A Treaties on Public Finance in China

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Chapter 1 Introduction

Background

China is a unitary country with strong federalist features. The administrative division of China is as follows: (1) The country is divided into provinces, autonomous regions, and municipalities directly under the central government; (2) Provinces and autonomous regions are divided into autonomous prefectures, counties, autonomous counties and cities; (3) Counties and autonomous counties are divided into townships, nationality townships and towns. Municipalities directly under the central government and other large cities are divided into districts and counties. Autonomous prefectures are divided into counties, autonomous counties, and cities.[1] In practical terms, besides the central government, there are four tiers of sub-national governments: provincial, prefecture (city), county, and township. According to the constitution, people's congress and people's government at the levels of province, prefecture (or city), county and township are the local legislative organs of state power and executive organs of power, respectively.

Geographically, China is divided into the eastern coastal region, the central region, and the western region.[2] The eastern coastal region of China is relativly richer than the central and western regions, as shown in Table 1.1 in terms of per capita GDP.

Table 1.1 Per Capita GDP by Provinces in China: 2003

Region	Provincice	Per Capita GDP (in US Dollar)	Rank by Per Capita GDP
East coast	Shanghai	4428	1
	Beijing	3049	2
	Tianjin	2934	3
	Zhejiang	2434	4
	Guangdong	2076	5
	Jiangsu	2039	6
	Fujian	1818	7
	Liaoning	1728	8
	Shandong	1652	9
	Hebei	1271	11
	Hainan	1003	16
Middle	Heilongjiang	1408	10
	Jilin	1131	13
	Hubei	1091	15
	Shanxi	898	17

[1] See article 30 in Constitution of the People's Republic of China

[2] The east region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Shandong, Zhejiang, Fujian, Guangdong, and Hainan, while the central region includes Heilongjiang, Jilin, Shanxi, Henan, Hubei, Hunan, Jiangxi, and Anhui, and the western region includes Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia, Xingjiang, Inner Mongolia, and Guangxi.

	Henan	884	19
	Hunan	844	21
	Jiangxi	806	23
	Anhui	751	27
Western	Xinjiang	1177	12
	Inner Mongolia	1095	14
	Qinghai	886	18
	Chongqing	872	20
	Tibet	828	22
	Ningxia	805	24
	Shaanxi	788	25
	Sichuan	760	26
	Yunnan	683	28
	Guangxi	683	29
	Gansu	607	30
	Guizhou	425	31

Source: China Statistic Year Book 2004

In general, population density decreases as we move from east to west, as shown in Table 1.2.

Table 1.2 Population Distribution and Density in China: 2003

Region	Population (thousand)	As % of total	Area (thousand km^2)	Population density (persons per km^2)
Total	1260498	100	9600	131
Beijing	14070	1.12	17	828
Tianjin	9956	0.79	12	830
Hebei	66569	5.28	190	350
Shanxi	32558	2.58	157	207
Inner Mongolia	23510	1.87	1142	21
Liaoning	41549	3.30	150	277
Jilin	26684	2.12	189	141
Heilongjiang	37693	2.99	460	82
Shanghai	16061	1.27	8	2008
Jiangsu	72967	5.79	105	695
Zhejiang	45934	3.64	105	437
Anhui	62652	4.97	140	448
Fujian	34261	2.72	122	281
Jiangxi	41741	3.31	167	250
Shandong	89775	7.12	158	568
Henan	95029	7.54	166	572
Hubei	59184	4.70	186	318
Hunan	65521	5.20	212	309

Guangdong	77676	6.16	179	434
Guangxi	47661	3.78	236	202
Hainan	7939	0.63	34	234
Chongqing	30713	2.44	82.4	373
Sichuan	85739	6.80	483.6	177
Guizhou	37933	3.01	176	216
Yunnan	42836	3.40	384	112
Tibet	2638	0.21	1202	2
Shaanxi	36314	2.88	205	177
Gansu	25628	2.03	406	63
Qinghai	5225	0.41	720	7
Ningxia	5650	0.45	66	86
Xinjiang	18834	1.49	1663	11
Max	95029	7.54	1663	2008
Min	2638	0.21	8	2

Source: China Statistic Year Book 2004 and China Population Statistic Year Book 1997

A brief overview of fiscal reforms in China

The current system of intergovernmental fiscal relations in China is the result of successive fiscal reforms starting at the beginning of the 1980s. Before that time, China had been under the central planning system since 1949, when the People's Republic of China started. Under central planning all expenditures were budgeted by the central government, and the major function of the fiscal system was to keep records of all revenues accrued and expenditures disbursed by the central government. This was mostly an accounting function, since the belief was that taxation should be eliminated eventually, as all of the economy would be owned by the state. The tax system was very simple, and included only the unified tax for industry and commence and the agriculture tax. The collection of all revenues was delegated to local governments.

The major revenue source for government was profits from SOEs, which accounted at the end of the 1970s for nearly half of total government revenues. The accounts of SOEs were regarded as part of the fiscal system. In fact, these accounts were relatively easy to monitor through fixed prices and the planned output and sales under planned economy.

In this centralized system, local governments were mere agents of the central government. Local governments had the responsibility to collect taxes, and received the "necessary" fiscal resources from central government, with these needs exclusively determined by the central government. Obviously, local budgets did not enjoy any autonomy, and local governments' accounts were regarded as part of the central government's accounts. The central government set spending priorities, approved local budgets and set policies on civil service salary scales, pension and unemployment benefit levels, educational standards, health care standards, as well as any other relevant aspects of local budgets.

In summary, the central planning system did not provide appropriate incentives to encourage local governments to pursue local economic development and local social

welfare. Instead, local governments simply had the function of collecting taxes and delivering centrally designed services

The Fiscal Responsibility System Reform

The economic reforms starting at the beginning of the 1980s redefined the relation between the government and non-government sectors and intergovernmental relations. After some initial fiscal decentralization experiments during the period 1978 to 1983, China started formal nationwide fiscal reforms in 1984 with the adoption of "Fiscal Responsibility System" (FRS) reform. The 1984 reform replaced the appropriation of profits with the introduction of a corporate income tax for SOEs and started to build other elements of a new tax system to fit the market economy that was being developed. A key aspect of the FRS was the greater separation of the government function from private sector activities, and the fact that now local governments could get more fiscal revenues by collecting more taxes. Under the FRS, the central government allowed provincial governments to retain some part of the proceeds remaining after remitting a fixed sum of revenues to the central government for a certain period of time. The revenues transferred to the central government were preset by contracts established in one-to-one bargaining between the central and provincial government.

The FRS gave sub-national governments the incentives to collect taxes because it provided them, at least to some extent, with the "ownership" of some fiscal resources by local governments. In addition, the lack of strict tax laws in combination with a decentralized tax administration and control gave sub-national governments the power to control their effective tax rates and actual tax bases, even if sub-national governments did not have the legal authority to alter the statutory rates and bases. In this environment, sub-national governments rationally opted to use "favoritism," for local enterprises, providing them with more direct resources and incentives, such as tax exemptions; the natural consequence was the the decrease or slowing down of the growth of budget revenues. Meanwhile, the lack of stability and transparency led to difficult bargaining bouts between the central government and each one of the provincial governments. The aggregate outcome of the system was a fast and pronounced decrease of the central government's share in total fiscal revenues accompanied by the decrease of the share of fiscal revenues in GDP.

The trend toward lower tax collections was of less importance to sub-national governments because extra-budgetary account provided an alternative way to finance their expenditures with the added benefit of not running the risk of an eventual claw back by the central government.[3] Extra-budgetary funds[4] to a large extent could be regarded as part of total government budgetary revenues because these funds have been used all along for projects ranging from infrastructure to public services. The difference from

[3] That is, any increase of formal tax collections by sub-national governments meant the greater likelihood of tougher contractual terms in the next round of contracting with the central governments and theefore the claw back of the some part of the additional tax resources formally collected.

[4] Extra-budgetary funds receive a specific definition by the central authorities. Some off-budget funds such as the "illegal fees" imposed on farmers are not regarded as part of the extra-budgetary funds.

formal budgetary funds is that extra-budgetary funds were compatible with the incentives of sub-national governments, and sub-national governments could use them to shield tax collections from the revenue sharing agreements with the central governments. Lacking formal taxing powers and finding transfers from higher levels increasingly unreliable, sub-national governments energetically pursued off-budget revenue expansion (Wong 1998, and Fan 1998). The FRS reform made extra-budgetary funds more important for sub-national governments; both their volume and their relative importance vis-à-vis budgetary revenues increased rapidly over time up to the time of the next round of fiscal reform.[5]

The Fiscal Contracting System

In 1988, the central government introduced several fiscal contracting modules to address the problems that had arisen with the FRS and improve the performance of the fiscal system, under the name of the "Fiscal Contracting System" (FCS) reform. The major modules in this new system included:

a. Fixed grants: For provinces whose expenditures were larger than their base amount of revenues, the central government would provide them with fixed grants. Sixteen provinces adopted this module.
b. Fixed remittance: Provincial governments would remit a fixed amount to the central government. Three provincial governments adopted this module.
c. Increasing remittance: Provincial governments would remit to the central government a fixed amount plus yearly increasing amounts at a fixed growth rate (as contracted between the central and local governments. Two provincial governments adopted this module.
d. Fixed sharing rate. Total revenue is shared by the central government and sub-national governments at a fixed sharing rate. Three provincial governments adopted this module.
e. Increasing sharing rate. Total revenue is shared by the central government and sub-national governments at annual increasing sharing rates, as negotiated between the two levels.
f. Fixed sharing rate plus. In this case the base revenue is shared by the central government and sub-national government at a fixed sharing rate. The incremental revenue is shared by the central and sub-national governments at another fixed sharing rate. Three provincial governments adopted this module.

The Fiscal Contracting System further led to the decentralization of fiscal resources, very high by international standards (Bahl and Wallich, 1992), and to a further drop in the share of total fiscal revenues in GDP. In addition, the FRS was very difficult to manage because the implementations of the system involved too many negotiations and variable factors.

The Tax Sharing System Reform

[5] The importance and evolution of extra-budget and off-budget funds in China are examined in the appendix to this paper by Li Zhang.

In 1994 China's government introduced the Tax Sharing System (TSS) reform with the two major goals of increasing the share of government expenditure in total GDP and the share of central budgetary revenues in total budgetary revenue. This reform introduced clear and stable assignments of tax revenues between the central and provincial governments, and created separate tax administration services at both levels of government. The TSS reformed the value added tax (VAT) as the major government revenue source, and set up a uniform tax-sharing system. The share arrangements for VAT were 75 percent for the central government and 25 percent for the sub-national governments. The central government own taxes and all shared taxes were collected by the newly created National Tax Services (NTSs), which operated in all provinces. The new system provided for separate local (sub-national) tax services (LTSs) for the collection of the taxes assigned to local governments. The headquarters of the NTSs, the State Administration of Taxation, was empowered to supervise local tax services and prohibit the use of tax exemptions by local governments.

Several subsequent policy changes supplemented the TSS reform. The most important of these were the *Rural Tax-for-Fee Reform and the abolishment of the agriculture taxes Reform*, which had the objective of reducing the tax burden on farmers. The *Tax-for-Fee Reform* was first experimented with in eastern Anhui province in 1994 and, two years later, in 50 selected countries in seven other major agricultural provinces. The central government extended the experiment to the whole of Anhui province in 2000 in a bid to standardize the tax burdens on farmers and eliminate the growing arbitrary administrative fees being charged to them. In 2002, the central government further rolled out the Tax-for- Fee reform to a total of 20 provinces, comprising 620 million farmers, or three quarters of the country's total. The outcome was that the financial burden on farmers was cut by at least 30 percent. The Chinese government further decided in late 2003 to abolish, exempt or lower 15 charges on the country's 900 million farmers in a bid again to reduce what was considered excessive financial burdens.[6]More recently, China's government made the decision to abolish the agriculture taxes, which had been assigned to local governments, particularly county and lower level governments, starting in 2006.

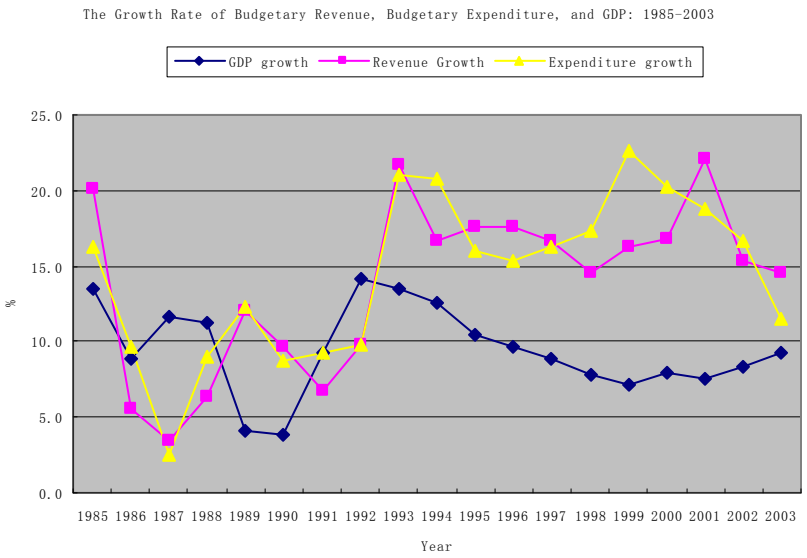
Another important policy change is related to the corporate and individual income taxes. A reform in 2001 made the corporate income and individual income taxes shared between the central and sub-national governments at 50/50 sharing ratios. The share of the central government was increased to 60 percent in 2002. This further recentralization of tax revenues was justified by the need to increase the pool of available funds for redistribution and equalization of poorer central and western provinces.

Allocation Patterns of Fiscal Resources in China

The different stages of intergovernmental fiscal reforms have had significant impacts on the level and the distribution of fiscal resources. But first, as shown in Graph 1, it is

[6] The list of the 15 charges published by the Ministry of Finance and the State Development and Reform Commission involved quarantine certificates, licensing fees for using water resources, education, land-use rights certificates, and charges for fishing boat inspections.

important to point out that during the entire reform period, the GDP and also government total revenues and expenditures grew at high nominal rates.



Graph 1

However, as shown in Table 1.3, government revenues as percent of GDP and also government expenditures as percent of GDP continued to decrease from 1980 (when they stood at 25.7 percent and 27.2 percent of GDP, respectively) to 1995, just before the effects of the 1994 TSS reform had started to take place; at that time, government revenues were at 10.9 percent of GDP and government expenditures at 11.9 percent.

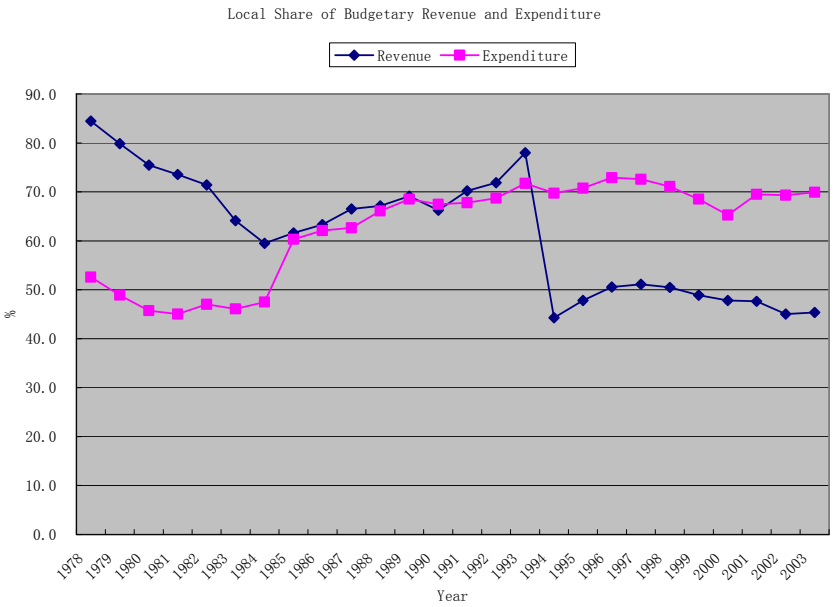
Table 1.3. GDP and Revenues and Expenditures as Percent of GDP (1980-2003)

year	GDP	Revenue		Expenditure	
		Amount	As % of GDP	Amount	As % of GDP
1980	4517.8	1159.9	25.7	1228.8	27.2
1981	4860.3	1175.8	24.2	1138.4	23.4
1982	5301.8	1212.3	22.9	1230.0	23.2
1983	5957.4	1367.0	22.9	1409.5	23.7
1984	7206.7	1642.9	22.8	1701.0	23.6
1985	8989.1	2004.8	22.3	2004.3	22.3
1986	10201.4	2122.0	20.8	2204.9	21.6
1987	11954.5	2199.4	18.4	2262.2	18.9
1988	14922.3	2357.2	15.8	2491.2	16.7
1989	16917.8	2664.9	15.8	2823.8	16.7
1990	18598.4	2937.1	15.8	3083.6	16.6

1991	21662.5	3149.5	14.5	3386.6	15.6
1992	26651.9	3483.4	13.1	3742.2	14.0
1993	34560.5	4349.0	12.6	4642.3	13.4
1994	46532.9	5218.1	11.2	5792.6	12.4
1995	57277.3	6242.2	10.9	6823.7	11.9
1996	66850.5	7408.0	11.1	7937.6	11.9
1997	73142.7	8651.1	11.8	9233.6	12.6
1998	76967.2	9876.0	12.8	10798.2	14.0
1999	80579.4	11444.1	14.2	13187.7	16.4
2000	88254.0	13395.2	15.2	15886.5	18.0
2001	95727.9	16386.0	17.1	18902.6	19.7
2002	103935.3	18903.6	18.2	22053.2	21.2
2003	116603.2	21715.3	18.6	24650.0	21.1

Source: China statistical year book 2004

While the sub-national government share in total government expenditures increased monotonically from the 1984 FRS reform until the 1994 TSS reform and has shown a relatively stable pattern since then (Graph 2). The 1994 reform significantly decreased the share of sub-national government revenues (before transfers) in total revenue; this share has slowly continued to drift downward.



Graph 2

The 1994 reform not only increased the share of total government revenues in GDP and the share of the central government in total revenues but, by clarifying revenue assignments between the central government and local governments, it also improved sub-national government incentives to increase their budgetary revenues. In addition, as more fiscal resources have been concentrated in the central government, the 1994 reform has increased the capacity of the central government to pursue the national objectives

such as carrying out large-scale infrastructure projects, more equalization of fiscal resources across jurisdictions, and the ability to conduct macroeconomic stabilization policies. These are all quite significant achievements from the conditions that were present in the late 1980s and early 1990s. However, a significant portion of this paper addresses what else needs to be done, primarily as a consequence of the fact that the 1994 reform failed to provide clear expenditure assignments among different government levels and reform some of those assignments.

Main issues

Although the fiscal decentralization reforms in China clarified the revenue assignment between the central government and provincial governments, the revenue assignment for sub-national governments did not improve much, and lower level governments have only very limited tax bases in general. At the same time, the decentralization reforms did not provide a clear expenditure assignment for sub-national governments, especially local governments at the county level and below. Some of the main challenges facing the current system include the following:

First, considerable horizontal fiscal disparities between east coast areas and middle and western areas and between urban and rural areas in general pose serious threats to the cohesion of the nation.

A main fact in the distribution of fiscal resources that has remained present throughout all the reforms is the significant regional disparities in fiscal resources across China's sub-national governments. This is one of the main challenges still facing the fiscal system. In fact, the 1994 reform led to higher regional disparities in sub-national own revenues, as shown in Table 1.4. This was a result of growth in overall fiscal capacity and rather small equalization transfers. The coefficient of variation for per capita own revenues has continued to increase since 1994 as has the range between the maximum and minimum values, which stood at over 16 fold in 2003. Regional disparities could be, to some extent, interpreted as the necessary cost to achieve other goals of economic reforms such as economic development and growth and more sub-national autonomy; however, the costs of these disparities also have increased and could now exceed the potential benefits.

Table 1.4 Disparities in provincial per capita own revenues: 1985-2003

	Max	Min	Max/Min	Average	C.V.
1985	1492	49	30.4	172	1.69
1986	1445	56	25.8	188	1.53
1987	1321	70	18.9	195	1.35
1988	1163	81	14.4	201	1.13
1989	1196	96	12.5	226	1.03
1990	1180	96	12.3	229	0.99
1991	1432	94	15.2	278	0.99
1992	1309	95	13.8	269	0.94
1993	1725	124	13.9	358	0.89
1994	665	57	11.7	228	0.68

1995	1552	111	14.0	310	0.97
1996	1977	139	14.2	388	1.00
1997	2282	155	14.7	439	1.04
1998	2600	179	14.5	511	1.04
1999	2849	200	14.2	563	1.08
2000	2900	239	12.1	611	1.04
2001	3776	263	14.4	757	1.12
2002	4363	282	15.5	831	1.17
2003	5180	322	16.1	952	1.18

Source: China statistical year book, various years

Increasing transfers from the center through grant allocations can be regarded as one way for sub-national governments to balance their budgets each year, but currently the intergovernmental transfer system has very limited abilities to reduce existing fiscal disparities. The major component of intergovernmental transfers is represented by the "tax rebate", which was a product of the fiscal system before TSS reform and designed to hold harmless the richer sub-national governments during the implementation of the TSS reform; currently, the "tax rebate" still represents a major impediment to the equity and efficiency objectives of the intergovernmental transfer system.

In addition, intergovernmental transfer is one of areas that have least transparency in China's intergovernmental fiscal relations system. According to the current budget process, the lower level government submits its budget to the upper level government and so on to the central government, and the central budget is the last to be approved. Consequently, the intergovernmental transfer for local government is unknown until the budget of the central government is approved. It appears that sub-national budgets are not able to incorporate intergovernmental transfers until the budget implementation process is well under way, and in fact, intergovernmental transfers are difficult to track in fiscal accounts partially because of these peculiarities of the budget process. For example, a recent report from the State Audit Bureau[7] shows that only 22.5 percent of total intergovernmental "subsidy" (transfers) from the central government got reported in the provincial accounts for a total 414.9 billion Yuan transfer in17 provinces that were audited.

The fact that the Ministry of Finance is not the only department that determines intergovernmental transfers at the central level also complicates the intergovernmental transfer system. Several departments under the State Council also control their own fiscal resources and allocate them to provincial and sub-provincial governments. However, in many cases there are no clear procedures in the decision-making process for the determination of these fiscal transfers. This discretionary nature of central grant allocations has led to extensive negotiations and rent-seeking by sub-national authorities, tying up valuable administrative resources.

[7] 2003 Audit Report on Central Budget and Other Fiscal Revenue and Expenditure, National Auditing office.

More recently, starting with 2002, the central government embarked upon an effort to increase intergovernmental transfers and reduce horizontal disparities. As a result, actually sub-national governments' expenditure disparities decreased temporally. However, this effort appears to have been unsuccessful, as fiscal disparity has continued to increase again.

Second, the under-provision of basic public services at the local level (in education, health care, and social security) endangers the sustainable economic development of many areas, and besides it causes significant welfare losses for the country. Currently, almost all basic public services are provided by government units at the county level and below, but revenue assignments and intergovernmental transfers to sub-provincial governments are less well-defined. Although extra-budgetary funds together with local government self-raised funds (off-budget) are still used as an alternative to supplement local budgets, these are not sufficient to palliate the existing fiscal gaps. Currently, a majority of the local governments are not even able to finance their operational expenditures, and "*feeding finance" (or financing only the running expenditures of government)* is still a very common phenomenon for local governments at the county level and below in the central and western areas of the country.

Third, weak fiscal performance of county and township governments in poor jurisdictions damages the credibility of all government levels, at the same time it has led to increasing levels of arrears and indebtness. In fact, local government debt has become a serious problem in China, especially for government units at the county level and below in the central and western areas of the country. According to China's 1994 Budget Law, local governments are forbidden from borrowing in the capital market. However, given the still limited direct financing and indirect financing through intergovernmental transfers, much of the actual financing of these sub-national governments' spending is through borrowing. This borrowing comes from local commercial banks by using enterprises under the jurisdiction of local governments, from residents-- particularly the employees of local government-- and SOEs directly under the local governments, and from privately owned enterprises. Meanwhile, deficits have been accumulating at a rapid pace into significant debt levels, becoming a heavy burden for these local governments. The current framework of intergovernmental fiscal relations has difficulties in presenting strategic solutions for this issue.

Fourth, low horizontal accountability of local government officials to their residents has likely exascerbated the local fiscal difficulties listed above. Limited fiscal resources do not prevent local government from expanding into areas with heavy overhead expenditures as there are no clear delineations for government responsibilities between the public and private sectors and among governments at different levels. The current system presents local governments with a wide array of responsibilities including economic development and adjustment to macro-economic changes (unemployment compensation, etc.), besides being responsible for social affairs and the delivery of public services. And it is this system in turn that provides local governments with various channels to encroach into private sector activities at the same time the level and quality of basic public services is further reduced, as local officials are not restrained by any

form of institutionalized local political participation. Far from discouraging this behavior, the current system of incentives in intergovernmental relations encourages it because local officials get rated and promoted for their performance mostly in the area of economic development as opposed to the delivery of public services.

In summary, China's current fiscal system faces serious challenges, and a significant number of local governments in China are in a serious fiscal crisis. This has negatively affected the quantity and quality of basic public services for many millions of people. Improving public service delivery in health, education and other basic areas and assuring that services are delivered in an equitable manner will go along way to alleviate poverty in the worst off areas of the country and will help provide the foundations for sustainable economic economic development in the decades ahead.[8]

In this paper, we take stock of the current state of the system of local public finance in China, with the objectives of identifying the critical weak points and providing some policy options for further reform of the system. The rest of the paper is organized as follows. Chapter 2 reviews the issues with the assignment of expenditure responsibilities to local governments. Chapter 3, in turn, analyzes the issues pertaining to the assignment of revenue sources to local governments. Chapter 4 addresses the problems of vertical and horizontal imbalances and the implementation of intergovernmental transfers. Chapter 5 evaluates the overall performance of China's decentralization system. Chapter 6 concludes and explores several options for policy reform.

[8] See the discussions in Ravallion and Chen (2004) for China and Boex et al. (2006) for developing countries in general.

Chapter 2 Expenditure Responsibilities of Local Governments

Overview

Expenditure responsibilities in China are highly decentralized. *The Budget Law* confers substantial autonomy to each level of sub-national government and quite broad expenditure responsibilities. However, expenditure assignments are far from being transparent and clear, mostly because of the presence of extensive concurrent expenditure responsibilities among different levels of government. This overwhelming presence of concurrent responsibilities can be traced back to the planned economy era when it was not considered necessary to separate the responsibilities of different spheres of government as providers of public services (local governments acted as agents of the central government - only carrying out assigned tasks), nor was it considered necessary to separate the expenditure responsibilities of governments from those of SOEs. The latter was due to the cohesive functions of the government in both the public and private sectors; in fact, fiscal expenditures and the expenses of the SOEs were jointly determined by government before middle of 1980s.

Extensive government responsibilities: differentiating between private and public sector activities

The market-oriented economic reforms that started in China in the late 1970s to a large extent contribute to separate SOEs from the government sector. During the process of transition from the planned economy to market economy, government gradually relied more heavily on market mechanisms and gave up direct intervention in the private sector. As part of the reform process toward a market economy, China's government started in the 1990s to build a framework of public finance which, among other things, tried to narrow down the responsibilities of government to what is more conventionally understood as public services.

However, government's expenditure responsibilities are still very wide. Currently, a significant number of enterprises are still owned (or belong) to governments at different levels, and there is still a variety of channels through which governments can directly or indirectly encroach into private sector activities through their SOEs.

The low level of development of laws regulating and restricting the behavior of governments and government officials still allows for high levels of administrative discretion. In particular, as governments at all levels have a formal responsibility for providing economic development and macro-economic management, they feel entitled to encroach into private sectors at will. Thus, currently China is still in the process of clearly differentiating between private and public sector activities and aligning the responsibilities of the government sector to fit the development of the market economy.

