



# FINANCING METROPOLITAN GOVERNMENTS *in* DEVELOPING COUNTRIES

*Edited by*

ROY W. BAHL, JOHANNES F. LINN, AND DEBORAH L. WETZEL



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 LINCOLN INSTITUTE  
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# PAYING FOR URBANIZATION IN CHINA

# 11

## *Challenges of Municipal Finance in the Twenty-First Century*

CHRISTINE P. WONG

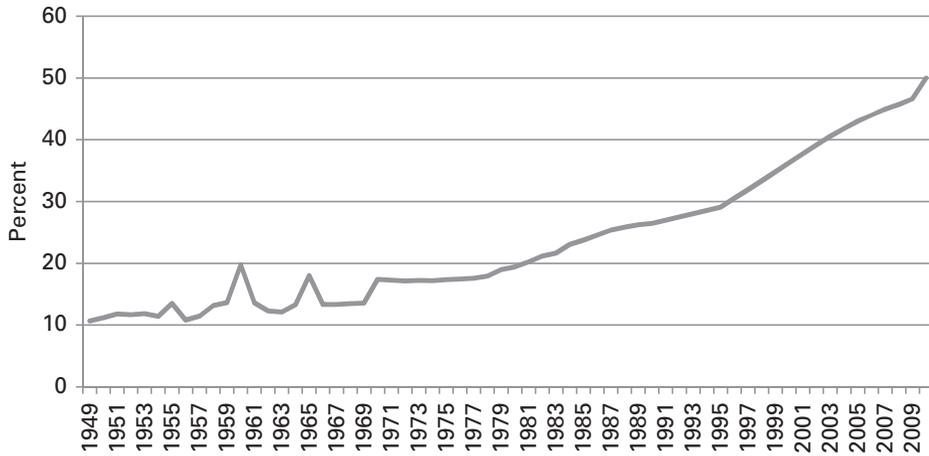
China is urbanizing, and the pace is accelerating. The National Bureau of Statistics (NBS) reported a population of 1.34 billion at year end 2010, fully half of them living in cities (CSY 2011). Rapid urbanization is a recent phenomenon that was unleashed by the country's transition to a market economy (figure 11.1). Starting in the early 1980s, the dismantling of agricultural collectives freed rural labor to leave the land. Since then, rural-urban migration has steadily accelerated as government restrictions on population movement were eased, and plenty of jobs were created in cities by economic growth that has averaged more than 12 percent per annum in real terms since 1990.

The scale of China's urban transformation is unprecedented in human history. During the 1980s, urban population grew by 110 million; this accelerated to 157 million during the 1990s and 210 million during the first decade of the twenty-first century. Nationwide, the current urban population of 670 million is more than three times that in 1980, an increase of 480 million in just 30 years. The population of metropolitan Shanghai, China's largest city, grew from 16 million to 23 million between the 2000 and 2010 censuses, a 44 percent increase (Shanghai Statistical Yearbook 2011). During 2008–2011 alone, Beijing reportedly absorbed 500,000 new people each year (Green 2012).

Providing infrastructure and public services to accommodate urbanization of this scale and pace is a gargantuan task that would strain any government. In China, the challenge was all the more daunting as the ongoing process of transition from a planned economy to a market economy transformed virtually all aspects of social and economic organization and brought a catastrophic collapse in the government's revenue mechanisms that caused the budget to plunge from one-third of gross domestic product (GDP) in 1978 to a nadir of 11 percent before a new tax system began to restore fiscal health from the late 1990s onward (Wong and Bird 2008; World Bank 2002). The upturn in urbanization thus began in a difficult fiscal

FIGURE 11.1

## Urbanization rates in China



SOURCE: CSY (2011).

environment that worsened through the first two decades. The financial mechanisms and strategies for Chinese municipalities were forged in this harsh environment.

Despite this inauspicious start, China's spectacular economic growth performance over this period seems to provide prima facie evidence that the government has managed the urbanization process well enough. New cities have cropped up: the latest count shows 657 cities and nearly 20,000 towns, compared with 233 cities and 2,600 towns 30 years ago. Existing cities have expanded. City centers have been renovated and modernized, infrastructure has been built, and urban facilities appear to be keeping up with demand. Visitors to China typically fly into world-class airports and are whisked into town on multilane expressways. Cities and even modest county towns are crisscrossed by wide boulevards, and Chinese cities are setting world records in the pace at which subway lines are being built (National Development and Reform Commission and World Bank 2010).

In fact, a good deal of evidence points to an outstanding performance in providing growth-supporting infrastructural investments during this period. In 2010, for example, China was ranked 27th among 155 countries in the World Bank's Logistics Performance Index (LPI), a measure of a country's efficiency in moving goods to and from international markets. With an overall LPI score of 3.49, China is approaching the average of 3.55 for high-income countries, substantially outperforming its peer group of upper-middle-income countries (table 11.1).

The picture is more mixed on the provision of services. A 2006 survey of 5,000 households in five cities found citizens generally pleased with urban public services but worried about their high costs, with basic education per child taking up 10 percent of household income and per capita out-of-pocket payments for health care another 10 percent. The survey also found the provision and pricing of services to be highly regressive, with lower-income households receiving poorer-quality services but paying significantly larger shares of household income for them (Brixi 2009).

TABLE 11.1

Global logistics performance index scores, February 2010

LPI rank	Country	LPI score	Customs	Infrastructure	International shipments	Logistics competence	Tracking and tracing	Timeliness
27	<b>China</b>	<b>3.49</b>	<b>3.16</b>	<b>3.54</b>	<b>3.31</b>	<b>3.49</b>	<b>3.55</b>	<b>3.91</b>
	High-income countries	3.55	3.36	3.56	3.28	3.5	3.65	3.98
	Upper-middle-income countries	2.82	2.49	2.54	2.86	2.71	2.89	3.36
	Lower-middle-income countries	2.59	2.23	2.27	2.66	2.48	2.58	3.24
	Low-income countries	2.43	2.19	2.06	2.54	2.25	2.47	2.98

SOURCE: World Bank (2010).

How cities finance services for their growing populations and provide infrastructure for supporting the expanding economic base has an important impact on the nation's economic growth and well-being, yet surprisingly little is known about the finances of Chinese cities or, indeed, how municipalities have fared in the reforms of the economic system and public finances. There has been no study of municipal finance in China since 2000 (Asian Development Bank 2000; Wong 1997), although there is a small literature on urban infrastructure finance and, more recently, the role of land as a source of finance.<sup>1</sup>

In the large and vibrant literature on fiscal reform, the focus is overwhelmingly on central-local fiscal relations and the problems of rural public finance (Bahl 2011; Wong and Bird 2008; World Bank 2002; 2007a; 2007b). This lack of concern for municipal finance problems is best illustrated by the excellent, comprehensive treatment of the Chinese fiscal system written by senior officials in the Ministry of Finance (MOF) (Li 2006; 2010). In 648 pages, the topic of urbanization is written up as a box (taking up three-quarters of a page), in which the implications for public finance merited one sentence: "Following the acceleration of urbanization, government spending in the areas of public services and public basic infrastructure will increase significantly" (Li 2010, 119). This omission is all the more striking because, under China's decentralized fiscal system, the burden of financing this urban growth has been borne almost entirely by municipal governments.

This chapter attempts to fill this lacuna in the literature by describing and analyzing the financing of public services and infrastructure in municipalities in China. An examination of the practices of the past two decades makes it clear that municipal finance has evolved to rely overwhelmingly on extrabudgetary resources and borrowing, under a policy regime of benign neglect. The formal system of public

<sup>1</sup>On infrastructure, see Wu (2010; 2011), Mikesell et al. (2011), Honohan (2008), Gao (2007), and Su and Zhao (2007). On land, see Cao, Feng, and Tao (2008), Tao et al. (2010), and Guan and Peng (2011).

finance in China has made few accommodations for the needs of municipal finance. Except for a few favored cities in the rich coastal provinces, the formal system does not provide sufficient resources for cities to meet their responsibilities in service provision. Moreover, municipalities are prohibited from borrowing even for capital expenditures, making it difficult to finance infrastructure. Yet the remarkable growth and development of cities have proceeded because political leaders have been willing to tolerate a plethora of informal, backdoor solutions that enabled cities both to obtain the resources needed and to limit eligibility for benefits.

The chapter turns next to a brief discussion of China's urbanization trends and the administrative structure of Chinese cities. Discussion of municipal finance follows, focusing first on evolution of the formal fiscal system and then on extrabudgetary components. Financing of urban infrastructure and the emergence of local investment corporations then are discussed, and the chapter concludes with an analysis of the current system of municipal finance, noting both the achievements and accumulated macroeconomic risks of the strategy, and the adverse effects on welfare and distribution.

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## BACKGROUND AND CONTEXT: URBANIZING CHINA

In low-income countries, industrialization and economic growth are normally synonymous with urbanization, as labor is shifted out of agriculture. During the first decade of the People's Republic, China conformed to this "empirical regularity": as economic growth accelerated through the 1950s, people flooded into cities in search of higher-paying jobs in the new factories. Urban population grew by 69 million from 1950 to 1960, when the urbanization rate rose from 11.2 percent to 19.7 percent. This relationship was decisively broken in the early 1960s, though, when government policy turned antiurban.

It began from the failure of the Great Leap Forward, when the ambitious drive to reorganize agriculture in people's communes and produce steel from backyard furnaces collapsed and economic crisis ensued. To alleviate food shortages in the cities, the government forcibly returned millions of newly arrived migrants to their home villages in the early 1960s. In the wake of this traumatic episode, free population movements were abolished. A household registration (*hukou*) system that had been established in the 1950s was called into service. Through state control of grain and other key consumer goods and limiting rationing to those with urban *hukou*, the government was able to limit urban population growth.<sup>2</sup> For two decades thereafter, migration was strictly controlled, and industrialization continued without urbanization. During this period, urban growth stemmed only from natural population growth, minus an exodus of some 10–15 million youths who were sent to the villages for "reeducation" (Bernstein 1977). Even as industry grew from 28 percent of GDP in 1962 to 44 percent in 1980, the share of the population in urban areas remained below 20 percent (table 11.2).

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<sup>2</sup>See Zhang (1983) on the workings of the *hukou* system. I am indebted to Andrew Watson for sharing this reference.

Against this background, the recent rapid urbanization can be seen partly as a catching-up process. Since the 1990s, urban population growth has outstripped total population growth, and the shift from rural to urban will continue even as China's total population growth is slowing (figure 11.2). Even at 50 percent, China is “underurbanized”; most countries at its income level have higher proportions of their population living in cities (Henderson 2009).

