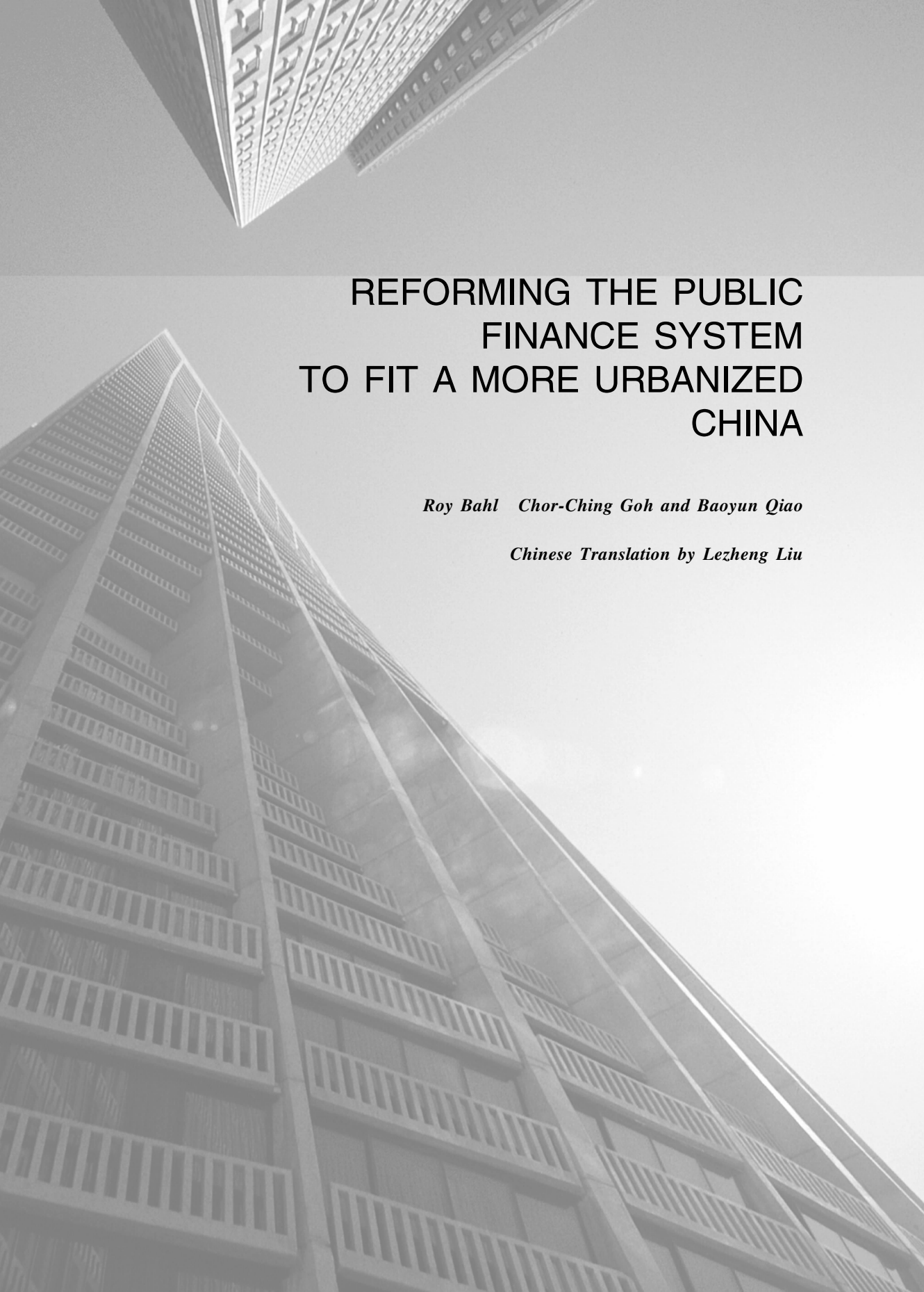

REFORMING THE PUBLIC FINANCE SYSTEM TO FIT A MORE URBANIZED CHINA

Roy Bahl Chor-Ching Goh and Baoyun Qiao

Chinese Translation by Lezheng Liu

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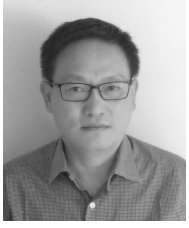

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CHAPTER ONE
CHALLENGES TO THE PUBLIC FINANCE SYSTEM

INTRODUCTION

Urbanization, and the structural changes that come with a maturing economy, will make China a different country over the next two decades. The middle class will emerge, workers will increasingly produce services, the economy eventually will be more driven by household consumption than by investment, and the population size of the largest urban areas will swell even more. The urban economy will generate over 90 percent of China's GDP by 2025 (McKinsey, 2009). But the public finance system that has worked so well in leading an investment-driven economic growth strategy will work less well in this new, more urban China. In fact, some fundamental flaws in the existing system are threatening to add significant efficiency, equity and environmental costs. If urbanization is to be the blessing to the economy that many hope for, the system of governing, spending and financing will need to change. Many experts, inside and outside government, agree that a major fiscal reform is needed(Lou, 2013; World Bank and Development Research Center, 2013, 2014; Lim, Porter, Romer and Spence, 2011).

The centerpiece of such a reform could be a stronger commitment to a fiscal system that separates the traditional function of government — the provision of equitable and efficient levels of public services — from the investment and production functions of the private sector. The underlying strategy would be to de-emphasize the direct role of government in managing the economy by discouraging ownership and operation of companies that compete with the private sector. Instead, governments would move toward a supporting role of providing the necessary infrastructure and regulatory framework to stimulate economic development and then trust the market to send the right signals to economic agents. The emphasis of subnational governments would be on the delivery of good local services, and the rewards to their leaders would depend on how well they deliver on this responsibility. In fact, this would be less a turning point in policy than it would be a recommitment to a strategy that began with China's opening up more than three decades ago.

To move in this direction and towards a more incentive-driven public sector, government will need to take important decisions about several key features of the public financing system: the accountability issue in decision-making by subnational government officials, the proper division of expenditure and revenue responsibilities between the central and subnational governments, funding social services and the social safety net, shifting the tax base from production to consumption, assigning revenue raising powers to subnational governments, rationalizing the use of land revenues in local government financing, requiring transparency in local budgets, increasing the private sector's role in housing finance, putting in place a stronger inter-provincial and intra-provincial equalization program, and adopting a budget system that will give subnational governments the ability to effectively plan and control the allocation of fiscal resources. This would be no small reform.

Arguably an even more daunting challenge will be addressing the changes in the fiscal culture that will be called out by this reform. These include replacing informal negotiations with more transparent rule-based decision making, changing the view that public services are an entitlement to a view that public services must be purchased with tax and user charge payments, levying more taxes directly on individuals, and changing the mindset of subnational government officials about spending for economic development vs. spending to enhance the livability of cities. The time it will take to successfully implement a far-reaching public finance reform, as is discussed in this book, will depend on how easily such elements of the fiscal culture can be changed.

The economic setting in which these sweeping changes will take place will make reform even more difficult. Slowing economic growth will take away some of the revenue surpluses that have enabled high rates of government spending, but migration to urban areas will increase the demand for government services. Increased taxation of consumption will need to be fitted into the plans for increasing domestic consumption. And, the failure to change the public financing system to better match the economy has led to some fiscal "entitlements" that will be hard to dislodge. To all of this might be added the ambitious reform direction that was laid out in the plenary session of the Central Committee in 2013.

PUBLIC FINANCES IN TRANSITION

China will cope with two major transitions in the next two decades and both will require adjustments in the system of public financing (World Bank and Development Research Center, 2014, pp81 – 126 and pp127 – 186). The first is urbanization. China's population will continue to move to cities in large numbers. The second is the lower rate of GDP growth that will accompany the continued maturing of the Chinese

economy. These changes will have significant impacts on the demand for public services and on the cost of providing them, on revenue mobilization, and on the way in which services are delivered. Management of the government sector during this transition period, and especially management of the finances of urban local governments, will present a major public policy challenge. The central government will need to decide on the extent to which it lets fiscal policy in the next two decades be dictated by the need to find quick fixes for the most pressing of these problems, or whether it gets ahead of the problems by undertaking a major structural reform.

THE FISCAL IMPACTS OF URBANIZATION

Urbanization will challenge government budgets. The next two decades will see a growth of 240 million people living in the urban areas of China. The urban population share will increase to 70 percent by 2030, by comparison with about 53 percent at present. Some of this growth will be skilled workers newly arrived from other urban areas, and much of it will be migrant workerswith less human capital than the existing resident population. Many of the migrant workers will come without their families and will live in dormitories, as they have in the past. Only 20 percent of migrants now move to cities with their entire family. But this pattern will change as adequate health and education services and affordable housing become available to them (Wang, Shen and Li, 2008). The immediate concern is with absorbing this number of new residents and workers in cities, and servicing them properly, while not harming the quality of life of the existing urban population. The questions are how to do this and to pay for it.

Costs

The costs of urbanization are difficult even to define, much less to estimate. What we can say with some certainty is that the expected increase in the urban population is more than most cities can absorb with their existing infrastructure and service delivery capacity. And, in the case of some migrant workers, there may be need for the local government to spend above existing levels to address special needs. Examples include subsidies for school supplies, the establishment of health centers that specialize in meeting the needs of the migrant population, affordable housing, and improvements in the portability of pension and health insurance benefits.

The marginal costs that migrants will impose depend on the extent to which the migrants are given access to the same services as residents with local hukou. This will vary from city to city and from one public service to another. For example, local policy determines whether migrants can participate in social insurance programs. On average, the coverage rate for migrants in social insurance programs is less than 25

percent, by comparison with more than 85 percent for local resident employees (World Bank and Development Research Center, 2014, pp263 – 358). For most public services, a national residence-based system is now in effect but it is neither financed nor monitored by the central government. In practice, some cities offer easier access to resident worker permits, and better entitlements to public services than do others.

With respect to education, the official policy is residence-based, compulsory education for all children. In general, local governments are in compliance with this policy. A recent survey shows that about 80 percent of migrant worker children are now enrolled in public schools[1]. However, the practice varies and at least in some areas, the schools that serve migrant worker children are not funded at the same level as regular public schools (Yang 2012)[2].

Clearly, the cost of absorbing 200 million new residents and resident workers into cities will be very great. But accurate estimates of the cost of urbanization are difficult to make, because of the need to separate the impacts of urbanization from the impacts of everything else. McKinsey (2009) estimates the public sector cost of absorbing all new in-migrants to be equivalent to about 2.5 percent of GDP.

According to the China Academy of Social Science (2013), the per capita cost of equalizing public service levels between immigrant workers and urban residents will be 131 thousand RMB on average, and 176 thousand, 104 thousand, 106 thousand for the coast region, middle region and the western region respectively. Some subnational governments forecast even larger public sector costs as a consequence of urbanization. For example, Henan province estimates, that for 6 million immigrants to become urban residents and receive normal urban services, the cost will be 1 trillion RMB in expenditure, and about 167 thousand in annual investment expenditure per capita in next three years.[3] To put these numbers into some perspective, note that the average annual per capita GDP in Henan is about 38 thousand Yuan.

Industrial countries also faced the same problem of absorbing the fiscal cost of in-

1 Wong (2013a) traces the significant progress in giving the children of migrant workers access to education services.

2 The OECD's Performance for International Student Assessment (PISA) survey ranks Shanghai above Korea, Finland, Hong Kong, and Singapore for 15-year-old students' performance in reading, mathematics, and science. but the benefits of Shanghai's public education system are beyond the reach of urban migrant families residing in the city. And early childhood education enrollment and duration—factors associated with significantly higher PISA test scores in developing and developed countries—vary widely between rural and urban areas in China (OECD 2010). In 2011 cities at the provincial level accounted for about 75 percent of all public education spending.

3 Author estimates based on material provided by Henan Provincial Government.

migration. Estimates of these costs have varied widely. A recent OECD study suggests that German fiscal costs in absorbing immigrants are 1.1 percent of GDP, partly due to a particularly large share of immigrants receiving pensions. But whether immigrants are a drain or net contributor to the public finances remains an open question. Rowthorn (2008) provided a full range of alternative estimates, including cyclical adjustments, and found that the fiscal impacts varied between −0.7 and +0.7 percent of GDP in the advanced economies. Ekberg (2011) projected that by 2050, the fiscal impacts of future immigration in Sweden would vary from −1.6 to +1.3 percent of GDP. A study on the fiscal effects of immigration to the UK shows that immigrants arriving in the UK since the early 2000s have made substantial net contributions to its public finances(Dustmannand Frattini, 2013). In Switzerland and Luxembourg, immigrants provided an estimated benefit of about 2 percent of GDP to the public purse (OECD, 2013). [1]

It is inevitable that social problems will arise as China eases its way out of the hukou system [2]. Some local residents will resent the migrant worker community because of the fear that overall service levels will deteriorate as a result of the new demands, and because of a perception that migrants receive preferential treatment (World Bank and Development Research Center, 2014, pp263 − 358.). This is similar to the resentment toward immigrants in the US and Europe. In China and elsewhere, this problem can be eased if new resources grow to match the increased demand.

The costs of urbanization are not restricted to those related to migrant workers coming from rural areas. City government budget pressures will grow with increased migration from surrounding counties and with migration from urban areas in other regions. Many of these will be professional workers and their families. This will heighten the pressures for better public services. Families living in metropolitan areas will be looking to upgrade their housing and asking for better urban amenities, and new service industries will be asking for closer-in locations and for a different package of infrastructure and social services than do manufacturing industries.

More generally, there is a needed upgrade in service levels and in maintenance expenditure on public facilities. Much remains to be done to bring environmental protection to the standards that have been set by the central government (World Bank and Development Research Center, 2014, pp439 − 535.). As the income of resident

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1 http://www.oecd-ilibrary.org/docserver/download/8113141ec006.pdf?expires=1400208841&id=id&accname=ocid195670&checksum=BEB2D99C6358F7B1ADA32B1E1BB0967F

2 In 1958, China started the hukou system which divided residents into "rural" and "urban" and strictly controlled the migration of residents by limiting their entitlements to public services provided in the destination city. Now China is on the way to improving institutions and mechanisms for promoting integrated urban and rural development, including a further easing of the hukou system.

workers rises, so too will the demand for better services.

Benefits

Urbanization and in-migration also will generate fiscal benefits in China, as it has in Europe (see the discussion above). Migrants from other urban areas can bring new skills, and the maturing urban universities can help improve productivity. Migrant workers can reduce or remove the labor shortage constraint to the expansion of private sector output, and so can indirectly lead to more capital inflow and to a better capturing of agglomeration effects and economies of scale. This should lead to an increase in value added, higher corporate profit and higher payroll tax revenues to the government sector, as compared to what would have been the case with less urbanization. Migrant workers also can add directly to the revenue benefits with their taxable consumption, and their contributions to social security taxes. [1]

Urban growth and migration could also lead to a reduction in the pressure on local expenditure budgets if new migrants were able to absorb some of the excess capacity in public and private infrastructure and in housing. The current stock of social housing is not reaching the intended beneficiaries. Programs that aim to support homeownership have primarily benefited middle-income households. But there has been a mismatch between the housing needs of low wage migrant workers in urban areas and excess housing supply in second and third tier cities.

The extent to which the incremental revenues from urbanization will cover the incremental costs will depend in part on how fast the development of the service sector materializes, and on whether the incentives to local officials to promote industrial development on the urban fringe are dampened (World Bank and Development Research Center, 2014, pp81 – 126). If these incentives remain as they are, continued urban sprawl will lead to higher costs of urbanization, and this will use up some of the fiscal benefits. Based on available evidence, it would seem reasonable to assume that urbanization will place a net additional claim on available public resources, at least in the short run.

Even if the national fiscal dividend from urbanization turns out to be large enough to cover the incremental cost of providing basic services in urban areas, it will not be large enough for every urban area. The budgetary impacts of urbanization will be anything but uniform across cities. Residents and businesses in some cities will demand higher levels of service, the cost of service provision will be greater in others, and the backlog of infrastructure needs will be larger in yet others. Residents and

1 It was reported that 1 million of 4 million migrant workers in Liaoning province made social security contributions.

businesses also will ask for a different package of services in some cities than others, in part reflecting the change in economic structure (e. g., manufacturing to services) and in part reflecting the degree to which migrants are a part of the urban growth. On top of all of this, the province and city economies that get the most growth from urbanization will be rewarded most by a greater revenue return through the derivation-based revenue sharing system.

Reform Directions

To accommodate the impacts of urbanization, adjustments in the fiscal system will be necessary. Intergovernmental transfer distributions will need to recognize some of the resulting disparities in needs and capacity to finance. The problems of accommodating different preferences and expenditure needs also can be addressed by giving sub national governments more control over the amount of revenues that they can raise to meet their expenditure responsibilities.

The problem is not just disparities in costs and resources, but also differences in the mix of services that are needed and in the types of taxes and charges that might be imposed. Some urban areas will attract more service sector firms while others will attract more industrial firms, some will attract more low wage workers than others, and some will attract more new residents while other will attract more temporary workers. This diversity means that local governments need more flexibility in deciding what services to deliver and how to deliver these services. Part of the necessary reform will be to redesign the decision calculus of the local cadre system to include a longer-time horizon, and to place more weight on the success with providing the particular bundle of services that the local economy needs (demands) for efficient, inclusive and sustainable growth. [1]

THE FISCAL CHALLENGE OF SLOWER ECONOMIC GROWTH

The growth rate in the Chinese economy is projected to decline to about 6 percent by 2020 (World Bank and Development Research Center, 2014, pp81 – 126). Even though this is a healthy economic growth by world standards, it will not generate the fiscal surpluses that were seen in the past two decades. This might be illustrated with the simple computation shown in Table 1 – 1. Assuming that the rate of revenue mobilization does not change from its 2012 level (23 percent of GDP), the gap between general revenues raised annually in an 8 percent economy and that in a 5

1 The evaluation system for local government leaders is a difficult proposition to research, because of the problems of identifying the actual determinants of "successful" performance. See Zhou (2007) Li and Li-an Zhou(2005).

percent economy, will be 25 percent in 2020 and 66 percent in 2030. [1]

These are illustrative extrapolationsrather than the result of a formal modeling exercise, but they are suggestive of some important public financing issues. A significantly lower level of revenues means that the nominal growth in some expenditure programs of central and subnational governments will need to be slowed, or new discretionary increases in revenues will need to be implemented. If tax increases are ruled out, the government still has many ways to cope with the limited revenue scenario, including, expenditure programs retrenchment, increased user charges, or offloading some budgetary items to the private sector.

Expenditure management in this setting will present challenges. One particularly important issue is that an aging population will put pressure on pension and health outlays. The share of population aged 60 years and over will rise quickly in coming decades, from around 12 percent in 2010 to almost 25 percent by 2030 and to more than 33 percent by 2050. This will not only place greater strain on family support networks but also will challenge social programs, pensions, and, in particular, health care (World Bank and Development Research Center, 2014, pp263 – 358).

Table 1 – 1: Projected GDP and Revenue[d]

Year	Real GDP Growth Rate (Percent)	Real GDP (million Yuan)[c]	Revenue as a Share of GDP[c] (percent)	Real Revenue (million Yuan)	Real per Capita Revenue (unit RMB)
1990	3.8	10269	13	1357	119
2000	8.4	27702	11	3086	244
2010	10.4	75055	21	15501	1156
2011	9.3	82031	22	18385	1365
2012[a]	7.7	88313	23	20227	1494
2020[b]	5.0	130478	23	29884	2207
	6.5	140757	23	32238	2381
	8.0	163461	23	37438	2765
2030[b]	5.0	212535	23	48678	3595
	6.5	252074	23	57734	4264
	8.0	352899	23	80826	5969

Sources: calculated from data in China Statistical Yearbook (2012).

a. Base year.

b. Projected.

c. GDP index and CPI, 1978 = 100.

d. Includes only public finance budget revenue.

1 This illustrative projection does not consider the Government Fund of subnational governments, where land leasing revenues are reported, or social security taxes.

If the growth rate in real wages increases and the hoped-for growth in middle class consumption come to pass, the composition of public services demanded could be pushed in the direction of better social services, a better natural environment, and better amenities. Changes in expenditure demand also could come from the business sector because of a shift away from manufacturing and toward a growth in the service sector. [1] Pressures on the government expenditure budgets will come from a need to address backlogs of unmet expenditure needs, debt and pension fund payments, and congestion and pollution problems. Other costs to be addressed include the maintenance costs of the increased public capital stock that has been built over the past decade and the higher cost associated with the urban sprawl that has come to characterize many Chinese metropolitan areas(World Bank and Development Research Center, 2014, pp127 – 186) .

Not all of the budget impacts of slower economic growth will be negative. For example, the growth rates of compensation of public sector workers may adjust downward to keep in step with the growth in private sector wages and GDP growth. [2] If a new framework for subnational government borrowing is put in place, and if it includes formal limits, the increase in government debt and debt service costs might be slowed. But to the extent that prices of public sector inputs (e. g. , materials) do not adjust downward with the slower growth in GDP, reduction in the unit cost of service provision will not provide relief for this financing gap. Likewise, the compensation of public sector workers might not adjust downward to keep in step with the slower growth in private sector wages.

On the revenue side, the high elasticity should keep growth buoyant because taxation is driven mostly by consumption and by payrolls. The individual income tax has a progressive rate structure but the coverage is very limited. Slower growth could be felt most in taxes derived from the sale of land leases.

This discussion, and that in the previous section, suggests that the determinants of public expenditure growth are complicated and vary widely from country to country, as is discussed below. This is discussed in Chapter Two. The impacts of China's slower economic growth might be partially or even fully offset by a new awareness of the need to upgrade the quality of the living environment.

1 For a discussion of how the changing economic base changes the demand for government expenditures, see Yusuf (2013) .

2 The wage compensation of public sector is 13. 48 percent higher than that of the non-public sector based on the data from 2000 to 2006, and the gap is increasing over time(Yin and Gan, 2009) .

OUTLINE OF THIS BOOK

In the next chapter, we take up a description and analysis of the Chinese fiscal system[1]. We focus on how the system works, how it has evolved in recent years, and how it measures up against the structure used by other countries around the world. We also study the determinants of public expenditure growth in China and how this differs from other countries. In Chapter Three, the problems and issues with the fiscal system that now confront the government are examined. The subject in Chapter Four is reform strategies. Here we take up the questions of whether the fixes for the current fiscal problems should be comprehensive or piecemeal, and whether reform directions drawn from economic theory can be a useful input for Chinese thinking. Chapter Five lays out the options for a comprehensive reform package. Chapter Six considers the impacts from such a reform, i. e., the equity and efficiency effects, and the administrative requirements for making the reform work. In Chapter Seven, we conclude by asking how such a fiscal reform would fit the strategy for the Chinese economic and social development that has been laid out by the People's Congress.