Highly decentralized responsibilities for basic public services with wide concurrent expenditure responsibilities in the public sector

Fiscal decentralization reforms provided local governments with significant local autonomy on various aspects such as the determination of their own spending priorities and the policies on relevant aspects of local budgets. However, there was no apparent change both in policy and practice in expenditure assignment between the central government and local governments and among sub-provincial governments from the times prior to the initiation of the market-oriented reforms. More specifically, the 1994 TSS reform restated the pre-reform expenditure assignment and provided only basic guidelines to define expenditure responsibilities between central or local governments. For example, *The State Council Regulations on the Implementation of the TSS* defined expenditure responsibilities of central and local governments as follows:

> *Central budgets are mainly responsible for national security, international affairs, the running costs of the central government, the needs for adjusting the structure of national economy, coordinating regional development, adjusting and controlling the macro economy, and others. Detail items include: national defense, cost of military police, international affairs and foreign aid, administration costs of the central government, central financed capital investments, the technical renovation of central enterprises and new product development costs, the costs of support to agriculture, debt, and the costs of central culture, education, and health, price subsidies and other expenditures.*
>
> *Local budgets are mainly responsible for the running costs of local government, and the needs for local social economic development. Detail items include: running costs of local government, the needs of local economic development, a part of the running costs of the military police and militia, locally financed capital investments, the technical renovation of local enterprises and new product development costs, the costs of support to agriculture, urban maintenance and construction, and the costs of local culture, education, and health, price subsidies and other expenditures.*

These guidelines illustrate that both the central government and local governments not only have very extensive expenditure responsibilities, but that these responsibilities are widely overlapping and very vague. The lack of clarity in expenditure assignments can lead to inefficiencies because of the over-provision of services in some cases and the under-provision in some other cases. The lack of clarity in expenditure assignments also detracts from public officials' accountability to residents, as officials at some government level can always blame officials at other levels for any deficiencies and inadequacies in service provision. Lack of clarity also tends to lead to frictions in intergovernmental relations and open opportunities for poor budgetary relations, such as unfunded mandates.

Clarity in expenditure assignments in generally enhanced through the assignment of exclusive (as opposed to overlapping) responsibilities at different levels of government. Fundamentally, in China exclusive responsibilities at the central and sub-national levels

are few and far between; while the central government tends to be exclusively responsible on national defense issues, local governments provide basically all local public services, such as urban maintenance and construction expenditures.

Concurrent or overlapping expenditures responsibilities among different levels of government may be unavoidable and even in some cases desirable (for example, if there are comparative advantages for some attributes of a service at different levels of government). However, in the case of concurrent responsibilities clarity can be considerably enhanced when different levels of government are assigned explicit responsibilities for each of the attibutes in the provision of the service, including norms and regulations, financing, and actual implementation. The current assignment of expenditure responsibilities between the central and provincial governments in China is clearly deficient in this respect.

What muddles expenditure assignments further in China is that there are no explicit formal assignments below the province level. The expenditure assignment for sub-provincial governments is at the discretion of the provincial government. To improve the expenditure at the sub-provincial government level, the central government announced "*Suggestions on Improving Sub-provincial Fiscal Relations,"* issued by the Ministry of Finance in December 2002, with the objective of providing further guidelines on sub-provincial expenditure assignment.

Although all sub-national governments at different levels have many overlapping expenditure responsibilities, in practice the main responsibilities for some basic public services such as basic education and health care are concentrated at the county and below levels of governments, while some other public services such as social security are concentrated at the provincial and prefecture levels of governments. In the paragraphs below we discuss in more detail some of these assignments.

(a). Education. Fundamentally, education is mainly the responsibility of sub-national governments. Education services can be divided into basic education, higher education and vocational education. Vocational education has been mostly left to private market institutions in China.[9] For basic education, the role of the central government is that of the policy-maker and overall planner. In addition, the central government has responsibilities for setting up special education funds for subsidizing basic education in poor, minority areas and teachers'(or normal) education. The provincial government has the overall responsibility for formulating the development plan for basic education and providing assistance to counties to help them meet recurrent expenditures in education. The responsibility for actually implementing compulsory education programs, including financing basic education, lies with the cities or districts of large cities in the case of urban areas, and with counties in the case of rural areas.

The provision of basic education services in rural areas is one of the major current concerns for the central government because of the generally worse service conditions,

[9] See the Implementation Suggestions of the State Council on the Guidelines for the Reform and Development of Education in China issued in July 1994.

especially in poor rural areas. Some new initiatives, especially the *Decision of Strengthening Rural Education*, issued by the State Council in September 2003 expanded the expenditure responsibilities of the central government on basic education. This basic service was defined as a shared responsibility with the goal of supporting students from poor families by waiving their textbook, tuition, and miscellaneous fees, and by subsidizing housing expenditures for elementary and secondary education students. The central government as well as sub-national governments started setting up special funds for the support of this program in 2003. All students who meet the requirements of the poverty standard are supposed to enjoy the listed benefits by 2006.

The assignment of expenditure responsibilities for higher education differs from that of basic education. In general, private institutions of higher education in China are few and they account for a very small portion of these services; private institutions tend to concentrate on vocational training. Public higher education institutions are divided into two groups: one belongs to the central government, and the other belongs to sub-national governments; thus, expenditure responsibilities for higher education are shared between the central government and the provincial governments. The central government has responsibility for the plan of national development of higher education, and provides direct support to the higher education organizations which belong to the central government. The provincial governments have responsibility for the plans of provincial development of higher education, and support the higher education institutions that belong to the provincial government.

(b). Health care. The central government has continued to commit to its responsibilities for public health care, and it requires that public spending on health care of both central government and sub-national governments needs to increase at a higher growth rate than that of general budgetary expenditures.[10] In practice, the responsibilities for public health care are concentrated at the sub-national level, particularly at the county and below levels of government.

The major concern of the central government about health care in China is the actual coverage of rural health care. The *Decision to Strengthen Rural Health Care* issued by the central government in October 2002 provided detailed responsibilities for the provision of rural health care services among different levels of governments. The central government now has the responsibility for designing the overall plan for rural public health care, the provincial government has responsibility for planning its implementation, and the county (city) governments take the overall responsibility for rural public health care delivery. In addition, the central government has the responsibility of subsidizing programs for the prevention and control of infectious disease, endemic diseases, occupational diseases and so on, in poorer areas; provincial governments have responsibility for subsidizing health programs of county (city) governments and to pay for the costs of planned immunity vaccinations; and county (city) governments have responsibility for the delivery of all rural public health services.

[10] See Decision on Public Health Reform and Development by the Central government issued in January 1997.

The new initiative of building a new rural collaborative health care system got started in January 2003, and it expanded the responsibilities of both the central government and local governments regarding health care. It established, among other measures, that from 2003 on, the central government should pay US$ 1.2 a year for each rural resident in the central and western regions who joins the rural collaborative health care system. Meanwhile, sub-national governments need to pay no less than US$ 1.2 a year in total for each rural resident who joins the rural collaborative health care system, leaving it to the discretion of provincial governments to arrange the sharing into this contribution among the different sub-national levels.

(c). Social security. Social security is mainly the responsibility of sub-national governments. The main component of current social security expenditure is the minimal living standard paid to urban dwellers. For this reason, the expenditure responsibilities in this area are more concentrated at the provincial and prefecture levels, and less responsibility at the county and below levels of governments where the vast majority of the population are rural residents, who have much less coverage under the social security system.

(d). Capital investment on infrastructure. The assignment of expenditure responsibilities on economic development shows mixed patterns in China. Capital investment in infrastructure is the shared responsibility of the central government and sub-national governments, both levels playing equally important roles. Among sub-national governments, the higher the level of government, the more the responsibilities.

(e). Agriculture development. The responsibility for agriculture development is mainly placed at the sub-national level. We must stress that agriculture development is one of the most important tasks of China's government because currently over 60 percent of the population in the country are rural residents. In general, local governments at or above the county level are responsible for the relevant agricultural development and the extension services Local governments at and above county level are responsible for establishing special agricultural funds for agricultural development, forest cultivation, and construction of special projects such as water conservancy facilities, and for the steady increase of expenditures on agricultural science, technology, and agricultural education to promote agricultural development. Meanwhile, the central government is responsible for the nationwide agricultural works and the relevant nationwide works in the service of agricultural production and operation. In particular, the central government is committed to increasing its overall input to agriculture development, and the growing rate of the annual overall expenditures on agriculture by the national finance should be higher than that of regular national revenues.[11] However, in practice local governments, particularly at the county and below levels, take on the main responsibilities for agricultural development.

The actual division of the main expenditure responsibilities among the different levels of government is summarized in table 2.1.

[11] See Agriculture Law of the People's Republic of China issued July 1993

Table 2.1 Actual division of main expenditure responsibilities: 2003

	Central	Provincial	Prefecture	County and under
Total	30	18	22	30
Capital Investment	44	23	22	11
Agriculture Expenditure	12	46	11	30
Education	8	15	18	60
Scientific Research	63	23	9	5
Health Care	3	22	32	43
Social Security	11	39	32	18
Government Administration	19	11	22	48
Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice	5	25	34	35
National Defense	99	1	0	0
Foreign Affair	87	13	0	0
Foreign Aid	100	0	0	0
Others	29	16	25	31

Source: China Statistical Yearbook and MOF.

It is worth noting that traditionally expenditure at the sub-provincial government in China has followed a pattern that first meets current spending needs. Currently, the predominant expenditure pattern at the county level poorer areas is still regarded as "*feeding finance*" (Chi Fan Cai Zheng) or just meeting government administration costs. The relative shares of components in total expenditure for government at different levels are shown in figure 2.1.

Figure 2.1. The relative share of components in total expenditure for government at different levels

Central
- National Defenses
- Capital Investment
- Government Administration
- Education
- Scientific Research
- Social Security
- Agriculture Expenditure
- Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice
- Foreign Affair
- Foreign Aid

Provincial
- Capital Investment
- Agriculture Expenditure
- Social Security
- Education
- Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice
- Government Administration
- Health Care
- Scientific Research
- National Defenses
- Foreign Affair

Prefecture
- Capital Investment
- Education
- Government Administration
- Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice
- Social Security
- Health Care
- Agriculture Expenditure
- Scientific Research

County and below
- Education
- Government Administration
- Expenditure for Public Security Agency, Procuratorial Agency and Court of Justice
- Capital Investment
- Agriculture Expenditure
- Health Care
- Social Security
- Scientific Research

- Health Care

Source: authors' computations

The main expenditure components for most of county-level governments are salaries of civil servants and elementary and secondary public school teachers. These expenses always take priority over other outlays but they have been difficult to meet for some county governments in the central and western regions. Typically, sub-national government use simple rules to prioritize expenditures. An example of these rules is shown in Box 2.1.

Box 2.1 Rules for prioritizing spending in Nanning City

Nanning city in Guangxi province uses the following rules to prioritize expenditures:

1. Guaranteed spending (what takes priority)

i. administration spending of local governments, local public security agency, procuratorial agency, and court of justice; education and scientific research spending; social security expenditure;

ii. City maintenance; extra-educational expenditure; supporting agriculture production; agriculture comprehensive development; supporting less developed areas.

2. Conditional spending (if additional funds are available)

i. Administrative fee for less important departments; health care; these categories should be discounted at 90 percent of the expenditures planned.

ii. Capital investment; this category should be discounted at 80 percent of the expenditures planned.

iii. Innovation and science & technology promotion of local SOEs; these categories should be discount as 70 percent of expenditures planned.

Source: Nanning government, Document 15 of 2003

Although there are significant regional disparities in fiscal resources, there tend to be marked similarities in expenditure structure across sub-national governments. For example, in the case of townships, a significant feature is that the expenditures of government administration count for a high percentage in total expenditure, and expenditures on administrative personnel account for 50-70 percent of total expenditure in some townships, while expenditures on public services are generally low. Another feature is the high relative importance of expenditures on public relations, in particular for guest expenditures, in both rich and poor townships.

Box. 2.2. The allocation of expenditures in the Shuang Qiao townships in 2004

Total fiscal expenditure of Shuang Qiao township was 1.46 million Yuan in 2004. The total expenditures were allocated as the follows:

Expenditure Items	Amount (in thousand)	As % of total
Agriculture	291	19.9
Culture, sports development and broadcasting	23.3	1.6
Health care	32	2.2
Government Administration	504	34.5
Other administration	512	35.1
court and justice	3	0.2
Other	94	6.4

Source: Field investigation in Guangxi

Hierarchical expenditure managing model

Fiscal decentralization reform over the last two decades has contributed significantly to improving local autonomy. In particular, nowadays each sub-national government has its own budget. Practically speaking, the budget of each government includes its own budget and the consolidated budget. This consolidated budget of any government includes its own budget and all consolidated budgets of the governments at the next lower level. For the lowest government, for the township government, the own budget is equivalent to the consolidated budget. The government budget at each level is approved by the people's congress at that level; the people's congress at each government level also checks the consolidated budget. The approved own budget of a sub-national government is submitted to the upper government, and so on to the MOF for the record and for the compilation of the upper level government's consolidated budget and eventually the national consolidated budget. The national budgets are the last to be approved.

Local residents' input into the shape and content of local expenditure budgets is limited. Instead, local expenditure management is conducted mostly through the bureaucratic hierarchy, and budget management through the bureaucratic hierarchy is still common practice. The legal system framing China's fiscal decentralization process gives the provincial governments discretion to determine budget management for all sub-provincial governments. At the same time, the central government has also increasingly provided guidelines for local expenditure management. *The State Council Regulations on the Implementation of the TSS* in 1994 reform required provincial governments to define the expenditure responsibilities for sub-provincial governments. *The Suggestions on Improving the Fiscal Management System in Counties and Townships Experimenting with Rural Tax-Fee Reform* by MOF in August 2000 required that: (a). a clear definition of expenditure responsibilities between the county and township governments; (b). the

improvement of the structure of township government, and strict control of the quota of township employees; (c). the monitoring of fiscal risks of county and township governments. *The Notice about Eliminating Fiscal Difficulties of County and Township Government* by MOF in 2005 tried to build a monitoring and expenditure performance system.

Currently there are two types of sub-provincial fiscal management systems in China:

(1) The "province-managing-county" (or bifurcated) model in which the provincial government directly (and separately) manages the cities (prefectures) and counties. In this model there are direct intergovernmental relations between the provincial government and the city (prefecture) government, and separately between the provincial government and the county government in revenue assignments, expenditure assignments, intergovernmental transfers, special subsidies, final account subsidy, borrowing and adjustment of budgetary funds, and so on. The particularity of this model is that there is no fiscal relationship between the city (prefecture) government and the county government. This type of model is followed in Zhejinag, Anhui, Hubei, Hailongjiang, Fujian, Hainan, and Ningxia provinces plus in Beijing, Shanghai, Tianjin, and Chongqing, the 4 provincial level cities, and Dalian, Qingdao, Shenzhen, Xiamen, and Ningbo, the 5 separately planned cities, where no prefecture government exist.
(2) The "city (prefecture)- managing-county" (or hierarchical) model in which there are direct intergovernmental fiscal relations between the provincial government and the city (prefecture) government and there is no direct fiscal relationship between the provincial government and county level government. The rest of the provinces (other than those listed above under the "province-managing-county" approach) follow this model.

The central government appears to favor the "province-managing-county" model (Zhang, 2005). At lower-levels, the central government also appears to encourage a "county-managing-township" model in poor jurisdictions. Under this model, township fiscal expenditures are managed by the county government.

Wide administrative autonomy for local expenditure decisions

Although decentralization provided sub-national governments with significant autonomy, sub-national government officials still practice "administrative autonomy" to increase their effective autonomy and go beyond the confines and constraints imposed by the local budget and related regulations. In general, the management of funds is through a "distributive model," whereby various government agencies and divisions of the finance department make their own expenditure decisions, and some of them may not be included in the budget.

One manifestation of the "administrative autonomy" at the sub-national government is the use and prevalence of extra-budgetary funds at the sub-national level. Quite importantly, a significant portion of sub-national government expenditures do not go through the regular budget channels. Fundamentally, extra-budgetary expenditure do not differ that much from ordinary budgetary expenditures. As shown in table 2.4, the largest

share of extra-budgetary funds is spent on government administration, 63 percent for 2002. Other uses of extra-budgetary funds overlap considerably with those of ordinary budgetary funds.

Table 2.4 Extra-budgetary Items: 1996-2002
(in billion Yuan)

Year		1996	1997	1998	1999	2000	2001	2002
Total		383.83	268.55	291.83	313.91	352.9	385	383.1
Capital Construction	Volume	149.02	50.2	39.4	42.62	35	26	42.62
	%	38.83	18.69	13.5	12.08	9.09	6.79	12.08
Special Expenditure	Volume	30.73	31.16	42.36	0	0.00	0.00	0
	%	8.01	11.6	14.52	0	0.00	0.00	0
Public Administration	Volume	125.44	128.02	158.83	222.51	250.00	265.50	222.51
	%	32.68	47.67	54.42	63.05	64.94	69.30	63.05
City Maintenance	Volume	0	0	0	14.64	15.00	16.00	14.64
	%	0	0	0	4.15	3.90	4.18	4.15
Township Expense	Volume	13.64	28.87	33.53	38.74	40.00	26.80	38.74
	%	3.55	10.75	11.49	10.98	10.39	7.00	10.98
Others	Volume	65.01	30.3	17.72	34.4	45.00	48.80	34.4
	%	16.94	11.28	6.07	9.75	11.69	12.74	9.75

Source: China Statistic Yearbook, various years

As the central government took various measures to transform its extra-budgetary expenditures into budgetary expenditures, extra-budgetary funds at the central government level have decreased dramatically. In contrast, extra-budgetary expenditures still play a very important role at the sub-national level, despite the central government long-time efforts to reduce their use and importance and transform extra-budgetary funds into ordinary budgetary funds. Actually, the ratio of extra-budgetary to budgetary expenditure is still around one fourth in 2002. Table 2.5 shows extra-budgetary and budgetary expenditures for local government over the period 1985-2002. The evolution of extra-budgetary funds is discussed in the appendix to this paper by Li Zhang.

Table 2.5 Extra-budgetary and Budgetary Expenditure for Consolidated Local Government: 1985-2002
(in Billion Yuan)

Year	Budgetary	Extra-budgetary	The Ratio of Extra-budgetary to Budgetary Expenditure
1985	120.9	81.298	67.24
1990	207.912	166.937	80.29
1991	229.581	182.899	79.67
1992	257.176	205.709	79.99
1993	333.024	111.543	33.49
1994	403.819	148.537	36.78
1995	482.833	197.988	41.01
1996	578.628	280.34	48.45
1997	670.106	254.163	37.93
1998	767.258	277.857	36.21
1999	903.534	297.432	32.92

2000	1036.665	331.828	32.01
2001	1313.456	359.187	27.35
2002	1528.145	357.200	23.37

Source: China statistic yearbook 2004

Another manifestation of "administrative autonomy" has been the use of the so-called "illegal fees" by sub-national governments, in particular rural taxes and surcharges. This type of revenue source had been particularly important in township government budgets. These funds, of course, lack transparency; for example, there is no formal definition or statistics about rural fee charges. However, the amount can be roughly estimated by the tax and surcharges directly by farmers because of the revenue-driven attribute of these expenditures. In 2001, total rural tax and surcharges amounted to more than 120 billion Yuan. [12] Because the sources of funds lack transparency, it is also assumed that the uses of funds may be less efficient than in the case of regular budget resources. But there are no data to validate these conjectures.

One factor that has facilitated the broad use of "administrative discretion" in China has been the relatively weak institutions of budget execution and ex-post budget audit and control. Although the National People's Congress is authorized to approve the budget, the execution of the budget until recently has not been strictly monitored in China. The State Council issues both the fiscal discipline and fiscal policy regulations, but most of the time fiscal policy issues are more emphasized. Currently, the Audit Bureau, a department under the State Council, is authorized to audit government accounts and impose fiscal discipline; also all sub-national governments except township government have their own audit bureaus.

In recent years the central government has taken significant steps to improve expenditure management processes. Some of these main measures include the following:

a. The creation of *budgeting departments*, by which each government agency or public service unit has a single budget which combines all budgetary and extra-budgetary funds together.

b. The *introduction of a treasury system and the centralization of payment administration,* by which all expenditure funds for each government are controlled in a single account of the central bank with payments going directly to the sellers or service providers (and the elimination of all other accounts at commercial banks and of extra-budgetary account) This reform started in 2001 with the *Notice on Issues of Fiscal Treasury Management Reform* by the State Council and *Experimental Methods on Fiscal Treasury Management Reform* by MOF and the Central Bank in 2001.

c. *Standardizing governmental purchasing,* by which all government purchasing of products, projects and services over a defined amount should go through standard tendering procedures. Until 2003, the year for which we have the most recent data, these

[12] Press Conference of Premier Zhu Rongji in the Fourth session of the Ninth National People's Congress, People's Daily, March 16, 2001.

procedures had not caught up very markedly. Table 2.6 shows the amount and percentage of standardized government purchases from 1998-2003.

Table 2.6 Standardized government purchases from 1998-2003

Year	Standard Government Purchasing	Total Government expenditure	As % Total
1998	31	10798.2	0.3
1999	130	13187.7	1.0
2000	328	15886.5	2.1
2001	653	18902.6	3.5
2002	1,009	22053.2	4.6
2003	1,500	24650.0	6.1

These measures have restrained, to some extent, the administrative discretion of local governments. However, fundamental problems, such as the wide use of extra-budgetary funds, still remain; it is fair to say that sub-national governments are still actively pursuing administrative autonomy within the limited existing legislative autonomy.

The existence of a soft-budget constraint in China

Currently, there are several forms of a soft-budget constraint in China. One manifestation of a soft-budget constraint is in the dealings between SOEs and government; some SOEs are generally less competitive and rely heavily on government to survive. For example, in 2003, government spent 2 percent of total revenues to compensate for the losses originating in SOEs. Although this support is the cause of important distortions in many cases, government cannot abandon these SOEs in the short term because of the potential social problems associated with the massive unemployment of SOE employees; currently 27 percent of total labor in the country is hired by SOEs. A typical approach in the past to deal with this issue has been more government investment to improve the competitiveness of SOEs. However, direct bailout and a soft budget constraint has become more of an issue. These problems are likely to continue as long as government does not change the whole strategy on SOEs.

According to China's 1994 Budget Law, sub-national governments are forbidden from borrowing on the capital market except with special approval from the central government.[13] However, as we have already discussed above, sub-national governments can effectively borrow through SOEs. These SOEs, which depend on various kinds of government subsidies and are often regarded as de facto government agencies, can and do borrow from banks and on the capital market. In fact, it is the case that sub-national governments create such SOEs for borrowing purposes to finance particular projects.

[13] Borrowing from the central government is quite significant. Sub-national governments' debt with the central government was estimated at US$1.2 billion in 2005, representing 12 percent of total government debt in that year.

Chapter 3 Revenues of Local Governments

Overview

The legislative power of taxation in China is centralized. Fundamentally, the current system does not provide sub-national governments any autonomy on either the definition of tax base or the determination of the tax rate for almost all taxes. Nevertheless, the central government has designed a list of taxes as sub-national taxes, collected by sub-national tax agencies, and which are regarded as sub-national taxes.[14] The only elements of sub-national tax autonomy are the choice of introducing (or not) the banquet tax and slaughter tax, and the selection of tax rates of the urban and township land use tax within maximum and minimum legislated rates. In general, local taxes have narrower tax bases and less stable revenue yields than the central and shared taxes. Revenues from sub-national taxes represent fewer than 40 percent of total sub-national budgetary revenues in recent years.

Shared taxes (between the central and sub-national governments) represent the most significant source of revenues at the sub-national level. Currently, shared taxes include: the business tax, VAT, the corporate income tax, the foreign corporate income tax,[15] the individual income tax, and the stamp tax on security transactions. (See Box 3.1 for a summary of tax bases and rates.) The rest of sub-national budgetary revenues come from transfers (which will be discussed in the next section).

Besides the budgetary revenues, sub-national revenues also include non-tax revenues, such as net profits from SOEs,[16] administrative fees, penalty and confiscatory income, income from usage of sea resources, drilling, and others. The general revenue structure is summarized in table 3.1.

Table 3.1 Revenue Structure between the central and sub-national governments

	Budgetary					Extra-budgetary[17]					Budgetary and Extra budgetary				
	Total	Central	Subn	Central Share	Subn Share	Total	Central	Subn	Central Share	Subn Share	Total	Central	Subn	Central Share	Subn Share
1993	435	96	339	22	78	143	25	119	17	83	578	120	458	21	79
1994	522	291	231	56	44	186	28	158	15	85	708	319	389	45	55
1995	624	326	299	52	48	241	32	209	13	87	865	357	507	41	59
1996	741	366	375	49	51	389	95	295	24	76	1130	461	669	41	59
1997	865	423	442	49	51	283	15	268	5	95	1148	437	711	38	62
1998	988	489	498	50	50	308	16	292	5	95	1296	506	790	39	61

[14] This list includes the urban maintenance and construction tax, vehicle purchasing tax, agriculture and animal husbandry tax, tax on special produces, contract tax, housing property tax, educational surcharge, stamp tax, pollution charge, urban and township land use tax, farmland occupation tax, resources tax, land appreciation tax, vehicle and vessel utilization tax, fixed asset investment tax, slaughter tax, banquet tax, and others.

[15] China's corporate tax system treats domestic and foreign investment enterprises separately to attract foreign investment.

[16] These are reported net of the planned subsidies to loss-suffering SOEs.

[17] The menthod of calculation changed beginning in 1996.

1999	1144	585	559	51	49	339	23	315	7	93	1483	608	875	41	59
2000	1340	699	641	52	48	383	25	358	6	94	1722	724	998	42	58
2001	1639	858	780	52	48	430	35	395	8	92	2069	893	1176	43	57
2002	1890	1039	852	55	45	448	44	404	10	90	2338	1083	1255	46	54
2003	2172	1187	985	55	45	457	38	419	8	92	2628	1224	1404	47	53

Centralized normative taxing powers

The current system of tax assignments and revenue sharing dates from the 1994 TSS reform, which for the first time explicitly defined revenue assignment between the central and sub-national governments. The overall assignments are summarized in Table 3.1.

Table 3.1 Revenue Assignment in China

Category	Tax	Central Revenue	Local Revenue
Central	Customs duties	100	
	Excise Tax	100	
	Profit remittances by centrally owned enterprises and rail transportation, Headquarters for banks and insurance companies	100	
	Export rebates of enterprises engaged in foreign trade	100	
Shared	VAT	100 VAT on import; 75 VAT on domestic	25 VAT on domestic
	Business Tax**	100 Rail transportation, Headquarters for banks and insurance companies	Others
	Stamp tax on security transaction	97	3
	Individual income tax	60	40
	Enterprises income tax	100 Central Owned enterprises; Local banks, foreign bank and other financial corporations; Rail transportation, Headquarters for banks and insurance companies 60 other corporate income tax	40 other corporate income tax
	Resource tax	100 on offshore	Other
	Urban maintenance and construction tax	100 Rail transportation, Headquarters for banks and insurance companies	Other
Local	Urban and township land use tax		100
	Housing property tax		100
	Vehicle and vessel utilization tax		100
	Land appreciation tax		100
	Stamp tax		100
	Agriculture and animal husbandry tax		100
	Tax on special produces		100
	Contract tax		100
	Farmland occupation tax		100

	Gift and bequest tax	100
	Slaughter tax	100
	Fixed asset investment tax	100
	Profit remittances by locally owned enterprises	100
	Revenue from the compensation for use of stat-owned land	100
	Other	100

**: the "business tax" is a tax on gross receipts assigned to local governments, which falls on a number of service sectors excluded from the VAT.
Source: Ministry of Finance

Note that the sharing of the individual income tax and the other corporate income tax was introduced with a 50:50 sharing rate in favor of the central government in 2002. In 2003 the sharing ratio was modified to 60:40 for the central government and there appear to be further plans to increase the centralization of this tax. The central government has announced it is using these additional resources to enlarge the pool of equalization funds for the central and western areas of the country.

It is worth stressing that in the current system the sub-provincial revenue assignments are at the discretion of provincial government. (See Box 3.1 for an example of sub-provincial assignments in the province of Guangxi). The *Suggestions on the Sub-provincial Fiscal Relation* issued by the Ministry of Finance, and then approved by the State Council in December 2002 provided some guidelines for the revenue assignment for the sub-provincial government; however, even the key point stressed in this legal norm is the discretionary role of the provincial government. This arrangement implies the existence of a variety of revenue assignments at the sub-provincial level.

Currently, the general practice in revenue assignments at the sub-provincial level can be summarized as follows:

(1) the revenues from the major or key industries belong to the provincial government; for example, the business tax from the financial sector belongs to the provincial government;

(2) taxes with relatively smaller revenue yields, such as resources tax, urban maintenance and construction tax, and real estate tax belong to the prefecture (city),) and county governments;

(3) revenues from the major shared taxes including the VAT, corporate income tax and individual income tax, business tax and urban land occupation tax are shared by the provincial, prefecture (city), and county governments;

(4) it is still common practice that each level of government retains the entire tax revenues coming from the SOEs it owns.[18]

[18] In 2002, the MOF started a reform to re-assign revenues from the corporate income tax between the central government and sub-national governments in which the income tax from some central owned enterprises is shared by the central government and the provincial governments where the income originates. However, taxes from the majority of SOEs still go to the level of to which the enterprise belongs.

Box. 3.1 Revenue assignments at the sub-provincial level in Guangxi

The revenue assignment in Guangxi is set in a hierarchical fashion: the provincial government determines the assignments between the provincial and prefecture governments, the prefecture government determines that between the prefecture and county governments, and the county government determines the assignment between the county and township governments.
The revenue assignment between the provincial and prefecture is as follows:

i. Shared revenues: resources tax, urban and township land use tax, land appreciation tax, and others, with a provincial share of 40 percent.
ii. Provincial revenues: profits from provincial-owned SOEs, business tax from financial and insurance companies.
iii. Prefecture revenues: all other taxes that not belong to the central and provincial governments.