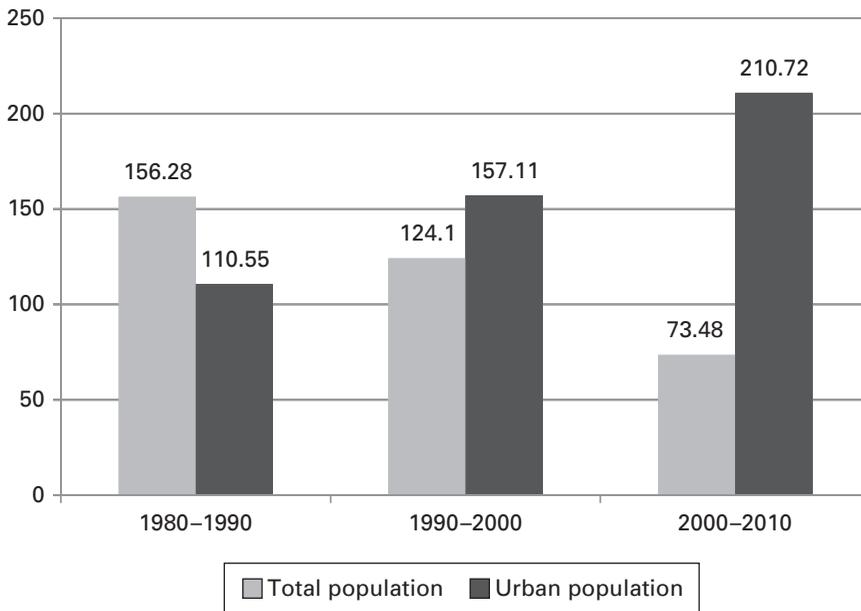
**TABLE 11.2**  
China's urbanization and industrialization

Year	Urban population (millions)	Increase over past decade (millions)	Urbanization rate (percent)	Industry percentage of GDP*
1950	61.69			17.6
1960	130.73	69.04	19.7	28.3
1970	144.24	13.51	17.4	36.8
1980	191.4	47.16	19.4	43.9
1990	301.95	110.55	26.4	36.7
2000	459.06	157.11	36.2	40.4
2010	669.78	210.72	49.9	40.1

\*The first two figures are from 1952 and 1962.

SOURCE: CSY (2007; 2011).

**FIGURE 11.2**  
China's population growth by decade, 1950–2010 (in millions)



SOURCE: CSY (2011).

### *The Administrative Hierarchy of Urban Local Governments in China*

China's intergovernmental fiscal system makes no distinction between urban and rural governments, and the assignment of revenues and expenditures is strictly according to their rank in the administrative hierarchy. Under this setup, the provincial capitals, which tend to be much larger, receive the same transfers and revenue-raising powers that other prefectural-level cities receive. The only concession to size is that larger cities are permitted a specified, higher rate than smaller ones for a few taxes, such as the urban maintenance and construction tax.

China is organized in an administrative structure with five levels of government. Under the central government, about 44,000 subnational governments (SNGs) are divided into four levels, nearly two-thirds of which are urban local governments (ULGs). Figures for year-end 2010 showed that the first level of SNG comprises twenty-two provinces and five autonomous regions organized for ethnic minorities, as well as four municipalities with provincial status: Beijing, Shanghai, Tianjin, and Chongqing. At the next level are 333 prefectural units, of which 50 are prefectures and 283 are cities. The fourth tier has 2,856 units, including 1,578 counties, 370 county-level cities, and 853 urban districts under the jurisdiction of prefectural-level cities. The bottom tier has 40,906 units that include 14,571 townships, 19,410 towns, and 6,923 urban "street offices" under the jurisdiction of county-level cities. This structure is presented in figure 11.3.<sup>3</sup>

China has more than 27,000 ULGs. Their distribution across the subnational levels is presented in table 11.3, which includes the category "provincial capital cities and line-item cities."<sup>4</sup> This category comprises 31 cities that have prefectural rank and are larger and more prosperous; fifteen of them have been informally given "deputy provincial level" status. Overall, the size distribution of cities is heavily concentrated at the low end, with nearly 40 percent of the urban population living in small county-level cities and towns ranging in size from 20,000 to 200,000–300,000. Some analysts have argued that Chinese cities are too small to take advantage of the agglomeration economies of urbanization (Chan, Henderson, and Tsui 2008; Henderson 2009). Table 11.4 presents the growth of ULGs by administrative rank for the period 1981–2010.

### *A Caveat on Population Data and City Size*

The 2000 population census was the first time the government collected nationwide information on migrants and included them in the urban population counts, alongside the registered, *hukou* population.<sup>5</sup> Before that, all members of the population were reported by birth place, regardless of where they were living at the time of reporting (Chan 2003). As a result, reported population trends did not reflect the

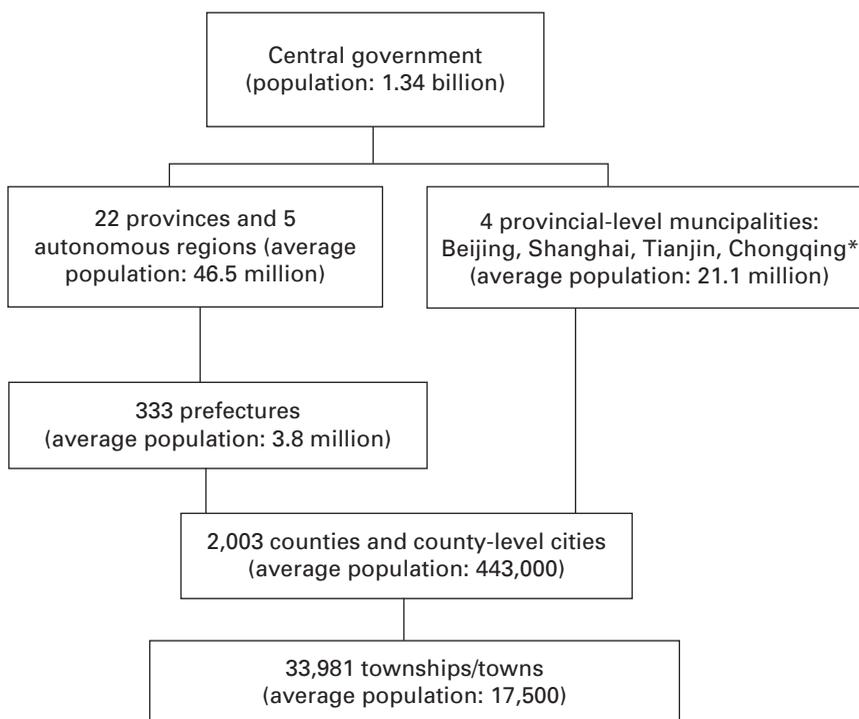
<sup>3</sup>In figure 11.3, districts and street offices are omitted because their populations are already included in the cities to which they are subordinated.

<sup>4</sup>"Line-item cities" was a category created in the late 1980s to confer a higher status on 14 cities destined for faster growth, to give them more direct access to central government resources without giving them full provincial status. After the tax sharing system reform in 1994, as a concession to the provinces, the number of line-item cities was reduced to five: Dalian, Qingdao, Ningbo, Xiamen, and Shenzhen.

<sup>5</sup>I am indebted to Kam Wing Chan for explaining some of the intricacies of population reporting.

**FIGURE 11.3**

## Structure of government in China, 2010



\*None of the provincial-level municipalities have prefectural cities or county-level cities below them. Beijing has 2 counties, 142 towns, and 40 townships; Tianjin has 3 counties, 115 towns, and 20 townships; Shanghai has 1 county, 109 towns, and 2 townships; Chongqing has 21 counties, 587 towns, and 252 townships.

SOURCE: CSY (2011).

**TABLE 11.3**

## Distribution of urban local governments by administrative rank and size, 2009

Governmental level	Number	Average population (millions)	Percentage of urban population
Provincial level	4	12.13	8
Provincial capitals and line-item cities*	31	3.06	15
Prefectural level	251	0.95	39
County level	367	NA	NA
Township level	19,322	NA	NA

NA, not applicable.

\*Excluding Lhasa.

SOURCE: CCSY (2010).

TABLE 11.4

Growth of urban local governments by administrative rank, 1980–2010

Year	Cities				Increase over past decade	Towns
	Provincial level	Prefectural level	County level	Total		
1981	3	108	122	233	56	2,664*
1990	3	185	279	467	234	11,392
2000	4	259	400	663	196	19,692
2010	4	283	370	657	–6	19,410

\*1982 figure.

SOURCES: Chan, Henderson, and Tsui (2008); CSY (1981; 1991; 2001; 2011); Chan and Hu (2003).

momentous geographic shifts that had begun nearly two decades earlier. Subsequent changes gradually brought the Chinese reporting methodology for urban populations closer to international norms (Chan 2009; Kamal-Chaoui, Leman, and Zhang 2009).

While the national data are improving, however, there is a tremendous amount of confusion in the citation of city-level statistics. This is partly due to Chinese terminology, which uses *shi* (“municipality”) to refer interchangeably to either an administrative unit or a city, and the size difference is often huge. For example, the provincial-level municipality Chongqing has 21 rural counties, in addition to the municipal core. The whole administrative unit has a population of 33 million, only half of whom live in the urban, built-up core. Mistaking the two has led more than one Western reporter to proclaim Chongqing as the largest city in China and, indeed, the world (see Robinson 2011). Claims of China having hundreds of million-plus cities are likewise based on mistaking the administrative regions for municipalities. In Hebei province, the urbanization rate averages only 17 percent among its 11 prefectural-level units, so the municipalities are just one-sixth the size of the administrative regions (CCSY 2010).

Aside from the confusing terminology, city-level population data are “muddied” by the continued use of *hukou* population by many city officials, in contravention of the NBS’s call, since 2001, to use actual population counts (CCSY 2001). Their motivation is simple: under pressure to boost per capita GDP and growth performance, it is tempting to use a lower population in the denominator.<sup>6</sup> The NBS appears to lack the clout to enforce reporting standards at subnational levels and contributes to the chaos by publishing conflicting population numbers.<sup>7</sup> Even though the subnational

<sup>6</sup>In 2000, for example, Shenzhen’s per capita GDP was 133,305 yuan if counting only the *hukou* population but 23,759 yuan based on the actual population. Chan (2009) has found many instances of cities using lower than actual population figures and warns that “while national urban population figures are broadly accurate, individual city population numbers remain a statistical minefield” (25–26).