1 Parts of this paper draw from our earlier analysis (Bahl and Qiao 2013). See also, World Bank and Development Research Center (2014, pp362 – 438).

CHAPTER TWO
THE STRUCTURE OF CHINESE PUBLIC FINANCE

INTRODUCTION

The fiscal system in China is different from that in most countries outside the former Soviet Union (Lou, 2013, Bahl, 1999). China's approach features heavy decentralization on the expenditure side of the budget but almost complete centralization of revenue-raising powers, and fiscal planning is weakened by a budget system that is not fully transparent and by the absence of a capital budget at the subnational government level. It is important to understand where this system has succeeded and failed, and how it needs to change to match the new economy.

THE SIZE AND GROWTH OF GOVERNMENT

There is a lot of talk about the size of government in China. Is it large or small, and with what group of countries should it be compared? How should the size of government in China be measured? Is there room for the government sector in China to grow, or should government policy be thinking about a limit? Can we learn something from an analysis of the determinants of growth in government size in China during the modernization period?

We measure the size of government in China as the sum of total expenditures made by the central government and the subnational governments, net of any double-counting due to intergovernmental transfers. The index of government size that is used here, spending as a percent of GDP, can be thought of as governments' share of total national output.

Chinese statistical reporting generally captures all recurrent and capital expenditures to provide government services(MoF, 1997, 2001, 2006). Subsidies to public service companies are included but operating expenditures by these companies are not included, even though there may be partial government ownership. Also, operating expenditures of state owned enterprises in the competitive sector are not included in the government budget, but transfers to SOEs are included. Expenditures for payment of

social insurance benefits are covered in a separate budget but are counted here as part of total expenditures.

DOES CHINA HAVE A LARGE GOVERNMENT?

The size of government in China, when measured to include only expenditures in the general (public finance) fund, is about 25 percent of GDP (Table 2 – 1). If social insurance programs (pensions and health insurance) are counted, the size of government is equivalent to about 30 percent of GDP. Either of these measures of the size of government is above the average level in developing countries, but roughly in line with the size of government in upper middle income countries such as Argentina but below that in Brazil (Table 2 – 2).

Table 2 – 1: Government Expenditure as Percentage of GDP (Unit: billion RMB)

Selected years	GDP	Public Finance Expenditure[a b]		Government Fund Expenditure		Social Security Expenditure[c]		SOE Operation Expenditure		Total
		Amount	Percent of GDP	Amount	Percent of GDP	Amount	Percent of GDP	Amount	Percent of GDP	Percent of GDP
2008	31603	6259	19. 81	1498	4. 7	993	3. 1			27. 61
2009	34032	7630	22. 42	1612	4. 7	1230	3. 6			30. 72
2010	39976	8987	22. 48	3395	8. 5	1482	3. 7			34. 68
2011	47212	10925	23. 14	3995	8. 5	1888	4. 0			35. 64
2012	51932	12571	24. 21	3633	7. 0	2390	4. 6	140	0. 27	36. 07
2013	56885	13974	24. 57	5012	8. 8	3451	6. 0			

Data sources: China statistical yearbooks various years, Financial Statistical Yearbook of City and County governments in China various years.

a. Gross expenditure, i. e., includes the purchase cost and the cost of property titles for lease sales.

b. Includes some transfers to the social security budget.

c. Includes some transfers from the public budget.

Table 2 – 2: Government Expenditures as a Percent of GDP in Selected Countries: Various Years

Country	Government Expenditure as a Percent of GDP[a]	Per Capita GDP (Constant 2005 US dollar)	Population (in million)
China (2012)	30	3348	1351
Canada (2011)	41	35794	34
US (2011)	40	42447	312

Con.

Country	Government Expenditure as a Percent of GDP[a]	Per Capita GDP (Constant 2005 US dollar)	Population (in million)
Germany (2011)	45	37271	82
Argentina (2004)	29	4380	38
Korea (2012)	36	21562	50
Poland(2011)	43	10387	39
Brazil (2011)	39	5721	197
India (2009)	25	948	1190
Russia (2011)	42	6633	143

Source: Government expenditure data from China Statistical Yearbook; IMF/GFS dataset. Per capita GDP and Population series are obtained from WDI, the World Bank.
a. After netting out estimated inter-budget transfer.

China's government is smaller than that in the average industrial country, mostly because of its lower spending on health and social protection services. However, comparisons with industrial countries are difficult because there is so much variation—from 52 percent of GDP to 35 percent in 30 OECD countries (IMF, 2011).

China differs from the pattern of government spending in industrial countries in two important respects: the larger amount that it spends for private sector economic activities, including subsidies to firms, and the degree to which expenditures are made by subnational governments. A comparison of Tables 2 – 3 and 2 – 4 shows that about 85 percent of government expenditures in China are made by subnational governments. If expenditures in the Government Fund (where most infrastructure spending is separated) and the social security fund were included here, the decentralized share would be even larger. No other country in the world matches this degree of expenditure decentralization.

Table 2 – 3: Expenditures Made by Subnational Governments[a]

Selected Years	As a Percent of GDP	As a Percent of Total Government-Expenditures	As a Percent of Total Government Expenditures (Provincial)	As a Percent of Total Government Expenditures (City)	As a Percent of Total Government Expenditures (county)
1994	8. 38	69. 70			
1995	7. 94	70. 80			
1996	8. 13	72. 90			
1997	8. 49	72. 60	23. 04	23. 65	25. 88
1998	9. 09	71. 10	22. 41	24. 10	24. 55

Con.

Selected Years	As a Percent of GDP	As a Percent of Total Government-Expenditures	As a Percent of Total Government Expenditures (Provincial)	As a Percent of Total Government Expenditures (City)	As a Percent of Total Government Expenditures (county)
1999	10.08	68.50			
2000	10.45	65.30			
2001	11.98	69.50	20.71	20.98	27.79
2002	12.70	69.30	19.64	21.03	28.63
2003	12.69	69.90			
2004	12.88	72.30	18.75	22.20	31.35
2005	13.60	74.10	18.88	22.67	32.58
2006	14.07	75.30	18.33	22.54	34.41
2007	14.42	77.00	17.72	22.20	37.09
2008	15.68	78.70	18.45	21.10	39.13
2009	17.91	80.00	19.20	22.10	38.71
2010	18.40	82.20			
2011	19.61	84.90			
2012	20.98	85.19			

Sources: *China Statistical Yearbook: various years; Financial Statistical Yearbook of City and County governments in China: various years; Subnational Government Financial Data on Revenue and Expenditures in* 2006.

a. The expenditure reported here includes only the expenditure in Public Finance Budget, and it does not include the expenditure in Government Fund Budget, SOE operating Budget, or Social Security Budget.

Table 2 – 4: Growth of Public Finance Budget Expenditures by all Levels of Government in China[a]

Selected Years	Government Expenditures as a Percent of GDP	Real per Capita Government Expenditures (in Yuan)	Real per Capita Government Expenditures (in $ US)
1994	12.02	593	69
1995	11.22	608	73
1996	11.15	658	79
1997	11.69	746	90
1998	12.79	872	105
1999	14.71	1070	129
2000	16.01	1253	151
2001	17.24	1451	175
2002	18.33	1673	202
2003	18.15	1811	219

Con.

Selected Years	Government Expenditures as a Percent of GDP	Real per Capita Government Expenditures (in Yuan)	Real per Capita Government Expenditures (in $ US)
2004	17. 82	1946	235
2005	18. 35	2217	271
2006	18. 69	2532	318
2007	18. 73	2883	379
2008	19. 93	3345	482
2009	22. 38	4082	598
2010	22. 38	4486	663
2011	23. 10	5034	779
2012	23. 94	5529	876
2013	24. 57	7426. 34	1199. 11

Sources: calculated from data in China Statistical Yearbook and the World Bank.

a. Includes only public finance budget expenditures. Base year = 2000.

GROWTH IN GOVERNMENT

The size of general government expenditure has grown at twice the rate of GDP since 1994 (Table 2 – 4). Perhaps a telling trend about the role that government has played in contributing to the growth in the Chinese economy and to the real income of households is the increase in the level of real per capita government expenditures. Even if the social security fund and the infrastructure expenditures financed from land leases are not included, the results show a steady growth in this index since 1994 (Tables 2 – 1 and 2 – 3). Between 2000 and 2012, the real increase in government spending per person increased by US $ 725, a fivefold increase, while the real increase of government spending per person of United States, for example, grew by only about 16 percent for the same time period. This suggests the considerable room that Chinese governments had for real budget expansion.

What factors were responsible for this rapid expenditure growth? Research on industrial countries has offered several explanations of the determinants of expenditure growth. Adolph Wagner, writing at the turn of the century, used data on the expenditures of European countries to argue that the normal course of things is for government expenditures to rise proportionately faster than total output. [1] The "right" growth of course will depend on the long run income and price elasticity of demand for

1 For a discussion of "Wagner's Law", which in fact was not very precisely described by Wagner, see Peacock and Wiseman (1961).

government expenditures, but Wagner's guess, based on the performance of European countries, was that this will surely be greater than unity. Wagner's "law" does square with the increasing tax ratio and expenditure ratio observed in most industrial countries since the 1950s (Pryor, 1985, Tanzi, 2011).

We test the Wagner hypothesis for China with a regression analysis of per capita government expenditures against per capita GDP, with results shown in Table 2 – 5. The results, for a time series of total government expenditures (Column 1) and for a pooled cross-section and time series for subnational government expenditures (Column 5), show that expenditures grew faster than total output over this period. The expenditure-GDP elasticity was on the order of 1.3 – 1.5, depending on the time period studied. We also tested for displacement effects that might have come with a change in political leadership but could find no significant impact. [1] We did find, however, that the growth in expenditures was dampened by the 1994 reform, as is explained below.

Table 2 – 5: Determinants of the Growth of per Capita Government Expenditures in China [a]

	All Levels of Governments				Subnational Governments [b]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years	1994 – 2012	1983 – 2012	1983 – 2012	1994 – 2012	1994 – 2012	1983 – 2012	1983 – 2012	1994 – 2012
Constant	– 6.36 (– 19.47)	– 4.31 (– 6.09)	4.72 (9.12)	– 5.85 (– 17.39)	– 5.84 (– 13.37)	– 4.57 (– 12.79)	– 3.31 (– 6.00)	– 5.49 (– 13.26)
Per Capita GDP	1.49 (44.56)	1.32 (15.31)	0.21 (3.35)	1.39 (31.85)	1.42 (30.46)	1.32 (31.19)	1.17 (17.38)	1.34 (27.59)
Dummy 94 [c]	–	– 0.47 (– 3.18)	– 11.07 (– 18.02)	–	–	– 0.39 (– 9.00)	– 1.78 (– 3.62)	–
Per capita GDP – Dummy Interaction	–	–	1.28 (17.97)	–	–	–	0.17 (2.88)	–
Wage Ratio[d]	–	–	–	0.04 (3.24)	–	–	–	0.03 (4.15)
R^2	0.99	0.95	0.99	0.99	–	–	–	–
N	19	30	30	19	586/31	914/31	914/31	586/31

a. Social insurance and Government Fund Budget expenditures are not included; t-values shown in parentheses below regression coefficients; OLS estimates, all level variables in logarithms.

b. Panel data, fixed effects;

c. Dummy variable = 1 since 1994;

d. Wage paid to employees of government and party administration, and social groups as a percentage of total wage payments.

1 We introduced dummy variables for the first year of new governments over the sample period, but none were significant.

Another explanation of expenditure growth in industrial countries comes from the work of Peacock and Wiseman (1961), who thought that government expenditures reached new plateaus in response to major external shocks such as wars or major swings in economic performance. They reasoned that after the shock ended, public expenditures would continue on at the new higher rate. Some research on European countries (the second world war as a displacement) and the US (the depression as a displacement) has validated this argument (Castles, 1998, Tussing and Henning, 1991).

We examined this displacement hypothesis for China with interesting results. First we studied a long time series (1983 to 2012) and introduced a dummy variable to account for the effects of the landmark fiscal reform that was enacted in 1994. The results of this analysis show that total government expenditures and subnational government expenditures were displaced downward as a result of the 1994 reform. Apparently, closing the door on the use of extrabudgetary funds by local governments, and reducing the tax share entitlements of local governments had the desired effects(Bahl, 1999). But, an interaction dummy with per capita GDP showed a significantly higher income elasticity in the post – 1994 period. Apparently, the 1994 reform put both the central and the subnational government sectors on a new higher growth path.

Why did this happen? One answer is that the rate of national government revenue mobilization nearly doubled after 1994. This resulted from tax structure and tax administration improvements. The other is that the tax sharing agreements of 1994 gave subnational governments a guaranteed share of these tax revenues, and a new set of incentives to stimulate the growth in the tax base.

We also studied a longer time series (1979 – 2012), and introduced a dummy variable for the post – 1998 period when the Asian economic crisis began. The hypothesis is that government expenditure would be forced up by expansionary economic policy in the aftermath of the crisis. The results of this analysis (Table 2 – 6) show that total government expenditures and subnational government expenditures were displaced upward.

An interesting question is whether the present Chinese urbanization will turn out to be another such episode of displacement. In some ways it may, because the greater concentration of people in cities will make apparent some new expenditure demands. For example, government will face greater demands for dealing with environmental protection, congestion, housing, infrastructure, basic public services, and infrastructure. This is also a visibility factor, the general population might become more aware of income disparities and the need for better pro poor services. If so, and if China follows the path of industrial countries, the size of government will grow to a new level, and at a new, higher rate.

Table 2 – 6: Impacts of the Asian Crisis on per Capita Government Expenditures in China: Dependent Variable is per Capita Central and per Capital Subnational Government Expenditures

Variables	National Data 1979 – 2012		Subnational Data 1979 – 2012	
	(1)	(2)	(3)	(4)
Per Capita GDP	0.955***	0.733***	1.096***	1.007***
	(0.0555)	(0.123)	(0.0229)	(0.0265)
Dummy 1998		0.436**		0.197***
		(0.198)		(0.0275)
Constant	–1.320**	0.435	–2.769***	–2.081***
	(0.494)	(1.004)	(0.199)	(0.223)
Observations	34	34	1,030	1,030
R-squared	0.907	0.925	0.942	0.945
Number of id			31	31

Robust standard errors in parentheses
*** p < 0.01, ** p < 0.05, * p < 0.1

Another theory of expenditure growth observes that if labor in the productive sector is paid according to its (higher) marginal productivity, and if parity is kept between public and private sector wages, then the government sector will take an increasingly higher proportion of national output (Baumol, 1967). The Baumol hypothesis may not fit the China situation very well, for two reasons. First, public sector wages have grown at a faster rate than private sector wages over most of this period(Yin and Gan, 2009). Second, the compensation of workers may include a number of nonwage perquisites, as well as subsidized general public services. The relative public-private sector wage was included in the long time series analysis reported in Table 2 – 5 with results consistent with the Baumol hypothesis, but we are not able to specify the equation so as to offer a proper test of the Baumol hypothesis.

Finally, there is the theory that expenditure increases are driven by the availability of revenues, i. e., the demand for public services is so great that expenditures will grow to use up any additional amount of revenue mobilization. This is a quite plausible explanation for China. The tax share of GDP grew from 15 percent in 2000 to about 19 percent in 2013, and relatively little of this increase was due to discretionary action.

TAXATION

General tax revenues in China are equivalent to about 19 percent of GDP(Table 2 –

7). Adding the payroll tax contributions that finance social insurance programs brings this tax ratio to about 23 percent. [1] These tax shares are above the average 17 percent level in developing countries, and double the 10 percent raised in China before the 1994 reforms. However, this level of taxation is still well below the average for industrial countries.

Table 2 – 7: Growth and Structure of Taxation in China[a]

Year	Tax Revenue as a Percent of GDP	Percent Distribution of Total Tax Revenue					
		VAT[b]	Consumption Tax[c]	Business Tax	Corporate Income Tax[d]	Individual Income Tax	Others[e]
1994	10. 64	45. 02	9. 51	13. 07	13. 82		18. 58
1995	9. 93	43. 10	8. 97	14. 34	14. 55		19. 05
1996	9. 71	42. 88	8. 98	15. 23	14. 02		18. 90
1997	10. 43	39. 88	8. 24	16. 08	11. 70		24. 09
1998	10. 97	39. 17	8. 80	17. 00	9. 99		25. 03
1999	11. 91	36. 34	7. 68	15. 62	7. 60	3. 87	28. 89
2000	12. 68	36. 19	6. 82	14. 85	7. 95	5. 24	28. 95
2001	13. 95	35. 01	6. 08	13. 49	17. 19	6. 50	21. 72
2002	14. 66	35. 03	5. 93	13. 89	17. 48	6. 87	20. 79
2003	14. 74	36. 15	5. 91	14. 21	14. 58	7. 08	22. 06
2004	15. 12	37. 32	6. 22	14. 82	16. 38	7. 19	18. 08
2005	15. 56	37. 50	5. 68	14. 71	18. 57	7. 28	16. 27
2006	16. 09	36. 73	5. 42	14. 74	20. 23	7. 05	15. 84
2007	17. 16	33. 91	4. 84	14. 43	19. 24	6. 98	20. 60
2008	17. 27	33. 19	4. 74	14. 06	20. 61	6. 86	20. 53
2009	17. 46	31. 05	8. 00	15. 14	19. 38	6. 64	19. 79
2010	18. 23	28. 81	8. 29	15. 24	17. 54	6. 61	23. 50
2011	18. 98	27. 04	7. 73	15. 24	18. 69	6. 75	24. 55
2012	19. 37	26. 25	7. 83	15. 65	19. 53	5. 78	24. 96
2013	19. 42	26. 07	7. 45	15. 58	20. 29	5. 91	24. 71

Sources: calculated from data in the China Statistical Yearbook 2012.

a. Includes only public finance budget revenues.

b. Domestic value-added tax does not include value-added tax from imports.

c. Domestic consumption tax does not include consumption tax from imports.

d. Before 2001, the corporate income tax only included stated-owned and collective-owned enterprises income tax. Since 2001, the corporate income tax also includes the income tax levied on other enterprises except for stated-owned and collective-owned enterprises, the figures are not comparable with the previous years.

e. The last column "others" in the table includes tax revenues like real estate tax, deed tax, land value increment tax, resource tax and so on. And the land leasing revenue(which most take it as land revenue) is not included because it is not considered tax.

1 Land revenues not included in these calculations.

TAX STRUCTURE

Tax revenues in China are dominated by consumption taxes. About half of all tax revenues are raised by VAT, excises and the business tax (Table 2－6, and Appendix Table 1). The direct to indirect tax ratio in China (0.36) is comparatively low. For example in 2005, the direct to indirect tax ratio in Asian countries was 0.91, the world average was 1.49, and the OECD average was 2.27 (Martinez-Vazquez, Vulovic and Liu, 2011). The other big difference between the revenue structure in China and that in the rest of the world is the heavy reliance on non-tax revenues, particularly revenue from the sale of land leases which now account for about 7 percent of GDP. [1]

The Chinese tax structure has been modernized since 1994. The changes have been gradual rather than the result of a large one-time tax reform, but they have been effective. The general direction has been toward a more simplified taxation system with broader tax bases, lower tax rates, better horizontal equity and improved collection practices. The value added tax was converted from a production to a consumption basis beginning in 2004, the differential rates of enterprise income tax between domestic and foreign companies were removed in 2008, the coverage of the excise tax has been expanded in recent years, resource taxes have been shifted to an ad valorem basis, and most recently, the business tax is being absorbed into the VAT in order to better cover the service sector and provide relief to companies that make heavy use of service inputs.

In the area of sub national government taxation, the government has been less aggressive on the policy front. The business tax is the major source of dedicated local revenue, but it is now being phased out or significantly diminished, and no replacement source has been announced. The property tax has been long discussed but there has not been enacted.

Tax Effort

One way to estimate China's space for additional taxation is with comparative analysis. The goal in such analysis is to determine whether China uses its taxable capacity to the same extent than do other countries. To do this we carry out a comparative analysis of the level of taxation in 54 countries in 2010.

We use a traditional approach to estimate China's tax effort. The idea in this approach

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1 The net profit after compensation and preparation of the land was 56 percent of this amount, or about 3.8 percent of GDP between 2008－2010 (World Bank, and Development Center, 2014, pp187－262).

is to estimate a country's taxable capacity by considering its level of GDP and other factors that make the expected collection of tax from this base easier or more difficult. For example, earlier studies showed that countries with a higher per capita GDP, a larger foreign trade sector and a smaller share of GDP originating in agriculture tended to have a higher taxable capacity. Studies identified with the traditional approach include Lotz and Morss (1967), Bahl (1971) and Bird, Martinez-Vazquez and Torgler (2008). In this analysis, we restate the taxable capacity approach in a more modern setting.

The model we use is:

(1) $T_c = f(x_i)$

(2) $E = T/\hat{T}_C$

Where $\hat{T}_C$ = estimated taxable capacity

x_i = the determinants of taxable capacity

T = actual tax collections

E = index of tax effort

Three exogenous variables (x_i) are used in this model as indicators of taxable capacity. Per capita GDP in $ US is the broadest indicator of a country's ability to tax. Most tax effort studies include this with success in their explanatory models. The export share of GDP is included here to indicate the size and formality of the production sector in a country. This measure is hypothesized to reflect the competitiveness of the country in international markets and to be associated with more formal sector wages, higher profits and consumption and growing property values in the tax base. Finally, we include a dummy variable for industrial countries to reflect a general development effect on taxable capacity, over and above that related to the level of GDP and the level of exports. Industrial countries are associated with modern approaches to doing business (e.g., recordkeeping that enables easier compliance and audit), and modern approaches to tax policy and tax administration (e.g., identification and taxation of capital gains, self-assessment, property taxation), and international agreements that lock them into more full exploitation of tax bases. [1]

The dependent variable in this analysis is the ratio of tax revenue to GDP in 2010, as reported in IMF(2011). Social security contributions are included in the dependent

1 Industrial countries are as defined by the World Bank. Per Capita GDP and the export ratio are from IMF GFS.

variable. The sample includes 54 developing and industrial countries, but does not include China. Estimation is by OLS and all variables are in log form. The expectation is that all three exogenous variables will have a positive effect on the level of the tax ratio.

The results of this analysis, reported in Table 2 – 8, show that all three explanatory variables are significant and with the correct sign. The cross section estimates of the GDP and export elasticities are well below unity but significant. All else the same, industrial countries have nearly a 10 percent higher level of taxation than other countries. Over 70 percent of the cross-country variation can be explained.