The revenue assignment between the prefecture and counties in Nanning (prefecture level city) is as follows:

i. Shared revenues: Business tax, VAT, corporate income tax, individual income tax, urban maintenance and construction tax, Housing property tax.
ii. Prefecture revenues: Urban and township land use tax, Land appreciation tax, Vehicle and vessel utilization tax, Contract tax, Fixed asset investment tax, and others.
iii. County revenues: resources tax, Stamp tax, agriculture and animal husbandry tax, tax on special produces, Slaughter tax

The revenue assignment between the county and townships in Wuming county is defined as: “all revenues that do not belong to higher level governments belong to the county government.” The township governments receive some base revenues as determined by the county government, and they are rewarded on the basis of the increased revenues collected by the townships.

Source: Field survey in Guangxi

TSS reform built a clear and relatively stable revenue assignment between the central and provincial governments; more precisely, the central government clarified what were exclusively central level revenues, what taxes would be shared with sub-national governments, and it decentralized some revenue authority to the provincial level government. This arrangement improved the transparency of revenue assignment, and it also helped the predictability of revenue for the government at the provincial level.

Meanwhile, the central government has further encouraged the provincial government to continue the decentralization process of revenue assignment to the lower level governments.

This explicit revenue assignment significantly improved the revenue performance of the central government. In fact, the central government's budgetary revenues have continued to increase since the TSS reform. The division of budgetary revenues among the different levels of government from 1994 to 2003 is presented in Table 3.4. Although the composition has fluctuated over the years, the central government has received around 55 percent of all revenues. The recentralization or revenue sharing of the personal income tax in 2002 and 2003, described above, avoided a steadily declining share for the central government. At the sub-national level, a subtle centralization trend can be detected with the provincial level marginally increasing its share at the cost of lower shares for the prefecture and especially the county levels.

Table 3.4 Budgetary revenues among different levels of government: 1994-2003

Year	Central	Provincial	Prefecture	County
1994	55.7	7.6	18.5	18.2
1995	52.2	8.7	20.2	18.9
1996	49.4	10.0	21.3	19.3
1997	48.9	15.4	17.3	18.5
1998	49.5	13.8	17.0	19.7
1999	51.1	10.4	21.2	17.3
2000	52.2	10.7	19.7	17.4
2001	52.4	11.2	18.9	17.6
2002	55.0	11.7	17.1	16.3
2003	54.6	11.4	17.5	16.5

Source: China Statistic Yearbook 2004 and MOF

The structure of tax revenues by type of taxes at different levels of government for 2003 is shown in Table 3.5.The major components of central government and sub-national government revenue structure are significantly different, which is a product of the TSS reform. Note that for 2003, the business tax and revenue shares in the VAT and the corporate income tax are main revenue items for the sub-national governments; other important sources include the individual income tax and the urban construction and maintenance tax.

Table 3.5 Importance of main taxes on total revenue: 2003

Revenue	Central	Provincial	Prefecture	County and under
VAT	45.7	17.6	18.9	18.4
Import Consumption Tax and VAT	23.5			
Corporate income tax	14.7	23.4	9.7	6.6
Consumption Tax	10.0			
Individual Income Tax	7.2	9.2	4.9	4.3

Stamp Tax on Security	1.0	0.2		
Business Tax	0.6	31.4	29.3	24.7
Urban Construction and Maintenance Tax		2.0	8.2	5.4
Agriculture Tax		1.5	6.4	16.0

Source: MOF

Extensive local administrative discretion

Despite the fact that the 1994 TSS reform did not provide any meaningful tax autonomy to sub-national governments, *de facto* sub-national governments have revenue autonomy in some other forms such as collecting profits from SOEs, levying administrative charges, collecting penalty and confiscatory income and user charges for drilling, etc. The central authorities have also accepted the use of extra-budgetary revenues as a way to exert local revenue autonomy. In fact, extra-budgetary revenues are one of the important revenue sources for local government. Currently, extra-budgetary revenues come from revenue of administrative units and institutions, revenue of government funds, self-raised funds by township government, revenues from state-owned enterprises and their administrative department, etc. In 2002, total sub-national extra-budgetary revenues were US$ 41 billions, or about 41percent of all local budgetary revenues (Table 3.6).

Table 3.6 Extra-Budgetary Revenue and Structure (1978-2002)
(in billions of Yuan)

Year	*Total*	*Ratio to Budgetary Revenue*	*Revenue of administrative units and institutions*	*Revenue of Government funds*	*Self-raised funds by township government*	*Revenue of local government*	*Revenue of state-owned enterprises and their administrative department*	*Others*
1978	34.711	30.66	6.341	0	0	3.109	25.261	0
1980	55.74	48.05	7.444	0	0	4.085	44.211	0
1985	153.003	76.32	23.322	0	0	4.408	125.273	0
1990	270.864	92.22	57.695	0	0	6.059	207.11	0
1994	186.253	35.69	172.25	0	0	14.003	0	0
1995	240.65	38.55	223.485	0	0	17.165	0	0
1996	389.334	52.56	339.575	0	27.29	22.469	0	0
1997	282.6	32.67	241.432	0	29.578	11.59	0	0
1998	308.229	31.21	198.192	47.841	33.731	0	5.467	22.998
1999	338.517	29.58	235.428	39.651	35.886	0	5.011	22.541
2000	382.643	28.57	265.454	38.351	40.334	0	5.922	32.581
2001	430.00	26.24	309.00	38.00	41.00	0.00	6.00	36.00
2002	447.90	23.69	323.80	37.60	27.20	0.00	7.20	52.10

Source: China Statistic Yearbook 2004

Sub-national governments in China also practice other formal or informal forms of revenue autonomy, which is not captured or going through budgetary or extra-budgetary channels. For example, sub-national governments levy various surcharges with different

titles. Because these practices do not have formal established procedures, the actual volume or importance of these revenues is not known.

Sub-national governments also exercised autonomy through their own tax administrations. Taxes in China are enforced and collected by the State Tax Agency at the central level and the provincial tax administration agencies. The 1994 TSS reform established that the State Tax Agency has the responsibilities of collecting all central and shared taxes, while the provincial tax agencies are responsible for collecting all sub-national taxes. We must note that the corporate income tax for the centrally owned enterprises and individual income tax were defined as sub-national taxes at the beginning of the TSS reform, and that correspondingly the responsibility for the collection of these taxes was assigned to the provincial tax administration agencies. This division of responsibilities has been kept untouched (with a few exceptions) with the recent changes in 2002 converting these taxes into shared taxes (as opposed to being 100 percent assigned to sub-national governments).

The separation of tax administrations in the 1994 TSS reform was intended to decrease the influence and impact of local government authorities on the performance of the tax administration in regard to central and shared taxes. At the same time, the intention was to provide some administrative autonomy to sub-national governments as local governments could use some instruments such as tax exemptions to exercise their own revenue autonomy.

Although the unitary tax laws under the control of the central government harmonize China's tax system, in a practical sense actual tax collections are controlled by a tax collection model called the "tax revenue task." It is still the typical practice that at the beginning of a fiscal year the central tax agency, through bargaining and consultation with the provincial tax agencies, assign the total volume of taxes that need to be collected by the provinces as a "revenue task." The provincial authorities follow the same approach, assigning the tax revenue tasks (or the total volume of taxes that need to be collected) by the tax agencies at the prefecture or county levels. In the past, this approach of tax collection encouraged, to some extent, the abuse of the tax laws by the tax agencies. For example, local tax agencies could delay the tax collection to the next fiscal year if the assigned volume of tax revenue for this year had been fulfilled. In fact, delaying tax collection is a very common practice in richer jurisdictions because their wealthier tax bases make it easier to complete the revenue task in advance. On the other hand, the tax agencies of poorer jurisdictions may collect taxes in advance or delay tax refunds in order to complete their tax revenue tasks for the current year. In general, under the "tax revenue task" model, the scheduling of tax collections receives more attention and is more emphasized than the straight enforcement of the tax laws.

The "tax revenue task" can be seen as a practical administration tool but its costs may be outweighing its benefits. The "tax revenue task" model has left more administrative power to tax officials than is desirable; in particular, tax officials are quite free to exploit the benefits of delayed taxation; this in turn, naturally, encourages rent-seeking behavior and potentiall corrupt practices. The system also endangers the consistent application of the tax laws across all jurisdictions in the country, and it encourages informal tax

autonomy by providing wide space for the intervention of local government on the determination of effective tax rates. A collection model based on ex-ante forecast without rigid revenue targets can avoid many of the problems listed above.

In practice, other departments of sub-national governments besides the tax agencies may also exercise authority to collect revenues (other than taxes), at the discretion of local authorities. In some extreme cases, government departments may collect revenues at their own discretion, and of course, most of these practices are illegal.

Box 3.2 Wide disparities in tax bases across townships in the country

There are significant disparities in tax revenues across township governments in China. One of the richest townships with 45 thousand people in Zhejiang province collected 47 million Yuan in 2003, while one of the poorest townships in Ningxia province with 12 thousand people only collected 130 thousand Yuan over the same period.
Poor townships usually largely, if not completely, depend on agriculture related taxes; in contrast these types of taxes are almost ignored or have been already abandoned in richer townships.
Township charges include administrative charges such as fees by the land authority, fees for the executive office for enterprises, justice and court fees, and so on; agricultural related charges include the fees charged by agriculture service centers, agriculture economic stations, forestry stations, birth plan stations, agriculture machine services, and agriculture technical services. The key objective of these charges is to finance the salary of employees in these organizations.
Although there is a decreasing trend, relatively heavy revenue collections by townships is a common phenomenon particularly in poorer areas, and it adversely affected the appropriate distribution of tax burdens.
As the budget law rightfully forbade local fiscal deficit in China, local governments, particularly township governments, use a variety of approaches to hide their deficit. These include “empty circulated revenues” which are financed by loans from banks or other sources, or “brought revenues” by which taxpayers from other jurisdictions buy out the tax-paying documents or liabilities (from local taxpayers) at a discount from township governments.

Extracted from *“Trapped Rural Finance-Survey on 20 township governments in 10 Provinces,” Shukai Zhao, State Development and Research Center (http://www.drcnet.com.cn/new_product/drcexpert/showdoc.asp?doc_id=198442*

Weak revenue capacity of county and township governments

In general, all tax bases for the county and township governments are weak, particularly for poor jurisdictions, and also differ widely (see Box 3.2). In addition, local taxes have unstable yields with high collection costs (see Box 3.3).

Box 3.3 Bases, rates, and importance of shared taxes, local taxes and charges: 2003

Taxes	Tax base	Tax rate	Share of revenue(%)
Business tax	Services provided	3–20	28
VAT	Added value of production and productive service	0–17	18
Enterprise income tax	Taxable income	33	9
Individual income tax	Taxable income	5–45	6
Foreign enterprise income tax	Taxable income	15–33	3
Stamp tax on security transaction	Transaction value on document	0.003	1
Urban maintenance and construction tax	VAT and business tax	1–7%	5.55
Vehicle purchasing tax	Vehicle purchase cost	0.001	4.82
Agriculture and animal husbandry tax	Agriculture and animal husbandry earnings	Average 15.5%	4.3
Tax on special products	Cost of identified special agriculture products	5–10%	
Contract tax	Contract value	3–5%	3.64
Housing property tax	Assessed value of housing property or rental income	Assessed value of housing property: 1.2%, Rental income: 12%	3.29
Educational surcharge	VAT, business tax, and consumption tax	0.0003	2.34
Stamp tax	Transaction value on documents	0.003–0.05%	2.18
Pollution charge	Pollution	Varies for different types of pollution	0.95
Urban and township land use tax	Occupied urban and town land	0.2–10 yuan per square meter, based on location and rank of the land	0.93
Farmland occupation tax	Occupied farmland	15–150 yuan per acre	0.91
Resources tax	Gas, oil, minerals, salt	0.3–60 yuan per ton	0.85
Land appreciation tax	Increasing value of real estate transaction	30–60%	0.38
Vehicle and vessel use tax	Vehicle or vessel	Vehicles: 2–320 yuan, Vessels: 0.4–5 yuan per ton	0.33
Fixed asset investment tax	Investment amount	0–30%	0.05
Slaughter tax	Cost of slaughter animals for food	0.001	0.02
Banquet tax	Payment for banquet	15–20%	0

Source: Adapted from Qiao and Shah (forthcoming)

Generally, townships are heavily dependent on transfers from the county governments. For example, with 59 employees, Shuang Qiao township in Guangxi province had about 417 thousand Yuan from own revenues in 2004, accounting for 24 percent of total township revenues. All other revenue was from the intergovernmental transfers[19]. Actually, it is quite common, especially in poor areas of the country, to have the county government directly manage the townships' finances; in these cases, the township governments practically become departments of the county government and their budgets just simply show in the fiscal records. County and township governments in poor jurisdictions have also depended heavily on a variety of charges and fees on farmers and agriculture taxes.

The revenue autonomy of county and township governments has been further diminished in recent year due to the recent reforms initiated at the central level with the goal of cutting the tax burden of farmers. These reforms have become generally known as the Tax-for-Fee reform.

The Tax-for-Fee reform and the impact on the delivery of basic social services

The Rural Tax-for- Fee reform was first introduced as a pilot experiment in the eastern area of Anhui province in 1994; two years later, the reform was expanded to 50 selected counties in seven other major agricultural provinces. In 2000, Chinese government extended the experiment to the whole of Anhui province in a bid to standardize the tax burdens on farmers and eliminate the growing administrative and arbitrary fees charged to farmers.[20] In 2002, the Central government broadened the reform further, and the number of provinces under the reform had grown to 20 by the end of the year; thus, around 620 million farmers, or three quarters of the country's total, were benefiting from the reform. The main effect of the reform was to cut the financial burden on farmers by at least 30 percent. The Chinese government also decided in late 2003 to abolish, exempt or lower 15 charges on the country's 900 million farmers in a bid to further reduce their tax burdens. The list of the 15 charges published by the Ministry of Finance and the State Development and Reform Commission included quarantine certificates, licensing fees for using water resources, education fees, land-use rights certificates, and charges for fishing boat inspections.

More recently, China's central government has moved to abandon the agriculture related taxes. In 2004, Jilin and Helongjiang, two main agriculture provinces, started to abolish agriculture taxes, and other 11 provinces including Hebei, Inner Mongolia, Liaoning, Jiangsu, Anhui, Jiangxi, Shanggong, Henan, Hubei, Hunan, Sichuan decreased the agriculture tax rate by 3 percentage points. All other provinces decreased the agriculture tax rate by 1 percentage point. In exchange, the central government filled the corresponding fiscal gap caused by the reform in its entirety for the provinces of Jilin, Helongjiang and Hubei, by 80 percent for all other central and western provinces, and by

[19] Source: Field investigation in Guangxi

[20] No doubt, the reforms were also motivated by the political need to address the growing unrest in rural across the country. See, for example, Yep (2004).

50 percent for some east coast provinces such as Shangdong.[21] It is expected that all agriculture taxes will have been abolished by the end of 2006.

Although these reforms are significantly decreasing the tax burdens on farmers and thus improving vertical equity in the tax system, the abolition of agriculture taxes quite likely has further weakened the fiscal capacity of a majority of county and township governments, especially in poor areas of the country where these governments usually have been highly dependent on agriculture taxes to finance their budgets.

As we have seen above, county and township governments have very little or no formal tax autonomy. Although it might be a good choice to limit or even eliminate their informal revenue autonomy, there is a need to carefully assess the impact of all recent reforms, including the Rural Tax-for-Fee reform and the elimination of agricultural taxes on the ability of these local governments to deliver the public services for which they are responsible. As we have mentioned above, compensatory transfers (from the central government totally or partially, and/or from provincial governments) have accompanied these revenue measures.

Two important questions need to be asked on the impact of the "tax-for-fee" reform. First, are central compensatory transfers actually reaching the county and township governments, as intended, or are some of these funds being retained by upper-level governments (provinces and prefectures)? What are the consequences of the "tax-for-fee" reform on the actual level of provision of local services?

At present, we do not have the micro level data necessary to examine the issue of potential transfer fund retentions. However, we are able to use county level budget data to examine the second question: what has been the impact of the reform on the delivery of local services, in particular social services in education, health, and social security. In the following paragraphs we make a detour to empirically examine this question.

The data used in our empirical analysis come from a large county level dataset from the Ministry of Finance, which includes most fiscal variables and some social indicators over the years of 1993-2003. More in particular, this data set covers counties, county level cities and districts under prefectures and regions, districts directly under cities for 30 provincial level administrative units. The data set contains over 20,000 observations pertaining to over 2,400 counties or equivalent units observed each year.

In order to proceed with the empirical analysis it was necessary to adjust some of the data. The number of counties, and sometimes their administrative allotment, or even the names of the counties have changed over time.[22] We take those counties with the same name in one province to be the same county, even though they might not stay in the same

[21] Richer provinces in the east coastal region were supposed to finance the tax cuts themselves.

[22] In some cases, when the prefectures were changed into prefectures level cities, as a lot of perferctures experienced in recent years, the county with the same name as the new cities would change their names to districts with different names. In these cases, which we can usually tell from the data, we take them as the same counties even though the names have been changed.

prefecture. Due to missing values, we typically end up with slightly over 17,000 observations in our general regressions. We also deleted those observations containing suspicious values for some of the variables, either due to the special characteristics of the counties, or simply due to the data entry errors.

Our interest lies in explaining the evolution of expenditures per capita in education, health and social welfare at the county level over the sample period (1993-2003), and in particular, how the introduction of the "tax-for-fee" reform may have affected these expenditures. Since the data set only has separate information for expenditure on education and health in 2003, the panel regressions for the entire sample period requires using as the dependent variable the general expenditure on both education and health. We also separate panel regression for for expenditures per capita on social security.[23]

Besides the two dependent variables of per capita local expenditure on health and education ("phealedu") and per capita local expenditure on social security ("pss"), the two explanatory variables we focus our attention on are: (i) a dummy variable ("dummyreform") which takes value of 1 when a specific region starts the rural reform in that year, 0 otherwise. Because we do not have exact dates for the start of the "tax-for-fee" reform for all counties, we approximate that date by the beginning of the presence of compensatory transfers in the county budget. That is, when the value of transfer for rural reform is greater than zero in certain county region, we take it to mean that the reform started in this county and therefore the dummy takes the value of 1. (ii) an interaction term for the impact of rural reform ("rimpact") constructed by interacting share of rural population in the total population with the reform dummy.

In addition, we also use in the regressions a set of other control variables, which are typically used in local public finance models of expenditure determination. These control variables include: per capita regional GDP, capturing income effects; the share of rural population in total population, capturing the significance of rural sector in one particular county; the share of public and other public service unit employees in total population; the share of expenditure on public administration in total local expenditure—a measure of relative inefficiency; population size, capturing economies of scale in delivering public services; the ratio of total local expenditure over GDP in each locality to control for budget effects; and the ratio of total own revenue over total expenditure also to control for price effects. The definition of all variables, variable labels, and notes on their construction are presented in Table 3.7.

Table 3.7 Explanation of the Variables

Variable label	Definition and Variable Construction	Notes

[23] To control for the inter-county heterogeneity, we use fixed effects estimation. Hausman tests generally support the use of a fixed-effects regression methodology over the random effects methodology.

phealedu	Per Capita local expenditure on health and education, denoted by local expenditure on health and education/population	
pss	Per Capita local expenditure on social security, denoted by local expenditure on social security/population	
pgdp	Per capita regional GDP	
srpop	Share of rural population in total population, denoted by rural population/population	In percentage
spubem	Share of public and other public service unit employees in total population	In percentage
spubadm	Share of expenditure on public administration in total local expenditure	In percentage
epop	Population	In our dataset, population is only available up to 2001. We are using 2001 population data to denote 2002 and 2003 population.
pexp	Ratio of total local expenditure over GDP in each locality	In percentage
ownrev	Ratio of total own revenue over total expenditure	In percentage
dummyreform	Dummy variable which takes value of 1 when a specific region starts the rural reform in that year, 0 otherwise. When the value of transfer for rural reform is greater than zero in certain region, we take it to mean that the reform started in this region, and therefore the dummy takes the value of 1.	We don't have the complete list of when and where the reform started and extended. We use as a criterion of the presence of transfer for rural reform.[24]

[24] In Anhui province where the reform began as early as in 1999, there were no such transfers before 2002, when the reform was broadened to many other provinces. We have a list of counties where the experiment was first conducted in 1999, and since it was extended to the whole province in 2000, we let the dummy take the value of 1 for all the counties in Anhui in 2000 and 2001. Although this way of constructing the dummy may not be completely accurate, it is the best we could do with the current information and it should serve our purpose.

rimpact	Impact of rural reform, constructed by interacting share of rural population in total population with the reform dummy

The empirical model we estimate is as follows:

$$phealedu_{i,t} = \beta_0 + \beta_1 srpop_{i,t} + \beta_2 spbem_{i,t} + \beta_3 spubadm_{i,t} + \beta_4 epop_{i,t} + \beta_5 pgdp_{i,t} + \beta_6 dummyreform_{i,t} + \beta_7 rimpact_{i,t} + \beta yeardummies + v_i + \varepsilon_{i,t}$$

where the dependent variable represents per capita local expenditure on health and education combined.

The equation for per capita social security expenditures is given by:

$$pss_{i,t} = \gamma_0 + \gamma_1 srpop_{i,t} + \gamma_2 spbem_{i,t} + \gamma_3 spubadm_{i,t} + \gamma_4 epop_{i,t} + \gamma_5 pgdp_{i,t} + \gamma_6 dummyreform_{i,t} + \gamma_7 rimpact_{i,t} + \gamma yeardummies + \omega_i + \varepsilon_{i,t}$$

The results of the regressions for health and education expenditure and social security expenditure are shown in Tables 3.8 and 3.9, respectively. These two tables list the estimation results for different specifications of the regressions introducing different groupings of explanatory variables.

The regression results generally show a negative and statistically significant impact of the rural “tax-for-fee” reform on per capita public expenditure on education and health, as well as on social security services. In all of the regressions listed in the table for health and education, the coefficients on the dummy for reform are all negative and significant at the 1% confidence level. This can be interpreted as saying that expenditures per capita on education and health at the county level were significantly lower in those counties after the “tax-for-fee” reform was started. And the reduction in the average amount of expenditures in the regressions is in some cases close to one half. The results for for social security in Table 3.9 show negative and insignificant or positive and significant coefficients for the reform dummy, but in any case, they are not large. Note that when the dummy variable for the reform is not included, as in regression (4) in both Tables 3.8 and 3.9, the interaction term is negative and statistically significant, indicating that the impact of the reform may have been more pronounced for rural areas. These results should be taken as preliminary and subject to futher analysis and confirmation. However, the results raise the possibility that the delivery of basic services at the lower level of government have been negatively affected as the consequence of the “tax-for-fee” reforms. Several reasons may be behind this icluding that the compensating transfers were not large

enough ot that, if they were, part of those funds never made it down to the lower-level governments after the reform got started.[25] At this point, we have no information to discriminate among these possible explanations.

Table 3.8 Panel Regression for per capita Health& Education Expenditures
(1997-2003)

	(1)	(2)	(3)	(4)	(5)	(6)
	phealedu	phealedu	phealedu	phealedu	phealedu	phealedu
pgdp	0.005	0.005	0.005	0.005	0.005	0.005
	(64.30)***	(63.49)***	(63.27)***	(63.58)***	(63.84)***	(63.84)***
srpop	0.080	0.089	0.091	0.120		0.020
	(1.02)	(1.15)	(1.17)	(1.54)		(0.26)
spubem	8.002	8.111	8.017	8.010	8.174	8.165
	(20.61)***	(21.00)***	(20.75)***	(20.66)***	(21.28)***	(21.17)***
spubadm	1.110	1.092		1.119	1.065	1.065
	(6.39)***	(6.32)***		(6.45)***	(6.17)***	(6.17)***
epop	-0.085	-0.090	-0.094	-0.086	-0.092	-0.091
	(1.90)*	(2.05)**	(2.13)**	(1.95)*	(2.10)**	(2.06)**
pexp	1.494	1.475	1.420	1.501	1.449	1.449
	(20.14)***	(19.99)***	(19.35)***	(20.26)***	(19.64)***	(19.64)***
ownrev	0.929	0.821	0.847	0.891	0.821	0.821
	(15.80)***	(13.89)***	(14.35)***	(15.08)***	(13.92)***	(13.92)***
y97	-131.212	-158.589	5.395	-140.229	-159.379	-159.430
	(71.30)***	(56.72)***	(3.36)***	(58.07)***	(57.18)***	(57.05)***
y98	-135.909	-162.910	0.000	-144.756	-163.786	-163.824
	(71.89)***	(58.03)***	(.)	(59.46)***	(58.44)***	(58.38)***
y99	-122.005	-149.233	13.458	-130.814	-150.330	-150.362
	(70.59)***	(54.96)***	(8.73)***	(56.71)***	(55.40)***	(55.35)***
y00	-110.787	-137.387	25.417	-119.332	-138.576	-138.600
	(66.70)***	(52.13)***	(16.17)***	(53.60)***	(52.57)***	(52.54)***
y01	-83.316	-109.960	52.934	-91.815	-111.287	-111.289
	(54.05)***	(42.86)***	(31.92)***	(43.05)***	(43.32)***	(43.32)***
y02	-54.568	-59.926	103.216	-55.890	-60.910	-60.906
	(37.10)***	(39.42)***	(41.30)***	(37.58)***	(39.95)***	(39.94)***
y03	0.000	0.000	162.887	0.000	0.000	0.000
	(.)	(.)	(57.94)***	(.)	(.)	(.)
dummyreform		-29.688	-29.818		-48.702	-48.611
		(12.95)***	(12.99)***		(13.51)***	(13.42)***
rimpact				-13.412	24.831	24.706
				(5.76)***	(6.84)***	(6.74)***
Constant	77.248	110.063	-35.636	84.978	118.267	116.740

[25] There is also the possibility that county governments have proceeded to spend theis budgets in a different way after the "tax-for-fee" reforms after the reforms got started. This would be the case if transfer funds are perceived by the local authorities as having a more footloose destination than taxes and fees raised locally. As discussed further below, a suggestive set of results in Tables 3.8 is that counties that raise a larger share of their budgets in own revenues, other things the same, tend to spend more per capita on education and health services.

	(10.46)***	(14.16)***	(4.86)***	(11.33)***	(22.77)***	(14.93)***
Observations	17754	17754	17757	17754	17754	17754
Number of ID	2742	2742	2742	2742	2742	2742
R-squared	0.57	0.58	0.58	0.57	0.58	0.58

Absolute value of t-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Table 3.9 Panel regression for per capita expenditure on Social Security (1997-2003)

	(1)	(2)	(3)	(4)	(5)	(6)
	pss	pss	pss	pss	pss	pss
pgdp	0.001	0.001	0.001	0.001	0.001	0.001
	(20.91)***	(20.80)***	(21.01)***	(20.48)***	(20.58)***	(20.52)***
srpop	-0.182	-0.182	-0.184	-0.170		-0.158
	(5.80)***	(5.80)***	(5.82)***	(5.42)***		(5.00)***
spubem	5.203	5.203	5.173	5.196	5.131	5.192
	(24.99)***	(24.99)***	(24.69)***	(24.97)***	(24.70)***	(24.97)***
spubadm	-0.802	-0.802		-0.799	-0.798	-0.797
	(12.46)***	(12.46)***		(12.42)***	(12.40)***	(12.39)***
epop	-0.024	-0.025	-0.022	-0.025	-0.014	-0.024
	(1.69)*	(1.70)*	(1.52)	(1.71)*	(0.97)	(1.67)*
pexp	0.131	0.131	0.171	0.135	0.142	0.141
	(4.56)***	(4.55)***	(5.95)***	(4.69)***	(4.95)***	(4.90)***
ownrev	-0.042	-0.045	-0.067	-0.052	-0.043	-0.044
	(1.93)*	(2.03)**	(3.01)***	(2.35)**	(1.93)*	(1.98)**
y97	0.000	0.000	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)	(.)	(.)
y98	-15.820	-16.469	0.000	0.000	-16.327	-16.127
	(24.35)***	(17.16)***	(.)	(.)	(17.00)***	(16.79)***
y99	-11.195	-11.850	4.758	4.629	-11.619	-11.453
	(19.17)***	(12.86)***	(9.32)***	(9.13)***	(12.59)***	(12.41)***
y00	-9.778	-10.419	6.080	6.111	-10.119	-9.997
	(17.66)***	(11.70)***	(11.61)***	(11.75)***	(11.33)***	(11.20)***
y01	-7.403	-8.046	8.375	8.498	-7.550	-7.585
	(14.68)***	(9.33)***	(14.91)***	(15.23)***	(8.73)***	(8.77)***
y02	-0.469	-0.584	15.818	17.367	-0.257	-0.284
	(0.99)	(1.19)	(18.18)***	(22.27)***	(0.52)	(0.58)
y03	0.000	0.000	16.586	18.132	0.000	0.000
	(.)	(.)	(17.17)***	(21.94)***	(.)	(.)
dummyreform		-0.715	-0.757		5.630	5.039
		(0.92)	(0.97)		(4.59)***	(4.09)***
rimpact				-3.497	-8.157	-7.385
				(4.52)***	(6.71)***	(6.03)***
Constant	27.260	28.059	-0.115	11.043	13.807	25.669
	(9.46)***	(9.32)***	(0.04)	(3.63)***	(7.31)***	(8.47)***
Observations	14960	14960	14961	14960	14960	14960
Number of ID	2702	2702	2702	2702	2702	2702
R-squared	0.26	0.26	0.25	0.26	0.26	0.27

Absolute value of t-statistics in parentheses

* Significant at 10%; ** significant at 5%; *** significant at 1%

The estimation results for our other control variables are generally as expected. Common to the two sets of regressions, per capita GDP is always positive and significant. This is intuitive since the higher the income level, the higher the expected expenditure on these social services including education, health and social security. The share of public employees in total population is always positive and significant; this reflects the fact that teachers, doctors and social workers are all counted in the total number of public employees and the wages paid to them are included in the expenditure in respective sectors; therefore the share of public employees and the corresponding expenditure go the same direction as more public employees drive up the expenditure. A higher share of public employees in the population may a sign of relative inefficiencies but it may also reflect different population profiles; for example, populations with a higher relative presence of the young and the old generally will require relatively higher numbers of teachers and health personnel.