<sup>7</sup>For example, the population of Beijing was reported in the 2010 *China Statistics Yearbook* as 17.55 million and 14.92 million in 2009 for the administrative region and city proper, respectively. In 2010 *China City Statistics Yearbook*, also published by the NBS but based on city-level reporting, they were reported as 12.46 million and 11.75 million, respectively.

bureaus work under the guidance of the NBS, they are funded by SNGs at the same level and are required to report to local government before submitting their data upward through the statistical system.<sup>8</sup>

## MUNICIPAL FINANCE: THE FISCAL SYSTEM

It is difficult to do a comprehensive study of municipal finance in China with information that is currently available to the public. One reason is that, at the national level, the Chinese statistical system does not distinguish between urban and rural regions. For public finance, for example, the data are disaggregated by administrative level, and prefectural-level cities cannot be separated out from rural prefectures, nor can the city districts be separated from their rural counties. More importantly, at present Chinese cities rely on extrabudgetary revenues for the bulk of their financing needs, and until recently little public information was available on these resources. This and the next section identify the components of finance available to municipal governments, assembling available information to analyze their structure and incentives, and draw some insights on how they work together.

Understanding how municipalities are financed starts with three facts. First, China assigns most expenditures to SNGs: municipal governments are responsible for providing and financing all vital services and infrastructure. Second, the intergovernmental fiscal system is weak and is characterized by large vertical fiscal gaps at subnational levels, as well as large horizontal disparities. Third, to ensure that the economy continues to grow, the government has tolerated backdoor practices to permit SNGs to obtain the resources needed to finance expenditure responsibilities assigned by the intergovernmental fiscal system (IFS).

### *The Decentralized Fiscal System*

In terms of budgetary expenditure percentages, China is one of the most decentralized countries in the world. In 2009, the central government accounted for just 20 percent of national budgetary expenditures. The rest were distributed among the four levels of SNG: 18 percent at the provincial level, 22 percent at the municipal (or prefectural) level, and 40 percent at the county and township level.<sup>9</sup> These high expenditure shares are caused by the assignment of many costly and vital responsibilities to lower-level governments. Under the current intergovernmental assignments, the county level is responsible for the provision of basic education, which, under Chinese law, is compulsory and free of charge for the first nine years. Counties are also responsible for the delivery of basic health care. Most unusual, governments at the prefectural and county levels are responsible for income maintenance functions: pensions, unemployment insurance, and social welfare. This is shown in table 11.5, where the counties accounted for most of the total national expenditures

<sup>8</sup>Schreyer and Holz (2005) provide a good summary of the Chinese statistical system and the problems of reform.

<sup>9</sup>Over the past decade the government has moved all major expenditure responsibilities upward from the township to the county level, including basic education, health, and social welfare. As a result, the township is no longer a significant level for budgetary purposes. For most purposes, it is more useful to aggregate county and township figures, as is done here.

TABLE 11.5

Distribution of budgetary expenditures by level of government, 2007  
(percentage of total)

Government level	All budgetary expenditures	Education	Health	Social security and employment	Capital spending (2006)
Central	23.0	5.5	1.7	6.3	27.9
Provinces	17.7	15.0	17.2	24.9	18.5
Municipalities	22.2	18.8	26.2	27.7	28.8
Counties and townships	37.1	60.7	54.9	41.2	24.8

SOURCES: Calculated from MOF *China finance yearbook* (2008, 147); MOF *Compendium of local fiscal statistics* (2006; 2007).

on education and health, and municipal and county levels for the bulk of subsidies to social security in 2007. They are also responsible for the majority of capital spending on the budget.

These assignments were set in the 1980s, when fiscal decline had led to a series of reforms that decentralized the financing responsibilities to local governments. The assignments have remained largely unchanged in the intervening decades even as reforms were bringing large shifts in the composition of expenditures and recentralizing revenues to move more than 50 percent to the central government (Wong 1991; 2009). As a result, SNGs, both urban and rural, have faced large fiscal gaps.

### *What Do Cities Do? Growing Responsibilities and an Unresponsive Fiscal System*

What cities do has changed dramatically since the late 1970s. Under the planned economy, economic development was the primary task, and the focus was on state-owned enterprises (SOEs) in industry. Data assembled for 1978 show that expenditures on economic development accounted for nearly 60 percent of SNG budgets, when capital construction, working capital, technological upgrading, geological prospecting, and the running costs of the departments of industry, transport, commerce, and agriculture are combined. Of these, the vast majority went to supporting SOEs. Through the transition, as SOEs were gradually weaned from budgetary support, direct expenditures on them declined. For a time, subsidies ballooned, absorbing 30 percent of total expenditures by the late 1980s as the government attempted to buffer both enterprises and households from the pain of price reform. Moreover, market reform led to competition and price adjustments that pushed many SOEs into financial difficulty and required loss subsidies, the same process that was causing the steep fiscal decline. As these burdens gradually receded, more resources were shifted to financing the day-to-day administration of government and providing public services.

The changing composition of local budgetary expenditures is shown in table 11.6. The percentages of SOE and development expenditures have declined substantially, and social expenditures have risen, as expected. However, development remains a

TABLE 11.6

Composition of budgetary expenditures (percentage of total, all SNGs)

Budget element	1978	1988	1998	2010
SOEs	55.7	28.1	19.6	NA
Development	57.5	21.7	24.3	35.6
Social	18.0	24.0	26.2	42.7
Administration	7.9	10.4	15.7	21.7
Subsidies	10.7	29.6	7.7	NA

NA, not applicable.

SOURCE: Data is drawn from CSY, various years, and regrouped by author's estimates.

large percentage of the budget: even in 2010 it was more than one-third of total expenditures, reflecting the growth- and investment-driven orientation of the Chinese economy and local governments.

During the 1980s and 1990s, the transition of the economy brought extraordinary pressure on municipal budgets. First, the ongoing fiscal decline had cut budgetary resources available to SNGs: it was 18 percent of GDP in 1978, 13 percent in 1988, and 8 percent in 1995 (Wong 2009). Cities were hard-hit as financial strains on SOEs translated into tax arrears and defaults in payment to suppliers and even workers.

In the meantime, the burdens of social expenditures increased, as market reforms necessitated a wholesale revamping of how social security was provided. Under the policy of full employment (job assignments) and lifetime tenure for workers, SOEs and collectively owned enterprises had provided jobs and social welfare. The pension systems were funded by the enterprises on a pay-as-you-go basis, with generous benefits: retirement at 55–60 years of age, and pensions set at 70–75 percent of the final wage and indexed to current wage levels (World Bank 1997). As reforms separated enterprises from government budgets, and as SOEs declined, the social security provisions quickly disintegrated. Many of the obligations were transferred onto municipal budgets, and new social welfare programs had to be set up to take their place. For municipal governments, these changes coincided with accelerating urbanization that brought ever more people into cities, for whom infrastructure and services had to be provided.

Yet the intergovernmental fiscal system seemed to take no notice of the plight of municipal governments. In the public discourse leading up to the tax sharing system (TSS) reform in 1994, no mention was made of municipal finance. All attention was focused on how to revive revenue collections, and especially on regaining central government control over the budget. The reform that was implemented revamped the tax system and tax administration, introducing a value-added tax (VAT) on manufactured products and a business tax on services. It created a new central tax service to collect central and shared taxes. The reform also fundamentally changed revenue sharing with SNGs and clawed back revenues to the center. In the process, the reform ignored the changing expenditure needs of local governments, urban and rural alike (Fock and Wong 2008; Wong 2007; Wong and Bird

2008; World Bank 2002).<sup>10</sup> Nor did the reform give SNGs any revenue autonomy, with all authority for tax policy retained at the center.

Moreover, through the period of declining budgetary resources, the central government's capacity and willingness to aid poor regions withered. From 1994 to 1997, intergovernment transfers fell to less than 1 percent of GDP nationwide. As a result, SNGs were essentially left on their own to finance their expenditure responsibilities, and both vertical and horizontal disparities in service provision widened (Wong 2009; Wong and Bird 2008).

## REVENUE ASSIGNMENT UNDER THE FORMAL FISCAL SYSTEM

Under the TSS introduced in 1994, taxes are divided into central taxes, shared taxes, and "local" taxes. The initial intent of the TSS was to move away from the negotiated sharing of general revenues under the previous system, to one where revenues would be divided by tax assignment. Only a limited number of taxes would be shared, with uniform sharing rates across regions (see Li 2006; 2010; Wong and Bird 2008; World Bank 2002). At present four taxes are shared: the VAT, the corporate income tax (CIT), the personal income tax (PIT), and the securities trading tax. The broad outline of current assignment of taxes is presented in table 11.7.

However, the simplicity and objectivity intended in the TSS apply only at the central-provincial division; at lower levels the system is far more complex and murky. This is because the TSS specified only how taxes would be divided between the central and "local" governments and left it to the provinces to further divide among the four levels of SNG.<sup>11</sup> Given that SNGs have no authority to introduce new taxes or change the bases or rates of taxes, and with only a few revenue-rich taxes available, the system evolved to one where local taxes are extensively shared among SNGs.

Under the principal of territoriality, the province has little direct claim to taxes except through its authority, conferred by national policy, to set revenue-sharing rules with subprovincial governments. Provinces have exercised this authority to levy a "tax" on local taxes, taking significant percentages of the main taxes. Arrangements differ across provinces; a sample of sharing rates is presented in table 11.8.

At the next lower tier, prefectures can likewise take a percentage of the local taxes accruing to counties. Some examples from Liaoning are offered in table 11.9. In recent years, to help improve the fiscal status of counties, the government has called for removing prefectures from this hierarchical flow, under the policy of "provinces directly managing counties" (*shenguanxian*). Under the policy, now implemented in

<sup>10</sup>Public services in the rural sector had been provided by the people's communes under the planned economy. When communes were disbanded in the early 1980s, in most localities these services were left with neither an organizational nor a financial framework, and coverage was severely eroded through the 1990s (see Wong 2007; World Bank 2002).

<sup>11</sup>The Chinese administrative system works as a nested hierarchy, in which each level of government interacts with only the next level up or down. The central government directs only the provincial governments, provincial governments report to the central government above and direct the prefectural level below, and so on down the hierarchy. For some implications of this setup, see Wong (2009; 2011).