Table 2 – 8: Tax Effort Regression analysis of 54 Countries

Dependent Variable	Tax/GDP
Per Capita GDP	0. 37 *** (0. 107)
Export/GDP	0. 15 * (0. 083)
Dummy variable = 1 if industrial country	9. 91 *** (2. 812)
Cons tant	8. 34 *** (2. 704)
Number of obs	54
R Square	0. 72

Notes: * indicates significance at 0. 1 level, ** at 0. 5 level, and *** at 0. 1 level.

We may use these results to make an estimate of China's unused tax capacity. If China is viewed as a low income country, its estimated taxable capacity is 15. 3 percent of GDP which is well below its actual level of taxation of 24 percent (including social security taxes). Under this view, China is already a high taxing country and would appear to have little space for increased taxation. If China is compared with industrial countries, its estimated taxable capacity of 25. 2 percent is above its actual level of taxation of 24 percent (including social security taxes). The implication here is that China has some unused tax capacity. This raises the interesting question of whether China sees its peer group as industrial or low income countries.

FISCAL DECENTRALIZATION

China makes a greater percent of general government expenditures through its

subnational governments than does any other country in the world. As may be seen in Table 2 – 3, and is described in the discussion above, the subnational government share of government expenditures is more than 85 percent in 2012. By comparison, the subnational government shares of expenditures in such decentralized countries as Canada and Germany are respectively 66 percent and 39 percent, and in the US is 48 percent. If decentralized infrastructure spending from the Government Fund and social security are taken into account, the reported decentralized share in China will be considerably larger.

Even more revealing about the commitment to expenditure decentralization in China is that the largest share of subnational government spending is at the lowest levels of local government. Nearly two-thirds of total government expenditures is made by cities and counties (Table 2 – 3). The growing expenditure share of the sub provincial governments in China emphasizes the commitment to expenditure decentralization as a key component of the country's development strategy. Because of the prominent role of sub-provincial governments in service delivery, China's intergovernmental structure should position it well to manage the expenditure response urbanization.

In stark contrast, the government has made little commitment to devolution of general taxing powers. The legislative power of taxation in China is centralized. The current system does not give sub-national governments any autonomy to define the tax base or to set the tax rate. [1] If the definition of local taxes requires that local governments have an ability to set the tax rate, then the subnational government share is negligible. On the other hand, the central government in China does designate some taxes as "local revenues". These are collected by the subnational governments and all of the revenues are retained at the local level. [2] Using the Chinese definition for "local taxation", the subnational government share is about 25 percent.

The calculus of this intergovernmental arrangement tells an interesting story about vertical imbalance in the China intergovernmental fiscal system: The central government raises or authorizes raising nearly 100 percent of all general taxes, uses about 15 percent of this for its own programs of direct expenditure, and allocates the rest (about 85 percent) to subnational governments through various shared taxes and grants. Germany takes a similar approach to vertical balance in centralizing most tax rate and base decisions, as do Mexico and Indonesia among the large developing

1 The only elements of sub – national tax autonomy are the choice of the selection of tax rates of the urban and township land use tax within maximum and minimum legislated rates.

2 This list includes the business Tax, Resource Tax, City Maintenance and Construction Tax, House Property Tax, Stamp Tax, Urban Land Use Tax, Land Appreciation Tax, Motor Vehicles and Boat Tax, Vehicle Purchase Tax, Farm Land Occupation Tax, Deed Tax, Tobacco Leaf Tax and others.

countries. On average, the share of subnational government taxes is about 23 percent in the industrial countries and about 11 percent in the developing countries (Bahl and Sethi, 2012).

There are two very important qualifiers to this description of revenue centralization in China. First, the payroll contributions to financing social insurance are in the subnational government budgets, and there is provision for the rates of contribution to vary across provinces, at the discretion of the subnational governments. The second important qualifier is the decentralized responsibility for administering the sale of land leases. This currently includes the right to set the purchase price of the farmland, the right to set the price of the land lease, and the right to retain the revenues. Gross land revenues were equivalent to about 7 percent of GDP in 2012, almost 30 percent of general government revenues, and exceeded the revenue yield of social security contributions.

The broadest definition of subnational government taxation would include "local government taxes" as the term is typically used in China, social insurance taxes, and land lease revenues. By this counting, subnational governments control or are entitled to more than one-third of all revenues raised. To the extent that some intergovernmental transfers are also viewed as an entitlement, the subnational government share is even higher. Subnational governments in China may not have much discretion in setting the formal structure for general taxes, but they have a great deal of discretion in steering resources within their expenditure budgets. The budgetary response to urbanization is to a great extent in their hands.

EXPENDITURE ASSIGNMENT

Expenditure assignment, which refers to the division of functional responsibility between levels of government, is arguably the most important pillar of the fiscal decentralization system. Once the assignments are fixed, it is possible to develop a revenue system to finance these responsibilities and establish a fiscal balance for each level of government. But expenditure assignment is a far more difficult matter than just the division of responsibility for service delivery. It also involves the discretion that is given to each level in delivering these services.

PUBLIC SERVICE RESPONSIBILITIES

In China, there is no schedule of the responsibilities of each level of government in a budget law. Rather, *the Budget Law* confers substantial autonomy to each level of sub-national governments 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.

The State Council Regulations on the Implementation of the TSS defines expenditure responsibilities of central and local governments as follows[1]:

> *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 quite well that subnational governments have broad responsibilities for revenue delivery, but that these responsibilities are not defined in great detail and that they overlap with those of the central Government. The actual expenditures made by each level of government is shown in Table 2 – 9. As may be seen from this compilation, many of the public services that are associated with urbanization, and many public services where demand increases with economic growth, are delivered by subnational governments. Education, health care, social security, environmental protection, transportation, and community affairs together are nearly one-half of all government spending and in every case subnational governments account for more than 90 percent of the total. Education (94 percent local) and health (95 percent local) are the most rapidly growing public expenditure categories.

1 The State Council Regulations on the Implementation of the TSS, State Council [1993] article 85.

Table 2－9: Percent Composition of Government Expenditures by Level of Government in 2007 to 2012[a]

Function		2007	2008	2009	2010	2011	2012
General Public Services	Functional shares(total government)	17	16	12	10	10	10
	Division by level of Government (central)	25	24	12	9	8	8
	Division by level of Government (subnational)	75	76	88	91	92	92
Defense	Functional shares (total government)	7	7	6	6	6	5
	Division by level of Government (central)	98	98	97	97	97	97
	Division by level of Government (subnational)	2	2	3	3	3	3
Public Order and Security	Functional shares (total government)	7	6	6	6	6	6
	Division by level of Government (central)	17	16	18	16	16	17
	Division by level of Government (subnational)	83	84	82	84	84	83
Education	Functional shares (total government)	14	14	14	14	15	17
	Division by level of Government (central)	6	5	5	6	6	5
	Division by level of Government (subnational)	94	95	95	94	94	93
Science and Technology	Functional shares (total government)	4	3	4	4	4	4
	Division by level of Government (central)	52	51	52	51	51	50
	Division by level of Government (subnational)	48	49	48	49	49	50
Culture, Sports and Media	Functional shares (total government)	2	2	2	2	2	2
	Division by level of Government (central)	14	13	11	10	10	9
	Division by level of Government (subnational)	86	87	89	90	90	91

Con.

Function		2007	2008	2009	2010	2011	2012
Social Security and Employment	Functional shares (total government)	11	11	10	10	10	10
	Division by level of Government (central)	6	5	6	5	5	5
	Division by level of Government (subnational)	94	95	94	95	95	95
Medical and Health Care	Functional shares (total government)	4	4	5	5	6	6
	Division by level of Government (central)	2	2	2	2	1	1
	Division by level of Government (subnational)	98	98	98	98	99	99
Energy Saving and Environment Protection	Functional shares (total government)	2	2	3	3	2	2
	Division by level of Government (central)	3	5	2	3	3	2
	Division by level of Government (subnational)	97	95	98	97	97	98
Urban and Rural Community Affairs	Functional shares (total government)	7	7	7	7	7	7
	Division by level of Government (central)	0	0	0	0	0	0
	Division by level of Government (subnational)	100	100	100	100	100	100
Agriculture, Forestry and Water Conservancy	Functional shares (total government)	7	7	9	9	9	10
	Division by level of Government (central)	9	7	5	5	4	4
	Division by level of Government (subnational)	91	93	95	95	96	96
Transportation	Functional shares (total government)	4	4	6	6	7	7
	Division by level of Government (central)	41	39	23	27	4	11
	Division by level of Government (subnational)	59	61	77	73	96	89
Other Expenditure	Functional shares (total government)	15	16	17	18	17	15
	Division by level of Government (central)	28	26	35	24	21	23
	Division by level of Government (subnational)	72	74	65	76	79	77

Source: China Statistical Yearbook, various years. Website of Ministry of Finance.

a. Includes only public finance budget.

EXPENDITURE DISCRETION

Effective expenditure decentralization requires that the subnational governments have some degree of autonomy in deciding how the budget money will be spent. Chinese local governments do have discretion, but they also are limited in important ways. The instruments the central government uses to circumscribe subnational government spending are mandates, regulations and conditional grants.

Funded mandates are not necessarily bad public policy. They can be instituted to correct for externalities, or for equity purposes, or to move subnational government spending into closer conformity with central or provincial government objectives. But funded mandates have a cost: they must be monitored and so they require additional administrative costs, for both the government imposing the mandate and for the recipient. Mandates distort the expenditure choices of subnational governments and in that sense may in some cases impose an efficiency cost.

Unfunded mandates are simply orders for subnational governments to carry out certain actions, but no resources are provided to support this. The requirement of a more aggressive maintenance schedule for public assets, but without any assistance on the cost implied, would be an example. Usually, unfunded mandates are an attempt by the higher level government to control the distribution of expenditures by the subnational government.

Finally, there are non-monetary mandates, i. e. , regulations calling for the subnational governments to allocate their budget resources in certain ways or to manage facilities in certain ways. In some cases these mandates do not impose new costs on the subnational governments, but they do restrict budgetary discretion.

Among the mandates faced by subnational governments in China are

- The base compensation of public employees is fixed by the central government.
- Conditional grants and some unconditional grants carry requirements as to how the money must be spent.
- Minimum or maximum shares of the budget or GDP must be spent on specific functions, such as four percent of GDP on education.
- Other expenditures involving education, science and technology, agriculture, culture, health care, social security, and one-child policy are mandated to link to the growth of fiscal revenue or expenditure or GDP. The minister of finance, Lou Jiwei, indicated in an interview that these functions represented 48 percent total

fiscal expenditure in 2012. [1]

INTERGOVERNMENTAL TRANSFERS

Intergovernmental transfers finance most subnational government expenditures in China and play an important role in shaping inter-regional equity. Two types of transfers are used. The first is a direct sharing of total central government tax collections with subnational governments. This transfer accounted for about 46 percent of all subnational government revenues in 2009 (excluding land revenues and social insurance contributions, Table 2 – 10). The second, unconditional and conditional grants, accounted for 25 percent and 15 percent of subnational government revenues, respectively. Neither source of revenues can be viewed as a firm, long term entitlement, because the vertical sharing arrangements can be changed by central government policy actions. The extent to which subnational government budgets are decentralized is described in Table 2 – 10. At least in terms of public finance budget revenues, provinces retain 25 percent for their own direct expenditures and pass the remaining 75 percent down. The counties and townships spend roughly twice as much as the cities.

Table 2 – 10: Consolidated Income Statement for Subnational Government Sector in 2009[a]

(amounts in billion RMB)

Items	All Subnational		Provincial Gov.		Prefecture Gov.		County and Below Gov.	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total Revenue	7119	100	1740	100	1918	100	3559	100
Shared Tax Revenue	3260	46	765	44	1066	56	1429	40
Grants	2858	40	406	23	565	29	1888	53
General	1759	25	368	21	352	18	1039	29
Conditional	1099	15	37	2	213	11	849	24
Debt	200	3	193	11	7	0	0	0
Other Revenue	801	11	376	22	281	15	242	7
Total Expenditure	6230		1331		1672		3325	
Balance	889		409		246		234	

Source: Local Statistical Yearbook, 2009.

a. includes only public finance budget.

1 www. ce. cn/xwzx/ghsz/gdxw/201311/21/t20131121_ 1782314. shtml

SHARED TAXES

The 1994 TSS reform established a new framework for the intergovernmental transfer system in China, replacing the ad hoc, negotiated transfers of the past with a rules-based system (Bahl, 1999; Qiao and Liu, 2013)[1]. This system of revenue sharing gave subnational governments a well-defined entitlement to the total tax revenues raised. The present sharing arrangements (a 25 percent claim on VAT collections and a 40 percent claim on income tax collections) provide subnational governments with an income elastic revenue base, and a basis for financing the growing expenditure demands that will come with urbanization. Revenues from other central taxes are retained by the central government, earmarked for the subnational governments, or shared by some arrangement (Qiao and Liu, 2013). The question is whether this revenue base is large enough to cover the considerable fiscal needs of subnational governments. Moreover, even though the entitlement of subnational governments is clearly stated and honored in annual budget allocations by the central government, it is subject to change by central government actions.

Where the Chinese system differs markedly from that used in most other countries is the method of distributing this revenue sharing across provinces. The entitlements for each province are based on derivation, i. e., on origin of collections[2]. The higher income provinces, where most taxes are collected, will be favored under such a system. The simple correlation between per capita revenue sharing transfers and per capita GDP is 0.91, indicating a strong, systematic favoring of higher income provinces(See Table 2 – 11).[3] We find a significant positive relationship between the

1 Under the tax sharing system implemented in 1994, all taxes are classified into three types. Central taxes include excise (consumption), custom duties, vehicle purchase tax. Shared taxes include value – added tax (75/25 for central and local respectively), corporate income tax (60/40), personal income tax (60/40), and securities trading tax (97/3). Local taxes include business tax, property tax, urban land use tax, vehicle use tax, vehicle purchase tax, deed tax, urban maintenance and construction tax, and land value – added tax. In 2002 the central government further implemented income tax – sharing reforms which increased the share of corporate income tax allocated to the central to 60 percent over two years.

2 This system was used by many countries in the former Soviet bloc. More typical for developing countries is to define the vertical share to be a fixed percent of central taxes and for the distribution across local governments to be done by formula. This approach is taken, for example, in both Indonesia and the Philippines.

3 Strictly speaking, simple correlations do not provide strong evidence about equalization, and they provide no information at all about causation. The results can be influenced by outliers, e. g., Shanghai, Beijing and Tibet in the case of China.

per capita amount of revenue sharing received and the HDI index. [1]

Table 2 – 11: Simple Correlations Among per Capita GDP, HDI Index and per Capita Transfer: by Type of Transfer in 2009

	GDP	HDI Index
Total Transfer	0.48***	0.20
Shared Taxes	0.91***	0.79***
Total Grants	–0.28	–0.51***
Tax Relates	0.72***	0.61***
Unconditional Grants	–0.35*	–0.56***
Equalization Grants	–0.41**	–0.61***
Conditional Grants	–0.35*	–0.56***

Sources: calculated from data in the Fiscal Data of Local Governments and China Statistical Yearbook.
Notes: '***', '**', '*' indicate the correlation coefficient is significant at the level of 1%, 5%, and 10%, respectively.

GRANTS

The other type of intergovernmental transfer used in China is grants, including both unconditional grants and hundreds of special programs of conditional assistance for subnational governments (Martinez-Vazquez, Qiao and Zhang, 2008; Qiao and Liu, 2013). At present, unconditional grants account for about 60 percent of total grants. [2] The trend is in conformity with that in industrial countries where the growing relative importance of unconditional transfers reflects a desire to give more budget autonomy to subnational governments (Blochinger and Vammalle, 2010).

The sample correlation between per capita total grants and per capita GDP is –0.35, indicating that lower income provinces in China tend to be more favored in the distribution of grants than in the case of shared taxes.

Unconditional grants

The term "unconditional" is misleading in the case of China, because 70 percent of these grants are earmarked for certain program activities. The supported programs range widely, e.g., from grants to compensate for the loss of the agricultural tax to compulsory education grants (See Annex Table 2). The inter-province distribution of

1 The Human Development index (HDI) measures social and economic development by combining indicators of life expectancy, educational attainment and income into a composite human development index. The index takes on a value between 0 and 1 with higher levels indicating a higher rate of social and economic development. The HDI is described in United Nations Development Programme (various years).

2 A partially disaggregated distribution of grants by type is presented in Annex table 2.

these grants and in many cases the final use of these grants is affected by these earmarks.

China's unconditional grants might be grouped into three categories. The *equalization transfer*, introduced in 1995, is designed to reduce fiscal disparities among 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 a myriad of categories including spending on administration services, public safety, education, urban maintenance, social assistance, and heating.[1]

The simple correlation between per capita equalization grants and per capita GDP is −0.41, suggesting that, on average, lower income provinces receive larger equalization grants. There is an even stronger relationship with the HDI index, suggesting that the equalization grant is well targeted. However, the equalization grant represents only 18 percent of all intergovernmental transfers, and therefore has not been effective in significantly reducing fiscal disparities across provinces. There is no fixed vertical share for equalization grants, and the relatively low level of funding may in part be due to the growth in earmarked grants and in other unconditional grants (Zhang and Martinez-Vazquez, 2003). In OECD countries, by contrast, regional disparities in fiscal capacity were reduced by as much as two-thirds in the mid－2000s (OECD, 2007).

The second category of unconditional grants is the "*tax rebates*" to the transfer system. Originally, this program was a return of some additional share of tax collections to richer provinces in order to smooth out resistance to the TSS reform. In practice, the tax rebates are highly counter-equalizing and act as an offset to the equalization grant. The simple correlation between the per capita rebate transfer and per capita GDP is 0.72. An interesting aspect of the tax rebate transfer is that the initial provincial shares were stated in terms of nominal tax collections in a base year, therefore its relative importance in the grant system has decreased over time. The tax

1 The calculation method can be found in "The methods of the central to local equalization transfer in 2012", see http://yss.mof.gov.cn/zhengwuxinxi/zhengceguizhang/201207/t20120725_669218.html. For example, for the case of education, expenditure needs are calculated as follows: The standard education expenditure = the number of students * per student average expenditure * coefficient of expenditure cost, where the "per student averageexpenditure" is computed as national total education expenditure divided by the total number of students. The calculation of the coefficients of expenditure costs for different regions is quite complex involving nine additional coefficients. Other standard expendituresare calculated in similar ways.

rebate now represents about one-third of the share that it accounted for in 1994 – 95.

Third, the vertical imbalance at the sub-national level is addressed with unconditional *gap filling transfers* to local governments. The major categories of gap-filling grants are:

- Revenue return grants that are designed to hold provinces harmless by ensuring that every province would have total nominal revenues that are no lower than that in 1993.
- Transfers to minority regions.
- Transfers for increasing wage expenditure of public employees. These are designed to support central and western provinces to meet the requirements of the central government to increase the wages of public employees.
- Transfers for rural fee-to-tax reform and a transfer to compensate for elimination of the agriculture tax.
- Other general transfers that address the financing gap of provinces include the transfer for resource exhausting cities[1]; the transfers for the replacement of the local market place management fee and individual industry and commercial entity fee; the transfersupporting the "Oil Tax and Fee Reform," and the transfer for "regions with important ecological functions."

Conditional Grants

The earmarked transfers (see Annex Table 2) direct grants to special needs, where the central government wants to stimulate local spending. Hundreds of specific purpose grants are associated with a variety of programs at the central level. An example is the "compulsory education transfer" introduced by the central government in support of the rural compulsory education program.[2] Another example is the transfer introduced to subsidize the issuing of state bonds. Among the most important targets of specific transfers are transportation, affordable housing and education. Many of the earmarked transfers were introduced to address specific, immediate needs. All require that the money be spent for a specific purpose.

Most of these transfers are monitored by a controlling central line ministry or their

1 This transfer was established in 2007 specifically for cities that were rich in natural resources at some point but because of the exhaustion of the natural resources now need additional revenues to support the continued provision of local public services.

2 For a discussion of the compulsory education program, see Wong, 2013a.

provincial counterpart. The earmarked grants carry conditions about the purposes for which the funds will be used but in some cases about the standards of service to be provided. [1]

TRANSFERS TO SUB PROVINCIAL GOVERNMENTS

Transfers from provincial government to sub-provincial governments are at the discretion of the provincial government, in terms of both the aggregate shares allocated to the cities and counties, and the distribution of transfers among individual local units. In this respect, the Chinese system has taken on one of the important features of a federal system.

It should come as no surprise that this approach leads to a wide variation across provinces in terms of how the allocations are made to the lower level city and county governments. In some cases, taxes are shared with lower level governments on a derivation basis. Formula allocations, specific purpose grants and mandated pass-through of the funds also are used in the distribution of revenue among lower level governments. In addition, provinces have the authority to issue special grants on a project-by-project basis. While the 1994 reform did bring about a significant change in how central transfers were allocated among provincial governments, the sub provincial allocation methods did not all follow the national changes, and in some cases there was no change at all.

To learn more about sub provincial allocations, we have aggregated the flow of funds based on destinations of the transfers. On average, county governments account for about half of all subnational government spending. Counties are financed more heavily by grants than by shared taxes (Table 2 – 10, Annex Table 3 and Annex Table 4). For example, in 2009, grants represented 53 percent of all revenues of county level governments and below, as compared to prefectures (29 percent) and provinces (23 percent).

GOVERNMENT BORROWING

China restricts borrowing by subnational governments. Article 28 of the budget law of the People's Republic of China stipulates that: "the local budgets at various levels should be compiled according to the principles of keeping expenditures within the limits of revenues and maintaining a balance between revenues and expenditures, and should not have deficits. The subnational government may not issue bonds except as

1 Such programs are used in other countries. For example, the "centrally sponsored schemes" in India.

prescribed by laws or by the State Council." Formal provincial and local government direct borrowing in China is quite small, equivalent to about 7 percent of GDP.

This limitation creates a serious public financing problem because responsibility for financing infrastructure rests largely with subnational governments, and they must respond to the increase in demand for public facilities that results from urbanization and economic development.