The coefficient for population is negative and significant in most of the regressions in both tables, indicating that the delivery of education and health, as well as social security service involves economies of scale. The share of total local expenditure over GDP is also positive and significant in both tables, an indication for the positive budget effect.

For the general expenditure on education and health, own revenue in total expenditure is always positive and significant, showing that those communities raising more of their own money tend to spend more on education and health services. The share of expenditure on public administration in total expenditure exhibits positive and significant effect on general education and health, indicating counties with a bigger public sector also spend more on these social services of education and health.

Chapter 4 Intergovernmental transfers

Overview

China's transfer system is still evolving. The 1994 TSS reform tried to build a framework of intergovernmental transfer system in China and was only partially successful at that. A positive aspect of the reform was to try to provide, for the first time in China, a rules-based mechanism for transfers moving away from the ad hoc, negotiated transfers of the past. Another objective of the reform was to increase the central government's share in total revenues in order to improve its capacity to redistribute fiscal resources across jurisdictions. On the negative side, the 1994 TSS reform added the "tax rebates" to the transfer system, which have been highly un-equalizing and a major part of the intergovernmental transfer system; in practice, the tax rebates were introduced to smooth out resistance to the TSS reform from richer sub-national governments and were justified

as the means to improve local governments' incentive to develop the local economy and collect revenues.[26]

The general purpose equalization transfer (known as the "transitional equalization transfer") introduced in 1995 represents only a small portion of all intergovernmental transfers, and therefore is ineffective in addressing horizontal fiscal disparities. Although intergovernmental transfers finance a significant part of local expenditure (see table 4.1), the framework for intergovernmental transfers between the central and provincial governments still is not well developed. In addition, not much has been done in developing a transfer framework at the sub-provincial level.

Table 4.1 Intergovernmental transfer as % of sub-national government expenditures

	Sub-national expenditures (billion Yuan)	Intergovernmental transfer Amount(billion Yuan)	%
1994	404	239	59
1995	483	253	52
1996	579	267	46
1997	670	280	42
1998	767	329	43
1999	904	399	44
2000	1037	475	46
2001	1313	612	47
2002	1528	735	48
2003	1723	806	47
2004	2059	1018	49

Source: MOF

A complex intergovernmental transfer system

Although currently there are hundreds of transfer programs in China, they can be grouped into four main types.[27] Table 4.2 shows the general structure of intergovernmental transfers.

Table 4.2 General Structure of Intergovernmental Transfer: 2004

	Amount (billion Yuan)	As % of Total
General purpose grants	75	7
Tax rebate	405	40
Gap-filling transfers	216	21
Special Purpose Grants	322	32

[26] In reality, the incentive effects of the tax rebate are pretty negligible since the transfers are actually linked to the collections in a base year more than a decade ago.

[27] See Zhang and Martinez-Vazquez (2002) for an extensive discussion of China's transfer system.

Total	1018	100

Source: MOF

1. Equalization transfers (general purpose grants): This transfer is designed to help equalize fiscal disparities across provinces. The distribution is based on a formula that incorporates objective measurements of fiscal capacity and expenditure needs for the provinces; the actual amount distributed is calculated on the basis of the gap between standard current expenditures and standard current needs, adjusted for coefficients that take into account the size of the gap. Fiscal capacity is measured using estimates of the tax bases and standard tax rates. Expenditure needs are calculated using standard expenditure needs in a myriad of categories including spending on administration services, public safety, education, urban maintenance, social assistance, and heating.

   This transfer has its origins in the "transitional pilot intergovernmental transfer scheme" introduced in 1995, as a first exploratory step toward a formula-driven equalization system. The initial formula had two parts: an objective component, measuring fiscal disparities as just explained in the previous paragraph, and a policy component that directed subsidies to regions with large ethnic minority populations. Even though its origins can be traced back to 1995, equalization transfers were first explicitly budgeted in 2001. The Minister of Finance Xiang Huaicheng announced that the 2001 draft budget provided about 2 billion for the scheme; this was the equivalent of around 0.8 percent of all transfers in the budget proposal to the National People's Congress that year.

Table 4.3 Size of general purpose grants

Year	Total (in billion)	As % of Total Transfers
1994		0
1995	2.1	0.8
1996	3.5	1.3
1997	5.0	1.8
1998	6.1	1.9
1999	7.5	1.9
2000	8.5	1.8
2001	13.8	2.3
2002	27.9	3.8
2003	38.0	4.7
2004	74.5	7.3

Source: MOF

2. The tax rebate: Tax rebate was introduced as a “hold harmless” provision in reference to the fiscal system prevalent just before the TSS reform. The amount of the tax rebate for the VAT and consumption tax is computed according to a formula.[28] The corporate income tax, individual income tax[29], and export tax rebates are based on the base amount.

[28] The formula is

$R_t = (S_t + 75\%V_t - S_{t-1} + 75\%V_{t-1}) * 0.3$

An interesting aspect of the tax rebate transfer is that it was determined on the basis of the nominal collections in a base year, and so although very significant in absolute and relative size in the initial years, its relative importance has been rapidly decreasing over time. As shown in Table 4.2, as percent of total transfers, the tax rebate now represents almost one-third of what it represented back in 1994-95. Nevertheless, the tax rebates remain highly unequalizing because they go largely to the richer provinces and lower level sub-national jurisdictions.

Table 4.4 The tax rebate transfers

Year	Total	VAT and Consumption	Income Taxes Base	Export Taxes Base	As % of Total Transfers
1994	179.9	179.9			75
1995	186.7	186.7			74
1996	194.9	194.9			73
1997	201.2	201.2			72
1998	208.3	208.3			63
1999	212.1	212.1			53
2000	220.7	220.7			46
2001	230.9	230.9			38
2002	300.6	240.8	59.7		33
2003	342.5	252.7	89.8		31
2004	405.0	271.1	89.8	44.0	27

Source: MOF

3. Gap-filling transfers.[30] The main purpose of these transfers is to address different manifestations of vertical imbalance at the sub-national level by filling the fiscal gap for local governments. There are a few categories for this transfer, and the major types include:

(a). Revenue returned: [31] This type of transfer was designed to fill the fiscal gaps caused by the 1994 reform and ensure that every province would have total nominal revenues no lower than those in 1993.

Where Rt was the central compensation in year t; S was revenue from consumption tax; V was revenue from VAT.

[29] In 2001, income taxes became shared taxes as opposed to 100 percent assigned to local governments; the sharing ratio for the central government was 50 percent, and became 60 percent beginning in 2003. The formula is

$R_t = \text{Max}\{ I_t*0.4, I_{2001}\}$

Where Rt was the central compensation in year t and It was revenue from income taxes.

[30] Although the intent of these transfers is indeed to fill the budget gap, which arises from different sources, in general, these transfers do not carry many of the perverse negative effects (for revenue mobilization and expenditure management) associated with the annual gap-filling transfers of, for example, the former Soviet Union. The gap-filling transfers in China are associated with a adjustments for one-time events or targeted to particular regions and in most cases the current behavior of the recipients does not affect the amount of the transfer.

[31] Except Shandong province which received subsidies and also remits to the central government, sixteen provincial governments were on the recipient side which included all eight of the provinces where minority nationalities were concentrated (Tibet, Xinjiang, Inner Mongolia, Ningxia, Guangxi, Qinghai, Yunnan, and

(b). Transfer for minority regions. Established in 2000 with $12 million to support the development of minority regions, this transfer comes from two sources: one is directly from the central budget with a yearly growth rate, which is equal to that of central VAT revenue; the other is 80% of the central government VAT revenue increases collected in minority regions.
(c). Transfers for increasing wage expenditure of public employees. These transfers were designed to support central and western provinces to meet the requirements of the central government to increase the wage standard of public employees.
(d). Transfer for rural fee-to-tax reform and transfer for abandoning the agriculture tax. The purpose of this transfer, as we have seen above, is to compensate partially at the provincial level for the fiscal gap caused by the rural fee-to-tax reform and the reform of abandoning the agriculture tax.

The structure of gap-filling transfers is shown in Table 4.3

Table 4.5 Gap-filling transfers 1994-2004 (in billion Yuan)

Year	Total	Revenue returned	Transfer for minority Regions	Transfers for increasing wage expenditure of public employees	Transfer for rural fee-to-tax reform	Transfer for abandon agriculture tax	Other transfers	As % of Total Transfer
1994	22.9	11.7					11.2	9.6
1995	27	11.8					15.2	10.7
1996	20	11.4					8.7	7.5
1997	22.4	11.8					10.6	8.0
1998	26.4	14.1					12.3	8.0
1999	43.7	16.7		10.8			16.1	10.9
2000	80.8	16.6	2.5	21.7	1.1		38.9	17.0
2001	143.3	29.8	3.5	63.1	8		38.9	23.4
2002	163.4	27.3	3.9	81.7	24.5		25.9	22.2
2003	182.8	28.6	5.5	90.1	30.5		28	22.7
2004	215.9	28.6	7.7	98.3	30.7	21.7	29.1	21.2

Source: MOF

4. Specific purpose grants or earmarked transfers: There are literally hundreds of specific purpose grants associated with a variety of programs at the central level, many of which got started in a "putting the fire out" fashion: as new problems and challenges arose the tendency has been to create a new earmarked transfer to deal with the problem. Special purpose grants also include the subsidy for increased issuing of state bonds.

Table 4.6 Special Purpose Grants (in billion Yuan)

Year	Total	Special grants	Subsidy for increased	As % of Total Transfer

Guizhou) and other poor provinces such as Sichuan and Jiangxi. The other fourteen are on the remitting side.

			issuing of state bonds	
1994	36.2	36.2		15.2
1995	37.5	37.5		14.8
1996	48.9	48.9		18.3
1997	51.6	51.6		18.4
1998	87.8	59.1	28.7	26.7
1999	136.0	113.9	22.1	34.1
2000	164.8	119.9	44.9	34.7
2001	223.7	135.9	87.7	36.6
2002	243.5	158.8	84.7	33.1
2003	242.5	181.8	60.6	30.1
2004	322.3	252.4	69.9	31.7

Source: MOF

Sub-provincial intergovernmental transfer is at the discretion of the provincial government. Currently, the basic framework of sub-provincial transfer is similar to that of the central government even though there is significant diversity in structure across provinces because of differences in the availability of fiscal resources and because the provincial governments use their discretion to pass on smaller or larger shares of the funds received from the central government. Table 4.7 shows the aggregate sharing among different levels of governments for the main types of transfers for 2003.

Table 4.7 Sharing of transfer funds among different levels of government: 2003 (in billion Yuan)

Types of Transfers	Provincial	Prefecture	County
Tax rebates: VAT and Consumption tax	164.6	10.4	77.7
Tax rebates: Income tax	11.5	29.9	48.3
Revenue returned	-5.8	2.2	16.1
Specific purpose grants	32.6	51.3	97.9
Subsidy for increasing issuing of bond	34.7	11.9	14.0
General purpose grants	-1.2	8.3	30.9
Transfer for minority Regions	3.6	0.7	1.3
Transfer for rural fee-to-tax reform and transfer for abandoning the agriculture tax	-2.4	-0.6	33.5
Transfers for increasing wage expenditure of public employees	4.2	11.3	68.1
Final account transfers	-22.7	20.1	21.2
Total	251.2	145.5	409.0

Source: MOF

Table 4.7 shows that the lower level governments are the main beneficiaries of several types of transfers, including the tax rebates for the income tax, specific purpose grants, equalization of general purpose grants, transfer for increasing wage expenditure for public employees, and transfers for rural fee-to-tax reform and for abolishing the agriculture tax.

Thus, in the case of transfers for rural fee-to-tax reform and for abandoning the agriculture tax it is the counties who are supposed to get these transfers and indeed they appear to do so, with the negative values at the provincial and prefecture levels indicating that in some cases these upper-level governments are providing compensation to the county governments on their own (without central government funds). However, the level of aggregation in Table 4.7 does not allow us to reach any conclusion on the sufficiency of these transfers to compensate county governments for their losses in own revenues. Other profiles, such as for transfers for increasing wage expenditure of public employees, simply reflect the fact that it is at the county level where the highest level of government activity takes place.

Gap-filling oriented system and small role for equalization.

Although the intergovernmental transfer programs have a multiplicity of objectives, a dominant purpose of many of the intergovernmental transfers is budget gap-filling. Typical examples include the transfers for increasing wage expenditure of public employees, transfers for rural fee-to-tax reform, transfers for abandoning the agriculture tax, final account transfers, and so on. Some of these gap-filling transfers may have some equalizing effects, but the general impact of the transfers system is unequalizing. Table 4.8 shows the correlation among transfers and GDP in per capita terms across provinces in 2003.

Table 4.8 Correlation among transfers and GDP in per capita term across provinces: 2003

	Total Transfer	General transfer	Tax rebates	gap-filling	Special Purpose
General transfer	*0.84*				
Tax rebates	0.20	-0.30			
gap-filling	0.91	0.96	-0.20		
Special Purpose	0.91	0.94	-0.20	0.97	
GDP	0.14	-0.35	0.94	-0.24	-0.23

One main reason for this result is that the “general transfer” is the only one with an explicit equalization purpose, and that the pool of funds distributed through it is still relatively small as shown in Table 4.1.

The overall un-equalizing effect of total transfers in China is a well-researched and established issue. There is some more recent evidence that total transfers have become

less "regressive" over time, especially in recent years.[32] However, practically all the previous analysis has been at the central-provincial level and much less is known about the allocation patterns for transfers at below the provincial level. Up to now, we do not know of any analysis on the properties of transfers to sub-provincial units. Several important questions remain in this area. Are transfers to lower-level governments more equalizing (or less un-equalizing) than at the central-provincial level? To what extent do increased transfers from the center to the provinces (either with earmarked purposes or unconditional) filter down to lower-level governments?

In what follows, we take a short detour to look at the question of the equalizing or un-equalizing effect of transfers form upper-level governments (the provinces and the prefectures—cities) to county governments.

Because of the information contained in the county data set from the MOF discussed above, we are only able to decompose per capita total transfers ("ptttransfer") into two categories, the per capita tax rebates ("prebate") and all other per capita transfers, whcih includes the equalization transfers per se ("ptransfer"). In order to analyze the equalizing effect of the three categories of transfers we run a set of panel regressions with per capita transfers as the dependent variable and per capita GDP ("pgdp") as the main explanatory variable. In addition, we introduce several other control variables including population ("epop"), the share of population residing in rural areas ("srpop"), the share of public employees in the total population ("spubem"). Per cpaita own revenues at the county level ("pownrev"), and lagged per capita expenditures ("lagexp"). We also include as control variables the "tax-for-fee" reform dummy and the interaction term between the "tax-for-fee" reform dummy and the share of rural population ("rimpact") we introduced in the previous section. The summary statistics of the variables used in the regression are presented in Table 4.9.

Table 4.9 Summary of Statistics for the Transfer Regressions

Variable	Obs	Mean	Std.Dev.	Min	Max
pttransfer	17320	316.9874	403.7067	6.844828	12588.5
prebate	17320	84.83605	192.8237	0.266667	9424
ptransfer	17320	232.1513	323.6702	0.157407	6628.75
pgdp	17320	6468.948	10562.54	157.8947	438000
epop	17320	44.44662	34.14197	1	875
lagexp	14435	505.9781	712.1937	22.50144	25646
srpop	17320	74.49545	23.61557	0	100
spubem	17318	3.173472	1.927135	0.016923	50.69
pownrev	17320	284.3333	625.8963	0	30922.5
reformdummy	17320	0.25843	0.437784	0	1
rimpact	17320	0.198522	0.350482	0	1

The regression results are presented in Table 4.10. The most important finding is that the coefficient for per capita GDP is positive and statistical significant in the regressions for

[32] See for example Persson and Erikson (2005), Wang (2005) and Wong (2005).

total transfers. Thus, it does appear that the un-equalizing nature of transfers at the central-provincial level is maintained at the lower levels of government. Better-off counties receive more per capita total transfers. However, the coefficient for per capita GDP in is negative and significant in the all other transfers (including equalization) regressions. This means that if one excludes the tax rebate, transfers at the county level are somewhat equalizing. Nevertheless, the un-qualizing effect of the tax rebate is much larger and it overwhelms any equalizing effect of other transfers.

The estimated coefficients for the other control variables also suggest some interesting processes at work. For the first three regressions, when the "impact of the reform" variable is not included, we can see from the coefficients for the tax-for-fee reform dummy that the impact of reform on equalization and other transfers is positive and significant, while negative and significant for tax rebate transfers. These counteracting components make the impact of the tax-for-fee reform on the total transfer not significantly different from zero. But, in the three regressions (4) through (6), when the impact of reform on rural population is included, the reform dummy in general becomes negative and significant both for tax rebate and total transfer, while the impact on rural population is significantly positive for all other transfers (including equalization transfers) as well as for total transfer. This would seem to indicate that while the tax rebate transfers in dominantly rural areas are (expectedly) quite insignificant, equalization and other transfers are much more important in these areas and that overall have an equalizing effect. The estimated coefficient for the "share of rural population" tells the same story. Since the central and provincial governments have been allocating increased transfers to compensate for for the losses in agriculture taxes, counties with higher rural population shares tend to receive higher per capita total transfers.

The estimated coefficients for the the other two control variables in Table 4.10, the share of public employees in the total population and per capita own revenues, show that there may be some perverse incentive issues in the implementation of transfers at the county level. The transfers per capita of all kinds increase with the share of public employees at the county level. This may mean that county governments are encouraged through different transfer channels to increase their number of employees. In addition, all other things the same, the per capita discretionary transfers decrease with per capita own revenues; this may mean that discretionary transfers work to discourage tax effort by county governments.

Table 4.10 the Impact of Tax-for-Fee Reform and Different Components of Transfers (1997-2003)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable (in Yuan	Total	Equalization and others	Rebate	Total	Equalization and others	Rebate

per capita)						
Per Capita GDP	0.006	-0.001	0.006	0.006	-0.001	0.006
	(17.88)***	(2.70)***	(44.66)***	(17.99)***	(2.54)**	(44.58)***
Population	-0.108	-0.214	0.106	-0.111	-0.217	0.106
	(0.71)	(1.52)	(1.52)	(0.73)	(1.54)	(1.52)
Lag of Per capita Exp	0.232	0.246	-0.014	0.232	0.246	-0.014
	(35.14)***	(40.40)***	(4.67)***	(35.16)***	(40.42)***	(4.67)***
Share of Rural Population	1.087	1.211	-0.125	0.993	1.112	-0.119
	(3.54)***	(4.28)***	(0.89)	(3.22)***	(3.90)***	(0.85)
Share of Public Employee/Pop	20.285	5.718	14.567	20.339	5.775	14.564
	(12.31)***	(3.76)***	(19.37)***	(12.34)***	(3.80)***	(19.37)***
Per Capita Own Revenue	0.124	-0.036	0.160	0.125	-0.036	0.160
	(17.02)***	(5.32)***	(48.07)***	(17.07)***	(5.27)***	(48.06)***
Reform Dummy	-11.873	31.642	-43.516	-35.962	6.208	-42.170
	(1.49)	(4.30)***	(11.95)***	(2.93)***	(0.55)	(7.53)***
Impact of Reform				31.350	33.101	-1.751
				(2.58)***	(2.96)***	(0.32)
y98	-264.556	-201.035	-63.521	-264.558	-201.037	-63.521
	(27.41)***	(22.58)***	(14.43)***	(27.42)***	(22.59)***	(14.43)***
y99	-236.997	-174.287	-62.710	-237.040	-174.332	-62.708
	(24.99)***	(19.92)***	(14.49)***	(25.00)***	(19.93)***	(14.49)***
y00	-195.436	-128.502	-66.934	-196.512	-129.638	-66.873
	(20.95)***	(14.93)***	(15.73)***	(21.05)***	(15.05)***	(15.70)***
y01	-122.713	-46.330	-76.383	-123.994	-47.682	-76.312
	(13.39)***	(5.48)***	(18.27)***	(13.51)***	(5.63)***	(18.23)***
y02	-25.871	-23.811	-2.061	-26.293	-24.255	-2.037
	(5.33)***	(5.32)***	(0.93)	(5.42)***	(5.42)***	(0.92)
Constant	148.905	127.547	21.358	155.954	134.990	20.964
	(5.54)***	(5.15)***	(1.74)*	(5.78)***	(5.42)***	(1.70)*
Observations	14433	14433	14433	14433	14433	14433
Number of ID	2703	2703	2703	2703	2703	2703
R-squared	0.53	0.45	0.49	0.53	0.45	0.49

Absolute value of t-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1% levels.

Source: County level dataset from MOF.

Vertical Imbalances

Returning to our discussion on the nature of central-provincial transfers, the main reason for the gap-filling orientation of the transfer system is that the majority of sub-national governments face significant vertical imbalances; as discussed above, a main future of the current fiscal decentralization system in China is that while expenditures are highly decentralized, tax revenues remain highly centralized. The size of the vertical imbalances is shown in Table 4.11 by the share of sub-national government expenditure financed out of own revenues for the period 1994 to 2003. Although this share has fluctuated over time, it is significant that in 1994 and 2003 the share of sub-national expenditures financed by own revenues were grossly the same, 57 percent.

Table 4.11 Share of sub-national expenditures financed with own revenues: 1994-2003. (in billion Yuan)

Year	Sub-national Own Revenues	Sub-national Expenditures	Own Revenues as % of Expenditures
1994	231.2	403.8	57.24
1995	298.6	482.8	61.83
1996	374.7	578.6	64.76
1997	442.4	670.1	66.02
1998	498.4	767.3	64.96
1999	559.5	903.5	61.92
2000	640.6	1036.7	61.79
2001	780.3	1313.5	59.41
2002	851.5	1528.1	55.72
2003	985.0	1723.0	57.17

Source: China Statistical yearbook 2004

Dependence on intergovernmental transfers differs across the different levels of sub-national governments. This dependence alos has fluctuated quite significantly since 1994, as shown in Table 4.12 as China is still in the process of building stable and formula-driven national and sub-national intergovernmental transfer systems. In some recent years, the fast growth of the central government fiscal resources provided the possibility of introducing several intergovernmental transfer programs. However, the intergovernmental transfer system is still characterized by a lack of stability and predictability. By design, it is not only the central government, but also the provincial, and even the prefecture governments that need to implement intergovernmental transfer programs to fill the budget gap of lower-level governments. It is interesting to note that the level of transfer dependency has increased for county governments in recent years, a natural consequence of the policy initiatives on rural fee-to-tax reform and the elimination of the agriculture tax.

Table 4.12 Share of expenditures financed by own revenues at different levels of sub-national governments: 1994-2003

Year	Provincial	Prefecture	County
1994	37.1	76.4	55.7
1995	47.1	77.3	57.8
1996	53.6	80.6	58.4
1997	62.5	68.5	66.8
1998	56.2	64.4	73.5
1999	46.0	89.3	53.1
2000	48.3	82.5	55.6
2001	46.7	78.1	54.8
2002	51.1	69.5	48.7
2003	54.5	71.4	48.5

Source: MOF

Besides the variation in the level of transfer dependency across different levels of government, there are also significant variations across jurisdictions. Table 4.13 shows transfer as percentage of total local expenditures across provinces in China for 2003.

Table 4.13 transfer as percentage of total local expenditures across provinces: 2003

Provinces	Total Expenditure (in billion Yuan)	Transfer (in billion Yuan)	Transfer as % of Total Expenditure
Beijing	73	18	25
Tianjin	31	13	42
Hebei	65	34	53
Shanxi	42	22	54
Inner Mongol	45	27	61
Liaoning	78	41	53
Jilin	41	29	72
Heilongjiang	56	32	57
Shanghai	109	33	30
Jiangsu	105	33	32
Zhejiang	90	28	31
Anhui	51	29	58
Fujian	45	15	33
Jiangxi	38	22	59
Shandong	101	33	33
Henan	72	39	55
Hubei	54	31	58
Hunan	57	33	57
Guangdong	170	44	26
Guangxi	44	24	54
Hainan	11	6	59
Chongqing	34	20	57
Sichuan	73	41	56
Guizhou	33	22	65
Yunnan	59	35	59
Tibet	15	13	92
Shaanxi	42	25	60
Gansu	30	21	71
Qinghai	12	10	78
Ningxia	11	7	70
Xinjiang	37	24	65
Max			92
Min			25
Average			54

Source: MOF

The overall operation of the transfer system leaves China's intergovernmental system with significant fiscal disparities. Table 4.14 shows disparities in expenditures per capita for provinces from 1990 to 2003. The increasing trend in expenditure disparities, which was temporarily stopped for several years starting in 1998 as several intergovernmental transfer programs were newly introduced by the central government, has continued its

expansion since 2000. In 2003, public expenditures per capita in the best off province were 8.5 times larger than those for the worst off province and the coefficient of variation across provinces was 0.77.

Table 4.14 Expenditure disparities for provinces in per capita terms: 1990-2003 (in Yuan)

	Max	*Min*	*Average*	*C.V.*
1990	613	99	251	0.57
1991	664	102	280	0.56
1992	729	112	296	0.56
1993	958	122	372	0.57
1994	1452	157	444	0.69
1995	1837	226	538	0.71
1996	2348	278	632	0.72
1997	2806	308	698	0.77
1998	3211	347	811	0.76
1999	3620	409	943	0.76
2000	3635	225	1075	0.70
2001	4387	532	1383	0.73
2002	5307	655	1620	0.75
2003	6361	741	1792	0.77

Source: China statistic yearbook various years

In fact, these regional disparities in expenditures per capita are present for almost all major expenditure items in sub-national budgets (Table 4.15.) For some items, the disparities are more pronounced; for example for public health expenditures the differences between the highest and lowest provincial expenditures in 2003 were over 13 fold and the coefficient of variation 0.8. In contrast, the disparities between maximum and minimum values for "public administration" per capita expenditures were only three fold and the coefficient of variation 0.4.

Table 4.15 Public expenditures per capita for selected budget items across provinces: 2003 (in Yuan)

Region*	Capital Investment	Education	Health	Public Administration	Agriculture
Beijing	494.3	678.5	340.8	268.4	179.8
Tianjin	518.4	470.5	151.4	173.5	79.5
Hebei	61.4	175.9	51.5	99.0	45.2
Shanxi	111.2	203.4	61.3	137.1	79.0
Inner Mongol	328.3	228.4	71.8	191.9	149.4
Liaoning	161.6	233.6	59.8	147.9	104.0
Jilin	117.8	198.6	59.7	115.5	80.5
Heilongjiang	101.6	212.6	60.5	128.3	116.6
Shanghai	1430.4	767.8	213.0	261.8	138.8
Jiangsu	102.6	241.8	75.0	144.7	89.0
Zhejiang	135.3	350.9	97.0	203.5	127.9

Anhui	74.0	131.9	26.7	80.0	50.9
Fujian	107.4	266.5	59.4	105.1	77.8
Jiangxi	79.7	151.5	35.4	84.5	55.2
Shandong	69.8	196.3	43.4	123.1	67.7
Henan	52.0	135.7	31.2	86.0	37.3
Hubei	51.2	148.4	40.4	95.1	47.3
Hunan	77.1	135.2	25.3	88.8	54.3
Guangdong	302.8	333.5	92.5	220.6	120.7
Guangxi	82.4	162.9	43.3	95.4	61.6
Hainan	165.9	182.6	57.3	129.6	86.5
Chongqing	204.7	137.2	34.6	117.7	54.3
Sichuan	86.2	125.2	36.1	108.7	55.8
Guizhou	81.8	155.4	44.7	112.0	63.7
Yunnan	161.1	212.9	74.8	126.7	112.0
Shaanxi	125.4	179.8	45.3	127.2	78.8
Gansu	126.7	182.7	45.3	120.3	79.3
Qinghai	553.2	236.6	99.2	208.3	140.2
Ningxia	350.8	237.5	77.2	133.3	149.0
Xinjiang	330.9	274.2	94.2	197.1	120.0
Max	1430.4	767.8	340.8	268.4	179.8
Min	51.2	125.2	25.3	80.0	37.3
Average	221.5	244.9	74.9	141.0	90.1
C.V.	1.2	0.6	0.8	0.4	0.4

Source: China statistic yearbook 2004. (*Tibet is excluded)

Of course, the relative low importance of equalization transfers and the fact that per capita overall transfers are positively related to per capita GDP are only two of the reasons, and not the most important ones for the existence of these disparities. Regional disparities in economic wealth and consequently in tax bases and revenues are the main causes of these disparities. This can be seen in Table 4.16 which shows the disparities in own revenues per capita at the provincial level for 1990 to 2003. There we can see that the coefficient of variation for per capita own revenues has increased over time and stood at 1.17 in 2003, which is 50 percent higher than the coefficient of variation for per capita expenditures for 2003 in Table 4.14. Note also that the maximum value of own revenues per capita in 2003 was over 17 times higher than the minimum provincial value. This means that in the absence of the transfer system, no matter how deficient it may be, fiscal disparities across provinces would have been much larger.