TABLE 11.7

## Tax assignments in China

Central taxes	Shared taxes	Local taxes
Excise (consumption)	Value-added tax (75/25)	Business tax
Customs duties	Corporate income tax (60/40)	Property tax
Vehicle purchase tax	Personal income tax (60/40)	Urban land use tax
	Securities trading tax (97/3)	Vehicle use tax
		Vehicle license tax
		Ship tonnage tax
		Deed tax
		Stamp tax
		Urban maintenance and construction tax
		Land value-added tax
		Farmland occupation tax
		Resource tax

This is a simplified version; for more details and exceptions, see Wong and Bird (2008).

TABLE 11.8

## Sharing rates by tax type between province and prefecture levels (percentage of local receipts)

Province, year	VAT	CIT	PIT	Business tax	Resource tax
Guangdong, 2011	NA	50/50	50/50	50/50	NA
Hebei, 2009	40/60	50/50	25/75	0/100	40/60
Hunan, 2010	25/75	30/70	30/70	25/75	25/75
Liaoning, 2004	40/60	50/50	37.5/62.5	30/70	NA
Shandong, 2003	NA	20/80	0/100	20/80	NA
Shanxi, 2003	NA	50/50	50/50	NA	NA

Abbreviations: CIT, corporate income tax; NA, not applicable; PIT, personal income tax; VAT, value-added tax.

SOURCE: Documents on implementing "provinces managing counties," and fieldwork in Liaoning in 2005–2006.

more than two-thirds of the provinces, counties would receive the same percentages as applied previously to prefectures in all the provinces listed in table 11.8.

The composition of revenues is shown in table 11.10 for different levels of government. Nationally, the VAT, applied to manufacturing, repair, and assembly activities, is the most important tax, accounting for 40 percent of total tax revenues. For SNGs, the business tax levied on services is the most important, producing one-third of tax revenues in aggregate. The urban maintenance and construction tax, levied as a surcharge on the VAT and business tax, is an important source of funding that is earmarked for use in building and maintenance of urban facilities. It accounts for 8 percent of tax revenues in prefectures and 7 percent in counties. Because of the extensive sharing of the main taxes among subnational levels, the same six taxes top the list of revenue sources for the province, prefecture, and

**TABLE 11.9**

Sharing rates between municipalities and their subordinate counties in Liaoning (percentage of local receipts)

Prefecture, year	Province	Prefecture	County
<b>Anshan, 2003</b>			
VAT	40	20	40
CIT	50	12.5	37.5
PIT	37.5	25	37.5
Business tax	30	30	40
Property tax	50	0	50
<b>Panjin and Yingkou, 2004</b>			
VAT	40	24	36
CIT	50	20	30
PIT	37.5	25	37.5
Business tax	30	28	42
Property tax	50	20	30

Abbreviations: CIT, corporate income tax; PIT, personal income tax; VAT, value-added tax.

SOURCE: Fieldwork visit September 2004 and background papers from Panjin and Yingkou in 2004.

**TABLE 11.10**

Composition of tax revenues at each administrative level, 2007 (percentage of total)

Tax	National (2010)	Province	Prefecture/municipality	County
Business tax	13.9	39.2	31.1	31.7
VAT*	39.2	17.4	19.2	21.1
CIT	15.9	24.3	15.4	12.5
Deed tax	3.1	2.5	9.6	6.4
Urban maintenance and construction tax	2.3	2.2	7.8	7.1
PIT	6.0	10.1	5.8	5.3
Property tax		0.8	3.6	4.0
Land value-added tax	1.1	0.8	2.4	2.8
Urban land use tax	1.6	0.6	1.8	2.7
Stamp tax	1.2	1.1	1.8	1.9
Resource tax	1.3	1.0	0.7	1.7
Farmland occupation tax	0.5	0.1	0.4	1.9
Vehicle purchase tax	1.1	0.0	0.4	0.5
Tobacco tax	2.2	0.0	0.0	0.3

Abbreviations: CIT, corporate income tax; PIT, personal income tax; VAT, value-added tax.

The township level is omitted because since 2002/2003 its importance has been substantially downgraded and its responsibilities (and revenues) moved upward to the county level.

\*The national VAT includes VAT and excise on imports.

SOURCE: MOF *Compendium of local fiscal statistics* (2007).

TABLE 11.11

Fiscal trends by tier of government (percentage of national total)

Category	1993	1998	2002	2006	2009
<b>Revenues</b>					
Central	22	50	55	53	52
Provincial	13	10	12	12	11
Prefecture/municipality	34	20	16	17	16
County + township	32	20	17	19	21
<b>Expenditures</b>					
Central	34	29	31	25	20
Provincial	11	19	20	18	18
Prefecture/municipality	29	24	21	23	22
County + township	27	28	29	34	40

SOURCES: MOF *Compendium of local fiscal statistics* (various years); Wong (1997).

county levels. The similarities in revenue composition are especially striking at the prefectural and county levels.

Taxes on land and real estate have grown increasingly important in Chinese cities. The deed tax, an ad valorem levy on turnover of land and property, is the fourth most productive tax at the prefectural and county levels. Combined with the property tax, the land VAT, and urban land use tax, the four taxes levied on land and real estate produced 17 percent of tax revenues at the prefectural level and 16 percent at the county level in 2007. The percentage of land-based taxes has grown even faster in recent years amidst the booming land and real estate markets.

This tax structure encourages a strong growth orientation in SNGs, given that the bulk of revenue comes from productive activities, and lacking taxing powers, the only way to increase local revenues is through economic growth. With the growth of land-related taxes, real estate development has come to rival industrialization as the growth targeted by local officials. Even with vigorous local economic growth, though, SNGs at the lower tiers are fighting an uphill battle in this top-down intergovernmental fiscal system.

National aggregate statistics show that municipalities have fared poorly in revenue sharing. Taking the prefectural level as a proxy (where more than 50 percent of the urban population reside), the fiscal trends in table 11.11 show municipalities losing significant percentages in both budgetary revenues and expenditures after the 1994 reform. Collectively, these municipalities had less than half of their percentage of national revenue in 2009 compared to 1993. Although grants from higher-level governments have become a significant revenue source since 1993, the municipalities' percentage of national expenditures (after transfers) fell by one-quarter while their percentage of the national population more than doubled.

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## GOING OUTSIDE THE BUDGET

Faced with growing expenditure needs and inadequate resources from the formal fiscal system, SNGs turned to extrabudgetary channels. Indeed, SNGs and government agencies were encouraged to find their own supplementary sources of revenue since the gradualist, incremental reform aimed to avoid creating pockets of resistance and instead implemented across-the-board cuts that affected even core services (Wong 2009). In the late 1990s, public service providers, including schools providing basic education, received on average only one-half of their operating revenues from the budget and had to find the rest through fees and “other incomes.”<sup>12</sup> Even local police departments typically received only budgetary support for salaries and had to buy their uniforms, batons, and other equipment from revenues collected through fines and penalties (Bai 2004).

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## EXTRABUDGETARY REVENUES FROM FEES AND LEVIES

The first recourse for government departments and public service providers was to levy fees, user charges, fines, and penalties under incentives that allowed the collecting agencies to use a part of the receipts for bonuses and topping-up salaries (Wong 2009; World Bank 2005). With these high-powered incentives, fees and other levies proliferated. In the aggregate, revenues from fees and levies totaled 8–10 percent of GDP in the late 1990s. SNGs were reportedly financing half or more of their expenditures from extrabudgetary funds (EBFs), and the proliferation of fees had become a bane of businesses and citizens alike (Wong 1998; 2001). In 1997, for example, McDonald’s restaurants in Beijing were on average paying 31 fees that purportedly went to supporting not only the normal Beijing municipal services, but also air shelter repairs, river cleaning, public festival decoration, and Communist Party propaganda (World Bank 2000).

Since then, the government has taken a number of measures to curb the proliferation of fees and charges. The strategy was to clamp down on unauthorized fees and levies, bring administrative fees collected by government departments and agencies into the budget as much as possible, improve monitoring of revenues and expenditures of the major items of the EBFs, and gradually convert them to taxes.

The efforts have achieved some measure of success. Many fees have been abolished, including, most famously, all rural levies under the rural fee reform campaign that was implemented during 2001–2003. Administrative fees continued to grow but are now incorporated into budget accounting, though not unified budgeting. In 1996, the category “government fund” (GF) was created, and 13 of the largest fees and funds were put under GF, including the road maintenance fee, the vehicle purchase fee, the railroad construction fund, electric power fund, the Three Gorges Dam fund, and airport management fees and construction fund. GFs are subject to budget management, treated as “below the line” items, and reported annually in the budget reports.

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<sup>12</sup>For details of how public service providers were funded, see World Bank (2005).

By removing some of the biggest sources of EBFs (e.g., the 13 funds accounted for more than one-fourth of the EBFs in 1997) and tightening authorization of new EBFs, the government has succeeded in whittling down what is reported in the formal category of “extrabudgetary funds,” which fell to 3.4 percent of GDP in 2003. In 2010 the MOF stopped reporting EBFs altogether. Instead, the new budget classification reports tax revenues plus “nontax revenues” (NTRs), the replacement for EBFs, as the total “ordinary budget.” In 2010 NTRs were approximately 100 billion yuan (1.7 percent of GDP), equal to 12 percent of the ordinary budget.

This “victory” is largely Pyrrhic, however, since the GF category, rather than being the transitional stage for bringing EBFs into the budget, has grown secularly, with the addition of some large and rapidly growing sources of revenue that are well outside of budgetary allocation. In 2010, it comprised more than 50 funds, with revenues of 3.7 trillion yuan (9.2 percent of GDP), compared to 7.4 trillion yuan in the ordinary budget (MOF 2011). Moreover, major sources of funding fall outside of the formal EBF/NTR and GF categories. For municipalities, the three biggest are land, the social security funds, and borrowing.

### *Land Transfer Revenues*

Aside from charging user fees and imposing quasi taxes, monetizing state assets was another avenue for supplementing the budget, and land is the principal asset of municipal governments.<sup>13</sup> In addition to existing city land, the conversion of farmland into nonagricultural use provides municipal governments with revenues. The value of this revenue stream was greatly enhanced by the constitution and several amendments, which specify that only the state can undertake the conversion of farmland, conferring a monopoly on land conveyance on local governments. Moreover, the law also fixes the procurement price of farmland at a multiple of its historical agricultural output, thus ensuring that the bulk of the rising values of urban land accrue to local governments (Cao, Feng, and Tao 2008; Tao et al. 2010).