To meet their capital financing needs, local governments turned to agents who would borrow on their behalf, known variously as urban development investment companies (UDICs), special purpose finance vehicles or financing platforms. The UDICs are capitalized by the local governments; mostly with user rights to land that were purchased from rural collectives (farmers) and converted to State-owned status. [1] The UDICs then borrowed to finance the infrastructure improvements necessary to lease the land, using the expected revenue stream from the land leases as collateral. Half of the debt outstanding of subnational governments is borrowing by UDICs (Annex Table 4). About two-thirds of this debt is guaranteed by the local governments (the guarantee status on the other one third is uncertain).[2]

Local government borrowing has risen sharply in recent years. According to the National Audit Office, the total debt of the government was 30.27 trillion RMB (about 4.9 trillion USD) at the end of June 2013, an increase of 73.27 percent from 2010. This total made up 53 percent of GDP in 2013, of which central government debt accounted for 12.38 trillion RMB (22 percent of GDP) and local governments, 17.89 trillion RMB (31 percent GDP), underscoring the risks to the financial system. For the year 2012, direct debt was 36.74 percent of GDP; external debt was less than one percent; and the combined total debt to GDP ratio was 39.43 percent, well below the 60 percent warning threshold, by international standards.[3]

The land leasing program has been very successful in terms of the amount of revenue that has been raised, and this is largely due to the amount of new debt financing that it has supported. The total debt of the local governments has increased significantly in the past decade. The total government direct debt represented about 37 percent of GDP by the end of 2012(National Audit Office, 2013). At least in terms of average levels of debt outstanding, Chinese local governments would not appear to have reached dangerous territory.

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1 In some cases, this capitalization would be augmented by a dedicated revenue stream from the local government budget, and in some cases by ad hoc transfers from the subnational government budget.

2 Reported by Painter (2013).

3 http://www.gov.cn/gzdt/2013-12/30/content_2557203.htm

The description of subnational government debt structure and liability presented in table 2 – 12 may help understand the potential for future problems. First, note that only about 25 percent of debt was directly issued by subnational governments. Nearly 60 percent of debt was issued by UDICs and SOEs. An important question is where does the liability for this debt lie.

The Ministry of Finance divides the subnational government liabilities into three categories according to the responsibility assumed by the subnational governments: Direct Liabilities, contingent liabilities to guarantee, and other types of contingent liabilities to others.

- The Explicit Liabilities are those that carry hard repayment guarantees by the subnational governments. These include subnational government bonds such as those issued by the Ministry of Finance in 2009, transfer loans from higher level governments[1], arrears of subnational governments such as in wages or creditor payments, and loans of subnational financing platforms where repayment by subnational governments is explicitly stipulated in the contract. About 61 percent of subnational government debt is explicitly guaranteed.

- Contingent Liabilities to Guarantee. This includes the part of the transfer loans from upper level government that is invested in profitable competitive projects. If the profit of the project is not enough to pay off the loan, the upper level government withholds the remaining amount due from the lower-level government. Therefore, the liability for repayment belongs to the local government. Another contingent liability is the direct liability of the financing platform, government affiliated institutions and public institutions that are guaranteed by the government (except for the direct debt paid by the direct financial fund).

- Other Contingent Liabilities. This includes the loans for infrastructure construction projects that are not guaranteed by the government. The lenders include government affiliated institutions (e. g. university and hospital etc.); public institutions (for water service, heating, gas supply, sewage disposal, garbage collection, etc.); and financing platforms.

1 Transfer loans from higher level governments would include the lending for nonprofit public (infrastructural) projects, where all repayment depends on fiscal funds. For example, this would include the funds of a treasury bond that are lent to subnational governments by the ministry of finance for some local construction projects supervised by the institutions of central government.

Table 2 – 12: Subnational Debt by Borrowing Units by end of June, 2013 unit: Billion

	Total		Direct Liabilities		Contingent Liabilities: Guarantees		Other Contingent Liabilities	
	Volume	Percent	Volume	Percent	Volume	Percent	Volume	Percent
UDICs	6970. 4	39	4075. 6	37	883. 3	33	2011. 6	46
Subnational Government	4058. 9	23	3091. 3	28	968. 4	36	0	0
Fiscal Compensated Public Service Units	2395. 1	13	1776. 2	16	103. 2	4	515. 7	12
Wholly State Owned Enterprises and Partly State Owned Enterprises	3135. 6	18	1156. 3	11	575. 4	22	1403. 9	32
Own Revenue and Expenditure Public Service Units	602. 5	3	346. 3	3	37. 8	1	218. 5	5
Utilities	328. 1	2	124	1	14. 4	1	189. 6	4
Others	394. 4	2	316. 3	3	83. 1	3	0	0
Total	17890. 9	100	10885. 9	100	2665. 6	100	4339. 4	100

Source: National Governmental Debt Audit Report 2013.

LAND REVENUES AND LAND LEASING

The financing of urban infrastructure with the sale of land leases is not a new approach. [1] What is new is the scale of infrastructure investments financed by land leases in China over the past decade, and the leadership of this program by local governments. The practice of selling leases on the user rights began modestly in China, in Shenzhen in 1987 (Peterson, 2007). But over the past two decades, the practice has taken hold and is now used throughout China. The program has very great advantages and has offered local governments a way to finance the infrastructure and public services necessary to support urbanization. The funding for public facilities raised from this program has been nothing short of astounding, and the infrastructure created has smoothed out many of the roadblocks to migration to urban areas in the past two decades.

Infrastructure needs and the robust revenues from land lease sales have made the program an important component of local public finance in China. It has become too valuable to abandon. On the other hand, a number of problems have arisen, ranging from concerns about the rate of increase in land-based debt that is presumably guaranteed by local governments, poor investment choices made by some local

1 The successful experience with land leasing in Hong Kong was, perhaps, the model for China(Hong, 2003).

governments, overinvestment in infrastructure vs. other urban services, urban sprawl, the challenge to food security, and social and equity issues surrounding the practices in transferring farmland to urban use. [1] Reform of the structure of the program to address some of these problems is now a priority in China. These reforms almost certainly will lead to a reduction in the net revenue realized by local governments.

The process of getting to a more sustainable land policy will not be easy. The appeal of selling land leases has been irresistible to many local governments. Land leasing offers local governments a major source of revenue which they can control without central oversight. Moreover, the revenue from land leases need not be shared with the central government. [2] There has been a ready market for the land user rights, often involving buyers from outside the region. Local residents (other than the farmers) did not perceive that they were bearing any costs of this infrastructure development. Once it became clear that the central government would accept the use of local investment companies (UDICs) to issue debt on behalf of municipalities, and to use the expected revenues from land leases as collateral for these loans, the problem of finding long term financing for capital projects was essentially solved. This was aided by what appears to be a closer-than-arms-length relationship between the local governments who would guarantee the loans, and the banks that would make the loans. It is no surprise that the use of land leases to finance infrastructure development and industrial development simply took off.

Land lease revenue rose from 3.3 percent of GDP in 2008 to its present level of about 7 percent (See Table 2 – 13). Land revenues accounted for an amount equivalent to nearly one-third of total subnational government revenues in 2013, but with variations across the regions. The revenue shares in 2009 and 2010, for example, were 28 percent of revenue in Guangzhou and 20 percent in Shanghai(Wong, 2013).

In general, the conversion of local government assets into public facilities and services that will yield a higher return is a good economic decision. Most would applaud a government that sells a commercial venture and uses the proceeds to upgrade the school system, and most would decry the practice of local governments carrying excessively large cash balances while basic public services go unmet. On the other hand, disposing of unnecessarily large cash deposits is one thing, but selling leases on land assets is more difficult to endorse without qualifications. This is especially the case in China where local governments have a monopoly position on urban land

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1 For a comprehensive analysis of the issues, see World Bank and Development Research Center (2014), pp81 – 186.

2 Previously, land revenues were shared with the central government but after the 1994 reform the local governments were allowed to retain the full amount.

Table 2 – 13: Land-leasing Fees: 2004 – 2013

Year	Land-leasing Fees (billion Yuan)	As a Percent of GDP	As a Percent of Public Finance Revenue
2004	77	0.48	2.91
2005	109	0.59	3.44
2006	165	0.76	4.25
2007	694	2.61	13.52
2008	1038	3.30	16.92
2009	1397	4.10	20.38
2010	2820	7.02	33.93
2011	3114	6.59	29.98
2012	2665	5.13	22.73
2013	4125	7.25	31.94

Sources: calculated from data in China Statistical Yearbook and the Websites of Ministry of Finance.

ownership and where the conversion to urban land use involves dispossessing current users of the land. [1]

SUBNATIONAL GOVERNMENT BUDGETING

Subnational government budgets in China are made up of four accounts, or sub-budgets: the public finance budget, the government fund, the social security budget, and the SOE operating account. There is not a consolidated budget that fully reconciles all of these accounts [2].

In addition, separate off-budget accounts are kept for public service units, public enterprises, state owned enterprises, and for UDICs (financing platform). The Department of Finance at the subnational government level does not directly control any of these external budgets, but does link to them with various types of transfer.

This budget structure and the transfers among the various accounts are described in Figure 2 – 1.

1 A similar set of issues has arisen in the case of dividing the returns from exhaustible natural resources between different levels of government and indigenous peoples. Canada and Russia are examples of different solutions to this problem.

2 In theory, the four sub – budgets are independent and managed separately, but MOF is now researching possibilities for linking these in a more formal way to enable better fiscal planning.

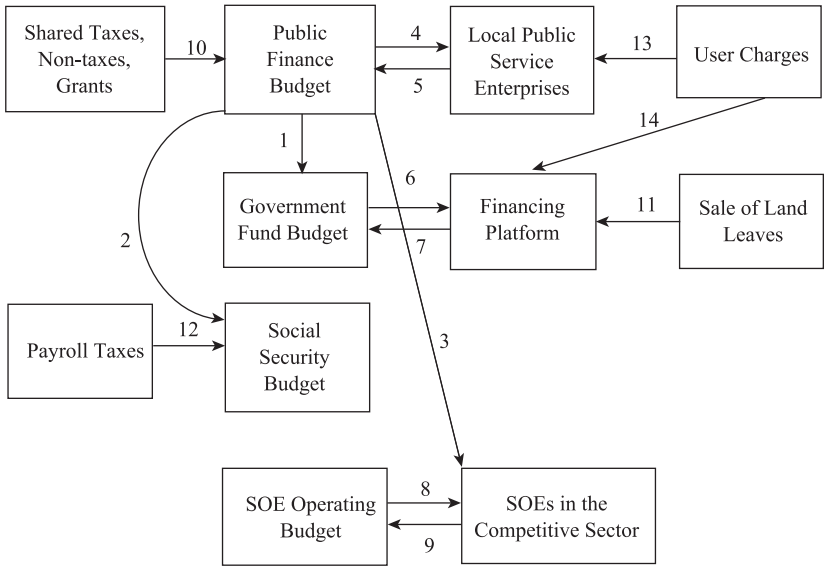

Figure 2 – 1: Subnational Government Budget Flows

TRANSFERS: key to Figure 2 – 1

1. Subsidy for capital construction purposes. May be earmarked.
2. Subsidy to cover deficit in social security budget
3. Transfer to cover deficits in competitive SOE sector
4. Subsidies to cover deficit of public service companies
5. Transfer of general surplus of public service companies to PFB
6. Transfer from Government Fund Budget to Financing Platform
7. Transfer of profits of Financing Platform to Government Fund Budget
8. Transfer of funds from SOE operating budget to SOEs in Competitive sector
9. Transfer of SOE profits or dividend payments to SOE operating budget
10. Flow of intergovernmental transfers to Public Finance Budget
11. Flow of land lease sales revenues to financing Platform
12. Flow of payroll tax revenues to Social Security budget
13. Flow of user charges to local public service enterprises
14. Flow of user charges to financing platform

PUBLIC FINANCE BUDGET

The public finance budget is the general account of the government, and includes nearly all general recurrent expenditures and some capital expenditures. All local taxes and most intergovernmental transfers flow to this account. Expenditures from the public finance budget are what is reported in most statistical compilations as "total government expenditures" (e. g., see the China Statistical Yearbook 2012). The Public Finance Budget is managed by the Finance Bureau of the subnational

government.

Transfers are made from the public finance budget to other budgets, for a variety of purposes.

- To public service companies to cover operating losses, e. g., to cover losses incurred by the bus company because fares are set too low to cover costs.
- To the Government Fund to cover some infrastructure investment costs, or to cover supporting expenditures for capital investments.
- To the social security account to cover shortfalls between premiums paid into the program and benefits paid out.
- To the SOE budgets in the competitive sector (directly or indirectly) to assist distressed companies, to address bankruptcy and reorganization, or to address concerns about negative externalities.

THE GOVERNMENT FUND BUDGET

The Government Fund (GF) is a special account for economic development projects (mostly infrastructure). This sub-budget includes most of the capital expenditures made by local governments. The main financing source for this budget is land revenues. Outlays for capital facility construction may be made directly from the Government Fund budget, or indirectly through transfers to UDICs that are responsible for arranging the construction and the finance. Transfers are made between the UDIC and the Government Fund budget, but are not always transparent. The arrangements for transfers from the Government Fund Budget and the Public Finance Budget are now under study at MOF.

SOCIAL SECURITY BUDGET

The Social security budget includes the benefit payments for insurance programs that cover pensions, health and worker protection, it also includes the payroll contributions and subsidies that finance these programs.

SOE OPERATING FUND BUDGET

The SOE operating fund budget (not yet operative in all local governments) was set up to account separately for the relationship between the general government at the subnational level, and their enterprises in the competitive sector. Generally, two activities are shown in this account: (a) Transfer of dividends from SOEs to general

government to reflect a return to ownership; and (b) Subsidies to the SOEs to cover costs, including policy subsidies.

IS THERE A HARD BUDGET CONSTRAINT?

Chinese subnational governments cannot run a deficit. But in fact the concept of a deficit is defined loosely in the law, and there is not full transparency in the accounts. Some would argue that at least some local government budgets are not in balance.

There is a reasonably clear understanding of the meaning of a hard budget constraint in the industrial countries. A hard budget constraint forces a balance in government budgets. Recurrent expenditures are at least matched by recurrent revenues and existing cash balances, and there are no current account deficits. [1] Ex ante proposed deficits would not be allowed under such a regime. On the capital side of the budget, the sources of finance are current surplus, capital grants, sale of assets, and borrowing. With respect to debt, the idea is to balance the (monetary) flow of annual benefits from a long-lived investment with the annual payment for these benefits. If finance is by borrowing, the life of the asset (and its benefit flow) should match the life of the loan (and the repayment flow). All of this is well known and widely discussed in the literature on local public finance.

Chinese officials insist that all four subnational government budgets are in balance. In fact, this may not be the case, as is suggested by the following:

- Payroll taxes cover only about 75 percent of the cost of social insurance benefit payments, and so a subsidy is required.
- Transparency is limited, and so transfers to and from enterprises (including UDICs) are not fully known. This makes it difficult to know if the normal budget balance tests have been passed. [2]
- Some local governments have rolled over their loan repayments (financed with new borrowing).
- Budget deficits might also be hidden by non-monetized transfers to SOEs or public service companies. These might include interest rate subsidies, or transferring the right to collateralize debt with expected land lease revenue flows.

1 Of course there are always exceptions, for example, natural catastrophes that call for unbudgeted and sometimes quite large relief spending, and short term cash flow problems that result from lumpy expenditures and uneven revenue flows from grants or local taxes.

2 For a discussion of this, see Wong(2013).

- Local governments can game the system by moving expenditure outlays and revenue receipts forward or back by a fiscal year. In this way, deficit budgets can be made to appear like balanced budgets.
- Arrears in wage and benefit payments, unpaid suppliers and underfunded pension and health insurance funds are also forms of budget deficits.

METROPOLITAN AREA FINANCES

China's four largest metropolitan areas are governed by city-provinces, i. e. the local governments have both city and provincial status. Beijing (20. 7 million population), *Chonqing* (29. 5 million), Shanghai (23. 8 million), and Tianjin (14. 1 million) are metropolitan governments that share responsibility for public service delivery with underlying districts. Together, the provincial cities account for 6. 5 percent of the national population, 11 percent of GDP, and 12 percent of expenditures made by all provincial and local governments.

ECONOMIC IMPORTANCE

The city-provinces play an important role in driving the Chinese economy. Their comparative advantages enable them to compete effectively in international markets. These advantages include a strong infrastructure and a skilled labor force that has been drawn to the big cities. Size allows them to capture important agglomeration effects, and they are hubs of innovation (Yusuf, 2013). They have gained important advantages from specialization (e. g., Shanghai as a financial center, Beijing as a government center) and have become regional economic centers (e. g., Chongqing). They generate important external benefits to the rest of China.

There also are special costs that come with this comparative advantage. Public service levels and amenities must be upgraded to attract and hold skilled labor, and transport and IT services must be continuously improved to attract industry. There also are the urban problems that inevitably come with size, such as congestion and environmental degradation, and these must be addressed in order to hold on to comparative advantages. The fiscal costs facing metropolitan cities are formidable. This is all complicated by the fact that these cities have outgrown their boundaries and now find that their economic regions and their public service areas intrude on those of surrounding jurisdictions.

PUBLIC FINANCES

Based on the data presented in Table 2 – 14, we might comment on two patterns of

fiscal behavior and outcomes. First, the per capita expenditures in metropolitan cities is different from that in other local government areas, and the differences are dramatic. Shanghai and Beijing both spend nearly three times as much on a per capita basis as do the average provincial-local governments in China. Shanghai and Beijing are richer than Tianjin and Chongqing, and have a larger VAT base. Substantially more is spent per person on general services in the large metropolitan cities. But most general revenues are derived from shared taxes which are levied across China at uniform rates and bases, and shared with each province (including the metropolitan provinces) according to point of collection.

Second, metropolitan cities have more fiscal resources than do other local governments in China, but they do not use this larger capacity in the same way. Beijing and Shanghai show greater emphasis on social security expenditures budgets than does the average subnational government in China. However, there does not seem to be much difference between the metros and the rest of China in terms of the percent of GDP they allocate to spending for health and education. Chongqing and Tianjin show considerably greater emphasize on infrastructure spending expenditures in the Government Fund budget.

Fiscal Balance

The Chinese intergovernmental fiscal system is uniform. All subnational governments are subject to the same regime in terms of shared taxes, grants, land lease revenues and borrowing. The only difference is that these four metropolitan areas have both provincial and city status.

There is discretion within these large metropolitan areas to pursue different intergovernmental fiscal policies, as might be illustrated by a comparison of some features of the approach to fiscal policy taken in Shanghai and Chongqing. In fact, some features of the two systems are alike. Service delivery in both cities is divided between the metropolitan government and its underlying districts. The general framework of expenditure assignment to the two levels is much the same: the municipal level is assigned the macro and investment functions, and the service delivery responsibility for functions characterized by large externalities. Goods with a more localized benefit pattern are assigned to the underlying districts. For example, in the case of education in Shanghai: Higher education is the responsibility of the municipal level in the case of all universities "affiliated" with the Municipality; Compulsory primary and secondary education is the responsibility of the district level; technical, vocational, and special education depends on the "affiliation" of the educational institution. In both metropolitan cities the result is a more or less equal division of budgetary responsibilities between the upper and the lower levels.

At the same time, there are interesting differences. These may owe to different levels of per capita GDP but they also reflect differences management style. An important difference in approach is in the area of user charges. In Chongqing, lighter rail and bus services are subsidized from the general budget, i. e., fares do not cover costs. Much the same case holds for the Beijing transit system. In Shanghai, however, fares are kept at a cost recovery level and there is not a general fund subsidy for transport.

Another difference to remark on, based on this preliminary analysis, is in the area of revenue sharing between the municipality and the districts. As may be seen from Table 2 – 14, different choices were made with respect to shared taxes. For the major consumption and income taxes, Chongqing municipality retains a greater share of collections than does Shanghai, and holds to a uniform 60/40 division for most taxes. Shanghai takes a more engineered approach to revenue sharing, and differentiates the sharing rate by revenue source. Note that Shanghai retains all revenue collections from the financial sector and from the largest enterprises.

Table 2 – 14: Provincial Cities: Selected Fiscal Indicators, 2012 [1]

	All Subnational Govts in China	Beijing	Shanghai	Tianjin	Chongqing
Per Capita Expenditure (Yuan)	12904	31492	32329	27871	17525
Education and Health Exp as Percent of GDP	4.74	4.95	4.19	3.76	5.60
Social Security Fund Exp as Percent of GDP	5.65	9.62	10.60	5.89	5.70
Government Fund Exp as Percent of GDP	5.92	6.21	6.80	8.03	12.84
Per Capita Shared Tax Revenue(Yuan)	3511	15103	14398	7824	3294
VAT as Percent of GDP	1.17	1.76	3.31	1.16	0.76
Retained Revenue as Percent of GDP	10.59	18.54	18.55	13.65	14.93
Distribution of Revenue					
Public Finance Budget	45.94	49.51	49.60	50.14	42.64
Government Fund Budget	25.73	17.89	17.10	27.01	35.90
Social Security Fund Budget	28.33	32.60	33.30	22.85	21.46
Distribution of Expenditure					
Public Finance Budget	61.63	56.56	54.38	54.42	59.03
Government Fund Budget	19.64	17.05	17.83	26.28	28.38
Social Security Fund Budget	18.73	26.39	27.80	19.30	12.59

Sources: calculated by authors based on China Statistical Yearbooks, and the data provided by the Ministry of Finance.

1 Data of social security fund is based on 2014 budget.

In both cities the methods of distributing grants to underlying districts is complicated, in the same way that the central government grants to the provinces is complicated. Both cities reflect the conditionalities in their allocation of earmarked central grants. For unconditional grants, which dominate in the urban areas, [1] the allocation is done some with some combination of formula and ad hoc distributions. Because revenue collections are concentrated in some districts, and because sharing with districts is done on a derivation basis, fiscal disparities emerge in the allocations and must be addressed by transfers from the municipal level.

Table 2 – 15: Municipal/District Allocations

	Shanghai	Chongqing
VAT, Business tax, UCMT	(35/65)	(60/40)
CIT	(50/50)	(60/40)
PIT	(45/55)	(60/40)
Property and Land Taxes	(20/80)	(60/40)
Land Use Tax, Farmland Tax	(50/50)	(60/40)
Bank/Insurance Tax	(100/0)	…
Very Large Enterprise	(100/0)	
Other	(0/100)	(0/100)

1 In Shanghai, about 90 percent of grants come from unconditional transfers and only 10 percent are earmarked.

CHAPTER THREE
THE FISCAL SYSTEM IN 2014: PROBLEMS AND ISSUES

INTRODUCTION

The Chinese fiscal system has been revenue productive over the past two decades, and has enabled subnational governments to finance a significant amount of infrastructure investment. But the fiscal system is beset with major structural problems and these have imposed real costs on the economy. Moreover, the present approach to public financing may not be fully in step with the goals for economic and social development as laid out in China's Third Plenary Session of the 18th CPC Central Committee.

There does not seem to be much disagreement about the need for fiscal reform, but timing is an issue. Typically, the Chinese approach to policy reform is gradual. But, resolving some of the problems with the Chinese fiscal system has become a pressing matter. The longer the wait for reform, the more the current practices will become institutionalized and the harder they will be to change.