Table 4.16 Per Capita Disparities in Overall Own Revenues: 1990-2003

Year	Max	Min	Average	C.V.
1990	1179.66	8.11	217.54	1.03
1991	1431.94	28.32	266.30	1.01
1992	1308.63	47.81	259.47	0.96
1993	1725.50	67.24	349.56	0.90
1994	1250.89	90.34	242.02	0.92

1995	1551.66	89.58	305.34	0.97
1996	1976.53	100.00	378.90	1.00
1997	2281.88	118.95	421.14	1.04
1998	2600.41	142.86	489.52	1.05
1999	2849.06	178.64	545.70	1.07
2000	2899.51	104.75	602.65	1.02
2001	3776.16	232.35	734.02	1.12
2002	4362.78	273.72	805.05	1.17
2003	5179.59	301.85	921.59	1.17

Source: China Statistical yearbook 2004

In fact, regional disparities in tax bases and revenues are present for all major taxes, as shown in table 4.17 across provinces in 2003. Observe that the largest differences are for personal and corporate income taxes putting the coefficient of variation at 1.77 and 1.67, respectively; and Shanghai collects 42 times more personal income taxes per capita than Hunan.

Table 4.17 Provincial disparities across major taxes: 2003 (in Yuan)

Region	VAT	Business Tax	Agriculture Tax	Corporate income tax	Individual Income Tax
Beijing	517	1811	4	644	393
Tianjin	447	636	4	235	124
Hebei	102	97	37	42	27
Shanxi	155	111	12	43	26
Inner Mongolia	95	153	29	30	23
Liaoning	203	283	17	85	56
Jilin	113	130	38	44	29
Heilongjiang	154	121	43	28	29
Shanghai	995	1942	1	854	420
Jiangsu	245	280	36	125	54
Zhejiang	331	470	12	228	98
Anhui	58	72	42	30	13
Fujian	156	243	3	106	61
Jiangxi	54	101	37	23	17
Shandong	138	159	46	73	29
Henan	60	78	39	30	16
Hubei	76	96	39	36	19
Hunan	54	90	27	20	18
Guangdong	294	523	10	214	119
Guangxi	59	99	14	27	21
Hainan	78	198	6	32	34
Chongqing	79	149	20	28	25
Sichuan	55	103	24	28	17
Guizhou	50	81	13	22	14
Yunnan	89	103	11	49	19

Tibet	35	149	0	27	11
Shaanxi	86	138	18	35	19
Gansu	70	92	20	20	14
Qinghai	98	137	9	23	15
Ningxia	87	188	13	29	22
Xinjiang	130	206	16	27	33
Max	995	1942	46	854	420
Min	35	72	0	20	11
Average	167	292	21	104	59
C. of V.	1.16	1.52	0.69	1.77	1.67

Source: China statistical yearbook 2004.

Overall, the existing levels of fiscal disparities are still very high by international standards or any other standard. This calls for the need for comprehensive reform of the current transfer system emphasizing the equalization objective and simplifying and de-emphasizing other transfers that go against the equalization objective, especially the tax rebates, still the main component of the intergovernmental transfer system.

Limited normative framework for intergovernmental transfer reform

The system of intergovernmental transfers is one of the least regulated fields in China's fiscal system. Fundamentally, currently there is no formal procedure to introduce or reform intergovernmental transfers. The current intergovernmental transfer programs were introduced through various approaches, often *ad hoc* and subject to negotiation between different levels of government. Leaving the process to these influences risks the distortion of desirable properties of the intergovernmental transfers and the rest of the decentralization system, including their equity and efficiency objectives. The lack of properly regulated procedures also exposes the system to arbitrariness and even corruption. These issues acquire greater relevance at the sub-provincial level, because of the discretion the current systems grants to upper-level government to design their own transfer system. Currently, provincial governments could easily use their hierarchical position to detain or deviate central government transfers that have equalization or other objectives at lower levels of government. Little is known about these issues, but for example, it is conventionally accepted that the lower the government level, the worse the effectiveness of equalization transfers, especially in poorer provinces which have poorer prefecture and county and township governments. These are issues that deserve close attention by the central authorities.

Chapter 5 The performance of China's decentralization system

Our objective in this section is to examine some aspects of the performance of the fiscal decentralization system in terms of efficiency and equity outcomes. In particular, we want to examine the impact of the decentralization system on economic growth and regional horizontal disparities. However, before we attempt to quantify these impacts of decentralization we offer an assessment of what we consider the main institutional weaknesses of the decentralization system, which impact negatively on its ability to achieve efficiency and equity objectives.

The main weaknesses of China's fiscal decentralization system can be summarized as follows:

(i) Highly decentralized basic public services with wide concurrent expenditure assignments lacking transparency;
(ii) Insignificant formal revenue autonomy but fairly extensive administrative and informal revenue authority;
(iii) Significant vertical imbalances and gap-filling oriented intergovernmental transfers with low levels of equalization;
(iv) No formal sub-national government borrowing but extensive informal use of debt;
(v) Weak horizontal accountability mechanisms to local residents, which allow local officials to pursue their own priorities (potentially different from those of local residents.)

Highly decentralized services and lack of transparency

The decentralization of public services, a key component of fiscal federalism, is widely accepted as the means of improving the efficiency of the public sector by using the potential information advantage of local government to better match the needs and preferences of local residents (Hayek, 1945; Oates, 1972). In addition, the decentralization of public services is a necessary component of "market preserving federalism," whereby the role of sub-national governments is aligned with the goals of local economic development and local welfare (Qian and Weingast, 1997). But for these efficiency gains to be realized, sub-national governments need to be responsive to their constituencies. The existence of accountability mechanisms, such as the election of local officials, is widely acknowledged as a necessary condition for effective fiscal decentralization.[33]

It is also worth remembering that not everything in decentralization policy, as the international experience well shows, is positive and desirable. Poorly designed decentralized systems, for example lacking a hard budget constraint for sub-national governments, can lead to waste and macroeconomic instability.[34] Basic institutional

[33] See, for example, Seabright (1996).
[34] For similar warnings on the potential failures of decentralization policies see Prud'homme (1995) and Tanzi (2000).

failure in issues such as accountability or the presence of bureaucratic corruption can lead to the capture of government by local elites with overall perverse outcomes.[35] Sub-national governments in addition may lack an adequate level of technical and administrative capacity to realize the potential gains from decentralization.[36]

China's current system of fiscal decentralization fits, in general terms, some of the conventional wisdom regarding the desirable features of fiscal decentralization; in particular, it provides sub-national officials with considerable autonomy to provide the "most desirable" mix of public goods and services at the local level. However, there are some other aspects of China's current system that do not fit the mold: at the present time, sub-national government officials are appointed by the higher governments, and, in essence, consequently these government officials are responsible to the higher government instead of to local residents. As we have discussed throughout this paper, this feature of the system can have important undesirable consequences.[37]

In recent years there has been an increased interest in the potential role of **f**iscal decentralization in economic growth**.** However, the precise nature of the link to growth is complex and the avenues through which decentralization affects growth are myriad. As noted above, the basic economic argument for fiscal decentralization is greater economic efficiency in the allocation of resources in the public sector. This suggests that policies aimed at the provision of public services such as infrastructure and education, which are sensitive to regional and local conditions, are likely to be more effective in encouraging growth than centrally determined policies that ignore these geographical differences.[38] For China, although quantitative studies of the impact of fiscal decentralization on economic growth reach conflicting results because of the differences in the measurements of fiscal decentralization,[39] most researchers agree that decentralization can lead to the improvement of overall economic growth. Fiscal decentralization can contribute to growth by improving the efficiency of resource allocation (Lin and Liu 2000). In addition, fiscal decentralization may affect economic growth by fostering increased competition among sub-national governments for adopting policies conducive to business and investment (Jin, Qian and Weingast 1999).

Inadequate local revenue autonomy

Revenue autonomy is related to: (i) the degree to which sub-national governments control their own tax base or tax rates; and, (ii) the extent to which sub-national governments rely on their own taxes, as measured by how important local taxes are in the budgets of sub-national governments. A reliance on revenue sharing and other central grants leads to a

[35] On local elite capture issues see, for example, the discussion in Bardhan and Mookherjee (2000) and Bardhan (2002). On local versus central government corruption see Tanzi (1995) Prudhomme (1995), Bardhan and Mookherjee (1998, 1999), Besley and Coate (1999), Brueckner (1999), and Treisman (1999a, 1999b, 1999c).
[36] See Bahl and Linn (1992).
[37] This is not a well-researched area in China's fiscal federalism. For a recent case study of several local governments that highlights the importance of the lack of accountability at the local level see Wang (2002).
[38] See Oates (1993), Martinez-Vazquez and McNab (1997).
[39] See, for example, Zhang and Zou (1998), Lin and Liu (2000). Jin, Qian and Weingast (1999).

dependency mentality for sub-national governments and to the potential development of a soft-budget constraint regime and the continuous lobbying for more central government grants. In comparison to the locally generated revenue, a central grant has little to do with the effort of local government for local economic development.

Whether local revenue autonomy improves the efficiency and general accountability of sub-national governments is a critical question in fiscal federalism theory and practice, and in particular for improved local governance practices. It is generally accepted that sub-national revenue autonomy is a fundamental ingredient in decentralization because it increases efficiency, and accountability or transparency in government's actions (Mello 2000). Revenue autonomy also tends to offer the best solution to vertical imbalances and promotes credit worthiness among sub-national governments.[40]

However, some potential problems could come with sub-national revenue autonomy. One of the problems is related to tax externalities, for example, as in the case of tax exporting (McLure 1967). In particular, in a world without factor mobility, public services could be over-provided if taxation decisions by sub-national governments impinge on non-residents since local residents and government will not internalize the costs of public services. On the other hand, there could be under-provision as non-residents benefit from service provision. The potential migration of factors of production also causes problems, and the mobility of capital and labor imposes natural limits on fiscal autonomy because of the tax competition. In this context it is argued that managing a national tax system is feasible at lower cost and from this point of view, government financing systems based on grants or tax-sharing arrangements may be preferable. A subtler version of this argument relates to the problem of transparency and complexity in decentralized tax systems. A complex tax system, where various jurisdictions share the same tax base, and where sub-central governments have important fiscal powers, can lead to less transparency in the fiscal system. Taxpayers may find it difficult to understand fully the operations of the different levels of government (Tanzi, 2001) and this leads to less accountability.

A decentralized system with revenue autonomy may also pose more problems than a centralized system in the presence of government corruption. In their discussion of government as the "grabbing hand" Shleifer and Vishny (1993) argue that decentralized corruption may be a kind of free-for-all; while central government has a stake in not killing the goose that lays the golden eggs, in a decentralized system local officials do not take into account the externalities of their own actions on the other governments.[41]

Another issue related to sub-national revenue autonomy is that there may be a trade-off between equity and accountability, especially if the system does not count with a sizable equalization transfer system. Jurisdictions with different levels of income and wealth will

[40] See, for example, the discussion in Bahl and Martinez-Vazquez (2005)

[41] While there is a widespread perception that decentralization and corruption are closely linked, the empirical evidence on this issue is still too limited to reach a firm conclusion. Gurglur and Shah (2000), Arinkam (2000), and Fisman and Gatti (2002a). However, Treisman (2000) finds corruption to be higher in federal (as opposed to unitary and supposedly more centralized) countries.

have very different tax resources at their disposal. The need to ensure that citizens have access to a roughly equal level of public services will necessarily imply some degree of redistribution between sub-central governments either through the use of transfers funded from general taxation, or through some kind of 'pooling' arrangement between the sub-central governments. [42]

The arguments above in favor and against more revenue autonomy are quite relevant to decentralization reform in China, and while they are revealing, the arguments are far from offering an immediate readymade solution to some of the problems we have been examining in this paper. An interpretation of the fiscal crisis facing local governments at the county and township level in China, which is fundamentally espoused in this paper, is the current unbalanced approach to fiscal decentralization with more centralized revenue assignment and more decentralized expenditure assignments. This approach is rooted in the presupposed political advantage of upper government allocating fiscal resources among governments at different levels in China. Consequently, a more balanced revenue and expenditure assignments or an improved intergovernmental transfer system with a much stronger presence of unconditional equalization grants is generally viewed as the solution to the fiscal crisis facing many county and township governments. However, this solution assumes an unchanged accountability of local governments, and it does not address the issue of local incentives related to the fiscal crisis. In particular, there is no guarantee that an increased level of autonomy would lead to more government expenditure in the areas where there is a perception of large unmet needs (health, education and welfare). In fact, low efficiency and over-sized personnel rosters in local governments continue to be a serious problem in China, and may be a powerful explanation in itself for the current fiscal crisis of local governments. Thus, it may be that the problem lies more in over-expanded inefficient and even misguided local expenditures, and not so much on the lack of revenue autonomy and the need for more equalization unconditional funds. If this conjecture is correct, the redesign of revenue and expenditure assignments and the intergovernmental transfers, as desirable as they may be, may not be able to solve, or at least will not be a sufficient condition to solve, the current fiscal crisis at the county and township levels.

Gap-filling oriented intergovernmental transfers and interregional equity

One of the major reasons to have a well-designed intergovernmental transfer is that there are significant vertical imbalances for governments at all levels. Although there is no best way to measure the vertical gap, the percent of total expenditures of sub-national governments that are *not* financed with own revenues (taxes and others sources of revenue over which sub-national governments have discretion) is generally regarded as an acceptable approximation. An important caveat with this approach is that the revenue statistics reflect actual receipts, and not the potential yield of the assigned revenue

[42] The equity argument should be distinguished from that of insurance for the business cycle. Maintaining a centralized system of welfare benefits allows for a system of insurance even in the presence of substantial fiscal autonomy. On the other hand, if resources are shared equally between sub-national governments, the incentive effects from fiscal autonomy disappear. This has become one of the central issues in deciding on the appropriate level of fiscal autonomy for sub-national tiers of government in the international experience.

autonomy to local governments. At any rate, this measure indicates that countries like Canada and the U.S. have relatively small vertical gaps; countries like Australia, India, and Russia have larger ones. The size of a country's vertical imbalance is largely a function of expenditure and revenue assignments. It is a reality that central governments retain control over the most productive tax bases; this is typically justified in terms of the inherent advantage in administering broad-based taxes on income and consumption. Consequently, it is common for there to be an imbalance between the expenditure responsibilities of sub-national governments and their revenue assignments. A dependence on transfers is quite typical and may help reduce vertical fiscal gaps. However, a high transfer dependency may contribute to problems with fiscal profligacy.[43]

Although there is no consensus on the optimal vertical gap, economic intuition suggests that allocative decisions are likely to be more efficient if sub-national governments internalize the full costs of providing services: that is, make them responsible for raising the necessary revenue to fund services, especially at the margin. In practical terms, the surest way to reduce vertical gaps is to assign sub-national governments with adequate revenue autonomy. Countries like Brazil, Canada, and the U.S. provide sub-national governments with considerable revenue autonomy and experience fewer problems with vertical imbalances.[44]

The heavy reliance on gap-filling transfers in the China transfer system points in the wrong direction for addressing the existing problems with vertical imbalances. The reliance on transfers (as opposed to providing more revenue autonomy) very likely has contributed to a dependency mentality among sub-national governments and to lax fiscal discipline in budget execution. Increasing revenue autonomy at all levels of sub-national government should help address existing vertical imbalances, but this may be only part of the solution; providing incentives to sub-national governments to use that revenue autonomy will also be needed.

As discussed above, of course, more revenue autonomy is likely to lead to increased fiscal disparities given the uneven geographical distribution of tax bases. One serious concern in China today is the impact of the lack of regional equity on the quantity and quality of public services. The serious consequence of the existing high regional disparities is that basic public services are not guaranteed in poor jurisdictions. As we

[43] The smaller vertical gap in Canada, for example, can be attributed to the fact that the Provinces of Canada have access to all the major broad-based taxes: there are no constitutional rules on exclusive use of certain bases by different levels of government. The provinces are also able to set their own rates. Currently, provinces raise most of their funds from own-source revenues, and overall federal transfers account for only 13 per cent of total revenues of the provinces. However, transfer dependency varies greatly among the provinces, from 10-12 percent in the high-income provinces to nearly 40 per cent in the low-income provinces

[44] But revenue autonomy per se is not a sufficient condition to address vertical imbalances; sub-national governments must be provided with the incentives to use that revenue autonomy. This does not always happen. For example, countries like India and Spain provide sub-national governments with considerable revenue autonomy but these jurisdictions refuse to use it because they have had increased access to revenue sharing and other transfer schemes from the central government.

have seen, many basic key public services (primary, secondary, and vocational education, health, social security) have been assigned local governments at the county and township levels. Thus it is important to ask what the impact of fiscal decentralization reform, including increased revenue autonomy, on regional equity will be. Coming up with the right policy response should be facilitated by the better understanding of how the current decentralization mechanism impacts regional equity.

No formal sub-national government borrowing but extensive informal use of debt

According to China's 1994 Budget Law and other related regulations, sub-national governments are forbidden from borrowing. Local borrowing and debt were brought to the attention of the central government for two major reasons.

First, informal local borrowing became an important channel to finance local deficits for a significant number of local governments in poor jurisdictions, especially in the central and western poor areas, and the accumulated debt presented serious financial risk. Although the Budget Law does not allow local government deficits, lack of resources to finance local expenditures led to significant deficits for many poor county and township governments. Currently, it appears that high debt levels represent a heavy burden for many local governments. It has been estimated that by the end of 2004 total local borrowing was over US$ 120 billion (Wei 2004). According to the Audit report to the National Congress issued in June 2002, the total debt for 49 counties (cities) audited was about US$ 8 billion, or about 2.1 times the yearly disposable fiscal resources. For county and township governments, it was estimated that the total debt was US$ 40 billion in 2001, an amount equally divided between counties and townships. This estimate did not include any arrears in unpaid civil servant salaries or unpaid suppliers.

Although there are various sources of local borrowing, the only legal channel for sub-national governments is for the central government to issue bonds or to borrow from domestic or foreign banks. As described in Box 5.1,legal borrowing and debt represent a small portion of total local borrowing for the sample township governments (only the borrowing from World Bank and higher governments can be regarded as legal borrowing). It is a common phenomenon that the major part of local debt, especially debt of township governments was from rural enterprises in poor jurisdictions. The main reason was that poor jurisdictions in central and western areas (heavily dependent on agricultural production) had strong incentives to start new enterprises; they hoped for increased future fiscal revenues and were able to finance the new investments through a variety of sources. However, the lack of management skills and business experience led to the failure of many of these new enterprises. Unfunded expenditure responsibilities were another main reason. For example, to meet the national standards for school facilities, local governments had to resort to borrowing.

Box 5.1 Structure of Township and Village Debt in GX County (source side), Jiangxi Province

	Township Amount (in million Yuan)	As % of Total	Village Amount (in million Yuan)	As % of Total
Financial Institutions	16.803	41	9.913	60
World Bank	6.344	15	0.249	2
Higher Governments	3.543	9	0.759	5
Other Organization	5.377	13	3.283	20
Private Sectors	9.073	22	2.306	14
Total	41.14	100	16.51	100

Expenditure Structure of Township and Village Debt in GX county (usage side), Jiangxi Province

	Township Amount (in million Yuan)	As % of Total	Village Amount (in million Yuan)	As % of Total
Agriculture Development	6.285	15	1.86	11
Rural Enterprises	19.26	47	6.33	38
Social Services	10.92	27	5.88	36
Government Facilities	1.18	3	1.41	9
Others	3.495	8	1.03	6
Total	41.14	100	16.51	100

Affordability of Debt of Township and Village Governments in GX county, Jiangxi Province

	Debt (in million Yuan)	Annual Disposable Income (in million Yuan)	Ratio of Debt to Disposable Income	Population	Per Capita Debt (Yuan)
Township A	1.12	0.702	1.60	5638	199
Township B	6.483	1.24	5.23	15864	409
Village A	0.143	0.0643	2.22	2991	48
Village B	0.0429	0.0316	1.36	1469	29
Village C	0.1451	0.0148	9.80	689	211
Village D	0	0.0192	0.00	891	0
Village E	0.198	0.0253	7.83	1012	196
Village F	0.0077	0.018	0.43	799	10
Village G	0.0154	0.0189	0.81	838	18
Village H	0.0715	0.0111	6.44	495	144
Village I	0.0467	0.0219	2.13	975	48

Source: Ziping Xie, *Force and Debt: Rural Public Debt of GX county in Jiangxi Province*, 2003, Dissertation of Beijing University.

Second, there are immediate demands for local borrowing to finance infrastructure investment in rich jurisdictions. Although it has and it continues to be practiced either informally or illegally, sub-national government borrowing may have played an important role in local economic development. The significant improvement of local infrastructures in many jurisdictions across the country such as Shanghai and Beijing over the last decade could be partially attributed to local borrowing. Naturally, this impact may have been more significant in richer jurisdictions.

Clearly, there is a serious negative side to informal local borrowing. The practices lack transparency, they may seriously damage the accountability of sub-national governments, and foment an atmosphere of fiscal irresponsibility. Regulated and explicitly sub-national government borrowing is a much-preferred alternative.

Assessing the performance of the decentralization system

There is no standard approach in the literature on fiscal federalism to the evaluation of a decentralized system of finance. Some recent literature has begun to formulate empirical analysis of the impact of decentralization on economic growth and the efficient allocation of resources, on macroeconomic stabilization, on the equitable distribution of resources, on the composition of public expenditures, on the quality and effectiveness of service delivery, and so on.[45] In this sub-section we follow this approach to examine the performance of China's decentralization system along five particular dimensions: its impact on economic growth, its impact on regional inequality, its impact on revenue mobilization, its impact on fiscal disparities ,and its impact on the composition of sub-national expenditures (measured by the share of expenditures dedicated to social services-- health, education, and welfare in sub-national budgets.).

To carry the analysis we use consolidated provincial data, which incorporates revenues and expenditures of all other government levels below the province. The analysis covers a period of five years between1998 and 2002.

The first step is to quantify the dependent variables used to measure the performance of decentralization. To measure economic growth, we use the real growth rate (GRWTH), and to measure inequality we use the coefficient of variation of per capita GDP at the county level within the province (INEQ). To measure revenue revenue mobilization we use the growth rate in nominal fiscal revenues (RGRW), while in order to measure fiscal disparities we use the coefficient of variation at the county level within the province for fiscal expenditures (RINEQ). Finally, we use the share of expenditure on education, health care, and culture development in total expenditure (SSHARE) to measure sub-national government commitment to spending on social services.

In terms of explanatory variables, our main interest is to model variations in the level of decentralization. This can be a challenge since all sub-national units live under the same decentralization system at any time. However, the level of decentralization within provinces varies across jurisdictions when measured as the the share of sub-provincial

[45] See, for example, the survey in Martinez-Vazquez and McNab (2003).

government expenditures in total budgetary expenditure at the provincial level. Therefore, we approximate the magnitude of decentralization of public services (DECE) as:

DECE = (total county fiscal expenditure + total prefecture fiscal expenditure)/provincial fiscal expenditure

In addition to the decentralization of public services we several other control variables. First, we approximate the level of local autonomy by the share represented in sub-provincial budgets by own revenues in total expenditure (OWNREV), or

OWNREV = (total county own fiscal revenue + total prefecture own fiscal revenue)/(total county fiscal expenditure + total prefecture fiscal expenditure)

Second, the impact of the composition of other funding sources is modeled by three variables: the relative importance of shared taxes in total fiscal revenues of sub-provincial governments (SHARE); the share of the tax rebate (REBATE) in total transfers, and the general transfer (GENERAL) in total transfers received by sub-provincial governments. In particular,

SHARE =(total county VAT, Business, Income Tax + total prefecture VAT, Business, Income Tax)/(total county fiscal revenue + total prefecture fiscal revenue)

REBATE = (total county tax rebates + total prefecture tax rebate)/(total county transfer + total prefecture transfer)

GENERAL = (total county general transfer + total prefecture general transfer)/(total county transfer + total prefecture transfer)

Third, we use several additional variables at the province level to control for budget and price (incentives) effects. These include:

the percentage of total transfer in provincial GDP,or
TRANS = total provincial transfer / provincial GDP;

the share of own revenues in total expenditure for provincial governments; or
PAUTO = total provincial own fiscal revenue /total provincial fiscal expenditure;

the share of tax rebates from the central government in total transfers received by the province, or
PREBATE = total provincial tax rebates / total provincial transfers; and

the share of general transfer from the central government in total transfers received by the province, or
PGENERAL = total provincial general transfer / total provincial transfer.

Finally, we introduce other control variables to follow the conventional specifications in the more recent literature on the overall impact of fiscal decentralization.[46] In the case of the economic growth equation, we follow the convention of introducing as explanatory variables the growth of capital input (CGRW), measured by the growth rate of overall capital investment, and the growth of labor input (LGRW), measured by the growth rate of labor. In the case of the inequality equation, we introduce inequality in previous year as an explanatory variable. In order to allow for incentive aspects we introduce GDP, fiscal revenues (PREV) and fiscal expenditures (PEXP) in per capita terms in the equations of revenue growth, fiscal disparities, and commitment to social spending in social services respectively.

The five equations to be estimated in implicit form are as following:

$GRWTH_{it}$ = f1(DECE $_{it}$, OWNREV $_{it}$, SHARE $_{it}$, REBATE $_{it}$, GENERAL $_{it}$,TRANS $_{it}$, PREBATE $_{it}$, PGENERAL $_{it}$, PAUTO $_{it}$,$CGRW_{it}$, $LGRW_{it}$) +e1

INEQ $_{it}$ = f2(DECE $_{it}$, OWNREV $_{it}$, SHARE $_{it}$, REBATE $_{it}$, GENERAL $_{it}$,TRANS $_{it}$, PREBATE $_{it}$, PGENERAL $_{it}$, PAUTO $_{it}$, INEQ $_{i(t-1)}$)+ e2

RGRW = f3(DECE $_{it}$, OWNREV $_{it}$, SHARE $_{it}$, REBATE $_{it}$, GENERAL $_{it}$,TRANS $_{it}$, PREBATE $_{it}$, PGENERAL $_{it}$, PAUTO $_{it}$, $PGDP_{it}$) +e3

RINEQ $_{it}$ = f4(DECE $_{it}$, OWNREV $_{it}$, SHARE $_{it}$, REBATE $_{it}$, GENERAL $_{it}$,TRANS $_{it}$, PREBATE $_{it}$, PGENERAL $_{it}$, PAUTO $_{it}$, PREV $_{it}$) +e4

SSHARE = f5(DECE $_{it}$, OWNREV $_{it}$, SHARE $_{it}$, REBATE $_{it}$, GENERAL $_{it}$, TRANS $_{it}$, PREBATE $_{it}$, PGENERAL $_{it}$, PAUTO $_{it}$, PEXP $_{it}$) + e5

Data and regression results

As indicated above, the analysis is based on the provincial data from 1998-2002. The data sources and the descriptive statistics for all the variables used in the regressions are shown in Table 6.1

Table 6.1 Descriptive statistics of the regression variables

	Max	Min	Average	C.V.
GRWTH	16.80	0.40	8.71	0.32
DECE	50373.01	3228.99	7190.45	0.54
OWNREV	0.89	0.09	0.61	0.24
SHARE	0.86	0.34	0.57	0.20
REBATE	0.82	0.00	0.40	0.48
GENERAL	0.20	0.00	0.02	1.79
TRANS	0.31	0.02	0.07	0.71
PREBATE	0.93	0.08	0.46	0.50

[46] See, for example, Qiao et al. (2005).