SNGs began to tap this rich source of revenue in the early 1990s (Guan and Peng 2011; Wong 1997). With accelerated urbanization boosting land values, this has grown to be a key source of extrabudgetary revenue for municipal governments. However, until recently there was little public information about the size of land transfer revenues since they accrue almost entirely to local governments, and the central government has struggled to gain access.<sup>14</sup> Moreover, until 2001, land transfers were mostly made by administrative allocation and negotiation, and the real value of the transactions was largely hidden. With the increased use of auctions, land transfers have become more transparent. The Ministry of Land Resources has published national and provincial data since 2001 (table 11.12). However, the data were incomplete: an audit conducted by the National Audit Office (NAO) of 11 municipalities, including Beijing, Tianjin, Chongqing, and Guangzhou, found that during 2004–2006 land transfer revenues were underreported by 71 percent (Fu

<sup>13</sup>The 1982 constitution specifies that urban land is owned by the state while rural land is owned by the collectives.

<sup>14</sup>Gaining information was made more difficult because, until recent years, the central government was continually asserting its right to share the revenue.

**TABLE 11.12**  
Revenues from land transfer (billion yuan)

Year	Transaction volume	Net income
2001	129.59	
2002	241.58	
2003	542.13	179.91
2004	641.22	233.98
2005	588.38	218.97
2006	807.76	297.83
2007	1221.67	454.15
2008	1037.53	361.19
2009	1396.48	NA
2010	3010.89	NA

NA, not applicable.

2009 and 2010 data are from MOF 2011. The 2010 figure is the sum of four funds: income from the transfer of use rights for state-owned land, user charges for bringing new land under construction, the fund on profits of state-owned land, and receipts from agricultural land development (MOF 2011). This may be inconsistent with earlier figures reported by the Ministry of Land Resources. Income from land transfers alone was 2819.77 billion.

SOURCE: Ministry of Land Resources (2010).

2010). In 2007 the government designated land revenues as GF and required them to be remitted to the treasury and budget management. This seems to have improved reporting somewhat. The NAO found that for 2007–2008, the 11 municipalities under-reported land transfer revenues by a much reduced 20 percent.

However, it is difficult to estimate the contribution of land revenues to municipal finance since they are partly used to compensate households for resettlement. Moreover, as shown in a later section, the importance of land revenues far exceeds their contribution to net income since it is also the main asset used by municipal governments as collateral for borrowing.

### *Social Security Funds*

The social security funds (SSF) were created in 1996, with the introduction of insurance schemes for urban employees that provide coverage for pensions, work injury, unemployment, maternity, and health (see Hussain 2007; Wang 2005; Watson 2009). City-level pooling of pension obligations had begun in the 1980s, and this transfer was formalized in 1991, when the State Council introduced universal pooling of pension burdens and placed them at the city level, be they provincial, prefectural, or county-level cities.<sup>15</sup> Through the 1990s, the system was adjusted in several steps, creating the framework that exists today. The new system has moved the provision of pensions from defined benefits to a two-pillar system combining a

<sup>15</sup>State Council decision on pension insurance system reform for urban enterprise employees. June 1991. Cited in Chen (2009).

small social pension with individual accounts based on contributions made during the employee's work life (Dong and Ye 2003).

Under the new system, each city is responsible for collecting the employer and employee contributions to each scheme and managing the fiduciary responsibilities for the SSF. Although the basic framework is based on regulations issued by the central government, many details of the schemes are left to the discretion of the provincial and municipal governments (Hussain 2007). To minimize fiscal risks, cities were permitted to vary contribution rates and benefit levels, though some efforts have been made to harmonize them in recent years. At their inception, however, the SSFs were saddled with some unfunded liabilities when the pension scheme was obliged to accept the transfer of existing participants from the unfunded system, including retirees and employees who were approaching retirement, with no provisions for covering the costs. As a result, many pension pools are in deficit. One Chinese scholar estimated total deficits of all pension pools at 2.5 trillion yuan in 2005 and projected that it would grow to 6 trillion yuan in 30 years (Wang 2005).

Even though cities are the budget unit for social security, the SSFs are managed mainly by the Ministry of Human Resources and Social Security and its subnational counterparts outside the budget. The "social security and employment assistance" expenditure item in the budget comprises expenditures on social welfare, disaster relief, and fiscal subsidies to the SSF to cover shortfalls, while the main expenditures on social security are made under the SSF. Under China's decentralized statistical system, information on the SSF is reported by the ministry, separately from fiscal data.

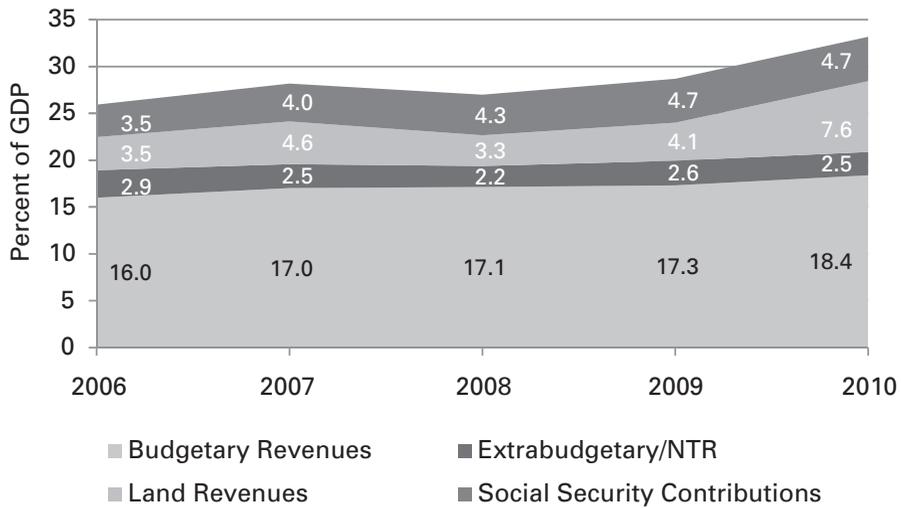
With urbanization, an aging population, and with recent policies that have significantly expanded social safety net provisions, SSF expenditures have grown rapidly. Coverage has grown from just SOE pensions and an unemployment insurance program created in the 1980s, to include a pension program for residents who never held a formal sector job, as well as basic medical, work injury, and maternity insurance programs created in the 1990s. Since 1990, contributions to the SSF have grown from 1 percent of GDP to 4.7 percent in 2010, averaging an annual growth of 27 percent, scattered in the more than 2000 local SSF pools.

### *China's Fragmented Municipal Finance*

The salient feature of these components of extrabudgetary finance is that information is scattered in different channels, and they are not always reported in full. Putting together all available information, figure 11.4 shows the "comprehensive budget," of all known resources mobilized for public expenditure excluding borrowing. Nationwide, the comprehensive budget has grown rapidly, from 27.2 percent of GDP in 2006 to 34.9 percent in 2010. Most of the growth came from land, a notoriously volatile revenue source. The ordinary budget (budget plus NTRs) also grew, from 18.9 percent to 20.9 percent, but its percentage was declining, to just 57 percent of the total in 2010. For SNGs, the composition is even more weighted toward nonbudgetary revenues: in 2010 the budget fell to less than 40 percent of the total (figure 11.5). Even with NTRs, the ordinary budget from own revenues is less than one-half of the comprehensive budget.

**FIGURE 11.4**

China's comprehensive budget (percent GDP)

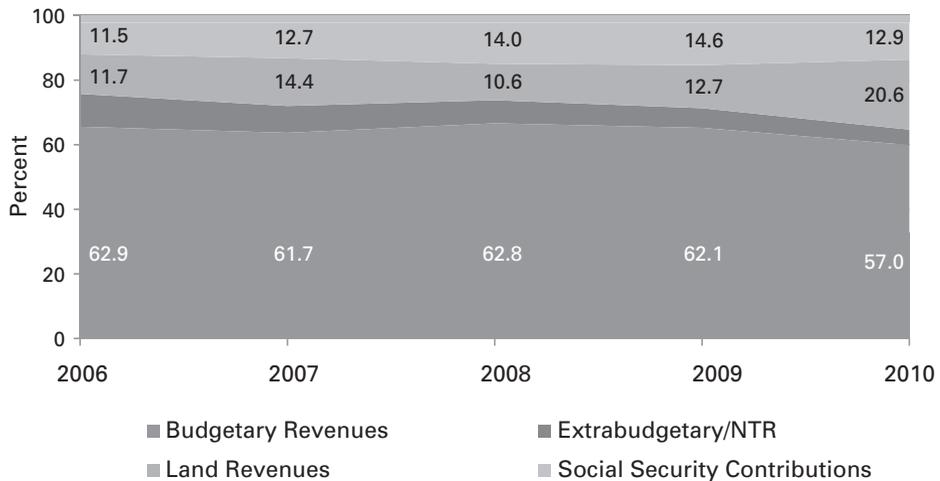


NOTE: EBF figures were used for 2006–2007, and NTRs were used for 2008–2010.

SOURCES: CSY (2010; 2011); MOF *China finance yearbook* (2010); Ministry of Land Resources (2010); MOF (2011).

**FIGURE 11.5**

Composition of subnational revenues by source



NOTE: The subnational percentage of SSF is assumed to be 90 percent of total.

SOURCES: CSY (2010; 2011); MOF *China finance yearbook* (2010); Ministry of Land Resources (2010); MOF (2011).

A composite picture of the comprehensive budgets of prefectural-level municipalities is constructed in table 11.13, which includes transfers from higher-level governments. In this composite, land revenues exceed the size of the municipalities' ordinary budget revenues, though not when transfers are included. SSFs are almost 20 percent of the total, and this percentage can be expected to grow in the future.

Information on the different strands of revenue for Guangzhou, a prefectural-level city that is the provincial capital of prosperous Guangdong province, and Shanghai, a provincial-level city, is assembled in table 11.14. It is not surprising that these

**TABLE 11.13**

A composite picture of prefectural-level municipalities budget, 2010 (billion RMB)

Revenue source	All prefectural cities	Percentage of total
Ordinary budget revenues	1296.38	29.9
Gross transfers including tax rebates	504.65	11.6
Land revenues	1513.72	34.9
Government funds (excluding land)	174.82	4.0
Social security fund	847.04	19.5
<b>Comprehensive budget</b>	<b>4336.61</b>	<b>100.0</b>

The average population in 2009 was 1.16 million. The table is based on the following assumptions:

1. NTRs are used in place of EBFs to avoid double counting. Prefecture percentage is assumed to be 45 percent.
2. Prefectural percentage of budget revenues from 2009 is used for both own revenues and transfers.
3. Prefectural percentage of land revenues from 2004 is used and is assumed to be unchanged at 52 percent.
4. For all other components, 50 percent is used as the prefectural percentage. This is probably an underestimate.