The following review of the issues surrounding each component of the fiscal system identifies these reforms, describes how they are inter-related and suggests the need for a comprehensive approach to change.

CHINA OUTGREW ITS PUBLIC FINANCE SYSTEM

Today's fiscal problems in China are less the result of unwise policy decisions than they are the result of China simply outgrowing its approach to public finance. The rate of economic growth was high over the past 30 years, and the structure of the economy changed dramatically. Economic reforms drew on market principles to fuel this growth and restructuring. However, the public finance system, particularly the intergovernmental fiscal system, has been little changed since the major 1994 reforms and has even held on to some of the features of the pre-reform system. [1] To the extent

[1] Central government tax policy is certainly one exception to this, particularly the modernization of the value added tax and the strengthened tax administration.

that the public finance system has not responded to the needs of the changing economy, and to the new demands of the population, it has imposed costs. Many of these costs have been made more apparent by the urbanization of China.

We might point to four areas where the present public financing system is not as good a fit with the new economy as it should be, and where it may not be efficient in accommodating the next round of urban population growth.

THE ROLE OF SUBNATIONAL GOVERNMENTS

The first is the changing role of subnational governments in the economy. The central government played thedominant role in the planned economy, and local governments acted as agents of the central government. Over the past three decades local governments have been given the latitude to raise and spend public monies, first through extra budgetary accounts, and now with land revenues and borrowing guarantees. During this time they have grown into units that have taken the initiative to steer infrastructure investment and in general to deliver a public service package that would support economic growth. Local governments compete with one another, aggressively, for jobs and tax base, and they have shown innovation in doing this. They also are an important part of the political economy in China.

The next step in the changing role for local governments in China is to move toward a model where local governments have less latitude in how they compete for economic development but are more accountable to their populations and to the central government for the quality of service delivered. This means local governments will take on some new challenges.

Urbanization imposes different costs on different subnational governments and presents them with different opportunities to cope with increased costs and to capture benefits. Within the confines of national regulations governing municipal financing, subnational governments should be in a position to control their costs and benefits by choosing their package of public services and amenities, the compactness of their urban growth, and the way they finance all of this. The resulting differential emphasis in local budgets might be driven by more or less heavy manufacturing in the economic base, a larger vs. a smaller backlog in the housing stock, the presence or absence of a university that might better nurture innovation, investment in amenities that would attract the target labor force, etc.

The existing public finance system does not match up very well with this need for diversity. The present system offers uniformity in financing, similar incentives for local officials to promote industrial development, and conditional grants that carry central

government restrictions on how revenues may be spent. Under the present system, local governments cannot raise taxes or borrow directly to finance any additional services that they want to deliver. Moreover, the present fiscal system delivers most resources through provincial governments who largely determine the resource envelope available to the cities and counties where most of the spending takes place.

Fiscal discipline has not been fully built into the system, i. e., budget constraints appear to be soft. The present public financing arrangements do not acknowledge fiscal deficits at the subnational level, and leave an impression of a central government willingness to protect subnational governments from financial failure. But under a system where local governments compete to attract industry and to please constituents, officials must make decisions in the framework of a hard budget constraint.

INVESTMENT NEEDS

Second, the new Chinese urban economy will require a huge investment to cover the infrastructure needs of 200 million new residents and the new businesses that will support them. Under the present system, subnational governments are charged with finding most of the resources needed to do this from their entitlements to revenue sharing and from grants they receive and loans that they can access. The amount of infrastructure that has been built with land lease revenues in the last decade has been remarkable, but urban land is an exhaustible resource, food security is a competing claim on land use, and land-based finance has led to inefficient patterns of urbanization and inequitable distributions of the capital gains.

It may now be time to institute a different approach that involves a combination of several instruments of local government financing, including borrowing, local revenue mobilization, and a more constrained version of the leasing of land assets. Under the present system, subnational governments cannot borrow, they cannot tax, and their regime for land lease sales is under challenge.

FISCAL DISPARITIES AND INEQUALITY

Third, China is beset with inequalities and disparities that it does not want, and these are largely a consequence of the uneven pattern of growth that has developed (World Bank and Development Research Center, 2013). The concentration of income and wealth in the higher income classes has increased (Li, Wei, and Ding 2005, Wu and Perloff 2005). Regional variations in fiscal capacity remain large and this shows up in uneven revenue levels. The present public finance and governance system has contributed to widening these disparities. Social security financing is the responsibility

of lower levels of subnational governments where fiscal capacity varies widely, derivation-based revenue sharing and tax rebates favor higher income regions, the equalization program under the national grant system is too small to make a big difference, there is not enough targeted relief for servicing migrant workers and the rural poor, and the fiscal system does not make provision for a sustainable policy on the compensation of farmers for expropriated farmland.

EXTERNALITIES FROM URBANIZATION

A consequence of economic growth and urban development is that China has become a more spatially inter-related economy. Metropolitan areas are growing together, local problems have become regional problems, and the actions of one province increasingly impact the well-being in other provinces. Regional transportation networks, environmental protection, and natural resource management are just some examples. The standard solutions to addressing this problem would vary from internalizing the externalities by redrawing boundaries to allow regional delivery of the functions in question, or allocating grants to address the external effects. Various metropolitan areas around the world have tried these approaches, though not always with great success.

It is not clear how the regional governance, regional finance issue will be worked out in China. But it does seem clear that there is a need for a stronger role of higher level governments in delivering services. Yet the expenditure assignment system in China is not much different today than it was in the 1980s, and the central government's direct service delivery responsibility remains small.

TAXATION

Tax reform is a continuing process in all countries, and so it is no surprise that there is still unfinished business in China. [1] The over-riding question is whether or not there will be an increase in the rate of revenue mobilization to meet the new needs brought by urbanization and to deal with existing backlogs. On the one hand, the present position of government is that tax effort should not be increased. [2] On the other hand, there are the prospective costs of providing the infrastructure and public services required for a significantly larger urban population, providing affordable housing,

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1 Among the reviews of the tax structure in China are Lou (2013) and Hussain and Stern (2008).

2 Thegoal given in China's Third Plenary Session Of 18th CPC Central Committee is to hold tax burden constant. Though not exactly defineda constant tax burden could be taken to mean that there will be no discretionary tax increases.

meeting the costs of fully funding a centralized social security program, and addressing environmental protection issues. The slowdown in the rate of economic growth and in the use of land lease financing are other contributing factors to be considered. Can all of these costs be covered with a tax system that raises the equivalent of 23 percent of GDP?

There also are structural issues to be addressed to keep taxation in China in step with the new economy and with the equity goals of the government. The limited coverage of the individual income tax needs to be addressed, payroll tax rates are inordinately high, the merger of the business tax into the VAT needs to be completed, and the issues surrounding local government taxation need to be decided. Perhaps the biggest question of all is how to structure the tax system to support the goals of increasing domestic consumption and growing the middle class.

China's low share of direct taxes would be seen by some as an advantage since there is less emphasis on the taxation of capital. However, recent empirical research has suggested that neither the level of taxation nor the direct/indirect mix of taxes has a significant marginal impact on investment (Martinez-Vazquez, Vulovic and Liu 2011; IMF, 2011).

REVENUE MOBILIZATION

The amount of new revenues needed to meet expenditure targets has not been reported by government, i.e., there is no official target. Short of this, we can speculate about the prospective gap between the amount of revenue that the present system will produce and the government expenditure that will be required to keep public resources at acceptable levels.

Expenditure Needs

Various studies have produced estimates of public expenditure needs in various sectors. However, these efforts are disjointed in that they are for particular sectors, use different methodologies, and cannot be added up to give an overall estimate of expenditure needs. Still they suggest that there will be a gap between expenditure needs and the revenues that can be generated by the present tax structure. The McKinsey study (2009) estimates that 2.5 percent of GDP will be required to cover the cost of new in-migrants to urban areas. A United Nations report (2013) [1] estimated that China will need to invest RMB 41.6 trillion (about 80 percent of GDP) over the next two decades to fully realize the integration of 210 million rural in-migrants to

1 http://www.cn.undp.org/content/dam/china/docs/Publications/UNDP-CH_2013%20NHDR_EN.pdf

cities and towns. The World Bank and Development Research Center (2013) used international benchmarks to conclude that China might need as much as 7 percent of GDP to raise public service levels to international standards. Required initial spending to adequately address China's environmental problems is estimated at 2 to 4 percent of GDP(World Bank and Development Research Center, 2014, pp 439 – 535.)

To this we might add the cost of upkeep for China's infrastructure. A significant legacy cost could be building in the area of maintaining China's stock of public capital. The huge investment that China made in its infrastructure over the past two decades will in time become a huge cost of maintaining an aging infrastructure. Between 1993 and 2012, 95 trillion Yuan was invested in the public capital stock. This works out to an average annual amount of about 183 percent of GDP. We have no good way to estimate the size of this maintenance cost that is implied by this investment[1]. What we can do is to use an empirical illustration to suggest how large it might become. In columns (1) and (2) of Table 3 – 1, we show investment in public infrastructure for the 1992 – 2012 period. In the next three columns we show that at a maintenance expenditure rate of 2 percent per year, the claim of maintenance would reach 3. 7 percent of GDP by 2012. At a 5 percent maintenance cost rate, required expenditures could exceed 9 percent of GDP. Note that this illustration ignores the maintenance cost for the pre-1993 investments.

Revenue Potential

The present level of revenue mobilization in China, excluding that generated by public service enterprises, is equivalent to about 29 percent of GDP. The largest component is the general tax and non-tax revenues that are spent through the (general account) public finance budget (21 percent of GDP). Land revenues have accounted for a net amount of about 3. 8 percent of GDP in recent years. The third component is payroll taxes which are earmarked for social insurance funds (about 4. 5 percent of GDP in 2013).

The public finance budget revenues will grow automatically. Our estimate of the income elasticity of the tax system is 1. 32[2]. This implies that general taxes will increase from 19. 4 percent of GDP in 2012 to 25 percent of GDP in 2025 if the annual economic growth rate is 7 percent. Land revenues are not likely to remain at so high a

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1 A proper estimate of future maintenance costs would be based on engineering studies, and would take account of the age of assets, the quality of infrastructure construction, projected increased costs of materials, and a host of other factors.

2 Based on data for the 1994 – 2012 period, we estimate a logarithmic regression of total taxes (T) against total GDP (Y), with the result $T = -0.713 + 1.323Y$, with the elasticity coefficient significant at the $p < 1\%$ level.

level as in the past, in part because the compensation rates paid to farmers likely will rise, and limits on borrowing might reduce the number of land development projects. An assumption that the net land revenues will remain a constant share of GDP might be an optimistic projection. Assuming that the share of wage compensation in GDP will remain constant, we can also assume that the payroll taxes will remain constant.

From this we might conclude that the automatic increase in the tax share of GDP could well fall short of satisfying the kinds of sector-based expenditure needs outlined above. If this impression is reasonable, discretionary increases in revenue mobilization might be required. This could be done with discretionary increases in the effective tax rate for existing taxes, the introduction of new taxes, or increased reliance on benefit or user charges.

Table 3 – 1: Projected Maintenance Expenditures on Public Infrastructure: an Illustration

Year	Investment of Public Infrastructure	Accumulated Infrastructure	Two Percent Maintenance-Expenditures			Five Percent Maintenance-Expenditures		
			Volume	As a Percent of Finance Revenue	As Percent of GDP	Volume	As a Percent of Finance Revenue	As Percent of GDP
1993 – 2006	56152	56152	1123			2808		
2007	3716	59868	1197	23	4.5	2993	58	11
2008	4513	64381	1288	21	4.1	3219	52	10
2009	6367	70748	1415	21	4.2	3537	52	10
2010	7525	78273	1565	19	3.9	3914	47	10
2011	7881	86154	1723	17	3.6	4308	41	9
2012	9102	95256	1905	16	3.7	4763	41	9

Sources: calculated from China Statistical Yearbook.

TAX STRUCTURE

China's tax structure is an exception to the point that the fiscal system has not remained in step with the changing economy. There have been numerous structural changes and administrative improvements, especially with respect to the value added tax. But, like in nearly all countries, there is still work to be done.

INCOME TAXATION

The general structure of the *individual income tax* has not been changed since 1994, except for the threshold for payment, which has been continuously increased. This has resulted in a significant erosion of the tax base. The number of income taxpayers decreased to 3 percent of the total population after the 2011 reform. This is a relatively low rate of coverage by international standards. At the other end of the income distribution, the progressive rate structure seems not to have contained the growing income inequality. The extent to which the income tax structure and the income tax administration will play the major role in solving this problem remains to be worked out(Jia and Liang, 2010, Liu and Wang, 2008).

Some would see structural reform of the individual income tax as being long overdue. In thinking through the wisdom of this, the government would need to think through several issues. These would include whether a lower threshold would harm the goal of building disposable incomes for a middle class, whether the growing income inequality in China could be helped by a stronger enforcement of a progressive tax, and whether there is a danger of overtaxing labor.

TAXING LABOR

China imposes a high tax rate on wage income, largely to finance the social insurance schemes (pensions, health and unemployment compensation). The guidelines[1] for payroll tax rates, described in Table 3 – 2, call for a total nominal rate equivalent to about 30 percent in employer contributions and 11 percent in employee contributions, to finance the social insurance programs. In addition, payroll tax contributions for the Housing provident fund range from 5 to 20 percent. Employers are required to pay at least 5 percent of a worker's salary and this is usually matched by an equal contribution from employees.

In fact, these high payroll tax rates are not binding on local governments and actual rates vary across and within provinces. Collections are from employers or are contributed directly in the case of certain workers in the self-employed sector.

1 Social Insurance Law of the People's Republic of China, 2010.

Table 3 – 2: Social Insurance Contribution Rates in Urban China

Items	Payroll Tax Rate	
	Employer	Employee
Pension	20% of payroll	8% of monthly wage
Medical insurance	≤6% of payroll	2% of monthly wage
Unemployment insurance	2% of payroll	1% of monthly wage
Maternity insurance[a]	0.5% – 1%	
Occupational injury insurance[b]	0.5% – 2%	
Total	29% – 31% of payroll	11% of monthly wage
Housing Fund[c]	5% – 20%	5% – 20%

Source: World Bank (2013f) and authors'compilation.

a. Only employers contribute to maternity insurance.

b. Only the employer contributes to the occupational injury fund and the amount of the contribution depends on what form of work the employee is carrying out. The more dangerous the work, the higher the percentage of salary contribution will be.

c. The social insurance law of China doesn't cover the housing fund but it is often grouped with other social insurance programs since it functions in a similar manner.

PROPERTY TAX

For three decades, *property taxation* has been discussed as a possibility for a major local government tax in China, but to date a broad-based annual property tax has not been introduced on a nationwide basis. This is not to say that real property is not taxed in China, but most of the existing taxes on real estate take place at the time of transfer and are better described as an ad hoc group of levies rather than a property tax system with clearly defined objectives.

China's five taxes on property are (a) the urban land use tax, which is levied on the physical area of the property, (b) the real estate tax for business use, which is levied on original value, (c) the land value added tax, which is levied on appreciation in land value, (d) the farmland occupation tax which is levied on area, and (e) the deed tax, which is levied on the self-reported value of property at the time of transfer (Table 3 – 3). Together, these taxes on real property account for about 8 percent of national tax revenues, and 1.6 percent of GDP (Man, 2013).

Table 3 – 3: Taxes on Land and Property in China

Type of Taxes	Date of Implementation	Tax Base	Tax Rate, 2007	Collection Stage	Percent of Local Tax Revenue in 2012
Urban Land Use Tax	1988.11.1	Taxable land size(only on domestic taxpayers before 2007)	30RMB/m^2 to 0.6RMB/m^2	Possession	2.52
Real Estate Tax	1986.10.1	Real Estate for Business Use	1.2% on original value or 12% of rental income	Possession	2.25
Land Value Added Tax (LVAT)	1994.1.1	Land Appreciation Value	Progressive tax rate (30% – 60% on the LAV)	Transaction	4.45
Farmland Occupation Tax	1987.4.1	Farmland Size	1 to 10 RMB/m^2 (5 – 50RMB/m^2 (after 2008)	Land Transfer	2.65
Deed Tax	1997.10.1	Self-reported value of Land and House Transfer	3% to 5%	Transaction	4.71
Total					16.58

Sources: Statistical Bureau of China, and the State Administration of Taxation of China Website.

To chart the way for an introduction of a real property tax, the government has authorized pilots in Chongqing and Shanghai. The pilots, however, have been designed as levies with minimal coverage. The Chongqing experiment covers only very high income residential housing and less than 3 percent of all parcels in the city. It involves no valuation (the tax base is original purchase price less a standard deduction for area) and yields annual revenue of only about 100 million Yuan per year. The Shanghai experiment is similarly restricted to a small segment of the residential housing stock. It provides for taxation of residential housing for new residents, but only second homes of longtime residents, and provides for generous exemption levels. It does not seem that it will generate much revenue relative to the size of the city budget. Neither pilot takes on the difficult question of annual valuation of real property, nor does either attempt to integrate the property tax with the other forms of taxes or value capture on property. In general, these pilots do not move China significantly closer to implementation of a national property tax.

The way forward with property taxation in China is not clear. The problem does not seem to be a hesitation to tax property at a significant effective rate. The existing level of taxes on property, 1.6 percent of GDP, is well above the rate for developing countries (though below the average rate of 2.2 percent for industrial countries).[1] The problem with the present structure is that it is a hodgepodge of taxes on the physical area and transaction values of properties with no provision for taxing updated values on an annual basis. As a result, the property tax is not used to help shape a more efficient land use, to capture value created by public investments, or to provide significant support to local government budgets.

CONSUMPTION TAXES

China relies on consumption taxes for 45.8 percent of revenues. Excluding the import and export consumption tax, the consumption tax package includes the value added tax (22.5 percent of revenue in 2012), the business tax (13.4 percent) and various special sales and excise taxes (6.7 percent).

During the past decade there has been steady progress with improving the value added tax base. Most recently, a major reform in consumption taxes began in 2012 with the first steps in merging the business tax into the VAT. The reform is still underway. The current business-for-VAT swap includes only 20 to 30 percent of the business tax base. The reform expanded to all provinces at the beginning of August of 2013. The important benefit to be realized from this change is the elimination of double taxation and the promotion of the service industry.

But like all structural reforms of the tax system in China, this will have effects on tax administration and on revenue sharing. The VAT is administered by the central government and the business tax by the local government. Subnational governments share in 25 percent of VAT collections but retain all revenues from business tax collections, on a derivation basis.

The complete elimination of the business tax would have serious consequences for subnational governments, since it is their main source of revenue outside the shared tax transfers. It is also the tax over which they have the most influence. Some of the loss will be recouped by the stronger VAT that will emerge, and some short term losses are protected by a temporary hold-harmless arrangement, but the net revenue

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1 Comparative property tax practices are discussed in Bahl (2009), Bahl and Martinez-Vazquez (2008), and Bird and Slack (2004).

effect is likely to be negative.[1] To date, the government has not announced how the lost revenues from the business tax will be replaced.

ENVIRONMENTAL TAXES

China's serious environmental problems are well documented as are its policies to address this problem (World Bank and Development Research Center, 2014, pp 63 – 69, and 439 – 535). As early as the mid – 2000s, the Chinese government was warning about the costs of pollution, which it estimated to be the equivalent of 3 percent of GDP (Zhang, 2013). Despite spending at an OECD rate for environmental protection, China's record of success has been uneven. Most of its resource use and pollution occurs in cities or is caused by demand from cities, which also bear some of the greatest impacts (World Bank and Development Research Center, 2014, pp 439 – 535). While China has removed many environmentally harmful subsidies and other distortions in the system of producing energy, it is some distance from fully accounting for the costs imposed on health, ecosystems and the climate that results from resource production and use. Some have argued that the problem to be resolved involves institutional reforms and better coordination, including a better intergovernmental arrangement between center and local, but most agree that environmental impacts will be a long term proposition.

China uses three instruments in its environmental policy framework: pricing, including taxes, fees and user charges, regulations including emission controls, and direct government expenditures. There is interest in environmental levies, the so called "green taxation" approach (Merk, et al., 2012). Environmentally related taxes are defined broadly (OECD, 2006) to include any compulsory, unrequited payment to a general government levied on taxes bases deemed to be of particular environmental relevance". It does not matter if the tax was levied for revenue purposes or for environmental protection, as long as the tax base can be linked to an environmental impact. In fact, most environmental levies in OECD countries are in the area of energy products and motor vehicles.

Man and Zheng (2013) have studied environmental related taxes in China and find that they are dominated by consumption taxes on refined oil and motor vehicles. In total, environment-related taxes account for about 1.5 percent of GDP, which is below the OECD average but above the levels imposed in the US and Canada. The

1 The Shanghai government began merging the business tax into the VAT at the beginning of 2012. The tax change is believed to have led to Shanghai attracting more business investment in the service industry, therefore recouping some of the short run revenue losses. This experience in Shanghai is alleged to have caused other provincial governments to participate in the reform to protect their economic base.

revenue derived from taxation on motor fuels in China is about the same as that on consumption of motor vehicles, raising some questions about the whether the taxes could be more effective in reducing emissions if they were structured around use rather than ownership. But, insofar as taxes on motor vehicle ownership and use, it would be fair to say that the main objective is revenue rather than environmental protection.

Several policies and pilots have introduced environmental taxes and fees, for example, publicly-traded coal mining companies in China paid around RMB 140 (US $ 22) in taxes per ton of coal produced in 2012. A 2013 review by China's Central University of Finance and Economics found 25 different environmental resource taxes and fees among the 109 taxes and fees currently levied on coal producers (NEA 2013; World Bank and Development Research Center, 2014, pp 439 – 535.). As part of the efforts to meet the energy target of the 12th Five Year Plan, the government launched its emission trading system in June 2013; and introduced new rules on resource tax and consumption tax to discourage excessive energy use and pollution. KPMG (2013) ranks China as sixth with a green tax policy that is balanced between incentives and penalties and focused on resource efficiency (energy, water and matters) and green buildings(KPMG, 2013). [1]

USER CHARGES

Efficient pricing of public services could be a significant addition to total revenues in China. In some sectors, for example, electricity and natural gas, the record is better than in others, for example, water supply and sewerage. For urban transport, significant government subsidy is the rule, though there is significant variation in the extent of cost recovery. In other cases, user charges are negligible. For example, households are not charged for waste removal services. Fees on waste management currently make up only around 10 percent of the RMB 40 billion that is needed to run waste operations. Overall, the cost recovery experience varies widely.

The need is not related only to a backlog of unmet needs. The cost of urban transport, utilities, waste disposal and other services that might be priced will increase substantially with the next wave of urbanization. With the government proposing a cap on the level of tax burdens in China, there will be a premium on raising these public prices to cost recovery levels. This will be difficult in the Chinese culture where indirect taxes seem preferred to direct payments.