ETAX	0.35	0.01	0.07	0.45
PGENERAL	0.13	0.00	0.03	0.96
SSHARE	0.29	0.14	0.21	0.14
CGRW	40.71	-6.43	13.44	0.61
LGRW	26.90	-13.14	0.08	45.48
INEQ	2.31	0.17	0.55	0.42
INEQPRE	2.31	0.17	0.54	0.42
RINEQ	1.49	0.09	0.51	0.50
RGRW	5.22	0.26	1.16	0.31
PAUTO	1.75	0.17	0.56	0.35
PREV	3776.16	165.48	661.99	1.09
PEXP	5306.98	347.42	1115.16	0.76
PGDP	33285.00	2301.00	8671.22	0.64

Data source: China Statistic Yearbooks, China Fiscal Statistic Yearbook, and Prefecture, City and County Statistic Yearbooks, several years.

To estimate the equations we use 2SLS for GRWTH, INEQ, RGRW and RINEQ equation and a two-way fixed effect estimation to allow for unmeasured provincial characteristics and time effects. SSHARE is estimated by GLS. The regression results are shown in Table 6.2. To test for the robustness of the estimations, we also estimated the equations using the average values for all variables across the sample years to test the robustness.

Table 6.2 Regression results

	GRWTH	INEQ	RGRW	RINEQ	SSHARE
DECE	0.0002	0.00001	-0.00001	-0.000002	-0.0000004
	(1.58)[47]	(0.87)	(-1.45)	(-0.60)	(-1.13)
OWNREV	7.921	0.365	-0.529	-0.027	-0.022
	(1.28)	(0.97)	(-2.20)	(-0.14)	(-1.06)
SHARE	-6.591	-0.258	0.102	0.042	0.017
	(-0.95)	(-0.56)	(0.35)	(0.18)	(0.64)
REBATE	-3.485	-0.141	-0.022	-0.243	0.021
	(-0.85)	(-0.49)	(-0.12)	(-1.79)	(1.27)
GENERAL	-2.470	-0.976	-0.288	-0.284	0.014
	(-0.26)	(-1.94)	(-0.91)	(-0.87)	(0.47)
TRANS	28.249	1.469	2.688	-1.527	-0.148
	(1.55)	(1.26)	(2.98)	(-2.40)	(-2.32)
PREBATE	-2.434	0.205	-0.817	0.157	0.014
	(-0.43)	(0.61)	(-3.64)	(0.92)	(0.71)
PGENERAL	44.552	3.087	3.865	-1.485	0.114
	(1.27)	(1.50)	(2.56)	(-1.26)	(0.97)
PAUTO	0.664	0.044	2.746	0.095	0.002
	(0.11)	(0.43)	(41.77)	(1.16)	(0.26)
ETAX	-1.970				
	(-0.06)				
INEQ	-5.189			0.008	
	(-0.84)			(0.04)	
CGRW	0.120				
	(3.23)				
LGRW	-0.133				
	(-1.81)				
INEQT1		-0.029			

[47] t-ratio is shown in parenthesis in the table

		(-0.21)			
GRWTH		-0.005 (-0.29)	0.001 (0.14)		
PGDP			0.00003 (1.55)		
PREV				-0.00003 (-0.50)	
PEXP					-0.00002 (-4.22)
_CONS	7.093 (1.24)	0.262 (0.68)	-0.353 (-0.99)	0.703 (3.64)	0.239 (10.45)
R^2	0.56	0.09	0.95	0.21	0.61
Observation			145		

In general the estimation results in Table 6.2 are disappointing in that we fail to find consistently significant results. A likely suspect is multicollinearity among the explanatory variables.

First, expenditure decentralization does not have a statistically significant impact on any of the dependent variables: economic growth, economic disparity, fiscal resource growth, fiscal disparity and relative spending on social services. This may suggest that our measure of decentralization is not the proper one but it may also indicate that the potential impact of decentralizing fiscal expenditure may have already been exhausted during the previous stages of fiscal reform.

Second, under the current revenue system, the measure of local autonomy had only a significant impact on the growth of fiscal revenue. It is interesting that the impact of provincial autonomy and sub-provincial autonomy had opposite effects on fiscal revenues. In particular, greater provincial autonomy improves the growth of fiscal revenues but greater sub-provincial autonomy slows it down.

The structure of local revenues does not have significant impacts on any of the dependent variables. This result is not surprising since local governments have very limited if no legislative autonomy on all local taxes and shared taxes under current system.

Third, intergovernmental transfers would seem to help fill the gap between local revenues and expenditures, although the coefficient is not statistically significant. Since the major part of local expenditures is the operation costs of local governments, this category tends to show less regional disparity than other government expenditures such as on education, health care and social security.

Fourth, different intergovernmental transfer programs had conflicting impacts. In particular, at the provincial level, general transfers from the central government helped to improve the growth of fiscal revenue, but the tax rebate decreased these incentives for fiscal resource growth. For the sub-provincial level, intergovernmental transfer programs are more efficient in improving equity, and the general transfer helped improve the regional equity in economic development.

Fifth, increasing local fiscal expenditures does not seem to help improve the share of expenditures going to social services. The result shows that per capita fiscal expenditure is negatively related to the share of local expenditure on social services. This may suggest that the current decentralization system may lack a mechanism to restrain local governments' behaviour regarding the composition of expenditures. Instead, as fiscal expenditure increases, local governments may face higher regional capital competition, and therefore more resources will be used in non-social programs in order to improve the economy and attract capital investment.

In summary, further empirical work will be needed to better evaluate the performance of China's decentralization system over the past two decades.

Chapter 6 Policy Options

Addressing the problems identified with the current system of intergovernmental relations in China will require an integrated comprehensive strategy because of the clear interdependencies among many of these issues. Actual reform may be phased in in stages as long as there is an explicit strategy guiding the reforms.

In this section we highlight the main areas and some options available for a reform strategy largely based on our analysis in previous sections and on what has and has not worked in the international experience. For this reason we stop to describe, when relevant, some of the experiences and approaches other large countries in the international community have used for addressing similar problems and dilemmas in decentralization policy.

Setup formal and stable expenditure assignments to clarify the responsibilities of all government levels

In the last two decades, China has made dramatic progress in separating government from SOEs and re-defining the functions and responsibilities of government in the economy. But, there are still significant problems from an expenditure assignment perspective. In particular, a stable and transparent expenditure assignment at all levels of government with less concurrent responsibilities is needed. This step has significant meaning in China's current policy framework because: (a) it will enable the more efficient organization and provision of basic public goods and services to residents and will significantly improve the accountability of both the central and local governments; (b) it can effectively help the elimination of government encroachment in the private sector; and (c) it can provide sound expenditure assignment which also constitute a key component to solving the issues of vertical and horizontal fiscal disparities, as "finance must follow function."

First, this is not the place for suggesting a specific and detailed assignment of responsibilities, but we should stress that sub-national governments should focus on organizing and delivering basic public goods and services and the management of social affairs while the central government should focus on country-wide issues pertaining to national defense, foreign affairs, macro-regulation and macro-environment, and equalizing sub-national government to fulfill their responsibilities The system also needs to introduce enough accountability mechanisms to provide incentives to sub-national governments to properly weigh spending on economic development and construction and other public services, especially those in the social areas.

Second, it is necessary to seek ways to assign exclusive responsibilities wherever possible. Practically in all decentralized countries, and this is certainly true of Australia, Brazil, Canada, the Russian Federation, and the U.S., there are a number of responsibilities that are exclusively assigned to local governments. This is even true in countries like Canada and the U.S. where the local governments are "creatures" of the states. Most decentralized countries have at some point or another struggled with

instability, lack of clarity, and controversy in the practice of the assignment of competencies and expenditure obligations at different levels of government. In Brazil, India, and the Russian Federation, there is still a lack of exclusive responsibilities assigned to sub-national governments and a lack of clarity regarding who is responsible for what in the case of many overlapping functions. As in the case of China, the lack of clarity in assignments is more acute in the division of responsibilities between the intermediate level and local governments. In the Russian Federation, for example, the lack of clarity in the assignment of responsibility for primary and secondary education between the regional and local levels of government has meant that in some regions teacher salaries simply went unpaid as different government levels argued about who was responsible for paying teacher salaries. In India, the murkiness in assignments has meant a lack of monitoring and accountability for services, where in some states it has been reported that half of the teachers may not regularly be at the schools.

Of course, highly decentralized and successful federations such as Canada and the United States (U.S.) have taken years of friction and disputes to reach their current distribution of responsibility across levels of government. Thus practice can substitute for explicit assignments in the law, but relatively younger decentralized countries may avoid these costly transactions through more explicit and clear assignments. This is precisely what the Russian Federation attempted to do in the comprehensive Budget Code of 2002, although it fell short of achieving this aim.

Third, it is important to build broad and formal coordinating institutions to deal with assignments that stay concurrent. In order to clarify concurrent responsibilities it is important to explicitly assign the multi-dimensional array of attributes that go with assigned function, including: (i) actually producing a good or delivering a service, (ii) providing or administering the service, (iii) financing a service, and (iv) setting standards, regulations, and policies guiding the provision of government services. In addition, when multiple levels of government are involved in the same sector, broad and formal coordinating institutions are needed.

In Germany's "cooperative federalism" model all decisions are coordinated through an extensive net of multilevel committees. In the U.S., the pattern of assigning responsibilities varies widely from sector to sector and state to state, so sectoral coordination is done by technocrats in some areas where there is a clear need, such as highways and law enforcement. Somewhere in between the German and U.S. models are the practices of Australia, Canada, and New Zealand, countries that use periodic formal meetings of elected officials and bureaucrats to discuss mutually important fiscal issues. For example, Canada has two organizations for coordination, dialog, and conflict resolution: (i) functional federalism, in which ministers and officials from federal and provincial departments meet to discuss issues of policy coordination and program delivery mechanisms; (ii) summit federalism, where first ministers meet for negotiations of difficult "horizontal" problems, that is problems of one specific government department. Similarly, in Australia, the Council of Australian Governments (COAG) initiates, develops, and monitors the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments.

It is worth stressing the role of the central government in these coordinating institutions. But on the other hand, central governments must resist the urge to intervene and go around formal expenditure assignments. This is often not followed in the international practice; often central government agencies play a larger direct role in service provision than theory and international best practice would suggest. In Brazil, for example, in a three-tier federation the municipalities share the same many assignments with the states as a result of the 1988 Constitution. However, the central government has found it difficult to withdraw from some purely local functions such as public markets, local schools, and local bridges after more than a decade since adoption of the 1988 Constitution. Another thorny issue to be avoided in the practice of expenditure assignments is the issuing of unfunded expenditure mandates. These were very common in the Russian Federation, until the approval of the Budget Code in 2002 that made them an illegal practice and forced the federal government to provide targeted transfers for each mandate.

Align the decentralized fiscal system properly to guarantee all citizens have access to basic public services regardless of where they happen to live

It is necessary to start considering the definition of national minimal standard for basic public services and ways to ensure that sub-national governments have the means to finance them. In this respect, some countries differentiate in the assignment of expenditure responsibilities to sub-national governments between “delegated” and “own” responsibilities. In the case of delegated responsibilities, the central authorities have the right to regulate and monitor the delivery of services at the sub-national level but also the obligation of ensuring financing and administrative capacity of sub-national governments.

The wide and increasing regional disparities in China for some very basic public services are not only inequitable but could be harmful to the country’s cohesiveness. Examples of areas where ensuring minimum standards are needed include: nine years compulsory education, basic hygiene and medical treatment, basic unemployment compensation and survivor and dependent insurance, and essential communal facilities.

Improving sub-national government efficiency through sound local autonomy

The degree of local autonomy is central to the effective functioning of a decentralized fiscal system. In most federal and unitary but decentralized countries, decentralization reaches local governments quite fully, with these jurisdictions having different degrees of revenue autonomy and exclusive responsibility for an array of functions and services. This status for local governments is the result of explicit legislation in unitary decentralized countries. In the case of mature federal systems, such as Australia, Canada, and the U.S., local governments are creations of the states or provinces, and local governments are not even mentioned in their constitutions. However, through traditions of self-governance and practice, local governments in these countries have achieved significant levels of autonomy and self-governance. It also is important to note that in these countries, although the states define and govern the local level, federal governments

still have direct programs for local governments. In the case of other federal countries, such as Brazil, Mexico, and Russia, state governments have been reluctant to decentralize to the local level, which in turn has led federal governments to intervene. The most important issue to China decentralization reform is how to strengthen sound local autonomy. This issue has several facets:

First, autonomy should be built based on the right balance between devolution of responsibilities according to economies of scale, the internalization of costs, and available administrative capacity. There is no universal rule for the degree of autonomy that should be devolved to local governments.

In the revenue area, most federal systems provide local governments with their own sources of revenue, with autonomy to change at the margin, tax rates or other elements of the structure of the tax. A tentative list of the most widely used local taxes across countries would include property taxes, user charges, business license fees, permits and excise taxes, motor vehicle taxation, income taxes, and sales taxes. In countries such as the U.S., revenues collected from the property tax using modern appraisal and billing techniques represent a major source of revenue for local governments. In Brazil, the property tax represents a substantial source of revenue, although its application is through simplified forms of mass appraisal, using a few readily observable and measurable characteristics of each property. A piggyback, flat-rate income tax is a tax instrument with considerable potential to provide sub-national revenue autonomy, as the experience of Canada and the U.S. demonstrates as well as the experience of Japan and many European countries.

User charges and fees play an important role at the local level in mature federations. For example, local user charges in Australia, Canada, and the U.S. include highway tolls, public transportation charges, parks and recreation charges, water provision charges and so on. Besides creating a market-like connection between the costs and benefits of service delivery, user fees improve cost recovery and provide strong incentives for conservation, not wasting supply of the service, such as in the case of water provision.

Second, an asymmetric approach can be explored as a means to allow major cities and other local governments with more developed capacity to introduce piggyback income taxes and other forms of local tax autonomy or perform a different and wider set of functions. Greater revenue autonomy must be considered an important reform in putting decentralization to work at the local level in any decentralized country. Most sub-national governments need to augment their revenues due to the large share of committed expenditures and increasing needs. This can be accomplished in any number of ways, including increasing own source revenues, improving tax administration, and increasing intergovernmental transfers. Enhancing the revenue autonomy of sub-national governments would have the added advantage of increasing accountability and helping foster greater fiscal discipline. However, this is never an easy task, but the international experience shows that it can be done. Brazil’s approach to property taxation (i.e., field surveys, use of a highly simplified form of mass appraisal, and use of construction cost

data) can be implemented by rural and urban governments to address the current weaknesses of the administration of the property tax system.

The comprehensive review of Russia's fiscal federalism undertaken by the Kozak Commission in 2002-03 resulted in a set of legal changes which, among other things, introduced a rather comprehensive set of asymmetrical designs for sub-national governments. In particular, separate packages of functions were assigned to each tier and type of local government (i.e., rural, urban). In Spain, historically there were large asymmetries on the expenditure side. This country had a "large responsibility" group of five regions that were assigned many more responsibilities that the general "small responsibility" group of regions. Over the past two decades Spain has gradually increased the number of responsibilities to the rest of the regions and nowadays all communities have similar capacities and take on the same responsibilities.

Third, a desirable way to provide revenue autonomy at the sub-national level is for the central government to create fiscal space for sub-national governments in the use of some major taxes, preferably the personal income tax and excises. The current framework of the current tax sharing system, although it does not provide sub-national governments with any autonomy, clearly indicates that it is possible to have multiple uses of the same tax base by different levels of government. This is consistent with international good practice in revenue assignment since multiple uses of the same base, if properly coordinated, is found to simplify administration and reduce compliance costs. Canada, the U.S., and many European countries have concurrent powers to levy income taxes at the federal, provincial/state, and local levels. In Canada, tax collection agreements between the federal and provincial governments provide for joint use of the same income tax base. The provinces, with the exception of Quebec and Ontario, set their own personal and corporate income tax rates, in a 'piggyback' fashion, as a percent of the rate charged by the Center. The taxes are collected by the central government and then remitted directly to the provinces. In most Canadian provinces, a local surcharge is levied at a flat, locally-established rate as a percentage of the national tax liability rather than the national tax base, and collected by the central government. This arrangement is known as "tax supplementation."

Similarly, in Switzerland, most cantons allow local governments to levy surcharges at locally-established rates on the cantonal income taxes. In the U.S., many states piggyback on the federal income tax, but the piggybacking does not extend to central collection, only to reliance by states, if they wish, on federal tax definitions, structures, and reported amounts. Most states levy income taxes separate from, but coordinated with, the federal income tax. There are two major coordination mechanisms in the U.S. These mechanisms are complementary, not mutually exclusive. First, states may choose to cooperate on tax administration with the higher level government through a regular exchange of information. Work by one level of government can generate revenue for another level at little or no additional cost. For example, at the federal level, the Internal Revenue Service may inform a state of an audit finding regarding an individual residing in that state. Second, states may choose to coordinate their tax base with the higher level government. For example, several U.S. states levy their state individual income tax on a taxpayer's

amount of federal adjusted gross income, so that the state income tax form simply begins with a number extracted from the federal income tax form. Coordinating tax bases reduces administration and compliance costs and fosters greater coordination on tax enforcement between levels of government.

Other examples of countries with piggyback income taxes include Belgium, Denmark, Norway, Spain, and Sweden. Piggybacking arrangements provide sub-national governments with considerable revenue autonomy because they can set the tax rate, administer the tax separately if they so desire, and even limit the ability to define the base. Piggybacking arrangements allow the states and the Center to exchange information which can increase the effectiveness of enforcement activities. A drawback of piggybacking arrangements is that there are fiscal externalities across different levels of government; a simple form of fiscal externality is that state revenues may change whenever the federal government changes the definition of the income tax base.

In China, the current arrangement for tax sharing , with tax rates determined by the central government, can be complemented with piggy back separate taxes on personal income and excises, by providing sub-national governments with autonomy to alter their rates within the maximum and minimum rates legislated at the Centre.

Fourth, the reform in revenue assignments should be complemented with further reform of the tax system. The main objective should be that governments at each level should have a stable tax base and main tax (es), either exclusively or sharing the base with other governments so that it provides them with a good measure of revenue autonomy. This will be a big challenge for China's lower-level governments (counties and townships) since many of these jurisdictions are still isolated from a modern market economy, and rely mainly on traditional agriculture. However, land and property taxes should be considered as the best fit in the future for those levels of government. The further reform of the personal income tax making a broader more universal tax should provide adequate fiscal space for the introduction of piggyback taxes at the provincial and prefecture (city) levels. The reform of the tax system and revenue assignments must explicitly recognize the issue of tax mobility and tax competition across sub-national jurisdictions. Even with autonomy there has been increasing tax competition, taking place not always in a transparent and rational way. Although some degree of inter-jurisdictional competition can have desirable efficiency effects, excesses such as "a run to the bottom" should be avoided with suitable tax measures (for example, minimum rates for autonomous taxes).

Technically, the current structures of the VAT and corporate income tax still have serious problems. The production type VAT generates distortion in the market, especially regarding capital investment. The sharing of the corporate income tax, based on ownership, also creates distortions in sub-national government behavior, creating incentives for encroachment into the private sector.

Overhaul the entire intergovernmental transfer system

Intergovernmental fiscal transfers are used to correct for vertical and horizontal imbalances, inter-jurisdictional spillovers, and to promote national objectives. Most countries, the U.S. appears to be the lone exception, use equalization grants to address horizontal fiscal disparities among jurisdictions. All countries, the U.S. included, use special purpose grants of one type or another to promote national priorities and address inter-jurisdictional spillovers. Equalization grants and special purpose transfers also help reduce vertical imbalances or the mismatch between expenditure responsibilities and own sources of revenues for sub-national governments. Often different forms of revenue sharing, in themselves a type of transfer, are used to address vertical imbalances. However, the only fail-proof way to address vertical imbalances is to provide sub-national governments with an adequate level of revenue autonomy, as discussed in the previous recommendation. In short, a system of transfers is needed for many good reasons, but it can easily be misused, and transfers are not a substitute for a significant degree of tax autonomy.

In China, we have seen that current revenue assignment cannot guarantee all citizens have access to basic public services. On other hand, even after the reform of revenue assignments and the provision of greater autonomy at the sub-national level, requiring sub-national governments to rely exclusively on own revenues to close vertical imbalances may give rise to economically and/or politically unacceptable differences in the quality and quantity of critical social and economic services across jurisdictions. Although in practice countries differ in how, and if, they use equalization grants with measures of expenditure needs and/or fiscal capacity in their formulae, a well-designed equalization grant is a necessary instrument to reduce horizontal fiscal disparities among sub-national governments arising from differences in expenditure needs and fiscal capacity. Thus, while more revenue autonomy is desirable, the resulting fiscal disparities must be addressed through an equalization system; a useful rule of thumb is to design the system so that the richest sub-national jurisdictions are able to finance themselves from their own taxes while the rest of the jurisdictions are assisted by unconditional equalization transfers that close the gap in terms of existing fiscal capacity and expenditure needs. The definition and computation of expenditure needs in the system of equalization transfers should focus on minimum national standards in the provision of basic public services. But this last issue actually requires a wider focus.

The design of transfers is of critical importance for efficiency and equity of local service provision, autonomy, and fiscal health of local governments. In China, one of the current priorities in public finance is to allow all citizens to have access to basic public services. Consequently, the reform of the intergovernmental transfer system for both decreasing the regional disparities and addressing vertical fiscal imbalances should be based on national minimum standards for public services.

Canada provides some useful experiences from this perspective. The primary goal of intergovernmental fiscal transfers in the Canadian system is to maintain minimum national standards in provincial-local public services, thus compensating for vertical and horizontal imbalances between provinces. Accordingly, several block transfers are made to low-income provinces for this purpose. The major two are the Canada Health and

Social Transfer (CHST) and Equalization Transfer. While the equalization program focuses on horizontal imbalances, the CHST is the primary means for closing the vertical fiscal gap. The equalization transfer is based exclusively on tax capacity.[48] As such, the equalization formula is based on the province's tax base capacity relative to the national average, in a way that does not provide a negative incentive to provinces to use their autonomous sources of revenues. The CHST is provided to fund health, post-secondary education, and social services according to provincial priorities.

Another important focus area is that the reform of the transfer system should provide not only a framework for central-provincial transfers but also frameworks for transfer systems at the sub-provincial level. These sub-provincial transfer systems should be designed to address horizontal fiscal disparities and allow upper level governments to address externalities and pursue policy objectives in their own interest through local government activities and budgets. Stability and transparency should be the emphasized characteristics in these reforms, in order to increase the predictability of local budgets. The use of formulas for the distribution of funds and also for the funding mechanism of the transfers is the key to transparency and stability.

The fact is that even in mature federations such as Australia, Canada, and the U.S., local governments rely heavily on transfers from federal and state governments. An ideal transfer system to local governments entails a combination of general-purpose and specific-purpose transfers, and the composition of this combination depends on the service mix provided by local governments. Local governments in other federations rely heavily on general purpose grants with relatively few conditions. Often, formula-driven systems are used to equalize horizontal fiscal disparities at the local level. In Australia, for example, general purpose, recurrent grants to local governments are determined using a discretionary growth factor each year. Canadian Provinces use different formulas: (i) some provinces recognize needs and fiscal capacity; (ii) others just recognize tax base deficiencies, in some cases just on the basis of property taxes; (iii) others do it by classes of municipalities, (e.g., urban and rural); (iv) others equalize on the basis of a few expenditure categories (i.e., mandatory expenditures such as police, fire, water and sewer, leaving out expenditures such as parks, culture, and recreation; and (v) others include all expenditure categories. The U.S. emphasizes conditional or categorical grants more than other federations, where funds are distributed according to factors to measure the needs of the community, capacity to provide public services, cost of providing public services, and tax effort made by the community to provide public services.

Another aspect of the reform of the transfer system is the necessary rationalization of conditional grants. The centrally sponsored schemes are an important source of revenue for sub-national governments in China, and they are justified on the same bases as conditional grants are in other countries: addressing externalities, pursuing national objectives, and so on. It is generally recognized, however, that there are too many schemes in China. Actually, the trend in China, with a continued growth in the number of schemes, has been in the opposite direction of the international trend toward

[48] Canada does not take into account differences in expenditure needs in the equalization grant, but other countries, such as Australia, take into account both expenditure needs and fiscal capacity in their formulas..

rationalization into a smaller set of block grants. In China, the schemes provide a backdoor for central government agencies to micro-manage decisions that are ostensibly the responsibility of the sub-national governments, blur the lines of responsibility, burden the administrative capacity of sub-national governments, and reduce their budgetary autonomy. The implementation of the schemes in a non-transparent fashion and late in the budget cycle also significantly distorts the decision-making and budget priorities at the sub-national level.

A particular type of conditional grants requires special attention. These are capital transfers, which should be used to address externalities across local governments, assist with financing constraints for lumpy capital, ameliorate significantly different infrastructure endowments when these are not the result of voluntary decisions, and pursue sectoral objectives. Two major policy biases need to be openly addressed in the implementation of capital transfers. The first is the belief by some central authorities that capital expenditures are always more efficient than recurrent expenditures, and second, the lack of maintenance of existing infrastructure. Concerning the first issue, it must be acknowledged that the use of funds for properly operating infrastructure facilities can be as efficient as investing in the facility itself. Making sure that sub-national governments take ownership of the capital infrastructure is a key aspect for proper maintenance. Conditional matching grant arrangements can help sub-national governments to take ownership and more properly maintain infrastructure.

In the international practice, capital grants vary by the degree of flexibility in the use of the funds. They can either be specific project-based grants, which tend to be closely administered and monitored by line ministries, and categorical or block grants. Capital grants also vary by the way funds are allocated. The approaches include *ad hoc* decisions and negotiations, use of a pre-established formula, and competition processes with defined application procedures. There is no single best approach to the design of capital transfers, but non-transparent, highly detailed, and discretionary procedures should be avoided. Formulas based on needs and clients are often quite feasible. In Australia, for example, funding for school buildings based on the number of students is available. Although a few countries use a loan and grant combination for the implementation of capital grants, the vast majority of countries just use a grant formula often accompanied by matching arrangements. Matching arrangements can raise some liquidity problems for low income sub-national governments, but the matching rate can also be adjusted for fiscal capacity.

One particular issue that needs to be addressed in China is that the present process tends to generate low rates of return on investments because there is a bias in favor of taking up new projects while projects that are underway are not fully funded and are then allowed to languish and remain unfinished for long periods of time. The longer periods for completion lower the rate of return on projects. Besides, the states are underfunding maintenance and the current process does not provide any incentives to prevent this, which results in the faster deterioration in public infrastructure, further lowering the rate of return.

The institutional set up for the implementation of capital transfers varies across countries, but there has been a significant trend to remove the implementation of capital grants and capital budgeting from ministries of planning or economy and to integrate them with the rest of the budget process in ministries of finance. This has been an imperative result from the need to coordinate all aspects of budgeting. Despite that trend, countries often retain the vehicle of a PIP (Public Investment Program) but integrated into a Medium Term Expenditure Framework (MTEF) or multi-year budget that covers the entire budget.

Formalize sub-national borrowing

As we have seen, despite the fact that the Budget Code prohibits borrowing at the sub-national level, practically all sub-national governments in China borrow funds but do so in a non-transparent, inefficient and risky way. This situation calls for drastic reform to allow sub-national governments to borrow with a transparent and prudent set of rules.

The international experience suggests that local borrowing has the potential to generate significant benefits for local governments by allowing them to finance public capital projects, especially when the flows of taxes are not necessarily coincident with capital spending needs. For example, in the United States, most sub-national governments are prohibited from incurring current budget deficits; however, most state and local governments are allowed to issue long term debt for the purpose of investments in capital infrastructures such as roads, water and sewer systems, or drainage projects. In fact, various types of debt instruments are used by sub-national governments. State and local governments participate directly in the capital market by issuing bonds.[49] The advantage of relying on capital markets is that it serves to regulate and constrain state and local governments' issuance of debt. If the market perceives that a sub-national government entity is issuing an unreasonably large amount of debt which makes repayment less likely, the interest that the borrowing government has to pay will rise, making it a less desirable undertaking. Also lower ratings due to poor economic or fiscal conditions (including an already high level of debt) will result in higher interest rates for the borrowing government to pay. Bond guarantees is another advantage of relying on capital markets. A purchaser of an insured bond is guaranteed that, even if the local government is not capable of paying the interest and principal, the insurance company will.