SOURCE: Estimated from data used in figures 11.4 and 11.5.

**TABLE 11.14**

Revenue composition of Guangzhou and Shanghai, 2009 (billion RMB)

Revenue source	Guangzhou (percentage of total)	Shanghai (percentage of total)
Ordinary budget revenues	70.27 (35.5)	254.0 (49.4)
Gross transfers, including tax rebates	16.43 (8.3)	41.5 (8.1)
Land revenues	55.15 (27.9)	104.3 (20.3)
Government funds, excluding land	40.50 (20.5)	
Social security fund	15.36 (7.8)	114.3 (22.2)
<b>Comprehensive budget</b>	<b>197.70 (100)</b>	<b>514.13 (100)</b>
Population (million)	6.55	17.02
Per capita fiscal resources (thousand RMB)	30.20	30.21

SOURCES: CCSY (2010); MOF *China finance yearbook* (2009); Ministry of Human Resources and Social Security (2010); National Bureau of Statistics (2010b); Ministry of Land Resources (2010); National Bureau of Statistics (2010a); Shanghai Financial College (2010); Shanghai Statistical Yearbook (2010).

larger cities, with more diversified economic bases, draw a larger percentage of their revenues from taxes under the formal fiscal system. Even for them, land revenues form a significant part of revenues. In Shanghai, when direct and indirect taxes are included, land-based activities including real estate development have reportedly accounted for 35 percent of total revenues since 2006. In 2009 they accounted for fully 50 percent of the growth in revenues (Shanghai Financial College 2010, 6).

The SSF comprises nearly a quarter of revenues in Shanghai, and an even larger percentage of expenditures when direct budgetary expenditures are included. As one of the oldest industrial centers, Shanghai's SSF is burdened with huge "legacy" costs from the socialist system. In 2008, the municipality spent 12.14 billion yuan in fiscal subsidies to cover SSF arrears, absorbing 17–18 percent of budgetary expenditures (Shanghai Financial College 2010, 121). Because Shanghai also has the oldest population among Chinese cities, these subsidies can be expected to rise.

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### HOW DOES A MUNICIPAL BUDGET LOOK?

A typical municipal budget presentation includes budgetary information and some sketchy information on extrabudgetary revenues and expenditures (now called NTRs, in the "ordinary budget"). In the case of Jiangyin, a county-level city in prosperous Jiangsu province, the city statistical yearbook offers an unusually detailed disaggregation for EBFs that shows EBFs providing supplementary resources for funding many types of municipal expenditures (table 11.15).<sup>16</sup> Altogether, the EBFs were 941 million yuan in 2009, less than 10 percent of the size of the budget.

Jiangyin also had 1.6 billion yuan in SSF expenditures, as well as 2.9 billion yuan in GF expenditures, in addition to EBFs. Unfortunately, the yearbook does not provide the sources of GFs, so it is also not clear whether the figure includes land revenues, and no breakdown was provided on the uses of the SSF and GF.

The data for Jiangyin mirror the fragmented nature of the budget for municipalities overall, where management of the revenues is highly compartmentalized. The municipal budget allocates only revenues from the ordinary budget. All other revenues, from land, SSFs, and the different funds and fees that make up the EBF/NTRs and GFs, are allocated by the collecting agencies and departments. At the national level, there is no consolidated account of these resources. Even in a municipality, if such a consolidated account exists, it is not publicized and is not reported even to the people's congresses.<sup>17</sup>

The composition of expenditures from the ordinary budget accounts for SNGs, along with those for Guangzhou and Jiangyin, is presented in table 11.16. Data that are currently available do not permit a detailed breakdown of expenditures from the comprehensive budget, but we can assume that, overall, it is likely to tip the balance slightly toward social expenditures, and the trend will continue in that direction. SSFs are spent on social services, along with a majority of EBFs/NTRs,

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<sup>16</sup>This is consistent with data from earlier studies showing that departmental expenditures often far exceed budget appropriations (World Bank 2002; 2005; 2007b).

<sup>17</sup>Guan and Peng (2011) note that land revenues are not reported to the people's congresses.

**TABLE 11.15**

Composition of fiscal expenditures in Jiangyin municipality, 2009 (million yuan)

Expenditure	Budgetary	Extrabudgetary	Social security fund	Government fund
General public services	1195.72	70.25		
Public safety	574.58	23.36		
Education	1681.03	323.48		
Science and technology	223.93	1.27		
Culture, sports, and media	99.67	16.97		
Social security and employment assistance	682.15	107.17		
Medical and health care	313.15	60.64		
Environmental protection	358.96	44.8		
Community affairs	2277.67	161.31		
Agriculture, forestry, and water conservancy	477.71	88.9		
Transportation	430.52	15.94		
Mining, power, and information industries	897.41			
Grain and material reserves	141.46			
Earthquake reconstruction assistance	140			
Other expenditures	662.79	26.83		
Total	10,169.83	940.92	1605.85	2900.1
<b>Comprehensive budget</b>	<b>15,616.7</b>			
Per capita (yuan)*	12,976			
Per capita, by component (yuan)*	8,450	782	1,334	2,410
Percentage of comprehensive budget	65.1%	6.0%	10.3%	18.6%

\*The population of Jiangyin municipality in 2009 was 1.2 million.

SOURCE: Jiangyin Municipal Statistical Bureau (2010, 157).

**TABLE 11.16**

Composition of budgetary expenditures by broad category (percent)

Category	All SNGs 2010	Guangzhou 2009	Jiangyin 2009
Development	35.6	28.2	39.7
Social	42.7	41.2	35.1
Administration	21.7	30.5	25.2

All data are regrouped and recalculated on the same basis as table 11.6.

SOURCES: CSY (2011); National Bureau of Statistics (2010a); Jiangyin Municipal Statistical Bureau (2010).

assuming that the composition of expenditures in Jiangyin is broadly representative.<sup>18</sup> Land revenues are mostly earmarked for use in land preparation and urban infrastructure (i.e., 100 percent for development). Except for 2010, the sum of SSF and 60 percent of EBFs/NTRs has in the past few years been larger than land reve-

<sup>18</sup>The expenditures in Jiangyin are divided as 60 percent social and the rest for development and administration.

nues, tipping the balance toward social spending overall. However, this balance shifts sharply when we include borrowing.

Finally, a key feature of China's municipal finance is that a large portion of the urban population is excluded from urban services, most notably social welfare, social security, education, health care, and housing, and this is not reflected in the accounting of revenues and expenditures. These are the migrants who lack *hukou*, now estimated to be one-third of the total urban population (Miller 2012). This is likely part of the reason that China's urbanization has not spawned large slums, because migrants are discouraged from bringing their dependents to the cities with them.

## INVESTMENT IN INFRASTRUCTURE

The provision of infrastructure is vital to supporting urbanization, and how to finance these investments is a central component of municipal finance. Under market reforms, public investment management has changed dramatically in China (Wong 2011). By far the most important was the rapid withdrawal of budgetary inputs to investment that was driven by fiscal decline. Except for a small spike under the fiscal stimulus programs in the late 1990s and again in 2008–2010, the percentage of budgetary inputs has remained below 5 percent of total investment since 1993 (table 11.17).<sup>19</sup> “Self-raised” funds have always been large and now finance more than three-quarters of the total. However, their composition is amorphous and ill-defined.

The second important change was that investment became decentralized. Figure 11.6 shows the SNG percentage of budgetary investment rising in line with the percentage of budgetary expenditures.<sup>20</sup> An additional aspect of the decentralization of investment responsibilities is that, just as higher-level governments were offloading them to SNGs, fiscally constrained SNGs often devolved the responsibilities to public institutions such as schools and hospitals and, likewise, encouraged them to find their own resources.

The authorities for investment decisions were also progressively devolved. Under the planned economy, investment projects went through a formal process of preparation that included feasibility studies, technical reviews, and appraisals before approval. Project approval authority was vested with the State Planning Commission (now renamed the National Development and Reform Commission [NDRC]) and its subnational counterparts, the DRCs. This was a key part of the macro coordination function performed by the NDRC, because project approval was a precondition for application for land, raw materials, and funding, including bank loans. Through the transition, project approval was progressively decentralized to lower-level governments. The decisive reform came in 2004, when the government limited the requirement for administrative approval to only projects financed by public funds and mega projects with investments exceeding a specified threshold

<sup>19</sup>For the 2008–2010 fiscal stimulus and its impact on public investment, see Wong (2011).

<sup>20</sup>In 2007 the MOF changed budget classification systems and stopped reporting capital spending separately from recurrent expenditures.

TABLE 11.17

## Sources of finance for fixed investment (percentage of total)

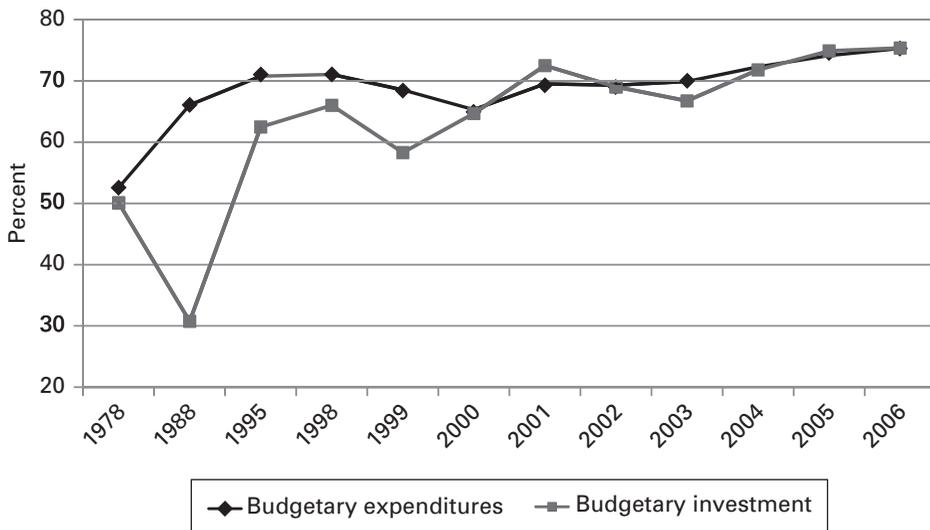
Category	1982	1993	1995	2000	2003	2007	2009
Budget	22.7	3.7	3.5	6.8	4.8	3.9	5.1
Domestic credit	14.3	23.5	21.7	23.6	23.0	15.3	15.7
Foreign	4.9	7.3	13.1	5.8	4.5	3.4	1.8
Self-raised and other	58.1	65.5	61.7	63.8	67.6	77.4	77.4

Self-raised funds are a prefecture's or municipality's own receipts of enterprises or institutions. "Other" includes capital from bonds issued by enterprises or banks, levies, own capital of the administrative unit, and donations.