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1 http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/green-tax/Documents/kpmg-green-tax-index-2013.pdf

ADMINISTRATIVE CHARGES

The issue of *administrative charges by government departments* needs to be further addressed. The practice is not as widespread at the central level as at the subnational government level where these charges account for about 7 percent of revenues. This is an inefficient way for governments to raise money, it may take advantage of a department's monopoly position in producing a service, and the charging practices of individual departments are not easily controlled. At the beginning of 2013, the central government decided to cancel and waive 30 types of administrative charges (MoF, 2012). Government will continue to move toward the removal of administrative charges.

EXPENDITURE ASSIGNMENT

The division of expenditure responsibility between levels of government in China has been largely ignored in the past three decades. Even the 1994 TSS reform only restated the pre-reform expenditure assignment and provided no more than basic guidelines to define expenditure responsibilities between central and subnational governments. There was little change in either policy or practice in terms of the division of expenditure responsibility between the central government and subnational governments, or among sub-provincial governments, from the times prior to the initiation of the market-oriented reforms. The present assignment of expenditure responsibility has been around for a very long time. [1]

In a world where urban areas were less "connected" and most externalities could be internalized, metropolitan areas were much less populated and migration to urban areas was limited, and social insurance programs were in their infancy, the old arrangements seemed to "work". But in the new China, subnational governments find themselves still saddled with responsibilities that long ago should have been transferred to higher levels of government.

There are a number of reasons why the expenditure responsibility arrangements have been so slow to change. Practices and bureaucratic interests are well entrenched and difficult to move. Moreover, changing expenditure assignments will set in motion structural changes in revenue assignment and financing practices and will lead to new administrative and management practices. Perhaps most important, the problems that have come with mis-assignments have not led to a crisis that forced a change in the

1 For a discussion of this history, see Qiao and Liu, 2013.

system. The flaws in the system have in many cases been hidden by economic growth.

But China is now becoming an urban country. Economic growth and urbanization has brought increased demands for government services, and most of these services are provided by subnational governments. The result is that the subnational government sector has become overloaded with functional responsibilities. More than 85 percent of general government expenditures now pass through local government budgets, and even this share does not include social security or the infrastructure spending made from the Government Fund or by local government-owned enterprises including UDICs. This makes China an extreme outlier in terms of the share of government expenditures made by subnational governments. Certainly some of this can be explained by China's size. But it is also due to an under assignment of expenditure responsibility to the central government, relative to what economic theory and worldwide practice would suggest. The present rate of urbanization will call attention to the need for a rebalancing of expenditure responsibilities.

The significant expenditure responsibility assigned to subnational governments is not matched by significant revenue raising powers. Moreover, the gap between subnational government expenditure responsibility and revenue entitlements increased with the 1994 reforms, which further centralized revenues, and has grown even larger with more recent adjustments in the revenue sharing arrangements. China's fiscal imbalance has evolved to the present extreme in vertical imbalance: About 85 percent of expenditures are made by subnational governments, and nearly all taxing power is at the central government level. With respect to the question of the fiscal pressures of urbanization, subnational governments have some considerable control over what services they can deliver, but much less control over the level of financing. In recent years, the vertical financing gap has been addressed with land leasing revenues.

QUESTIONABLE ASSIGNMENTS

If expenditure assignment is not right (over-assignment or under-assignment to some level of government), allocative efficiency losses will result. If subnational governments are assigned responsibility for services where they cannot internalize externalities, or where they cannot capture economies of scale, the result will be an under-provision of the service or delivery at a higher unit cost. If subnational governments are assigned a responsibility that they cannot finance, its citizens may have to settle for a subpar level of services. For example, pensions may be underfunded and full payments may not be made to retirees. Or, a provincial government with responsibility for regulating the production of foodstuffs for national

consumption may choose not to impose costly food inspection measures, and this decision could have a negative impact on the national welfare. Or, a local government might offer the children of migrant workers a lesser quality of primary education and this could lead to lower labor productivity in the future and undesirable equity effects in the present. [1]

Getting the expenditure assignments exactly "right" is all but impossible because many of the deciding characteristics of public services (e. g., externalities, economies of scale, local preferences) are not even measureable (Fox and Gurley, 2006). Still it seems unlikely that China could assign so much more expenditure responsibility to lower level governments than do other countries, and have the assignments right. One can look to economic theory and to the international practice for some help in identifying areas where the present system in China could be improved.

This approach, and the study of China-specific issues, has led several analysts to identify expenditure assignments that should be changed (Lou, 2013; Bahl, 2011; Martinez-Vazquez and Qiao, 2011; Dollar and Hofman, 2008). Though the assignment of many functional responsibilities has been called out, most of the concern centers on three areas: what government should do and what the private sector should do, which level of government should be responsible for financing social insurance programs, and whether the emergence of the new Chinese economy supports the case for centralization of more responsibility. All three of these concerns have profound implications for the cost of urbanization and for its financing.

Economic Development

Economic theory leads to what sounds like an easy way to draw the line on the right level of government involvement in the economy, i. e., government gets involved when the market fails. But applying the theory is anything but easy. [2] The story is especially complicated in China because of the special problems of governance of such a large country, the absence of full downward accountability of officials to local constituencies, the division of ownership of property between government and individuals, and the culture of government involvement in the competitive sector.

There also is the long history of government ownership and management of

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1 In the mid-1990s, the Russian central government offloaded significant expenditure responsibilities on to subnational governments, but did not decentralize revenues to cover these new demands. The result was serious cutbacks in both social services and infrastructure maintenance and development (Martinez – Vazquez, Timofeev, and Boex, 2006).

2 This point can be underlined by a reading of Stiglitz (1986, chapter 4) who reviews the principle sources of market failure that have been used to justify government activity in the market place.

enterprises. The state owned enterprise sector still constitutes a significant share of the economy, and subnational governments also operate a wide range of business activities in the competitive sector. Even now, there is not full agreement about the "right" dividing line between what government should do and what the private sector should do.

SOEs. There is a shortage of careful empirical studies that document the determinants of growth in local government business activities, but a popular belief is that SOEs in this sector of the economy are growing in numbers(Tian, Xia, and Chen, 2010). By the end of 2011, there were 144, 700 state-owned or state-controlled enterprises, among which only 113 are central SOEs. Excluding financial institutions, these SOEs hold 85.37 trillion RMB (13.55 trillion USD) in total assets. They report a total revenue of 39.25 trillion RMB(35 percent of total industrial and business revenues), as well as profits of 2.58 trillion RMB(43 percent of the total).[1] An analysis by the U.S.-China Economic and Security Review Commission estimated that the SOE sector accounts for about 40 percent of China's economy. (Szamosszegi, 2011)[2] According to the OECD, China, in comparison to 23 OECD countries and 6 BRIICS, has the highest weighted average among the country's top ten companies in SOE shares of sales, assets and market values (Kowalski, 2013).

Local government SOEs are either wholly or partly owned by the subnational government. They take two main forms. First, they may be public service companies where the main line of business has some degree of "publicness" (e.g., a bus or light rail company). In this case the fiscal linkage might be a direct subsidy to the SOE to maintain lower fares. The second form is an SOE that competes with firms in the competitive sector. Examples might be a company whose business is rentals to commercial tenants, a company that constructs residential buildings, a company that manages an industrial park, or a company involved directly in production and sales of a private sector good (World Bank and Development Research Center, 2014, pp81 – 126). This second category might also include the UDICs that are the partners with local governments in the business of land acquisition, land development and sale of leases. The linkages between the competitive SOEs and the general budget are transfers that support the activities of the enterprises and might directly or indirectly contribute to their profitability.

It is this second type of enterprise activity that confuses the role of the public sector in China. If the focus of public sector activity in China became more traditional in the sense of providing goods and services of a public sector nature, these SOEs would no

1 http://news.xinhuanet.com/english/indepth/2012 – 10/24/c_ 131928023.htm.

2 http://origin.www.uscc.gov/sites/default/files/Research/10_ 26_ 11_ CapitalTradeSOEStudy.pdf.

longer involve government ownership or management.

Industrial Subsidies. A related problem is the use of subsidies by subnational governments to attract industries to their provinces/cities. The results of provincial and local governments taking on this role are an inefficient pattern of industry location. Without the subsidy, the location decision of the enterprise would have been driven by market forces. Another consideration is that this type of competition favors local governments with more discretionary revenues. Industrial subsidies also can lead to a siphoning of funds away from mainstream government functions.

The land lease boom of the last decade, which has gone hand-in-hand with these industrial incentives, appears to have contributed to a high cost urban form, discriminated against commercial services in favor of industry, and contributed to an unfair treatment of these who hold the user rights to farmland on the urban fringe (World Bank and Development Research Center, 2014, pp81 – 126, 187 – 262). Resolving this set of problems is particularly difficult in China because of the limited downward accountability of local officials, because of the incentives that local officials are given to promote industry and GDP growth, and because the funding of infrastructure is needed to accommodate urban growth.

Economists have long warned against the use of such subsidies by subnational governments (Keen and Marchand, 1997; and Boadway and Shah, 2009). The traditional argument is that the best function of subnational government is allocative, i.e., to deliver an adequate level of public services (Musgrave, 1983). If subsidies are necessary to attract a firm to City A, the result likely will be inefficient because capital will be diverted from a location where it would be more productive. [1] If the subsidy is not necessary to attract a firm, but is given anyway, the result is a sacrifice in spending on general public services, and a horizontal inequity with non-incentive firms. [2] Of course there are exceptions to this generally dim view about the merits of government subsidy programs to attract business, e.g., the cases of pioneer industries or technology development industries. However, if subsidies are necessary to attract and start-up such industries, this could be more appropriately a function of the central government.

Second and third tier cities in the mid-western part of China compete aggressively with tax credits and public infrastructure investment to attract international firms. In 2008,

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1 If all provinces adopt the same industrial subsidy policies, they would cancel any advantages that might be gained, and a portion of budgets would simply be captured by the company. On the other hand, if capital was perfectly mobile internationally, subsidies would not lead to an inefficient distribution of capital across jurisdictions.

2 Some would argue that in the long run, the additional revenues generated will pay for this short term sacrifice.

Foxconn Technology Group—the world's largest electronics contractor manufacturer—invested 1 billion RMB and relocated 160 thousand employees to its new factory in Wuhan, capital city of Hubei Province, located in the easternmost part of Central China. The Wuhan government committed to invest in 4.5 billion USD to provide public infrastructure facilities for Foxconn, including an exclusive railway connected to Foxconn Wuhan Industrial Park[1]. Similarly, Sichuan Municipality successfully attracted Intel Corporation by investing 2.5 million USD in a 10 km highway connected to Intel's factory, and providing full corporate income tax exemption in the first five years[2].

Social Insurance. Social security in China refers to a package of programs which includes pensions and health insurance, but also unemployment insurance, maternity insurance, occupational injury insurance, and a variety of health and welfare programs.[3] The social insurance programs (pensions and health) are the responsibility of the city and county governments and are managed in a separate local government fund for social security. Financing is by payroll tax contributions and government subsidies. The national guidelines for combined employer and employee taxes are equivalent to 40 percent of wages. However, the national guidelines are not binding and there is considerable variation among the provinces. For example, the World Bank and Development and Research Center (2014, pp263 – 358) reports that the guidelines call forminimum employer pension contributions of 8 percent in all cities, but actual rates vary from 10 percent in some Pearl River Delta cities of Guangdong province (such as Zhuhai and Zhongshan) to 22 percent in Shanghai and Harbin.

The combined employer and employee payroll tax rate of 40 percent is high by international standards (IMF, 2013). The impacts on the economy are not in step with Chinese economic policy goals, i.e., increases the cost of labor, worsens equality in the distribution of income, and reduces the disposable income of households.

The subnational governments are also responsible for a package of (non-insurance) welfare and health programs and these are managed through the general public finance budget of the local government. When combined, annual expenditures on these social security programs are equivalent to about 7 percent of GDP (Tables 2 – 1 and 2 – 7).

China's decentralized management and financing of pensions and other social insurance programs is a significant departure from the international practice. The pension funds' governance standards, management practices, regulation and supervision vary

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1 http://www.lawtime.cn/info/laodong/kaoheguanli/2010121585462.html.

2 http://arts.51job.com/arts/78/357071.html.

3 For descriptions of the Chinese approach, see Dorfman, Holzmann, O'Keefe, Wang, Sin, and HInz (2013), and World Bank and Development Research Center, 2014, pp263 – 358.

considerably both across the components of the Chinese pension system and across provinces (Hu, Pugh, Stewart and Yermo, OECD, 2007; Impavio, Hu and Li)[1]. Most industrial and developing countries have centralized or largely centralized the old age pension insurance financing programs. In general the reasoning is that uniformity in benefits and some guaranteed minimum funding of these programs is in the national interest. Disparities in income level among local governments in China are too great to allow subnational financing.

Pensions. In China, the financing and delivery of the pension system is decentralized to city and county governments. The costs are mostly covered by payroll tax contributions (75 percent) with the remainder covered by a subsidy. The system is generally underfunded, and is beset with a legacy cost. When responsibility for the pension payments of former SOE workers was passed to the local governments, shortfalls emerged and the pension accounts were raided to meet payment obligations. This left the local governments with unfunded pension liabilities and numerous "empty" accounts. The changing age distribution in China will worsen this problem (World Bank and Development Research Center, 2014, pp263 – 358).

The fiscal disparities among local governments are great enough that county and some city governments cannot do the necessary risk pooling to finance these programs at mandated national levels. This has led to pooling at the prefecture or provincial level in some provinces. Though this broader base has reduced the risk, there still have been pension arrears and defaults that have forced continuing central and provincial government subsidies (Martinez-Vazquez and Qiao, 2011). For example, in 2011 there were 14 provinces with pension deficits (Zheng, 2012, as reported in World Bank and Development Research Center, 2014, pp263 – 358).

Health Insurance. The health insurance programs also are managed at the county/district level of government in China. Effective reimbursement rates vary across counties and districts, due to differences in deductibles, copayments and ceilings. For example, the percent reimbursement by NRCMS(The New Rural Cooperative Medical Scheme) of inpatient costs across county hospitals can vary fivefold (Zhang, et al., 2012). These rates in turn are a function of disparities in the levels of contributions and local government subsidies. Besides the equity concerns associated with these disparities, there is a higher overall risk with the smaller sized pools. In addition, there are significant challenges for migrants to access health care and there is overlap in registration in the rural and urban programs (Zheng, 2012).

1 http://www.oecd.org/finance/private – pensions/39604854.pdf; https://www.imf.org/external/pubs/ft/wp/2009/wp09246.pdf.

Urbanization will coincide with some sort of rearrangement of the financing of the social insurance programs. The importance of increased labor mobility to economic growth and the need to support this with portability of benefits, the national nature of the benefits from these programs, and the need to focus more heavily on equalizing real incomes in the population, all will push in the direction of increased central financing.

CENTRAL FUNCTIONS

As the Chinese economy has matured, it has become more interconnected. Capital is mobile and labor is becoming more mobile, and urban areas have expanded so much that in some cases they have grown together. The size of urban areas has tripled in the past 20 years. The economic success of one metropolitan area, and the quality of life in that metropolitan area, is very much affected by what goes on in surrounding urban areas.

These interconnections should call out changes in methods of delivering and financing local public services. For example, improvements in connectivity between cities enhance economic efficiency because it enables firms to access local, regional, and global markets—both for buying inputs and selling outputs—as well as to exchange ideas, thereby stimulating innovation. They also give consumers options and, in many cases, better prices (World Bank PCFN 2013). Within cities, connections make it possible for people to access employment and services, and for firms to attract workers, access other inputs, and sell their products in local markets (World Bank and Development Research Center, 2014, pp127 – 186).

The classic example of negative spatial externalities is air pollution. Dust and particulates produced in one province can easily reach cities in a neighboring province, and emissions caused by agricultural activities can worsen urban pollution problems (World Bank and Development Research Center, 2014, pp439 – 535). The same result occurs in the case of competition for the use of limited water supplies.

The provision of public services within urban areas is also more interrelated and increasingly has called for more intergovernmental cooperation in planning and service delivery. In some cases, these intraurban effects call for direct regional or central government participation in service delivery. The need for better coordination is most clear in the case of transportation. World Bank and Development Research Center (2014, pp127 – 186) states the problem well: Each component of the public transport system is usually of good quality, but door to door trips by public transport are inconvenient. This is due to poor physical and service integration, often characterized by excessive transfer distances, mismatched schedules, separate ticketing systems, or

lack of easily accessible transfer facilities. The underlying problem is institutional fragmentation at the city level, since different agencies are responsible for different aspects of urban transportation (metros, buses, road construction, traffic management, land use).

Other examples of the coordination problem include environmental protection, service delivery coordination where urban agglomerations have grown together, compulsory levels of health and education services, consumer safety, and much more (Lou, 2013, Bahl, Linn and Wetzel, 2013; Rojas, 2008).

Public policy has also become more inter-related. Local governments compete aggressively for new economic development.

Since officials were rewarded for delivering key reform goals including growth, FDI, employment, tax revenue, and social stability, the resulting competition amongst local governments can be fierce (China 2030, page 5). Local governments have a number of instruments to use in this competition, including tax exemption, electricity subsidies, as well as land and rental subsidies to attract investment projects that may contribute to growth and employment[1]. But local governments are also vulnerable in this system. One government's policies can affect another's success (e.g., beggar thy neighbor subsidy programs to attract industry), and the fiscal position of all subnational governments might be effected by a policy decision at the up-level (e.g., hukou or VAT reform).

UNCLEAR EXPENDITURE ASSIGNMENTS

Many countries assign expenditure responsibilities to their subnational governments, and provide a list. Some countries do not specify this in a central place, but rather work it out in sector laws (de Mello, 2011). China has no exclusive list of functions that is reserved for either the central or the subnational governments. Rather there is a very general description of responsibilities in the Constitution that leaves much latitude for interpreting the division of powers (Li, Qiao and Liu 2014).

In practice, the delegation of responsibility is by administrative decision and will vary from province to province. This leads to a lack of clarity about exactly who is responsible for what. The result can be a costly duplication in service delivery, or the failure to deliver some services, or an inability to identify that level of government responsible for a public service level failure. More generally, the lack of clear definition and assignment of responsibilities can become a hotbed for either an

1 http://news.cqnews.net/html/2014-03/11/content_30079786.htm.

intergovernmental turf war or buck-passing, and accountability becomes an even more difficult problem (Lou, 2013).

The nature of the problem in China is captured nicely for the case of water management in a World Bank analysis (World Bank and Development Research Center, 2014, page 439 – 535). "Transboundary issues among municipal administrations compound the difficulty in water quality management—and many rivers demarcate administrative boundaries. This can lead to a situation where everyone is responsible but no one takes responsibility—until a crisis happens, then punishments are handed out but only after the environmental damage is done." The fragmented approach to urban transportation planning and managementdiscussed above is another example.

REVENUE ASSIGNMENT

Subnational governments in China have almost no legal taxing powers, i.e., they have very little ability to set the tax rate or to determine the size of the legal tax base. [1] In the case of taxes where they have responsibility for assessment and collection, local governments can influence the effective rate through stronger administration, and they have the incentive to do this because they retain the revenues. These levies are usually referred to in China as "local taxes". Local governments may impose user charges, but these too are often subject to approval by higher level governments, and the record of full cost recovery in the residential sector is mixed.

This approach to revenue assignment has advantages. It allows the central government to set the size of the total resource envelope and therefore to control the level of subnational government expenditures in the public finance budget account. Revenue centralization also has the advantages of allowing central control of the distribution of tax burdens and a capturing of economies of scale in tax administration (Martinez-Vazquez and Timofeev, 2004). Even with this centralized system, subnational governments do have an incentive to make a greater tax effort by growing the tax base. They can do this by offering incentives to attract new firms to the local area and they can use their influence in the local economy to encourage a higher rate of compliance from existing companies.

But this approach to revenue assignment also raises some important public financing problems. First, it gives subnational governments no possibility to adjust the legal tax rate or tax base for general taxes in order to pursue new initiatives that require resources above that which the transfer system will allocate. Nor does it leave them

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1 The only elements of sub – national tax autonomy are the choice of the selection of tax rates of the urban and township land use tax within maximum and minimum legislated rates.

with discretionary resources to pledge against debt repayment, or to cover unexpected deficits. These shortcomings, and the pressing needs related to urbanization, explain some of the very great appeal of land-based financing in recent years.

Second, the present system leaves subnational governments vulnerable to discretionary tax policy or revenue sharing changes by the central government. For example, the move to a consumption-based VAT imposed a revenue cost that was partly passed along to local governments through the VAT tax sharing arrangements. The same is true of changes in the threshold of the individual income tax, the merging of the business tax with the VAT, and the elimination of agricultural taxes. [1] This set of vertical arrangements not only makes local revenue budgets vulnerable, but it also weakens the accountability of local government officials to both the local constituency and to the upper level authority: "How can I be held accountable for something I cannot control?" is a defense by subnational government officials that resonates well if a local budget deficit or service level shortfalls results.

Third, the absence of formal local government taxing powers has encouraged subnational governments to find creative backdoor approaches to financing service delivery. And, the central government seems to have been willing to overlook these end runs in order to allow necessary increases in local government spending, even when local government practices seem to run contrary to central policy. The relatively unregulated sale of land leases with full retention of the revenues, and local government borrowing through intermediaries such as the UDICs, are the most recent examples. The widespread use of informal taxes and fees, and extra budgetary accounts in the 1990s, and the restructuring of legacy debt for financing rural schools in the mid – 2000s are other examples (Bahl, 1999: Wong, 1995, Liu and Qiao, 2013).

These drawbacks notwithstanding, revenue centralization has worked reasonably well in China, but arguably because economic growth has generated a surplus of revenues, particularly in the larger cities. Tax revenues and subnational government expenditures more than doubled as a share of GDP between 1994 and 2012 (Lou 2013, Li, Qiao and Liu 2014) [2]. This explains how the central government could safely increase the income tax retention rates, and abolish local taxes as mentioned above, without fear of local government budget shortfalls.

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1 The elimination of the business tax promises to be the most damaging of these initiatives insofar as local government budgets are concerned. Though there is a hold harmless provision in the transition period while this tax is fully centralized, it is not yet clear how the longer run revenue shortfall will be covered.

2 By comparison, the Korean "miracle" between 1960 and 1975, saw real annual GDP growth average more than 7 percent, while revenues increased from 12 percent of GDP to 17 percent.