In Canada, provinces may borrow funds for any purpose, and there is no internal or external federal control at all over provincial borrowing. However, municipalities are not permitted to budget an operating deficit with the exception that the municipality can secure short-term financing to meet current needs but must budget to repay that debt usually within the next fiscal year. However, it is common in Canada that local governments use long-term borrowing to finance municipal infrastructure investment. Although at least large municipalities have the option to go directly to the capital market, it is typical that there is a provincial authority through which or from which

[49] A competitive advantage for sub-national governments over other borrowers in a capital market is that the federal income tax does not tax interest earned by holders of such bonds. Therefore the interest rates paid by state and local governments are below those paid by other bond issuers.

municipalities can borrow, and all the provincial government municipal financing corporations guarantee repayment of the debt that they issue. One major reason for this approach is that municipalities are hierarchically ordered under the provincial government. The major advantage of the pooling of the municipal debt is that provincial guarantee provides lower interest rates than individual local governments would be able to obtain because it reduces risk to the lender; this arrangement is especially beneficial to smaller municipalities. Meanwhile, it helps to minimize the administrative cost because of economies of scale. It is also common in Canada for the provincial government to use subsidies to reduce the need for borrowing or to assist in meeting debt obligations. For example, the provincial government uses intergovernmental transfers to assist capital programs, introduce general interest subsidies on municipal (or local) government debt or provide debt relief. The federal and provincial governments sometimes lend funds for certain programs (e.g., environmental, housing) at reduced interest rates.

When financial capital markets are not sufficiently developed, the international approach has been to regulate sub-national government borrowing through a combination of rules, limits, and some timescentral government discretion. Where these rules are not properly set and enforced, sub-national borrowing can lead to substantial problems. In Brazil, for example, although there was extensive and complex legislation for controlling sub-national government debt, state and local government debt presented a troublesome growth pattern up to 1998, mainly due to extremely permissive rules in terms of debt rollover and the fact that the federal government got into a pattern of bailing out insolvent state and local governments. In most countries, the state exerts considerable control on total borrowing. For instance, in Germany, Länder and local authorities can only borrow for investment purposes, in proportion to their financial capacity, and subject to agreement by the interior ministry. Spain imposes similar limits to total debt service spending and only allows short-term borrowing to cover cash-flow requirements and long-term borrowing to finance public investment projects. In France, borrowing is not allowed to cover current expenditure or to refinance existing loans, but regional and local authorities have considerable latitude in deciding how much to borrow for capital expenditure. Some countries bring in greater controls over borrowing by sub-central governments. For instance, Austria introduced an ‘internal’ Stability Pact in January 1999 to help ensure that the overall deficit position for all levels of government does not exceed 3%. This is done by allowing very little margin for borrowing by sub-central tiers of government, who are only permitted to run an aggregate deficit of 0.3% of GDP. In Italy, borrowing is typically only undertaken for capital projects and it has imposed a similar ‘internal pact.’ Nevertheless, sub-national government access to credit markets is riddled with potential moral hazard problems. In some cases, federal intervention in the form of a bailout has been required even in mature federations, such as Canada, Germany, Sweden, and the U.S. To curb the moral hazard problem, the U.S. has introduced explicit bankruptcy procedures through financial control boards; other countries, such as Hungary have also introduced explicit bankruptcy procedures for sub-national governments.

A typology of approaches in the international practice used to control sub-national borrowing includes the following: (i) *Market discipline*: In this type of control, higher level governments typically stay out of any direct involvement with local borrowing, and

instead the system relies on market forces to ensure that local debt is managed, controlled, and disciplined. For this system to operate well, certain conditions are required, including: free and open financial markets, easy availability of information on local debt and repayment capacity, and no bailout expectations. Countries that rely on this approach include Finland, France, Portugal, Spain, and the U.S. Nevertheless, some of these conditions are often not met in developing countries (ii) *Direct administrative controls*: Higher level governments directly control the borrowing of local governments with limitations on debt, restrictions on external borrowing, and approval of specific investment projects. This approach is found in developed countries, such as Austria, Canada, Ireland, Japan, Spain, U.K., and many developing countries, such as Argentina, Bolivia, Brazil, Chile, Colombia, India, and Mexico. The advantage is that higher level governments have a better handle on coordinating the overall country debt, including external borrowings. The disadvantage is that this strategy diminishes local government autonomy to make investment decisions according to local circumstances. (iii) *Cooperative controls*: Limitations on local borrowing are negotiated between higher level governments and local governments. An agreement is reached regarding overall deficit targets, revenue and expenditure growth, and controls on local government debt. Examples include developed countries, like Canada where municipalities are bound by provincially set rules and processes of approval administered directly by a provincial ministry or agency. However, this requires effective cooperation and fiscal discipline. In the absence of cooperation and fiscal discipline, this approach is unable to prevent excessive debt, as the experiences of Brazil and Colombia demonstrate. (iv) *Rule-based control*: Actions of local governments are prescribed in various rules written in the constitution, law, or regulations. These may establish limits on the level of allowable debt, limits on debt-service capacity, stipulate limitations on the type of borrowing (e.g. capital projects), and the like. This approach is transparent, and it treats all local governments equally. However, it gives local governments an incentive to devise schemes that attempt to avoid or evade the rules, such as reclassifying current expenditures as capital expenditures, creating off-budget agencies and even government-owned enterprises, and relying on payment via arrears. Its success depends on the ability to monitor compliance with the rules.

International experience also suggests that sole reliance on only one of these approaches may not be sufficient. For example, in the U.S., all local governments are required to have balanced budgets, but the effective borrowing constraint imposed by such requirements, even when written into the state's constitution, is often limited. Often the requirement only applies to the budget, excluding social security and capital spending; in some cases, the requirement only refers ex ante to the formulated rather than the realized budget; and there may be other escape clauses, including extra budgetary sources of funds. Effectively, therefore, market discipline plays an important role in achieving borrowing discipline (Ter-Minassian and Craig, 1997). In Germany, the budget laws specify the conditions under which sub-national borrowing can be undertaken. Local authority borrowing is limited to cash flow needs and is subject to approval by the Länder (state) authorities. In practice, there are weaknesses in both the formulation and application of the Länder laws. The investment requirements are specified ex ante rather than ex post and the interpretation of what constitutes investment is flexible. Spain is

another example where multiple approaches are used to control local borrowing, including a market approach, legal rules, and cooperative controls. In addition, ministry of finance approval is generally required for domestic borrowing, but there are some exceptions, including for those local authorities covered by Autonomous Communities.

On the supply side for sub-national credit, the international experience offers two main models of fund supply: the bank lending model of Western Europe, and the municipal bond model of North America:

(a) Municipal bank lending: This approach is founded on three principles: (i) municipal banks establish lasting and stable relationships with the local government, which is helpful to small municipalities that need assistance with project preparation, financing, and implementation; (ii) municipal banks perform the function of delegated monitoring; however, this may be inefficient, except in the case of a large loan; and (iii) municipal bank operations are characterized by bundled services and bundled pricing. In some cases where municipal banks have had little or no history of relationship banking, financial deregulation has forced them to lend like commercial banks, and municipalities are constrained to accessing short-term loans.

(b) Municipal bond market: This model offers contrasted features to the municipal banking approach, as follows: (i) instead of a banking relationship, this model is based on competition. Each bond is subject to competitive bidding which results in large savings for large and established municipal issuers. However, this is not so useful in serving the lending needs of smaller and inexperienced local governments. Although credit pooling has proven to be partially successful in meeting the financing needs of less creditworthy local governments, such as the state bond banks found in the U.S., where a special state intermediary with a superior credit rating raises funds through bond issuances and on-lends to local governments by purchasing their bonds. (ii) The municipal bond model is based on public monitoring as opposed to delegated monitoring. The creditworthiness depends on the public disclosure of municipal financial information. (iii) The bundled services received from a municipal bond are typically unbundled in a municipal bond market. Municipalities can decide to receive advisory services from various institutions other than the municipal bank. These can be purchased on the basis of a competitive bid thereby lowering project costs.

The review of the international practice in the above paragraphs provides potentially useful starting points for the structuring a reformed approach to sub-national borrowing in China.

Improving local expenditure management

Although fiscal decentralization can improve the efficiency of public expenditures, due to the information advantage of local governments as well as the use of incentive compatible mechanisms for local governments, China's experience shows some important shortcomings in realizing these potential efficiency gains. One significant feature of China's decentralization system bearing on the issue of efficiency is that the accountability of sub-national government officials to local residents is rather weak; the direct appointment of officials tends to make them mostly accountable to the upper/central government authorities. In this scenario, improving the quality of expenditure management takes special meaning.

The current budgeting system in China lacks adequate procedures for planning, control and audit of budgets, and there is a wide perception that a significant share of government budgets are wasted or misdirected.[50] Improving expenditure management at the sub-national level should be on the agenda for future fiscal reform. The clearer definition of expenditure assignment and the transparency of public expenditure should play an important role in improving local expenditure management. But further measures should be considered.

A particularly important item in the reform agenda should be to find the means for increasing the accountability of local governments to their residents by empowering the community and even institutions to demand certain standards in the delivery of services. Different approaches have been used in the international experience. Local governance in some countries is reinforced by institutions that facilitate the involvement of civil society in the delivery of public services. For example, in Canada, Local Boards are not-for-profit, community-based organizations comprised of volunteers from business, labor, education, and community groups which support local governments in a variety of ways. Similar institutions exist in the U.S. In the education sector, for example, there is evidence that community managed schools can lower teacher absenteeism and improve schooling outcomes, as has been the case in now well-known initiatives, such as the EDUCO program in El Salvador, and similar programs in Nicaragua and in India's state of Madhya Pradesh.

There is also a need for greater fiscal discipline at the sub-national level. The international experience shows different countries have been using different approaches to increase fiscal discipline among sub-national governments:

(a) spending limits. It has become more common for countries to introduce expenditure rules to impose ceilings on specific areas of expenditure or for particular programs. The advantage of capping expenditure is that the process is well understood by players in budget negotiations and the wider public, and it tackles deficit bias by addressing the principal source of rising deficits. In addition, governments are made accountable for what they can control most directly, as opposed, for example, to deficit limits. In the U.S.,

[50] To some extent, public expenditures have also been gripped by corrupt activities. For example, it was estimated by the *Law and Regulation Daily* that the total public expenditure on banquet (Gong Kuan Chi He) was over 100 billion yuan a year in 2002. The daily press also has released cases of government officials gambling with public funds (Guan Du) and so on.

many studies have concluded that the specific expenditure ceilings embodied in the Budget Enforcement Act have played a significant role in reducing expenditure.[51] In Canada, the Fiscal Spending Control Act of 1992 established a nominal expenditure limit for the period 1992 to 1996. In addition, since 1994 the government introduced several policy rules that were not formally legislated. The main objective was to control public expenditure growth, reduce fiscal imbalances, and stop the increase in public debt. The deficit of 5 per cent of GDP in 1995 became a surplus of more than 1 per cent of GDP by 1999, and the ratio of net public debt to GDP was reduced from around 70 per cent in 1995 to 52 per cent in 2000. (Daban et al, 2003). Other countries like Finland, the Netherlands, and Sweden have also emphasized expenditure limits, supported by procedural requirements, whereby proposals resulting in overruns in certain expenditure areas must be accompanied by offsetting expenditure cuts elsewhere or by revenue increases.

(b) increased budgetary transparency. New Zealand pioneered an approach to fiscal management and budget control that places primary and explicit emphasis on transparency with the Fiscal Responsibility Act of 1994. Australia and the U.K. have since adopted similar approaches, as has Brazil and other countries in Latin America.

(c) designing explicit deficit and debt rules. This is the most common approach to fiscal discipline in the international practice; in particular, the commitment to these rules makes it easier for fiscal authorities to withstand pressures for higher spending. On the other hand, this type of rules can be broken through a variety of informal approaches.

All these budgetary innovations around the world can have useful applications in the reform of China's budgeting system. Expenditure limits may be an effective tool for controlling deficits at the sub-national level, although the effectiveness of this approach depends heavily on quite independent executive and legislative powers. Lack of budgetary transparency is a serious problem in expenditure management in China given the still significant importance of extra-budgetary and off-budget expenditure channels. Increasing budget transparency and efficiency by incorporating all extra and off budget activities into the respective government budget is the obvious step. One difficulty lies in the fact that these reforms need to be coordinated with other aspects of the reform, such as providing more significant equalization grants to poorer jurisdictions and more revenue autonomy in general to all sub-national governments.[52] Setting explicit rules for debt level and debt service can also contribute to fiscal discipline. However, there are already rules, such as the prohibition to run deficits or to borrow, which are neither respected nor enforced.

Budgetary management and public expenditure efficiency can also be related to the vertical administrative structure of government. These are always difficult issues to

[51] This approach may have been better suited to the U.S. budget process than the earlier deficit reduction targets contained in the Gramm-Rudman-Hollings Act, which provided for automatic spending cuts to take effect if the president and Congress failed to reach established targets

[52] Note that there appears to be some evidence that the poorer jurisdictions tend to rely more heavily on extra-budgetary expenditure and other charges.

address because the vertical structure of government sometimes has to do more with history and tradition than with any notion of efficiency per se. Nevertheless, the current vertical structure of government in China also needs to be reassessed, in particular whether five levels of government is an efficient structure and whether less discretion and more explicit rules for dealings with different levels is desirable.

We have seen in this paper that the current government structure clearly allows upper-level governments to abuse their position by decentralizing too many responsibilities and not enough resources. This leads to highly inefficient situations and reduced citizen welfare. In particular, a lot of expenditure responsibilities are taken by the township governments, which in many cases lack the necessary capacity for the provision of public services. At the other end of the structure, there is a growing perception that the government at the prefecture level may be quite redundant and that it may be contributing sometimes to distorting central government messages.

APPENDIX: The Evolving Role of Extra-Budgetary and Off-Budget Funds in the Financing of Social Services at the County and Village Level in China

Li Zhang

I. Introduction

It has long been a tradition that the fiscal reforms in China only tackle the revenue side of the budget, while leaving things untouched on the expenditure side.[53] The latest comprehensive tax reform in 1994 and the subsequent changes in revenue assignments are no exception in this regard. Different from most other countries, in China it is the lower level of sub-national governments who take the responsibilities of financing and delivering not only public education, public health, but also social security and the safety net. The five-layer hierarchical government structure and lack of well delineated expenditure assignments among level of governments make it often possible for higher-level governments to shift expenditure responsibilities to lower-level governments, without allocating corresponding revenue sources to finance them. Even worse, the central government has often issued some mandatory expenditure items that the local governments are required to fulfill, while no corresponding funds have been allocated to implement those new expenditure responsibilities, converting those orders into "unfunded mandates."

However, in the meantime, the lack of formal revenue autonomy makes it hard for sub-national governments to access additional fiscal resources; this situation is especially critical for lower-level governments, including country and township governments that are typically left with very restricted budgetary flexibility. It is well known that, with the exception of only very few minor local taxes, the rates and structure of taxes are generally determined by the central government. A further budgetary restriction is the fact that local governments are not allowed to borrow, which shuts off a major financing source typically available to local governments in decentralized countries. For many years now, along a trend toward re-centralization practically since the 1994 reforms, the center has been keeping more and better revenue sources to itself, while leaving sub-national governments with less productive and more narrowly defined revenue sources.

The most conspicuous consequence of this lack of sufficient revenue sources and tax autonomy has been to make it increasingly difficult for local governments to perform the basic functions assigned to them. In this light, it is not surprising that quite often the quality and quantity of public services at the local government level have been deteriorating. On the other hand, the pressure to deliver on their expenditure responsibilities, especially from the mandates issued by the center, has prompted lower-level governments to exercise "informal" revenue autonomy in a variety of ways.

The first has been the introduction of fees and surcharges well beyond what has been prescribed in the law. These "informal" (or "illegal") fees and surcharges now comprise one of the major sources of revenues at the local level. It is important to note that that these "informal" fees have contributed significantly over the years to funding the basic expenditure needs and public service provisions of local governments. But at the same time, for many good reasons the proliferation of "informal" fees at the local level has become a big concern for the central authorities because of the distortions created in the allocation of resources, compliance costs for taxpayers, and more importantly, their potential unfairness and regressivity vis-à-vis poor households.

In this note, we review the nature and evolution of extra-budgetary funds at the local level in China. Our interest is to research the role extra-budgetary funds have been playing in the financing of social services at the country and village level in China. Establishing this role is critical for assessing the impact of central government policies targeting the reduction or elimination of these funds. To the extent that many of the "informal" fees are regressive, their elimination should contribute to making the impact of local budgets fairer. However, the significant reduction of this source of revenue for local governments without adequate replacement in terms of new tax assignments or transfers from upper levels inexorably would lead to the reduction of the quality and quantity of local public services, of which social services for education, health and welfare represent the lion's share. This reduction in social services should be regressive because the benefit incidence of these services is well known to be progressive or pro-poor. Therefore, an assessment of the on-going central government polices would need to be made in the context of the net fiscal incidence, taking into account not only the incidence of revenue sources but also the incidence of expenditures.

Establishing the nature and evolution of extra-budgetary funds at the local level is an important piece of the required analytical process for assessing current policies. This is what this note attempts to achieve. The rest of the paper is organized as follows. In Section 2 we review the nature of extra-budgetary funds. Section 3 analyzes the evolution of these funds. In Section 4 we highlight the main features of extra-budgetary and off-budgetary funds, while in Section 5 we attempt to quantify the off-budget revenue flows. Section 6 assesses the current situation.

II. The Definition of Extra-Budgetary Funds

The term 'extra-budgetary funds' originated from the fiscal systems of the former Soviet Union, where they were used to provide additional revenue from sources outside

of the budget. In China, this term has been used traditionally for the "official part" of extra-budgetary funds that are formally recorded in the statistical yearbooks of China.[54]

In the latest yearbook available to us (2003), the official definition of extra-budgetary fund is:

"…financial fund of various types not covered by the regular government budgetary management, which is collected, allocated or arranged by government agencies, institutions and social organizations while performing duties delegated to them or on behalf of the government in accordance with laws, rules and regulations."(page 306)

Based on this definition, extra-budgetary funds mainly cover the following items: administrative and institutional fees, governmental funds and extra charges that are stipulated by laws and regulations; administrative and institutional fees approved by the State Council and provincial governments and their financial and planning (price management) departments; governmental funds and extra charges established by the State Council and the Ministry of Finance; funds turned over to competent departments by their subordinate institutions; self-raised and collected funds by township governments for their own expenditure; social security funds and other financial funds that are not covered in budgetary management.

This definition of extra-budgetary funds is a relatively narrow one. In effect, revenue based on this definition only consists of part of the outside-budget revenue sources that different levels of governments collect and use at their discretion to finance public goods provision, fulfilling other expenditure responsibilities and even satisfying the local officials' personal interests. This portion of revenue under this official definition, even though not in the budget and therefore not subject to the governments' formal budget control, is monitored and constrained by various levels of governments, though to a lesser extent than budgetary sources. The Ministry of Finance in the "Implementation of extra-budgetary funds administration (1996) stipulates that special accounts should be opened by the financial departments in banks for the management of revenue and expenditure of these extra-budgetary funds. In addition, the management of the revenue and expenditure are required to be conducted separately, or, as it is put in the 2003 yearbook,

"revenue of institutions and departments must enter into the special accounts of the financial departments at the same administrative level, and their extra-budgetary expenditure is arranged in line with the extra-budget plans and appropriated from these accounts" (Page 306)

As a result, compared with budgetary funds, even though local governments usually have more discretion over these extra-budgetary funds, they are not completely at the discretion of local governments. Nonetheless, local governments do gain greater autonomy over these funds (vis-à-vis regular budget funds) because there is no need to remit the revenue to the center. This is exactly the idea behind the creation of the funds in the first place. For these reasons, local governments often attempt to divert regular

[54] Statistics used in this appendix, unless otherwise noted, are from Statistics Yearbook of China and Financial Statistics of China, various issues.

budgetary revenue to extra-budgetary revenue. Of course, this practice contributes to a lower share of central government revenue in total revenue.

Besides these officially authorized extra-budgetary funds, which are somewhat imprecisely recorded in the government statistics, there are some other kinds of revenue sources, sometimes informal other times illegal, that fall within local governments' control. Scholars have used different terms for these additional funds, including "off-budgetary funds," "out-of-the-system funds," and even "illegal monies,"etc. These other funds, of course, are also outside of the regular budget and usually provide local governments with fuller discretion over their usage.[55] However, these revenue sources also contribute to the revenue pool available to the local governments, which are possibly used to finance public service delivery and other government functions.

In a broader sense, extra-budgetary funds can be imprecisely defined as "all funds collected by every level of government and their agencies, but that are not budgetary funds" (Wong 1997). However, there are no data for this broadly defined extra-budgetary fund. This is partly because the extra-budgetary funds are not only usually vague by definition, making it difficult to measure their size, but also because local governments have discretionary power over them to a higher extent than the regular budgetary funds or the official extra-budgetary funds. This makes local governments not only reluctant to report the revenue, but also often try to conceal them entirely in order to obtain higher revenue autonomy.[56] The illegitimate nature of collecting some of the fees and surcharges also contributes to the underreporting or non-reporting of the funds.

Consequently, it is nearly impossible to determine the magnitude of this broadly based extra-budgetary fund. The data in the statistical yearbooks provide only an estimate of the officially defined extra-budgetary fund, which will be our subject in the analysis below. For other parts of the extra-budgetary funds, there is at best some anecdotal evidence available, mainly estimations done by scholars in various studies. When we take into account the fact that local governments have more discretionary power over the extra-budgetary funds, especially those not under the supervision of the central government, we can reasonably expect that local governments' behavior in pursuing off-budgetary funds and the like is at least as vigorous as that of pursuing the official extra-budgetary funds.

At any rate, even though we intend to discuss here the role of the broad extra-budgetary funds, we are necessarily limited to using only data on the official extra-budgetary funds to illustrate their size and trends. Actually, even for the officially defined extra-budgetary funds, we only have data for provincial level governments; data for sub-provincial level governments (prefectures [cities], counties and townships) are not available. Our working hypothesis is that the provincial data for the official extra-

[55] For example, Wang (1997) points out that off-budgetary revenue, which comes from "ad hoc charges, unauthorized fees, forced 'contributions', and the like," is completely outside central government's reach and under local governments' full command.
[56] The blurriness in definition is true even for the official definition of extra-budgetary funds

budgetary funds provide us with a roughly accurate representation, if not of the overall level of these funds, of their trend and evolution over time.

III. The Evolution of Official Extra-Budgetary Funds

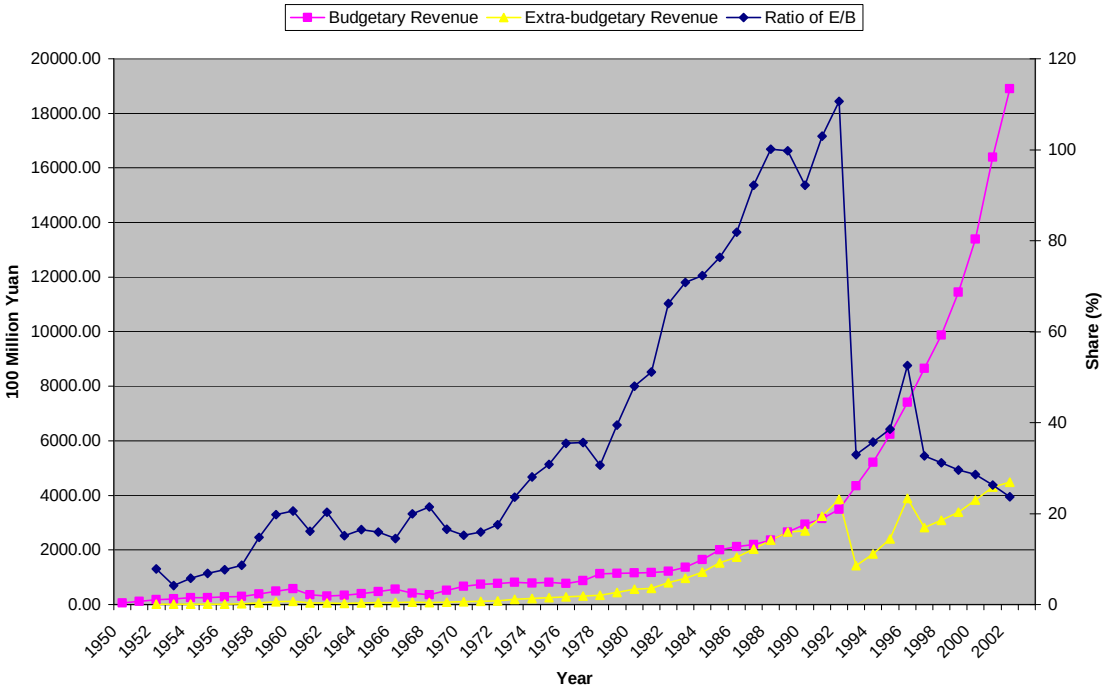
It is important to recognize from the start that even the definition and the main components of the official extra-budgetary funds have been changing over time, along with the changes in macroeconomic conditions and successive fiscal reforms.

Extra-budgetary funds date back to the early 1950s, when local governments were allowed to collect some small amounts in tax surcharges outside the official budget in order to supplement their funding for local financial needs. This supplementing revenue source left to the local governments' discretion was clearly meant to give local governments some degree of revenue autonomy.

The size and magnitude of the official extra-budgetary funds have experienced several big changes since they were first introduced, which can be observed from official statistics in the yearbooks. In 1952, besides local governments, the only other major category of agents that could carry extra-budgetary fund collections was state-owned enterprises and their administrative departments. Starting with 1953, administrative units and institutions were also allowed to carry extra-budgetary funds. In 1955, enterprises' bonus funds and major repair funds also became part of the extra-budgetary funds. Other sources of income, such as rental income from publicly owned housing, user fees, surcharges for public utilities, and others were later on added to the allowed sources of extra-budgetary funds (Wong, Heady et al. 1995). During those early years, revenue from state-owned enterprises and their administrative departments represented the lion's share of the extra-budgetary funds: about 50-60% of total EBF for most of the years and never fell below 40%. After 1973, this share rose to over 70% and 80% and was as high as 83% in 1984.

As we can see from the comparison between the extra-budgetary revenue and budgetary revenue in Chart 1 below, the ratio of extra-budgetary revenue over budgetary revenue has exhibited an increasing trend since the very beginning. It was lingering between 10-20% before 1975, and then showed a fast growing trend starting from the level of 30% in 1978 to outgrow budgetary revenue in some years after 1988, with the ratio reaching as high as 110% in 1992. This trend is explained in part as the result of the devolution of administrative power from the government sector to state-owned enterprises (SOEs) in 1978. These measures not only allowed SOEs to keep the depreciation funds and after-tax profits without remitting them to the different levels of government,, but the SOEs also were given greater incentives to conduct profit-making production activities, and with greater autonomy. In this manner, a huge amount of revenue was accumulated and kept away from the official budgetary sources of revenue.

Chart 1 Comparisons of Total Budgetary and Extra-budgetary Revenue

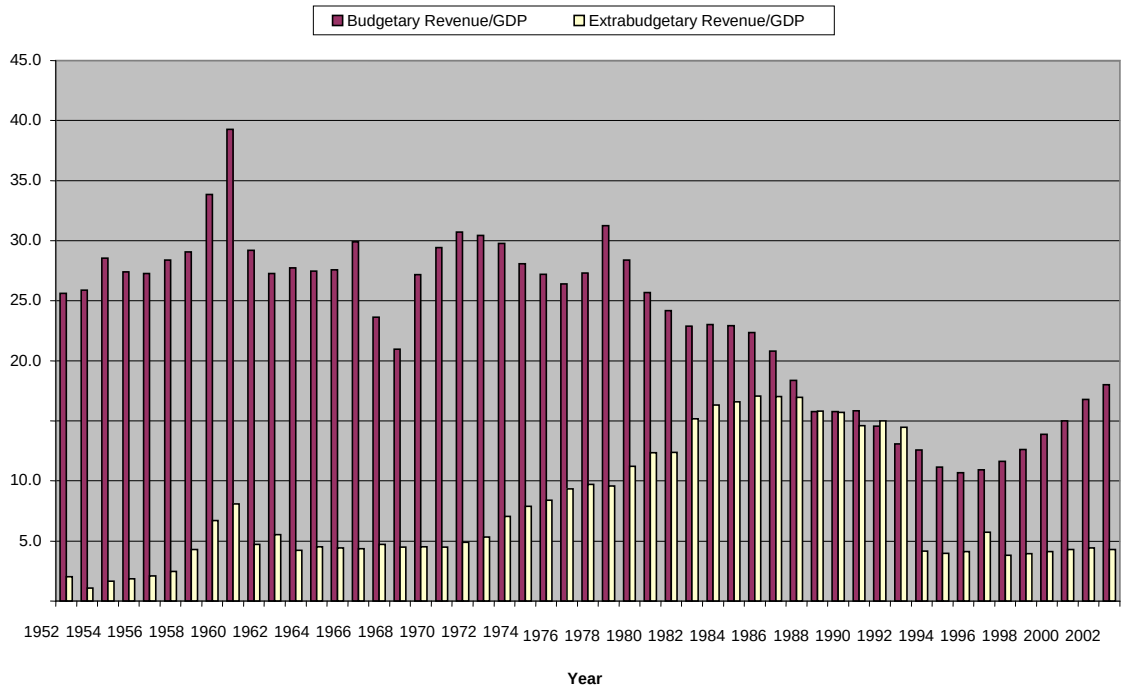


In the interim, the share of budgetary revenue over GDP had been exhibiting a decreasing trend. As illustrated in Chart 2, the share had been in the range of 25-30% throughout most of the years since the early 1950s.[57] However, starting from the early 1970s, when the size of extra-budgetary revenue started to climb up the scale, the share of the budgetary revenue over GDP started to exhibit a downward trend. By the end of the 1980s and the early 1990s, the shares of budgetary revenue in GDP were equivalent to that of extra-budgetary revenue, and in 1991-92, the latter even outgrew the former, as can be observed in the previous charts.[58]

[57] With the exception of 1959-60 when the share exceeded 30% and almost reached 40%, and 1968-69 when the shares fell below 25%.