SOURCES: National Bureau of Statistics (2005), and CSY (2011).

FIGURE 11.6

## Subnational percentages of budgetary expenditures and investment



SOURCES: CSY (2011).

or in strategic sectors (State Council 2004; Wong 2011). Given the diversified funding of public investments and a lack of clear definition on what constituted "public funds," this decision was widely interpreted by SNGs to mean that only projects funded by the budget were required to go through the approval framework. The vast majority of public investment was considered exempted from 2004 onward, and the gatekeeper function of the NDRC and DRCs has been severely eroded.<sup>21</sup>

Just as there is no consolidated account of municipal budgets, there is no consolidated account of capital expenditures at the municipal level. In fact, it appears

<sup>21</sup>See Mikesell et al. (2011) for practices in Guangdong. In fieldwork conducted in December 2010, I learned that even in localities that retained administrative approval procedures, the exercise was largely pro forma, as approval was always granted if funding was assured.

TABLE 11.18

Investments by source and by sector, 2007

Sector	By source					By management jurisdiction	
	Budget	Loans	Foreign	Self-raised	Other	Central	Local
<i>As percentage of total</i>							
<b>Social service facilities</b>							
Education	12.3	12.9	0.6	66.2	8.1	10.2	89.8
Health	9.3	11.7	0.6	72.6	5.8	5.3	94.7
<b>Infrastructure</b>							
Urban water supply	11.1	20.3	3.7	58.1	6.8	1	99
Electricity	6	43.6	1	43.5	5.9	38.6	61.4
Transportation	13.5	33.3	1.5	43.2	8.4	24.4	75.6
Telecommunication	1.5	1.9	0.9	92.9	2.8	50.7	49.3
<b>Infrastructural investment</b>	<b>9.8</b>	<b>34.1</b>	<b>1.4</b>	<b>47.7</b>	<b>7</b>	<b>30.4</b>	<b>69.6</b>
<b>All investments</b>	<b>3.9</b>	<b>15.3</b>	<b>3.4</b>	<b>60.6</b>	<b>16.8</b>	<b>11.2</b>	<b>88.8</b>
<i>As billions RMB yuan</i>							
<b>Infrastructure investment</b>	216.9	756.6	30.9	1060.1	156.1	694.6	1587
<b>All investment</b>	585.7	2304.4	513.3	9137.3	2539.6	1316.5	10,429.9

SOURCE: Assembled from CSY (2008).

that there is no capital budget at any level of government (Mikesell et al. 2011; Wong 2011). Municipal governments finance infrastructural investments from budget appropriations, earmarked tax revenues (chiefly the urban maintenance and construction tax), extrabudgetary (now nontax) revenues, government funds, and land revenues, as well as policy loans from the state development banks.

The diversified and decentralized character of public investment is demonstrated in table 11.18, which shows that budgetary allocations are a minor percentage of investment funding, and they are only weakly tilted toward public infrastructure.<sup>22</sup> Even in the social sectors, the budget accounted for only 9–12 percent of investments, and the bulk of funding came from “self-raised” funds: user charges, fees, and other borrowing.

For urban infrastructure such as public utilities (water supply and drainage, sewerage, residential gas and heating, and public transport), parks, sanitation, and flood control, the Ministry of Construction (MOC) publishes a yearbook that provides more disaggregated data on urban construction and gives what looks to be a comprehensive accounting of funding sources and uses (tables 11.19 and 11.20). Unfortunately, the MOC coverage is incomplete, because it includes only activities of the urban construction departments. It does not include investments in housing, electricity, telecommunications, or ports, airports, and railways, nor does it include investments in social facilities such as sports stadiums, schools, clinics, and hospitals. But even for the subsectors that are included, the coverage appears to be

<sup>22</sup>Data from 2007 are chosen to avoid distortions introduced by the massive fiscal stimulus program implemented in 2008–2010.

**TABLE 11.19**

## Sources of fiscal funds for urban maintenance and construction, 2008

Fund source	Billion yuan	Percentage
Central government allocation	7.56	1.3
Provincial government allocation	8.9	1.6
<b><i>Municipal fiscal funds</i></b>	<b>519.06</b>	<b>92.5</b>
Earmarked allocation	133.57	23.8
Urban maintenance and construction tax	74.43	13.3
Surcharge on urban utilities	8.96	1.6
Urban facilities charge on construction	33.18	5.9
User charges on urban facilities	26.33	4.7
• Bridge tolls	9.75	1.7
• Sewage treatment fee	12.32	2.2
• Garbage collection fees	2.31	0.4
• Waste water drainage fee	0.24	0.0
Receipts from land conveyance	210.54	37.5
Water charges	2.54	0.5
Asset income	1.63	0.3
Other income	28.4	5.1
Others	25.58	4.6
Total	561.10	

SOURCE: MOC (2009).

**TABLE 11.20**

## Urban public infrastructure construction investment by sector, 2008

	Billion RMB	Percentage
<b><i>Total investment</i></b>	<b>736.82</b>	
Water	29.54	4.0
Gas	16.35	2.2
Central heating supply	26.97	3.7
Public transport	103.72	14.1
Roads and bridges	358.41	48.6
Waste water disposal	49.60	6.7
of which waste water treatment	26.47	3.6
Flood control	11.96	1.6
Parks and green space	64.98	8.8
Sanitation	22.20	3.0
of which garbage disposal	5.06	0.7
Others	53.08	7.2
New assets creation	415.45	56.4

SOURCE: MOC (2009).

incomplete. For example, for 2008 the MOC reported investments totaling RMB 29.54 billion in urban water supply and 16.35 billion in residential gas supply, while the NBS reported investments of 104.54 and 43.63 billion, respectively (CSY 2009, table 5–15; MOC 2009, table 4-1-2). On the funding side, while some land revenues go to funding urban maintenance and construction, most are usually reserved for larger-scale infrastructural projects undertaken by other departments (Mikesell et al. 2011).

### *The Emergence of Local Investment Corporations*

One of the most important developments in municipal finance in China over the past two decades is the emergence of local investment corporations (LICs), which have been instrumental in helping SNGs achieve and maintain high levels of investment in infrastructure. Around the world, borrowing is widely used for public investments in infrastructure, and this method of financing is considered both efficient and fair (Bird 2005). In China, however, the 1994 Budget Law prohibits SNGs from borrowing without explicit permission from the State Council (Article 28).

To work around this constraint, starting in the 1980s SNGs, mostly at the prefectural and provincial levels, turned to the creation of special financial vehicles to undertake the task of raising funds for public investment. They were initially created as financially independent, single-purpose entities, often for the purpose of taking on loans from international financial institutions. Being financially independent restricted their scope to undertakings with the capacity for debt servicing, and these corporations were prevalent in the construction and operation of toll roads, power companies, water companies, and utilities.

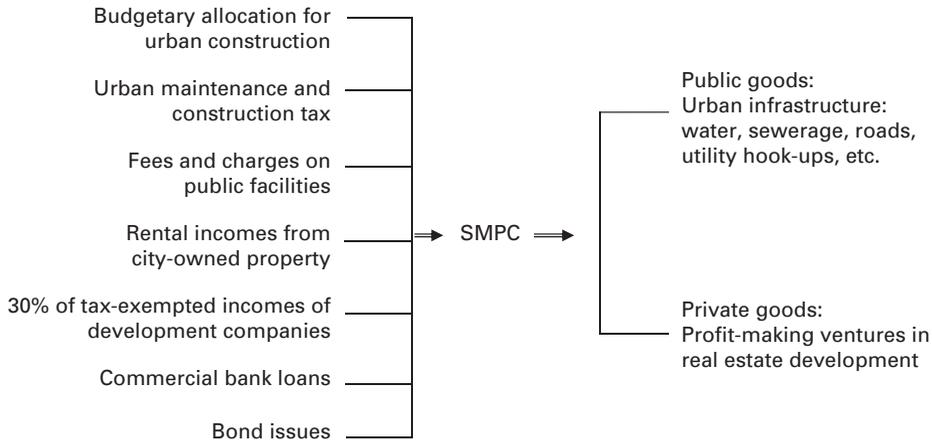
A breakthrough came in 1992, when Shanghai created the first broad-based investment corporation to undertake investment in urban infrastructure, the General Corporation of Shanghai Municipal Property (SMPC), and gave it the mission to coordinate and provide for the construction of facilities such as water supply, sewerage, roads, and utility hookups. To finance these tasks, the corporation was assigned a variety of fiscal funds from the municipal budget and authorized to borrow (figure 11.7). Its creation allowed a quantum leap in financing for infrastructure to support urban renewal and expansion in Shanghai, raising it from the level of a few billion yuan per year prior to the creation of SMPC, to 17 billion and 38 billion in 1993 and 1994.<sup>23</sup> Investment in urban infrastructure totaled 540 billion yuan over the period 1998–2004 (Gao 2007), and the number of corporations of this type grew to 10 (Wu 2011).

Over time, the model spread to other municipalities. By the turn of the century, most cities had established LICs, and they came to play an increasingly key role in financing urbanization in many localities (Su and Zhao 2007). As they became more accepted, their separation from local public finances appears to have been relaxed, and SNGs began to guarantee many bank loans for LICs. Typically, the LICs raise and bundle bank loans and other financing, using a variety of municipal

<sup>23</sup>Investment in infrastructure was RMB 3.6, 4.8, and 6.1 in 1990, 1991, and 1992, respectively (SASS 1988).

