urban Finances in Shanghai," IBRD mimeo, 1989.

Shah, A., "Fiscal Federalism in International Perspective," World Bank Working Paper Series No. 557.

State Statistical Bureau, China: Statistical Yearbook 1990, Beijing, China.

Tait, Alan, VAT: International Experiences and Problems, 1988, IMF, Washington, D.C.

Tidrick and Chen, China's Industrial Reforms, Oxford University Press, London, 1988.

World Bank, Finance and Investment, Red Cover Report, Washington, D.C., 1988.

World Bank, Revenue Mobilization and Tax Policy, Red Cover Report, Washington, D.C., 1989.

World Bank, China: Between Plan and Market, Red Cover Report, Washington, D.C., 1990.