[58] Wong (1997) presents a detailed description of the items included in each of the categories for years before 1992. For example, EBFs under local governments include industrial-commercial tax surcharges, urban public utility surcharges, and agricultural and animal husbandry tax surcharges. EBFs under SOEs and their administrative departments include renovation and reconstruction funds, retained profits major repairs fund, technical development fund, oilfield maintenance fees, and natural gas exploration fund.

Chart 2 Ratios of Budgetary and Extrabudgetary Revenue to GDP



By 1993, the central government had come to realize that the major sources of revenue had fallen outside of the government's budget control; actually, the share of budgetary revenues over GDP had decreased from the previous level of 25%-30% to about 10%, thus jeopardizing the central government's ability to maintain macroeconomic stability, performing income redistribution, and other conventional roles. One measure taken to address this situation was to exclude the revenues from SOEs and their administrative departments from the EBF. As a result, the share of total extra-budgetary revenue to total budgetary revenue dropped dramatically, from over 110% 1992 to only 33% in 1993. This can also be seen clearly from Chart 2, in which the share of extra-budgetary revenue over GDP dropped from about 15% in 1992 to less than 5% in 1993. This dramatic change was in large part the result of the fact that EBFs formerly belonging to the SOEs were formally alloted into the regular budgets.

In addition, starting in 1996, self-raised funds by township governments, a major source of extra-budgetary funds at the township government level, were included in the accounting of total extra-budgetary funds. However, at the same time, the central government began to "discipline" the collection of extra-budgetary funds by bringing some of the revenue sources outside the budget into the budgetary control, including the revenue from "governmental funds" and fees local governments were allowed to collect by law.[59] From 1997 on, those funds and fees have been brought into government

59 There is no exact definition for "governmental funds." However, one interpretation based on a number of sources is that "governmental funds" cover funds stipulated by laws and regulations or established by the State Council and the Ministry of Finance, which are not included in the regular budget. These funds are used for fulfilling different government functions, including industry and transportation sectors, culture and education, social insurance, government housing and so on.

budgetary management and have been excluded from the extra budgetary revenue. Partly as a result of that, as we can see from both Chart 1 and 2, budgetary revenues have been increasing sharply as a share of GDP. Extra-budgetary revenues have also experienced some moderate increase in absolute terms, remaining stable as a share of GDP. However, the ratio of extra-budgetary revenue over budgetary revenue has continued to decrease, with the downward trend becoming more apparent after 1997.[60] On the expenditure side, extra-budgetary funds also represent an important share. As reported in OECD (2006), extra-budgetary expenditure reached 3.4% of GDP or about one-sixth of all budgetary expenditures in 2003.

IV. Some facts on extra-budgetary and off-budgetary funds

Extra-budgetary revenues have long been important local government revenue sources in implementing their expenditure responsibilities. "The practice [of tapping extra-budgetary funds to finance government expenditures] is so pervasive that extra budgetary funds are commonly considered a 'second budget,' whose availability substantially alleviates the revenue squeeze at the local level" (Wong 1991). As we saw from the statistics earlier, in some years the amount of extra-budgetary revenue sources was even comparable to or greater than the budgetary revenue. In some years when the budgetary revenue was low and could not even satisfy the needs for those mandatory expenditures, budgetary revenue could at most be enough for "subsistence" (*chifan caizheng*) (World Bank 2002). Extra-budgetary funds have also been instrumental in allowing sub-national governments to adapt and absorb a variety of central government mandates.[61] One of the most important mandates has been "the setting of wages for local civil servants by the central authorities," without allocating sufficient revenue sources to pay for them (Bahl and Martinez-Vazquez 2003); another example of an unfunded mandate is provided by the National Education Law, which required that the budgetary expenditure on education should achieve 4% of GDP by 2000(Wong and Bird 2004).

Meanwhile, the 1994 Tax Sharing System (TSS) reform was oriented to recentralize revenue sources. The TSS reform established a separate system of tax collections for central government revenues; the national tax administration agency became responsible for the collection of not only all central taxes, but also all shared taxes. The local tax administration was left responsible for the collection of only local taxes. Even though there are still various links between national tax administration officials and the relevant local authorities where they operate, local governments cannot

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[60] Due to the changes in the scope of extra-budgetary revenue and expenditure over years, the official statistics explicitly state that the data in 1993-1995 and 1996 are not comparable with previous years. The data after 1997 have changed again and are not consistent with previous years. Therefore, to be consistent, our analysis below will focus on the data after 1997.

[61] Clearly, the issuance of unfunded mandates by the central government has not been independent from the perception at the central level of the ability of sub-national governments to absorb these additional responsibilities because of sizable extra-budgetary funds at the sub-national level. The lack of information of the size of the extra-budgetary funds makes it impossible to judge how much of a burden these measures actually represented for sub-national governments.

access any longer the revenue sources that are within the national tax administration's jurisdiction; the latter represent the major portion of formal tax revenues. In addition, local governments are not allowed to borrow, even though there have been some informal borrowings between local governments and SOEs and other entities.[62] The recentralization of revenue sources and the unavailability of borrowing represented a severe fiscal shock for many sub-national governments.

Another important feature of intergovernmental fiscal relations in China that frames the importance of extra-budgetary funds is the fact that there is no well-established transfer system. The budgetary consequences of the recentralization of revenues for many sub-national governments and their ability to provide basic services were not sufficiently buffered by equalization and other types of transfers. Actually, transfers between the center and the provinces have often been based on the individual province's bargaining power rather than expenditure needs, and provinces with better economic conditions are the ones with greater bargaining power, while poorer provinces with greater financial needs lack bargaining power. The consequences of this system for poor localities often have been aggravated by the fact that the funds reaching the provinces could be largely retained at these higher levels of sub-national government and never be passed on to local governments.[63]

The lack of adequate budgetary revenue sources on the one hand, and pressures from their expenditure responsibilities on the other, have legitimized the role of EBF as a source of sub-national government financing (World Bank 2002). As the expenditure items shown in the official statistics, EBF have been used on capital construction, administration and operation, as well as on other outlets, and also as township level government expenditure sources throughout the years and on urban maintenance since 1999. Therefore, extra-budgetary funds have been an indispensable part of general revenue source in fulfilling functions of local governments.

V. Off-budgetary revenues

As we briefly mentioned earlier, the EBF in the official statistics only capture a part of the outside-of-budget revenues that local governments and administrative agencies collect and spend. Off-budgetary revenue are neither under the governments' budgetary revenues nor under the extra-budgetary administration; these revenues appear to be substantial revenue sources that are under local governments' full discretion. These revenues mainly consist of fees and surcharges authorized or unauthorized but implicitly approved by the governments, or simply the so-called illegal fees. Although regulations and guidelines from central or higher-level governments have prohibited using these

[62] Local governments used to be able to borrow funds in the banking system, and this option was not available anymore after the financial reform and changes in the banking system.

[63] In more recent years, the central authorities have reacted by providing more transfer funds to the poorest provinces; thus it has often happened that the richer and poor areas can often get the help they need, while the areas with middle-level income do not get much help from the center, leading to a reversal: lower income areas being better off than middle income areas.

illegal fees and charges, it appears that local governments have continued to use them.[64] Not only were budgetary revenues diverted into extra-budgetary revenue, but also extra-budgetary revenues have been sneaked into the off-budgetary revenues, the reason being that the latter give local governments more discretionary power. The off-budget revenues have enabled local governments to gain additional autonomy in expenditure decisions, including delivering local public services, paying off wage bills of public servants, maintaining and improving local administration conditions, and so. But in addition, it is quite likely that there have considerable amounts of these funds being used to satisfy the personal interests of local government officials, including personal "perks" or direct cash bonuses; all this, of course, has provided local governments with strong incentives to continue to collect them.

As the central government increased efforts for bringing more extra-budgetary revenue items into the regular budgets, local governments' collection activities of extra-budgetary revenue and off-budgetary revenue became more aggressive with greater reliance on the socalled "illegal" fees. Because of information asymmetries, the central autorities continued to have problems in effectively monitoring the behavior of local governments. These usually illegal monies have been called different things including the "'three arbitraries' (*san luan*), 'arbitrary taxation' (*luan shoufei*), 'arbitrary fines' (*luan fakuan*), or 'arbitrary apportionments' or expropriation (*luan tanpai*)" (Wedeman 2000). These arbitrary levies, it is widely believed, have produced significant distortions in resource allocations, driven up the compliance costs for taxpayers, and even become a deterrent for investments in some areas. In rural areas of China, these fees and levies have long been a heavy burden on farmers and, given their coercive nature and often improper usage, they have contributed to social instability in rural China.

The size of the off-budgetary revenue is not really known. Unlike the case of the officially recorded EBF, off-budgetary funds are usually not accounted for in any formal way. Adding to this lack of information is the fact that some of them are one-time affairs, collected for financing some special projects and spent accordingly.[65] Several researchers have attempted to estimate the size of these funds. For example, Ping (2005) estimates that in 2004, the off-budgetary revenue was comparable to the official extra-budgetary revenue, which was at 800 billion Yuan. [66] In that case, total broadly-defined extra-budgetary revenues would amount to 1,600 billion Yuan, compared to 2,500 billion Yuan in formal tax revenues. Ping (2005) estimates that for local governments, total extra-budgetary revenues represent half of the budgetary revenues for 2004. Similar estimates on the expenditure side have been made by Wong (2001) and Ma (2000) , which suggest that off-budget expenditures have risen from around 2% of GDP in the mid-1990s to around 4% of GDP in the early 2000s (OECD 2006).

[64] It is not infrequent that different levels of governments collude in the collections of these fees and surcharges.

[65] Often, funds collected in the name of constructing some projects are not used for that purpose (even if they are used in the announced project, the whole amount is rarely used in the project.) Instead, the projects become an excuse for the governments and administrative agencies to levy those fees.

[66] Unfortunately, we could not obtain detailed information on how Ping (2005) estimates the size of the off-budgetary funds.

According to Wong and Bird (2004), a full account of EBF and extra-budgetary activities of governments in the late 1990s, besides the officially recorded EBF, should cover items such as "expenditures of branches of government that were not reported in budgetary or extra-budgetary accounts," including tax expenditures, "arrears – unpaid/deferred wages to teachers and civil servants, unpaid subsidies to grain marketing system, farmers who are not paid for crops sold to grain stations, unpaid utility bills," and partially compensated "goods and services provided by enterprises or PSUs," "quasi-fiscal expenditures of government, the most important of which are directed credit to SOEs," "quasi-fiscal expenditures of enterprises and PSUs – for goods and services provided on government's behalf (such as enterprise-run schools, clinics, and hospitals; pension expenditures financed from PSU funds, and carrying excess, unwanted staff and workers)," and so on. Based on this accounting, the official extra-budgetary funds and off-budgetary activities of government add up to 18-27 percent of GDP in total public spending, with off-budgetary funds comprising more than half. Together with budgetary revenue, total public sector revenues have been 30-35 percent of GDP throughout the reform and open policy era (Wong and Bird (2004)). These estimates are inevitably rough, since the size of numerous off-budgetary activities is unknown. However, these apparently conservative estimates provide a sharp view of the potential importance of off-budgetary funds in China.

VI Issues and Problems

The central government has been trying to enforce the administration of extra-budgetary revenues and making efforts to reduce or eliminate illegal fees and surcharges. Major campaigns against these arbitrary charges have been launched on several occasions in recent times. In 1998, the Ministry of Finance claimed that both the central and local governments had cancelled fees totaling 62.3 billion Yuan, equivalent to 6% of the budgetary revenue (Wedeman 2000). In 2000, with the objective of alleviating the burdens on farmers and improving their living conditions, the "Tax-for-Fee" and agriculture tax reforms were launched in Anhui province. More recently, these reforms have been extended to many other provinces, aiming at the abolishment of the agriculture tax in the entire country.

However, some new issues have arisen in the process of eliminating all illegal fees and surcharges and reinforcing the administration of extra-budgetary revenues. First and foremost, extra-budgetary revenue and off-budgetary revenue have been major sources of revenues for local governments. Because the expenditure responsibilities of local governments have not been reduced, the imbalance between expenditure responsibilities and the revenue sources to fund them has been aggravated by the recent "Tax-for-Fee" and agriculture tax reforms and thus further compromised the ability of local governments to deliver basic public services, such as in health and education. It must be remembered that local governments had been financing half or more of their expenditures from EBF (Wong 1998).

The real impact of cutting the fees and EBFs on public expenditures is likely to vary according to the priorities of local officials. In the case of corrupt government officials, it is more likely that expenditures on public services would be the ones being cut, in order to maintain their consumptive expenditures. But even in the case of honest government officials, the lower level of available revenues is likely to have an impact on service provision; some of these results would seem to be already apparent in the agriculture sector. After the agriculture taxes have been eliminated, basic investment in infrastructures that used to be financed from agriculture tax revenues are not currently being completed. The lack of public funding has prompted farmers to engage in small-scale investment in irrigation facilities, while the public water systems that are more efficient and more effective appear to have been left unattended. Wu (2004), Tan (2001) and Xiao (2004), among others exemplified these points in several case studies.

Second, EBF and off-budgetary revenues are more important revenue sources for local governments, especially for lower level governments. The current tax system centralizes major tax revenues to the central government, leaving local governments little autonomy in fiscal resources. Transfers have to go through many government layers, which make the lower level governments more vulnerable in obtaining revenue sources. Meanwhile, the heavy expenditure responsibilities for basic social services remain highly decentralized. This situation led higher level governments to allow lower level governments to raise revenues outside the formal budgets sources. As we saw above, these sources became important supplements to budgetary revenue, sometimes even more important than the budgetary revenue itself. The pursuit of funds made local governments go beyond the legal bounds and collect arbitrary fees and charges, impose heavy and unfair burdens on many taxpayers, especially farmers. At the same time, this necessity opened the door for corrupt officials to abuse their positions. All this in turn led the central government to clamp down on the use of fees and to the reform of agriculture taxes. But the effective reduction in local revenues without full compensation by adjusting other parts of the system can easily lead to undesirable consequences: local governments may still levy fees in other more subtle and concealed ways and more importantly local governments will be forced to cut expenditures on basic services. All this is likely to contribute to the regressivity of China's fiscal system.

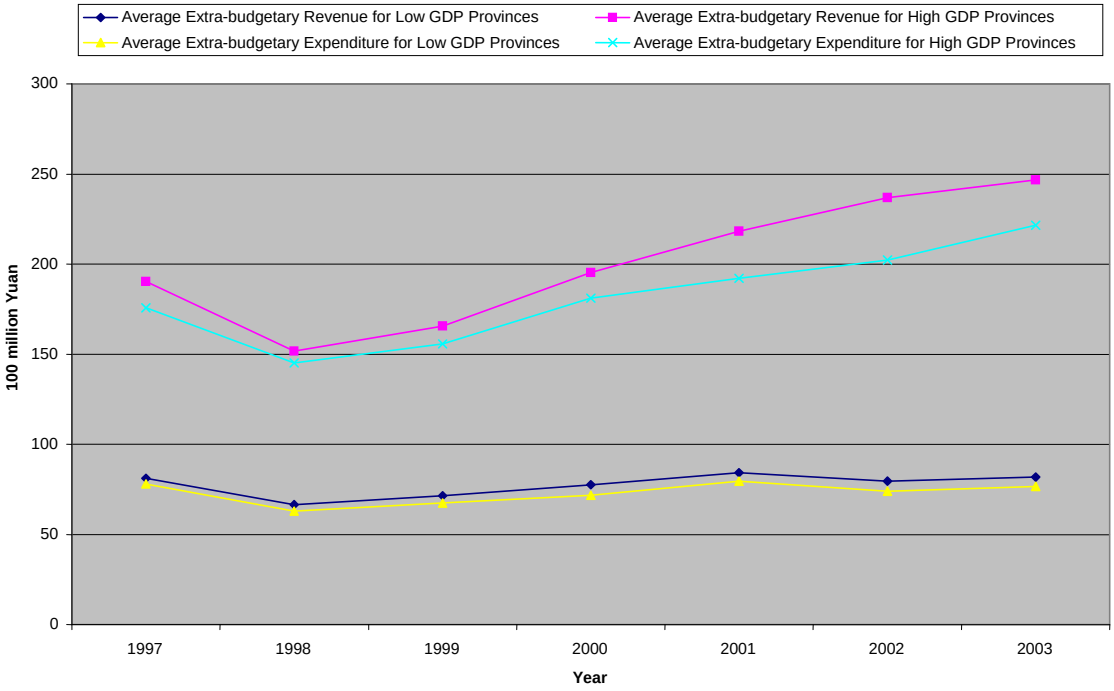
China's fiscal system involves several markedly regressive features. Richer provinces can usually collect more in tax revenues, and they can also keep more within their control under the current tax-sharing arrangements. On the other hand, most poor provinces have much less revenue available even after transfers from the central government are taken into account. Many central government expenditure policies also tend also to favor richer provinces. The provincial level extra-budgetary revenue shows that, from 1999 to 2003, the provinces with the highest extra-budgetary revenues have stayed the same: Guangdong, Zhejiang, Jiangsu and Shandong. Meanwhile, the provinces with the lowest extra-budgetary revenues have stayed the same, too: Tibet, Ningxia and Qinghai. Meanwhile, those provinces with the highest extra-budgetary revenues are exactly those with the highest GDP, or the richest provinces; similarly for those provinces with lowest extra-budgetary revenues.

In addition, formalizing the administration of EBF and off-budgetary revenues is likely to significantly affect the overall availability of funds to local governments in poorer areas. The capability to raise budgetary revenue as well as EBF and off-budgetary revenues is significantly correlated with the economic conditions in the location.[67] As we can see from the Chart 3 below, the average extra-budgetary revenues for poor provinces with lower GDP are much less than for rich provinces with higher GDP. In addition, the difference in extra-budgetary revenues between rich and poor provinces has been increasing over time. For poor provinces, the absolute values of the extra-budgetary revenues have been relatively stagnant. On the expenditure side, extra-budgetary expenditures are always within the scope of extra-budgetary revenues, but moreso for richer provinces, which gives richer provinces more discretion in spending their extra-budgetary funds than is the case for poor provinces.

Due to limited data availability, we are using the official provincial level of extra-budgetary revenues and expenditures to illustrate the argument. Nonetheless, incentives and constraints taken together, EBF and off-budgetary funds for governments at lower levels should exhibit similar trends. For example, richer counties can obtain high revenues by selling or renting out commercially used land to investors. In the case of poorer counties, even when investors do have a demand for the same type of lands, the poor counties have to accept lower sales or rental prices due to the rent differentials in different locations. Thus, richer counties are more capable of raising revenues than poorer counties, and therefore restrictions on formal and quasi-formal revenue sources are likely to make things relatively worse for poorer local governments and make the system relatively more regressive. Li (2005) documented in Qufu, Shangdong province, a relatively rich prefecture, local government obtained 90 million Yuan by tendering new household registrations (or "Hukou") for people immigrated from other places, while in the poorer Anshun Prefecture, Guizhou province, only 1.5 million Yuan was raised in the same period by the same activities. Of course, the apparent reason is that people prefer to migrate to bigger and richer cities rather than smaller and poorer cities. Note that these types of revenues do not show up either in the budget formal revenue nor in the extra-budgetary revenue of local governments; instead the become part of the "xiaojinku", or off-budgetary funds.

[67] Based on provincial level data, the simple correlation between extra-budgetary revenue and budgetary revenue is 0.8525; correlation between extra-budgetary revenue and GDP is 0.9316. The correlation coefficient between GDP and budgetary revenue is even higher.

Chart 3 Evolvement of Extra-budgetary Funds in Rich and Poor Provinces



References

Bahl, Roy and Christine Wallich, (1992). Intergovernmental Fiscal Relations in China. World Bank, WPS 863.

Bahl, Roy and Jorge Martinez-Vazquez (2005) “Sequencing decentralization.” The World Bank.

Bahl, R. and J. Martinez-Vazquez (2003). Fiscal Federalism and Economic Reform in China. Fiscal Federalism in a Global Environment, Center for Research on Economic Development and Policy Reform, Stanford University.

Bai, Jinming, (2002) Research on the Strategy for Solving the Village Government's Debts, Research Report of MOF

Bardhan, P. K., (2002). “Globalization and Limits to Poverty Reduction.” Department of Economics, University of California, Berkeley. Processed.

Bardhan. P.K. and D. Mookherjee, (1998) ‘Expenditure Decentralization and the Delivery of Public Services in Developing Countries’, University of California at Berkeley, CIDER Working Paper, December.

Bardhan, P. and D. Mookherjee (1999), `Relative Capture of Local and National Governments: An Essay in the Political Economy of Decentralization’, Working Paper, Institute for Economic Development, Boston University.

Bardhan, P. and D. Mookherjee (2000), `Capture and Governance at Local and National Levels`, American Economic Review, 90 (2), 135—39.

Besley, Timothy, and Stephen Coate. (1999). “Centralized versus Decentralized Provision of Local Public Goods: A Political Economy Analysis.” NBER Working Paper # 7084.

Boex, J, E. Heredia, J. Martinez-Vazquez, A, Timofeev and G. Yao (2006). *Fighting Poverty through Fiscal Decentalization.* Andrew Young School of Policy Studies Working Paper. Georgia State University.

Brueckner, Jan K, (1999). " Fiscal Federalism and Capital Accumulation," Journal of Public Economic Theory, Blackwell Publishing, vol. 1(2), pages 205-24.

Chen, Xiwen (2003). Chinas’ County and Township Public Finance and Farmer Income Growth. Shanxi Economic Press: Taiyuan, China.

Jia, Kang, (2004). Local Fiscal Issues. Economic Science Publishing House: Beijing, China.

Jin, Hehui, Qian, Yingyi and Barry R. Weingast. (1999). “Regional Decentralization and Fiscal Incentives: Federalism, Chinese Style,”. Mimeo, presented at the Nobel Symposium on Transition, September.

Li, Daming, ed. (2005). Report of Development of Local Public Finance: 2004. Fiscal and Economic Publishing House: Beijing, China.

Lin, Justin Yifu and Zhiqiang Liu, (2000). "Fiscal Decentralization and Economic Growth in China. *Economic Development and Cultural Change* 49(1):1-22.

Liu, Shangxie, (2003). “An Analytic Framework for Fiscal Risk,”. Journal of Economic Research vol 5, 2003.

Martinez-Vazquez, J. (1998). The Assignment of Expenditure Responsibilities. Andrew Young School of Policy Studies, Georgia State University.

Martinez-Vazquez, Jorge and Robert McNab (1997): Tax Reform in Transition Economies: Experience and Lessons. Working Paper 97-5 (July 1997), International Studies Program, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA.

Martinez-Vazquez, Jorge and Robert M. McNab, (1998). “Fiscal Decentralization, Economic Growth, and Democratic Governance.” International Studies Program Working Paper.Atlanta: Andrew Young School of Policy Studies, Georgia State University.

Martinez-Vazquez, Jorge and Robert M. McNab, (2003). "Fiscal Decentralization and Economic Growth." *World Development*: pp.

Prud'homme, R. (1995), “The dangers of decentralization”, World Bank Research Observer, 10 (2): 201-220.

Persson, Petra and Anna Erikson (2005). “ From Blind Pursuit of Growth to Balanced Development? An Analysis of the Political Logic of Fiscal Intergovernmental Transfers in China 1998-2003.” Mimeo, Stockholm School of Economics

Ping, X.-Q. (2005). Fiscal Decentralization and Local Public Service Provision in China. China Center for Economic Research (CCER), Working Paper Series, CCER.

Qian, Yingyi and Barry R, Weingast. 1997. “Federalism as A Commitment to Preserving Market Incentives,”. *The Journal of Economic Perspectives* 11: 83-92.

Qiao, Baoyun, Jorge Martinez-Vazquez, and Yongsheng Xu (2005) “Equalization Transfers and the tradeoff between growth and equity in China.” Andrew Young School of Policy Studies Working Paper. Georgia State University.

Qiao, Baoyun and Anwar Shah (2006). Local Government Organization and Finance in China. *In* Local Government Organization and Finance. Mimeo, World Bank.

Ravallion, Martin and Shaohua Chen, (2004). China's (Uneven) Progress Against Poverty. WPS3408. World Bank.

Seabright, P. (1996)."Accountability and Decentralization in Government: An Incomplete Contracts Model." European Economic Review, 40:61-90. State Statistical Bureau. *Chinese Statistical Yearbook various versions*. China Statistics Publishing House: Beijing, China

Tanzi, V., (1994). Corruption, Governmental Activities, and Markets. IMF Working Paper, IMF, Washingtonn DC.

Tanzi,V., (1995). Fiscal federalism and decentralization: a review of some efficiency and macroeconomic aspects. In: World Bank, Annual World Bank Conference on Development Economics 1995,World Bank, Washington, DC.

Tanzi, Vito, (2000). "The Role of the State and the Quality of the Public Sector," IMF Working Papers 00/36, International Monetary Fund.

Tanzi, Vito & Zee, Howell H., (2000). "Tax Policy for Emerging Markets - Developing Countries," IMF Working Papers 00/35, International Monetary Fund.

Tiebout, Charles, (1956) "A Pure Theory of Local Expenditures." Journal of Political Economy, 64, pp. 416-24.

Treisman, Daniel, (1999). "Political Decentralization and Economic Reform: A Game Theoretic Analysis," American Journal of Political Science. (April) 43:2, pp. 488-517.

Treisman, Daniel, (1999). "Corruption and Federalism," Working Paper. UCLA.

Treisman, Daniel, (2000). After the Deluge: Regional Crises and Political Consolidaton in Russia. Ann Arbor: University of Michigan Press.

Treisman, D. (2000), "Decentralization and inflation: Commitment, collective action, or continuity", American Political Science Review, 94 (4): 837-857.

Treisman, D. (2002), 'Decentralization and the Quality of Government', Working Paper, Department of Political Science, UCLA.

Wang, Shaoguang. (1997). "China's 1994 Fiscal Reform: An Initial Assessment." Asian Survey **37**: 801-817.

Wang, Shaoguang (2005). “The Polictical Logic of Fiscal Transfers in China.” Department of Public and Government Administration, Chinese University of Hong Kong. Working Paper.

Wang, Rong (2002). **“**Political dimensions of county government budgeting in China: A case study.” Institure of Development Studies, Brighton, Sussex BN1 9RE, England (August).

Wedeman, A. (2000). "Budgets, extra-budgets, and small treasuries: Illegal monies and local autonomy in China." Journal of Contemporary China **25**: 489-511.

Wei, Jianing, (2004). Local Debt and Policy Options. Report of State Council Research Center.

Wong, C. P. W., Ed. (1997). Financing Local Government in the People's Republic of China. Hong Kong, Oxford University Press.

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

Wong, C. P. W., Ed. (1997). Financing Local Government in the People's Republic of China. Hong Kong, Oxford University Press.

Wong, C. P. W. (1998). Fiscal Dualism in China: Gradualist Reform and the Growth of Off-Budget Finance. *Taxation in Modern China*. D. J. S. Brean. New York and London, Routledge.

Wong, Christine. 2000. “Central-local Relations Revisited: the 1994 tax-sharing reform and public expenditure management in China,”. *China Perspectives*, Number 31, September – October.

Wong, Christine (2005). “Intergovernmental Transfers.” China Rural Finance Study. Mimeo.

Wong, C. P. W. and R. Bird (2004). China's Fiscal System: A Work in Progress.

Wong, C. P. W., C. Heady, et al. (1995). Fiscal Management and Economic Reform in the People's Republic of China. Hong Kong, Oxford University Press.

World Bank, (2002). *China National Development and Sub-national Finance: A Review of Provincial Expenditures.* The World Bank.

Yan, Kun, (2004). “The reform for Sub-provincial Fiscal System,”. Journal of Fiscal Research vol 8, 2004.

Yep, Ray (2004). “Can ‘Tax-for-Fee’ Reform Reduce Rural Tension in China? The Process, Progress and Limitations.” *The China Quarterly*: 42-70.

Zhang, Tao, and Heng-fu Zou, (1998). “Fiscal Decentralization, Public Spending, and Economic Growth in China,”. *Journal of Public Economics* 67(2): 221-40.

Zhao, Shukai, (2004), Trapped Rural Finance-Survey on 20 township governments in 10 Provinces, State Development and Research Center
(http://www.drcnet.com.cn/new_product/drcexpert/showdoc.asp?doc_id=198442)