Will the model of centralized revenue assignment work as well in the future? Revenue growth will slow with the economic slowdown, and further urbanization will bring new expenditure pressures. The inability of local governments to fill the financing gap by raising their own revenues may compromise local service delivery. Four problems might be noted. First, the uneven landscape of economic activity results in uneven access to basic social services and uneven service quality. Because revenue assignment is based on origin of collections, local government revenues are heavily concentrated in regions of high economic activity. This unequal distribution favors wealthier regions over poorer provinces and municipalities, which may have greater needs. Second, the system prevents subnational governments from raising revenues for initiatives that require resources beyond what the transfer system allocates or for pledging against debt, or to cover unexpected deficits. Third, revenue centralization has driven subnational governments to backdoor financing approaches, such as the sale of land leases (with full retention of revenues) and local borrowing through Urban Development Investment Corporations. Fourth, subnational governments are scarcely accountable to the local population. They could become much more accountable through a decentralization of taxing powers, which would allow people to relate their local tax burden directly to local government budgets.

INTERGOVERNMENTAL TRANSFERS

China's version of intergovernmental transfers is different from the mainstream practice in industrial and developing countries, largely because of the emphasis on derivation-based revenue sharing. Arguably, this was the right approach during the last 30 years when the goal was to reward areas that were developing fast by giving them investment money to continue the growth. The strategy to "Let some of the people get rich first" as noted by Deng Xiaoping was an important part of the strategy for development of the industrial economy in China (Wu 2004).

The intergovernmental transfer system has been adjusted several times since its major overhaul in 1994, but most of these changes were to fix specific problems or to pursue specific objectives. The increased central shares of income tax collections were taken to restore what the central government saw as a needed adjustment in vertical balance, and the earmarked grant programs were introduced to stimulate spending in high priority areas, to compensate local governments for fiscal losses that resulted from central government or external factors, and to channel more funds to the lower income provinces. But in China, the effectiveness of the intergovernmental transfer system is not independent of changes in tax policy and tax administration. Absorbing the business tax into the VAT is probably good tax policy, but it will have significant negative implications for local government revenue budgets and may well call out

compensating changes in the intergovernmental transfer system.

Several important problems arise with respect to intergovernmental transfers: (a) whether the vertical shares of central taxes that are used to support local government spending are any longer "right", especially in light of the need to cope with significant urbanization costs, (b) whether government has achieved the right level of equalization and is using the right instruments to do this, (c) whether the system has become too complicated to effectively administer, and (d) whether the arrangements for sub provincial revenue sharing are in step with central government objectives. If the central government has an appetite for reforming the system of intergovernmental transfers, the menu of specific issues to be addressed is formidable. With urbanization and slower growth possibly driving changes in expenditure and revenue assignment, and with new awareness about the importance of spending to protect the environment and to upgrade urban services, a more comprehensive change in the structure of intergovernmental transfers may not be far in the offing.

EQUALIZATION

The economic disparities among provinces are very great in China, as they are in most low and middle incomecountries. For example, average per capita GDP in the four provincial cities is about one-third higher than in the other eastern provinces, and more than double that in the rest of the country. The national pattern of regional economic disparities is described in Table 3 – 4. But disparities are not easily measured and need to be interpreted with case. The GDP indicator is flawed because it already takes account of some transfers to the provinces and it overstates the natural endowment of a region. The HDI index gives a measure of the level of development in a province. But this index changes only slowly and the effects of intergovernmental transfers on the HDI will be very difficult to separate from the effects of many other factors.

The data presented in Table 3 – 5 indicate that the inter-province distribution of per capita expenditures is not markedly less dispersed than that in per capita GDP, though both the coefficient of variation and the range in the per capita expenditure distribution is lower. This suggests a modest equalization effect of the system of intergovernmental transfers. However, except for Tibet, the per capita expenditures by subnational governments varies from Yuan 17003 in Qinghai to Yuan 4526 in Henan around an average of Yuan 6877. Note also that the simple correlation between per capita GDP and per capita expenditures is positive, i. e., even after the impact of shared taxes and grants is taken account of, higher income provinces spend significantly more.

Table 3 – 4: Regional Economic Disparities Year 2012

Province	Per Capita GDP(Yuan)	HDI
Beijing	87475	0. 821
Tianjin	93173	0. 795
Hebei	36584	0. 691
Shanxi	33628	0. 693
Mongolia	63886	0. 722
Liaoning	56649	0. 740
Jilin	43415	0. 715
Heilongjiang	35711	0. 704
Shanghai	85373	0. 814
Jiangsu	68347	0. 748
Zhejiang	63374	0. 744
Anhui	28792	0. 660
Fujian	52763	0. 714
Jiangxi	28800	0. 662
Shandong	51768	0. 721
Henan	31499	0. 677
Hubei	38572	0. 696
Hunan	33480	0. 681
Guangdong	54095	0. 730
Guangxi	27952	0. 658
Hainan	32377	0. 680
Chongqing	38914	0. 689
Sichuan	29608	0. 662
Guizhou	19710	0. 598
Yunnan	22195	0. 609
Tibet	22936	0. 569
Shaanxi	38564	0. 695
Gansu	21978	0. 630
Qinghai	33181	0. 638
Ningxia	36394	0. 674
Xinjiang	33796	0. 667

Sources: China Statistical Yearbook (2013).

Table 3 – 5: Selected indicators of Fiscal Disparities for Subnational Governments, 2011[a]

(inYuan)

Per Capita Expenditures	
Lowest	4526
Highest	17033
Average	6877
CV[b]	0.43
H/L[c]	3.76
Expenditure as a Percent of GDP	
Lowest	11
Highest	58
Average	18
CV	0.44
H/L	5.25
Per Capita GDP	
Lowest	16437
Highest	83449
Average	38944
CV	0.46
H/L	5.08
Correlation with per capita expenditure	0.59
Correlation with expenditure as a percent of GDP	–0.47

Sources: calculated from data in the statistics Yearbook of China 2012.

a. We do not include Tibet in the sample.

b. Coefficient of variation.

c. Highest level/lowest level.

These inter-province fiscal disparities are not surprising. There always have been wide disparities in the natural advantages of some provinces over others, and the public finance system is not structured to greatly reduce these disparities. As is shown by the simple correlation analysis presented in Chapter Two, the tax rebate grants and the general tax sharing components are decidedly counter-equalizing. The latter are based on where taxes are collected rather than where expenditure needs are greatest. At present, the tax sharing and tax rebates together account for about 60 percent of all

transfers to local governments. To the extent there is any equalization in the Chinese system, it comes from the earmarked and gap-filling grants.

Various analyses have disagreed about the equalization outcomes of the Chinese system of intergovernmental transfers (Yin, Kangand Wang 2007). Earlier studies noted the strong influence of tax sharing transfers and concluded that the system was counter-equalizing (Bahl, 1999, Bahl and Wallich, 1992). In more recent years the grant component of the transfer system has grown and according to some analysts has done a better job of reducing fiscal disparities. Herd and Wang (2013) find that grants have generated both inter and intra province equalization effects. Persson and Eriksson (nd) report a similar finding based on an empirical study of the 1998 – 2003 period. Hofman and Guerra (2007) find that interprovincial disparities in HDI indicators of service levels are less than disparities in per capita GDP.

PROBLEMS WITH EARMARKED GRANTS

The system of intergovernmental transfers has become quite complex. There are 220 central government conditional grant programs, each of which should be monitored by higher level governments to insure proper compliance. Some of them may not be necessary from either efficient or equity perspectives. In the 2014 budget report, it is reported that one third of these programs will be cut. The "gap filling" transfers are a collection of very different grant programs that range from transfers to minority regions to transfers that compensate for the elimination of the agricultural tax. Even general revenue sharing on a derivation basis is subject to an array of complicated adjustments to free the inter-province distribution from the so-called "headquarters problem" (Qiao and Liu, 2013).

This complication comes with costs. Conditional grants are essentially funded mandates, and unless they are properly designed to stimulate spending to capture a spillover benefit, they will compromise local government budget autonomy and may not be efficiency enhancing. These earmarked grants also impose an administration cost on the central government and a compliance cost on the subnational government. Finally, earmarked grants usually lead to strong bureaucratic and ministry interest in maintaining these programs, as well as a local government constituency, creating a formidable resistance to abolishing these programs when they are no longer necessary (Blom-Hansen, 2010).

SUB PROVINCIAL TRANSFERS

Provinces have considerable discretion in deciding (a) expenditure assignments, (b)

how much of the intergovernmental transfers received from the central government will be retained for their own uses, and (c) how they will allocate transfers among their cities and counties. This "federal" financing approach preserves provincial level autonomy and allows a capturing of some local information advantages. Provincial governments can place revenues where they see them as most needed or where they see them as most the step with the provincial economic strategy. They may decide to adopt equalizing distributions across local governments, or they may choose an investment stimulation strategy.

China is too large a country to govern effectively without this provincial discretion. But, there also are problems with this hierarchical arrangement for revenue sharing. The provincial government may pick off too great a share for itself, as least in the eyes of the lower level governments, or it may not make the sub provincial allocations on a basis of needs. In particular, provincial governments may not adequately recognize the needs of cities and counties to deal with financing problems associated with urbanization, or they may not be sympathetic with the situation in which local governments find themselves. On the other hand, the information advantages concerning expenditure delivery and tax collection are usually greatest at the lowest levels of government. And, more generally, the problems that come with delivering services to accommodate urbanization and financing will fall heavily on the cities, but equalization objectives of a province might tend to redirect funding away from cities.

Another problem with this hierarchical approach is that sub provincial allocations may lead to a compromising of central government policy objectives, e.g., with respect to equalization of fiscal capacity or the stimulation of certain types of expenditure. For example, the central government might adopt a program of allocating revenues among provinces according to expenditure needs indicators. But the provincial government might decide to distribute these among cities and counties according to a derivation approach. This opens the door for a discussion about whether central grants to provinces ought to contain more mandates as to how the central funds should be passed through to provincial governments.

SUBNATIONAL GOVERNMENT BORROWING

The central government in China has tacitly recognized that debt finance at the subnational government level is essential to supporting urbanization. But rather than open the doors to local government borrowing in a formal way, an informal approach has been allowed. Subnational governments in China have always been resourceful, and the central government in China has often been willing to overlook the liberties they have taken when the purpose of these actions seemed to be in the national

interest. This seems to have been the case with respect to the use of financing platforms by local governments to borrow to support the very high profile land leasing program to finance urban infrastructure.

In the late 1980s, local governments created financing platforms which featured government owned business entities (Urban Development Investment Corporations, or UDICs) that borrowed on their behalf. The UDICs are capitalized by the local governments; mostly with user rights to land that were purchased (transferred) from rural collectives and converted to State owned status. [1] The UDICs then borrowed to finance the infrastructure improvements necessary to the sale of the lease, using the expected revenue stream from the land leases as collateral. Half of the debt outstanding of subnational governments is borrowing by UDICs (Annex Table 3). About two-thirds of this debt is guaranteed by the local governments (the guarantee status on the other one third is uncertain) (Painter, 2013).

But borrowing through the UDICs is not a long term solution to the capital financing needs of subnational governments, for a number of reasons. The financial operations of UDICs are not fully transparent, even though UDICs are an agent of the local government. It is difficult even to get a firm estimate of the actual amount of infrastructure spending that is taking place. Neither are the UDIC accounts regularly audited alongside those of the local government. A second class of problems is that UDICs may co-mingle public purpose activities with private purpose activities such as real estate investments. The use of UDICs as a borrowing agent is also problematic. While local governments almost certainly would be subject to a creditworthiness analysis to evaluate their ability to repay debt, UDICs do not undergo a transparent credit analysis. Finally UDIC loans are secured by leases on user rights to land; hence their financial condition (and indeed the financial condition of the local government) is vulnerable to market fluctuations in property values.

Nearly half of all local government debt is now held by the UDICs, and the practice of repaying debt with new loans is not unusual. When the central government placed a ban on repaying debt with rollovers, in late 2010, the level of overdue debt and the likelihood of default on short term loan repayments began to rise. In 2010, about one-fourth of all UDICs were loss making (World Bank and Development Research Center, 2014, pp187 – 262). The situation eased when government removed the ban in 2013, but the vulnerabilities of the practice had been demonstrated.

The level of local government debt, including UDIC borrowing is estimated to be

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1 In some cases, this capitalization would be augmented by a dedicated revenue stream from the local government budget, and in some cases by ad hoc transfers from the subnational government budget.

equivalent to about 45 percent of GDP in 2012(IMF, 2013). These are not dangerous levels by world standards, but their recent growth and uncertainties about where liability ultimately lies, is a concern.

FISCAL REPORTING BY SUBNATIONAL GOVERNMENTS

The present system of budgeting and fiscal reporting raises problems. First, the "public management" does not seem to exist in any one office of the subnational government. The public finance budget is the domain of the provincial and local government finance bureau, but the Government Fund and the social security accounts operate with a great deal of independence (though both may be recipients of transfers from the public finance budget). Fiscal planning is difficult under this arrangement.

Second, there is no home for capital budgeting within this framework. It would be incorrect to say that the Government Fund is a capital budget, because some capital spending is included in the public finance budget, and some current spending such as some educational expenditures, is included in the government fund budgets. Should formal local government borrowing become a reality, capital spending and maintenance, and loan repayment plans would need to be included under the same public management.

Finally, there is need for transparency in the public expenditure regime if there is to be confidence in the ability of local governments to manage their fiscal affairs. But under the present system, the general local government does not seem to have control over the government finance budget or have full knowledge of the financial operations of the UDICs.

LAND SALES AND LEASES

The amount of land conversion to urban use and the way in which land conversion is practiced have raised important economic and social concerns. The first is that the easy money from selling land leases, and the political incentives for showing increases in local GDP and local revenue growth, may have diverted the attention of local governments away from their basic mission of improving the delivery of public services. The goal of attracting new companies with subsidies may have overtaken the goal of building new infrastructure and providing better services to support the general public. Some of the leasing profits may have been channeled away from public purpose to investments in more private sector type activities such as the construction of commercial residential buildings, development of industrial parks, or commercial

tourism development projects. Consistent with this concern is the revenue sacrifice associated with the subsidy package of free infrastructure given to some industries and the negotiated rather than auction sales of some leases. [1]

Another problem is the potentially serious financial risk associated with borrowing against land user rights. The practice of repaying these loans with the sale of new leases makes local governments especially vulnerable to a downturn in land prices. In 2012, the total outstanding debt of subnational governments was equivalent to about twice the level of total general revenues. Even though the aggregate level of debt of local governments is equivalent to only about 31 percent of GDP, the total liability is much higher in some cities. In 2010, 78 city governments and 99 county governments held debt obligations equivalent to more than 100 percent of local GDP(National Audit Office, 2011) .

A third problem is a lack of transparency in the process. The detail of the UDIC activities is not widely distributed to the public, or sometimes even to the budget department of the local government, nor is information about transfers between the local government fund budget and the UDICs readily available. Detail of the business activities of the UDICs are not exactly shrouded in secrecy, but neither are their investment finances and financial condition widely reported. Wong (2013, p301) reports that "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."

Fourth, there is an equity issue involved with the approach followed in bringing farmland into urban use (World Bank, 2012) . Neither the collective nor the farmers may sell land to end users, and the user rights of farmers are only weakly guarded. Local governments use their monopoly powers to claim farmland at a value reflecting agricultural use, which is well below the market value in urban land use. In many cases the land is expropriated, further raising the level of unrest among those holding user rights to farmland. Compensation payments to farmers have steadily decreased as a share of land profits, largely because of the spread between the buying price which is the agricultural use value and the selling price which is the value in urban use (World Bank and Development Research Center, 2014, pp187 – 262, Wang, et. al. , 2011) .

Fifth, the pattern of urban land use that has resulted from the land leasing program is problematic. The strategy for accommodating industrial growth and urbanization has been led by the sale of leases on land at the urban fringe, and has been supported by a heavy investment in infrastructure to service this newly developed land. Industry is

1 For a discussion of this, see World Bank and Development Research Center, 2014.

subsidized to attract it to these locations, but commercial development has not been subsidized. This has contributed to a pattern of urban sprawl that imposes both economic and social costs, and has channeled interest away from more compact, infilling strategies for urban growth. This urban development strategy also can lead to increase carbon emissions because it generates longer commutes and less use of mass transit, it increases living space per person and therefore more emissions from home heating, it results in higher levels of power consumption, and it leads to less intensively used infrastructure which in turn raises emission levels (World Bank, 2013c; Baeumler, Ede Ijjasz-Vasquez, and Mehndiratta, 2012; and Liu and Salzberg, 2012).

Finally, the process of obtaining land and constructing infrastructure has in some places taken on a life of its own, i.e., it may have gotten out in front of public policy in terms of how much new land acquisition and building of infrastructure should take place. OECD (2010) reports that the goal of building the future revenue base with land transactions in Guangdong was so strong that local governments generated an oversupply of land. In all of China, the increase in urban construction land in the last decade has been double the rate of population increase, and densities have fallen significantly (World Bank, and Development Research Center, 2014, pp127 – 187).

CHAPTER FOUR
REFORM STRATEGY

INTRODUCTION

The Chinese public finance system has grown more than it has developed over the past three decades. While a booming economy, urbanization and an aggressive economic measures related to the opening up of China have all contributed to rapid economic growth and to lifting 500 million people out of poverty, the system of public spending and finance has not been subject to a major overhaul. Rather, the changes have been piecemeal and in response to immediate pressures. Economic growth has hidden the results of many of the structural problems with the system, but these problems have led to a weakening of the economic system.

The Chinese fiscal system no longer matches up well with the Chinese economy. Despite important reforms over the past two decades, the present fiscal and governance structure still carries features from the pre-market period. In many ways it is not equipped to deal with the impacts of rapid urbanization, or to support the consumption-led economic growth strategy that the government now hopes for. The policy questions facing government are how to reform the fiscal system to make it a better match with today's more complicated economy, and how to phase in these reforms.

PIECEMEAL OR COMPREHENSIVE REFORM?

The Chinese way is gradual reform, i. e. , to make changes that do not unduly shock the political and economic balance. In some cases the past approach has been reactive, i. e. , addressing specific problems as they begin to reach crisis proportions and taking action when the timing is right. For whatever reason, the fiscal system has evolved over the past 30 years around a set of piecemeal reforms of various elements of the system. The landmark 1994 fiscal reform, for example, recentralized revenues and put in place a rules-based revenue sharing system. It worked well, even though it did not address the issues of local government debt or expenditure assignment. In other years, there have been changes designed to modernize the structure of taxation, and in general these have worked well.

Most of the important changes in the fiscal system since 1994 have focused on the tax structure and on the system of intergovernmental transfers. Some have gone in the direction of removing distortions in the tax structure, e. g. , removing the bias against outlays on capital inputs in the VAT, while others were aimed at reducing the tax burden on certain sectors, e. g. , abolishing agricultural taxes, or raising the threshold of the individual income tax. In other cases, the reform goal has been to claw back revenues from the subnational government sector, e. g. , an increase in the central government share of income tax collections. The most recent reform, merging the business tax into the central VAT structure by integrating many services into the taxable base, will improve the VAT but will have a significant dampening effect on the revenues of subnational governments.

The piecemeal approach to problem solving has been very successful in supporting an investment-led growth strategy of the past three decades. And, it can continue to be successful. For example, the problem of servicing new migrants to urban areas could be dealt with by Hukou reform and increased earmarked grants, the UDIC problem could be addressed with new rules for transparency, and the local revenue problem might be resolved by assigning a portion of a central tax to subnational governments. But continuing with such stopgap measures will hold off more fundamental structural reforms that could put Chinese fiscal policy on a more sustainable path. The question this piecemeal approach will leave on the table is whether all of the pieces will fit together in the right way, and whether they are in step with the objectives of the government.

Avoiding political shock is the major reason for the piecemeal approach in all countries. Another reason, more particular to China, is the inherent difficulty of comprehensive restructuring of the Chinese public financing system. The pillars of public finance and intergovernmental fiscal relations – taxation, tax administration, expenditure assignment, and borrowing – are so intertwined in China that the reform of one area without reform of the others will not likely lead to a sustainable outcome. Comprehensive reform would cover all of these dimensions, and in China this would mean a significant one-time shock to the system, and a significant economic and political risk.

TIMING AND SEQUENCING THE REFORM

It is never exactly the right time to address such big underlying problems, and urbanization and slower economic growth in China will not be a setting that gives the government much breathing room to experiment with reform options. But without some structural changes in the system, the movement of 200 million workers and their

families to cities will lead to a further entrenching of some of the equity and efficiency problems, and of some out-of-control practices that the present system has supported. The public finance reform that is called for is comprehensive, but its implementation can be gradual.

A happy middle ground for China would be to identify the elements of a comprehensive reform, and then move gradually in that direction. Some changes in the fiscal system might be accomplished in the very short run, e. g., the reassignment of some expenditure responsibilities. Others might phased in by beginning in the provincial cities and moving later to other cities, and yet others might be implemented in the longer run. But clearly identifying the end game — the comprehensive reform package — can help keep short-term discretionary changes in the fiscal system on track. In this way, comprehensive reform can be done gradually.

BROAD CHANGES IN THE FISCAL CULTURE

A good place to begin framing the major components of the fiscal reform is to identify areas where big changes in fiscal practices should be addressed and perhaps even where the fiscal culture should be challenged. Rapid urbanization is the kind of change in the economy that could prompt such big reforms.

In China, the next round of reform of the public financing system could involve such big changes. Taking the next step in separating the role of government from the role of the private sector, adopting more taxes that are collected directly from persons, and closing off informal fiscal actions of subnational governments in favor of a more formal rule-based approach are examples. Managing all of this will be as challenging as designing it. Selling it politically will be harder than either.

The separation of public from private sector activities in China began long ago with the dismantling of some state owned enterprises and with Government beginning to back away from direct competition with private sector firms(World Bank and Development Research Center, 2013, 2014; Guo, 1986). The next round of fiscal reform in China might begin with a further retreat and with a stronger mandate for the government sector to focus more on the delivery and financing of efficient levels of public services.

This would be an important change in direction. Subnational governments would no longer take on a direct role in attracting industries to the local area. Instead, they would compete by offering quality public services and a better regulatory environment. Governments would move in the direction of owning fewer enterprises that provide private goods, they would stop providing inputs at below market prices (e. g., subsidized land and energy prices), and they would no longer allocate public money to

enhance the profit position of private sector firms. Even the power to give fiscal subsidies might be moved to the central government level.

Most important here is that subnational governments be given a clear mandate to accept that their major role is the provision of public services. The incentive system by which the appointed subnational government leadership is evaluated would need to be changed and reweighted to reflect this important change in the role of subnational governments.