FIGURE 11.7

## General Corporation of Shanghai Municipal Property (SMPC)



SOURCE: SASS (1998).

assets, including budgetary and off-budget revenues as equity and collateral. Increasingly, with urbanization bringing rising land values, land has become the principal asset backing LICs, and municipalities have pledged future receipts from land revenues as collateral for bank loans.<sup>24</sup>

Before 2009, even though LICs had by then accumulated 5 trillion yuan in bank loans, very little was known about them (National Audit Office 2011). The macroeconomic risks they pose came to light dramatically during the fiscal stimulus program, when they received their first official endorsement. In October 2008, the government announced a RMB 4 trillion stimulus program to combat contagion from the global financial crisis.<sup>25</sup> To ensure SNGs had sufficient funds to support the ambitious investment program, fiscal rules were relaxed, and SNGs were invited to borrow.<sup>26</sup> LICs went “viral”: in 2009 alone they took on 3 trillion yuan in new loans, and in the first quarter of 2010 they took 40 percent of new credit nationwide (*Investors Bulletin* 2010; Wei 2010). It was only when the China Banking Regulatory Commission became concerned with the pace of lending to LICs that they discovered the near-complete absence of information about them. Previously they had existed in the interstices of China’s mixed economy. They were never assigned a supervisory agency, and no one had asked for regular reporting of their activities.

Since mid-2009, the government has been engaged in a massive catching-up exercise in collecting information on LICs and their operations, culminating with a nationwide audit that took place during March–May 2011, involving

<sup>24</sup>The 2011 survey of LICs conducted by the National Audit Office (2011, 11) found that future land revenues were pledged as collateral for bank loans in 309 prefectures and 1,131 counties, equal to 93 percent and 56 percent of those administrative units, respectively.

<sup>25</sup>For an analysis of how the fiscal stimulus program was implemented, see Wong (2011).

<sup>26</sup>In a joint document, the People’s Bank of China and the China Banking Regulatory Commission (2009) called for “supporting localities with appropriate conditions to organize and build financial platforms, issue corporate debt and medium-term notes and other financial products, to broaden the channels of funding for providing counterpart funds for central government investment projects” (cited in Wei 2010, 2, my translation).

TABLE 11.21

## Local investment corporation debt, year-end 2010

Reporting agency	Number of LICs	LIC debt (trillion RMB)	Percentage of SNG revenue	Percentage of GDP
People's Bank of China	>10,000	<14.4	355	36
China Banking Regulatory Commission	9,828	9.1	224	23
National Audit Office	6,576	5	123	13

Abbreviations: GDP, gross domestic product; LIC, local investment corporation; SNG, subnational government.

SOURCES: CSY (2011); Zhang and Batson (2011).

41,000 staff from the NAO and their local subsidiaries (National Audit Office 2011). But even now the numbers are disputed as agencies disagree on what an LIC is (table 11.21).

### Local Government Debt

While the LICs were the main vehicle for SNG borrowing, they were not alone. In its survey, the NAO had focused its mission on uncovering all debt guaranteed explicitly or implicitly by local governments. It found SNG liabilities totaling RMB 10.7 trillion at year-end 2010 (equal to 263 percent of their own revenues and 27 percent of GDP in 2010), of which LICs accounted for only half. Government departments accounted for a quarter, public service units (universities, schools, hospitals, research organizations, etc.) accounted for 18 percent, and “others” the rest. Almost 80 percent of the debt came from bank loans, 7 percent from bond issuance, and the rest from individuals and enterprises.

It seems the prohibition on local government borrowing was completely ineffective and served only to push it underground and out of the purview of the national authorities. All levels of SNG were involved, starting in the 1980s with the provinces. By the early 1990s, nearly all prefectures and counties were borrowing, and it had become a significant source of funding for SNGs, especially for infrastructure, but also other expenditures. In 2009 alone, at the peak of credit expansion under the stimulus program, SNGs borrowed as much as 4 trillion yuan, compared with their comprehensive revenues of 9.5 trillion.<sup>27</sup> While 2009 was an extreme year, the great boom in local building projects over the past 5–6 years, from new government districts, airports, subways, museum, and sports stadiums to new university campuses, suggests that funding has been readily available, much of it from borrowing.<sup>28</sup>

<sup>27</sup>The China Banking Regulatory Commission estimated that LICs took one-third of new credit in 2009, or 3.2 trillion yuan (*Investors Bulletin* 2010). Other local government entities presumably also took new debt during the year.

<sup>28</sup>A joint study found that in planning subway projects municipal officials generally worked without a financial plan and were confident that funds would be available. They also universally chose extremely large projects and underground options even though traffic volumes and building costs pointed to light rail as the superior option (National Development and Reform Commission and World Bank 2010).

### *The Soft Budget Constraint for Borrowing and Infrastructural Investment*

In borrowing to finance infrastructure, China is following common practices in other parts of the world. Where it differs is in the unsupervised nature of the borrowing, not only by national authorities, but also, apparently, at the local level as well. In a trenchant critique, researchers in the NDRC Investment Research Institute described the current system of local investment finance as operating under “the three no’s”: no guiding framework, no limit, and no accountability (Wang, Gao, and He 2010). There is no overall framework that defines the scope of public investment. Municipalities often lack an investment plan that includes consideration of total debt levels. LICs often do not compile an assets and liabilities account, and they are so closely linked to SNGs that it is difficult to separate out and define their respective responsibilities. In China’s immature financial system, banks are ill-equipped to provide the discipline expected from capital markets, especially when municipal finances are so complex and nontransparent. In any case, after more than 20 years of hypergrowth, there was a widespread belief that land values will always rise and that government can make good on guarantees.

### REBUILDING MUNICIPAL FINANCE FOR THE TWENTY-FIRST CENTURY

Municipal finance in China today is the product of ad hoc, adaptive experimentation over the past three decades, a period during which the economy underwent three transitions: from a socialist planned economy to a market-oriented economy, from an agrarian society to an urban industrial society, and from being one of the world’s poorest economies to a middle-income country. These transitions wreaked havoc on the preexisting social and economic organizations, and new ones had to be created. With the central government preoccupied with the fiscal crisis brought on by the decline of the state economy, municipalities were left on their own to cope with their changing environment.

In this maelstrom, municipal governments faced enormous pressures on two fronts: to provide a new social safety net to replace the one under the state economy, and to provide infrastructure to support the fast-unfolding economic growth and the migrants flooding in. They improvised. One tactic adopted was to limit eligibility for urban services to reduce the growth in demand for them, and the hukou system provided a convenient, fool-proof mechanism for excluding the new migrants.<sup>29</sup> The other was to go off-budget in search of resources, and SNGs displayed remarkable ingenuity in doing so.

This “model” of municipal finance, and especially many of its revenue mechanisms, had grown out of the extremely harsh fiscal environment that SNGs faced in the 1980s and 1990s, when mobilization of resources in support of growth was accepted as of paramount importance. The information examined in this chapter shows that municipal governments have overdelivered on this objective, mobiliz-

<sup>29</sup>This was noted in Kirkby (1985) and called “industrialization on the cheap.”

ing off-budget resources to provide services and building massive amounts of infrastructure.

However, this laissez faire model of municipal finance has long outlived its usefulness, and the costs are piling up. In the twenty-first century, China is a global economic power, and its national objectives have shifted to a broader agenda that also calls for rebalancing the economic growth away from the high savings- and investment-driven growth to a more consumption-driven growth, and taking steps toward building a more inclusive “harmonious society” where citizens benefit more equally from China’s economic miracle.<sup>30</sup> The dynamics of the current municipal finance system, where incentives for SNGs are lopsided in favor of developing off-budget revenues, are fundamentally at odds with this new agenda. The complex and opaque nature of the current municipal finances is also out of step with the government program to move toward transparency in the public sector and permit greater participation.

Moreover, the model is unsustainable. The most pressing immediate problem is that SNGs and their LICs have run up a mountain of debt that threatens to bring the banking sector grinding to a halt. The NAO reported that more than one-half of the 10.7 trillion yuan was due in 2011, 2012, and 2013. With the central government taking measures both to clamp down on new lending to LICs and to cool down the superheated housing price inflation, many SNGs have been unable to service their debt as land markets have slowed. Even in Beijing, for example, the Municipal Land Bureau reported that land lease revenues had slowed to a total of 25 billion yuan during the first five months of 2011, insufficient to cover the monthly interest cost of more than 10 billion yuan on the 250 billion yuan debt for the municipal land bank (*New Century* 2011). Nationwide, a mass default was avoided only when the government ordered banks in February 2012 to roll over their loans to LICs (Rabinovitch 2012). A more permanent bailout will likely have to be worked out step-by-step over the next few years.

Nor is the heavy reliance of municipal governments on one-off land lease sales sustainable. With leases running 40–70 years, urban land is virtually a nonrenewable resource, and in the more developed coastal cities it is already providing a declining portion of municipal revenues (Wang 2011).

As municipal finance evolved over the past 30 years, the patchwork of ad hoc responses left many issues unresolved, among them the coordination between levels of government coexisting within expanding metropolitan regions. Acute conflicts have arisen in China over the ownership of land, tax bases, and social assets, along with problems of coordinating infrastructure and service provision (Shanghai Financial College 2010). Accommodations are worked out on a case-by-case basis by the administrative units themselves, and little information is reported systematically about the arrangements. It may be more equitable and efficient to work out a national framework and provide guidance on best practices.

Finally, the decentralized financing has given rise to a two-tier society that keeps rural migrants permanently out of the mainstream of urban life. Although

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<sup>30</sup>These goals have been repeated in official statements since 2003 and were embedded in the 11th Five Year Plan (2006–2010) and reiterated in the current 12th Five Year Plan.

their relative deprivation had been alleviated for the past three decades by the economic growth and job creation that brought rising incomes to the rural populace, the glaring unfairness is building social tensions and hindering investments in human development. The magnitude of the problem can be glimpsed in Shanghai, where the percentage of the nonhukou population staying for more than 6 months has grown from 20 percent of the total in 2000 to 39 percent in 2010 (Shanghai Statistical Yearbook 2011). Incorporating migrants into the provision urban services will require central government participation in financing them.

In the twenty-first century, China is an urban nation. Rebuilding the system of municipal finance must move to the top of the government's policy agenda. For a new system that can efficiently mobilize and manage fiscal and financial resources to deliver social welfare and infrastructure, municipal governments need access to more transparent and sustainable sources of finance from taxes, user charges, and grants. Greater revenue discretion, along with transparent and regulated access to credit, should help to harden their budget constraints. The first step toward rebuilding the system should be a rationalization of the intergovernmental fiscal system that assigns revenues and responsibilities in a way that is better aligned with the decentralized, increasingly mobile society that China has become.

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