FORMALIZING LOCAL GOVERNMENT FINANCE

A second major change in general policy would be to abandon the backdoor approaches to local government financing that have been taken in the past, in favor of a rule-based system that is strictly enforced. This would have a cost. It would call on subnational governments to take a step back from the aggressive competition for industry at which they have been so successful. With neither taxing powers nor borrowing powers, subnational governments have managed to build an enviable stock of urban infrastructure and have attracted a significant amount of credit financing. But they have done this mostly outside the intergovernmental fiscal rules, and the central government has allowed these practices in the name of improving the economy.

Under a rules-based system, things would change. For example, the use of UDICs to get around the limitations on local government borrowing would be eliminated in favor of instituting local government borrowing powers that are constrained by a debt framework. The rules for land leasing practices would not be relaxed in the name of stimulating spending for infrastructure. The central government might provide an incentive for accepting this discipline, i. e. , it might open a front door by allowing local government taxation and borrowing, and by clarifying and improving expenditure assignments. This approach might be helped dramatically if the evaluation of subnational government officials were changed to be more in step.

MOVING TOWARD ACCOUNTABILITY

An important change in the fiscal culture would be to make the tax price of public services more clear to beneficiaries. This would move China a step closer to making government officials more accountable to constituents for the quality of services delivered. The mindset of consumers about public services would shift from the expectation of entitlements to public services that carry a marginal cost of near zero, to a recognition that they pay a price for services provided. Companies and families could factor these tax prices into their location choices.

In the present Chinese fiscal culture, most taxes are paid by enterprises. Only about 10 percent of general taxes are paid directly by citizens. This is well less than the share in most industrial countries. Similarly, user charges in China are imposed at levels that are well below cost recovery. This feature of the Chinese revenue-raising system has more or less disguised the tax prices.

CAN ECONOMIC THEORY PROVIDE USEFUL GUIDANCE?

The "good policy" dimension of reform is about defining the instruments that will be used to restructure the fiscal system. China will go its own way, and at its own pace, in structuring fiscal reform, and some of the choices made will be uniquely Chinese and products of tradition and culture. In general, this is the way it should be. Still, deciding on what is "good reform" for China can be helped by falling back on some basic guiding principles for evaluating the reform choices. These principles might be drawn from economic theory and from the reform experience in the industrial countries, but can be modified to fit the China setting.

During the past 30 years, the Chinese economic strategy was heavily influenced by market principles. The private sector grew to account for about 60 percent of the economy by 2012[1], many inefficient state owned enterprises were offloaded, prices were increasingly based on market signals, and the tax system was modernized and moved toward one that concentrated on revenue-raising, with a goal of more neutrality with respect to market decisions. To be sure, many features of the economic policy and management have remained uniquely Chinese. Even so, it would be hard to deny that market principles played an important role in shaping economic policy during the rapid development period.

Fiscal reformers might now consider how the system of public finances might do a better job if it more fully embraced some of the key policy guidelines that have led reform in the industrial countries. In this connection, one might think of several areas where the traditional theory of public finance and intergovernmental fiscal reform may be useful to policy design in China.

SYSTEM TO ACCOMMODATE URBANIZATION

With respect to each of these principles, there is no doubt a Chinese exception to the rule. These exceptions are appropriate because the principles stated here were mostly

1 http://finance.people.com.cn/n/2013/0203/c1004-20414645.html

developed in the context of reforming the fiscal system in western countries. In some cases, the "principles" have been adjusted to fit transition countries and lower income countries. China is different: larger, still a mixed economy, more accountability up than down, and still in the midst of a major transition. But even with appropriate modifications, a checklist of the principles that guide good public financing in industrial countries might be a reasonable way to begin designing and evaluating the alternative approaches to reforming the Chinese system.

- *The primary allocative role of government is to correct for market failure.* Where the market does not fail, as for example in the provision of private goods, there is no role for government other than perhaps regulation or income distribution. Kornai (1998, p25) takes a broader view about the role of the state, "Where do the borders of a citizen's individual freedom run? How far does the state limit this, …". China is still in process of defining the role of the state.

- *The tax system should concentrate on raising a target amount of revenue, consistent with equity objectives, while minimizing the effects of taxes on market decisions.* Central government tax reforms in China have moved significantly in this direction with a broadening the VAT base and harmonization of the income tax treatment of foreign and domestic companies. However the intergovernmental sharing of VAT and income taxes on a derivation basis provides subnational governments with incentives to behave in perverse ways, e. g., to use subsidies to attract manufacturers in order to capture a larger future flow of VAT revenues, but to discriminate against commercial activities where the long run tax revenue returns are not as great.

- *Macroeconomic stabilization and growth policy is a responsibility of the central government, while subnational governments should concentrate on allocation, i. e., the provision and financing of local public services (Musgrave, 1983).* Shifting the primary focus of Chinese subnational governments to the delivery of public services has been a slow process. Subnational governments in China are directly involved in stimulating economic growth. They subsidize job creation to attract revenue generation, as noted above, but this in turn attracts non-resident migrant workers who remit a portion of wages to their home base and make relatively little use of local public services. The result is that some of the benefits of economic growth leak out of the local area. This will become even more of a concern when residence requirements for local public services are eliminated and labor becomes more mobile.

- *The central government should lead efforts to shape the interpersonal distribution of income.* On the tax side, only the central government can do this under the

present fiscal arrangements. On the expenditure side, most social services as well as social insurance programs are the responsibility of subnational governments and these do exert an important influence of the distribution of real incomes. At least on the expenditure side of the budget, most households benefit significantly from subnational government policy choices. But there are significant constraints on the choices that can be made. If a local government assumed responsibility for income distribution, say by increasing tax collection efforts, increasing social insurance contributions, and offering better public services to low income families, poorer migrants would be attracted to the better conditions, and higher taxes and contributions would penalize (or drive away) the better off workers who would be shouldering the burden of supporting these benefits. A more likely result is that the quality of public services would suffer because the increased demand from migrants would outstrip the resources available to expand service delivery at existing levels.

- *Expenditure responsibility should be assigned to the local governments, unless efficiency considerations (externalities or economies of scale), or equity considerationsdictate otherwise(Oates, 1972).* The heavy assignment of spending responsibilities to subnational governments in China suggests that externalities and equity considerations may not have been heavily weighted. Particularly the assignment of revenue responsibility for pensions, and medical insurance is unusual by international standards.

- *Subnational governments should be assigned some revenue responsibility and autonomy, in order to capture local information advantages, and in order to strengthen accountability to local populations.* When local governments are given taxing powers, the instruments used should exclude any levies where tax burdens can be exported to those who do not benefit from locally provided services. Likewise, user charges are efficient methods of achieving cost recovery for services that can be priced, and in many cases, can lead to better resource allocation than general tax financing. Both user charges and local taxes have the advantage of making companies and individuals aware of the tax price that they pay for public services.

- *Consistent with the principles above, a better balance between decentralized expenditures and local taxes and charges should be sought.* Finance should follow function. The "right" amount of taxing power at the local level will be a government decision, but most would argue that, at the margin, local

governments should be financed by local taxation and charges (McLure, 1998).[1] Intergovernmental transfers may be used to fill the remaining gap. Otherwise, intergovernmental transfers should be used to stimulate priority expenditures with conditional grants, and to equalize the ability to provide minimum service levels in every region.

- *Subnational governments should accept the golden rule of public debt that local governments should borrow only to finance public assets that have a long life.* Higher level governments should not endorse bailout policies that would lead to moral hazards in the behavior of local government fiscal decision makers.

1 Some would argue, correctly, that revenue collection is more efficient at the central level for most taxes. But, this advantage can be partially protected by local governments piggybacking on central taxes, as in the case of the urban construction and maintenance tax in China. Moreover, local governments have a comparative information advantage that lowers administrative cost for some taxes, e.g., the property tax.

CHAPTER FIVE
OPTIONS FOR A COMPREHENSIVE REFORM PACKAGE

INTRODUCTION

Getting the fiscal system in sync with the economic system, and in a position to better deal with urbanization, is much more complicated than fixing a single issue. Tax policy and tax administration, expenditure assignment, and intergovernmental fiscal relations are too inter-related in the Chinese system to get the job done with a fix on one piece of the system. For example, changing the assignment of expenditure responsibility is important, but this will call for changes in the distribution of intergovernmental transfers because subnational governments might end up with more or less budget responsibility. Changes in the distribution of transfers might need to be introduced simultaneously with increased local taxing powers or the ability to increase user charges, in order to hold subnational governments harmless in terms of revenues available. Experience with the land conversion program raises the question of whether subnational governments should be allowed to borrow directly. Should subnational governments be given the power to borrow, the demand for credit should be met by supply and this leads to questions about the function of intermediaries. And so it goes. Just these few observations suggest that the right long run approach is not to address a single issue, but to structure a comprehensive reform.

The Chinese way is gradual and piecemeal reform, and this approach has served China well during the last three decades of modernization. But fiscal reform may have been neglected too long for this approach to effectively address the issues. A fix to one part of the system will show up flaws in another part and the fundamental problems will remain in play. The right approach to fiscal reform in 2014 is system-wide and all of the components need to be fitted together in a reinforcing way. Policy change can still take place gradually, but the reform path should be clear and should be dictated by the structure that China has in mind for the long run. This will be a tall order for China's fiscal planners

EXPENDITURE ASSIGNMENT

The place to begin developing a comprehensive fiscal reform agenda for China is with a rethinking of expenditure assignments. There is wisdom in the old public finance dictum that "finance follows function". Until there is clarity about expenditure responsibilities, it will not be possible to determine the total financing needs. Nor is it possible to put an efficient financing plan in place (Bahl and Martinez-Vazquez, 2006). For example, services that can be priced should be financed with user charges, services that carry large externalities should be at least partially financed by intergovernmental transfers, and services with a local benefit zone can be financed by general local taxes (Bahl and Linn, 1983).

As we observe in Chapter Two above, the Chinese fiscal system is unbalanced. Over 85 percent of expenditures are made by subnational governments who have virtually no taxing powers and a "claim" on central government revenues that amounts to only about 40 percent of the total. A better balance could be established by assigning more expenditure responsibilities to the central level and by assigning some taxing powers to the subnational government level. The view here is that expenditure assignment is the place to begin the rebalancing that is necessary.

GETTING THE ASSIGNMENTS RIGHT

Expenditure assignments in China have not been changed since before the TSS reform in 1994. The present day Chinese economy is quite different from the one for which the present division of government expenditure responsibilities was cast. A thorough review of the division of expenditure responsibilities is long overdue. The end result of such a review could be a new budget law that will lay out the responsibilities for each sub function of government. The law would specify those functions that will be the exclusive responsibility of the central government, and those that will be the exclusive responsibility of the local governments.

Most of the murkiness in expenditure assignments under the present system comes from the "concurrent" responsibilities, i. e., functions that are the responsibility of more than one level of government(Lou, 2013).[1] While this is to some extent inevitable, because some functions do require shared responsibility, the goal of this reform should be to minimize concurrency in service delivery.

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1 It is important to note that this is not a uniquely Chinese problem. Uncertain expenditure responsibilities plague many developing, middle income and transition countries.

The lack of clarity in the assignment of expenditure responsibility is an especially difficult problem in China because the division of responsibility still follows the old practice of a traditional method of administrative separation of powers where functional responsibilities are passed straight downward to the grassroots governments. Under such a framework, the division of powers between the central and sub-national governments is inherently unclear (Lou, 2013; Qiao and Liu, 2013).

There is no magic formula for identifying the "best" division of expenditure assignments for a country. It depends on how a country weighs the gains from local control against the gains from technical efficiency, and the gains from internalizing external costs and benefits. Countries tend to use this tradeoff, and equity considerations, to set their expenditure assignments. In fact, there are many similarities among countries in the resulting division of responsibilities. Still, not all countries come to the same conclusions about who should do what.

Getting a better balance in expenditure assignments in China will require a painstaking analysis of all functions of government. The principle of subsidiary is a good rule to lead this thinking, i.e., all functional responsibilities should be devolved to the lowest level of government unless efficiency considerations dictate otherwise (Oates, 1972). Each sub function of government will be put to the same test—do the gains from decentralization—which in China are mostly about information advantages—outweigh the ability to capture gains from internalizing externalities and the ability to capture economies of scale?

Even with this principle to follow, the work of dividing the competencies between the levels of government will be as much art as science. Factors such as preferences of individuals for certain types of public services, externalities, and even economies of scale are not easily measured, if they are measureable at all (Fox and Gurley, 2006). Then the equity effects must be defined and weighted, administrative questions must be considered, and culture will play a role. And always, there is politics.

The expenditure assignment exercise does get done, however imperfectly, in all countries. When finished, for better or worse, it becomes the centerpiece of the country's fiscal decentralization strategy, and finance will be able to comfortably follow functional assignment. China has come to that time when a rethinking of the division of expenditure responsibilities among levels of government should no longer be postponed.

Reform of expenditure assignments in China could usefully center on three areas. First, a more clear division between the role of government and the role of the private sector is needed. Second, the question of which level of government is best suited to finance and manage social insurance programs should be revisited. Third, there is

need to review all of the functions of governmentin order to formalize and clarify the division of responsibility. On the first area, a reform direction that called for less direct involvement of government in competitive sector would seem the right path. On the second area, both income distribution and labor mobility goals would seem to argue for more fiscal centralization. On the third, the maturing of the Chinese economy and the presence of spatial externalities suggests that there is need for more involvement of higher level governments in direct service delivery and/or coordination.

GOVERNMENT AND THE PRIVATE SECTOR

The central government should build on its commitment to privatization and to pulling back on activities that bring it into competition with the private sector. The principles for deciding on what should be public and what should be private could follow the standard prescription of economic theory, i. e., government should not be involved unless the market fails as in the case of a failure to account for externalities or economies of scale, or to achieve a suitable distribution of income.

A major problem in this regard is whether or not to discourage subnational government ownership or partial ownership of enterprises that deliver private goods. The government's historical stance on this has been to encourage pulling back on ownership of enterprises that operate in the competitive sector. A new expenditure assignment law could make the limits on government involvement in such activities very clear. Government has a number of instruments at its disposal that could move fiscal decisions by subnational governments in this direction. These include an outright restriction of the use of public funds for providing direct budgetary support for enterprises operating in the competitive sector. Another signal might be to implement an evaluation system for Governors and Mayors that reflects the stronger interest of the central government in better local public services.

A more difficult question is whether local governments should be allowed to attract industries with fiscal incentives. The problems with doing that, in China and elsewhere, are well known. Local governments in China that provide company-specific infrastructure and subsidies to increase company profits, may siphon funds away from mainstream government functions. They locate industry—often inefficiently—in cities, where it contributes to sprawl, uses up space needed for residential development, and often receives preferential treatment in city service delivery. And in the process, people with use rights to farmland on the urban fringe may be dealt with unjustly. The problem is exacerbated by the limited accountability of local officials to residents, and by the existing incentives for these officials to promote industry and GDP growth rather than to provide services.

Should industrial subsidies continue to be at the discretion of subnational governments? Though the problems with competitive subsidies are well known, many industrial countries allow this practice. They do this because inter-local competition can be innovative and can lead to a good result, and because it satisfies the needs of local politicians to show tangible activity on the industrial attraction front.

An alternative strategy would be to make industrial subsidies the exclusive responsibility of the central government. That is, every subsidy to attract economic development would require central government approval. Under this regime, local governments will continue to compete with one another without central approval, but the main instruments of their competition will be the quality of services offered, and the tax rate. If subsidies can be justified, as in the case of technology advancements or pioneer industries, this is more appropriately a responsibility of the central government because the benefits are national. The idea of centralizing the power to grant industrial subsidies in China is discussed in Lou (2013).

China's general strategy could be to reduce the direct role of subnational governments in economic development, by beginning a phasing out of their ownership, management and preferential support of companies that should face market competition. Subnational governments then would shift into a supporting role — that of providing a public services and a regulatory framework to stimulate economic development. The government would then trust the market to send the right signals to economic agents. Although subnational governments would still be responsible for the economic environment, they would not operate businesses or be partners in business ownership.

FINANCING SOCIAL INSURANCE

There is a compelling case to centralize the financing of social insurance programs in China. Pooling to the national level could lead to the elimination of fiscal disparities and allow equalization of benefits, full portability could be accomplished, and the prospects for dealing with the underfunding of social insurance programs would be better. Moreover, the shift of responsibility for social insurance programs would improve the balance in public financing between the central and subnational governments.

There are other fiscal advantages to be had from centralization of insurance fund financing and management. The central government might take on the financing of legacy pension costs with a one-time allocation, and roll this into a reduced payroll tax rate. It also would be in a position to lower the payroll tax rate further by financing

part of the insurance costs with other sources of revenue. [1]

Pensions. Pensions are a national government function (and a private function) in most industrial countries. China might follow this model. Variations in benefits and payroll contribution rates among provinces and local government, as exist under the present system, are at odds with a goal of uniform standards for all Chinese citizens. The present arrangements of city and county government responsibility for pensions has forced pooling to the prefecture and provincial level in many provinces, and in general, payroll contributions are exceeding benefits in most systems. However, the local pension systems are generally underfunded and an aging population will lead in the future to either an increased tax rate or reduced real benefit levels.

Health Insurance. The fiscal shortfalls for health insurance are not so dramatic as in the case of pensions. The central government would like all Chinese citizens to have access to the same health care services, and certainly to the same reimbursement benefits, irrespective of where they live. City and county governments, and even some provincial governments do not have the resources to deliver on this promise, though they do have the incentive to contain costs. There is need for portability in benefits to enable full labor mobility and this goal is consistent with centralization of at least the financing of health insurance. If it was decided to retain some local management advantages, then the program could be financed with a type of cost reimbursement grant to subnational governments, again, based on the principle that the money should follow the people (recipients).

Costs. We have not made a detailed estimate of the costs involved should the central government assume financial responsibility for this program. On the one hand, the central government is already subsidizing some costs, though most of the payments are covered from premium contributions. On the other hand, there are shortfalls in the individual accounts, significant legacy costs, and inter-province benefit differences that need to be leveled up. Moreover, the aging of the population suggests significant future increases in expenditures for social insurance benefits. The cost of assuming responsibility for financing pensions and health insurance would be significant. Expenditures made in the social security programs were 3451 billionYuan in 2013. While payroll tax contributions were adequate to cover about 75 percent of the outflows, the prospects are that this will not continue as the population ages. Moreover, there would need to be a leveling up of benefits, indicating even more cost. The present level of expenditures in the social insurance programs is equivalent to about 6 percent of GDP, and likely would be higher if it were converted to a

[1] For a discussion of a "nationwide citizen's pension, funded out of general revenues or an earmarked source" see Barr and Diamond (2010).

national program.

CENTRALIZATION OF ADDITIONAL FUNCTIONS

A third problem to be resolved is that subnational governments have been assigned responsibilities that are characterized by significant inter-regional spillover effects. The failure to deliver these programs at an efficient level has imposed a cost on society. Detailed analysis by a government commission is likely to uncover many candidates for central assignment, but food safety, river basin management, inter and intra urban transportation, and environmental protection all are likely suspects (Lou 2013; Li, Qiao and Liu 2014; World Bank and Development Research Center, 2014).

The centralization of expenditure responsibilities, as suggested above, would restore some balance to the Chinese system. But, it would require that the central government reclaim some of revenue sharing that it now allocates to provinces. One possibility would be to centralize the VAT by gradually eliminating the 25 percent sharing. A detailed costing of the new fiscal assignments will need to be made to determine how a fully centralized VAT might be spent. Another option would be a "global" sharing arrangement with a higher central share to cover the increased costs. This is discussed below.

We can speculate about some of the budgetary implications of centralizing the financial responsibility for the social insurance programs. Social security expenditures are equivalent to 6 percent of GDP. However, the present situation is that about 75 percent of these expenditures are covered by payroll tax contributions. The central government would need to absorb the cost of leveling up the benefit payments to a national standard, and to cover the full annual deficit, and eventually to absorb the cost of making the systems actuarially sound. The legacy costs in the system could be covered with a one-time allocation by the central government. The center will also bear the cost of administering much of the new system. Unless part of the medical assistance was done with intergovernmental transfers, social security expenditures, and revenues would be reported in the central government budget.

The central government would need to claw back enough revenue to cover these new costs, but also some other addition costs. The list might include the latter:

- The equalization programs under the present grant system are underfunded and would be a claim on any new central government revenues.
- If a new intergovernmental transfer program were adopted (see below), some subnational governments could receive less funding in the transition period. Additional central funds would be required to hold these local governments

harmless during the transition.

- New functional responsibilities that the central government might assume (see the discussion above) would be funded from the new central revenues.
- If government decided to rethink the boundaries of large metropolitan cities, and put in place a regional financing arrangement, a central fiscal allocation to the new entity would be required.

REVENUE ASSIGNMENT

Changes in revenue assignment will be driven by the increased expenditure needs related to urbanization and by reassignments of expenditure responsibility. China faces the need to rebalance its system by shifting some functions to the central government level, and to provide for some sources of subnational government revenues to address the needs of provincial, city and county governments. The central financing gap will be best handled by an increased retention rate of shared taxes. The subnational government revenue need could be addressed by new local taxes. Both of these fiscal reforms would bring the Chinese intergovernmental fiscal system into better vertical balance.

SUBNATIONAL GOVERNMENT REVENUES

Increased revenues at the subnational government level could be gained by giving subnational governments some discretion to levy taxes, and to claim all of the revenues raised from the new local taxes.[1] In some cases, these taxes will be new levies (the property tax), in other cases they could involve reassignment of responsibility (Some excises and taxes on motor vehicles), and in other cases they involve surcharges on existing central taxes. The result would be increased revenues for local government use but also a freeing up of some intergovernmental transfers for the central government to address equalization and other high priority needs.

The Benefits of Subnational Government Taxation

The case for subnational government taxation in China is a strong one. This initiative has always been off limits for Chinese intergovernmental fiscal reform, but perhaps the time has come. There are a number of benefits. Revenue mobilization would be enhanced because local governments have information advantages that give them a comparative advantage in the collection of certain types of taxes. Property and land taxes area good example of this advantage. There also is a regional efficiency

1 For a discussion of the usual meaning of "local taxes" see Bird (2006).

argument to be made. Substituting local taxes for some intergovernmental transfers would lead to a higher tax price insome local areas and force labor and capital owners to take this into account in making location decisions. China is struggling with urban sprawl. A system of property and land taxes could help rationalize land use patterns and provide incentives for more compact investments. Finally, there is an equalization argument, i. e. , as local governments in higher income regions substitute own taxes for intergovernmental transfers, central funds will be freed up for distribution to lower income regions.

In most countries, it is also argued that local officials can be made more accountable to their local constituents if they are forced to impose higher local taxes to pay for the services(Blair 2000; Bird and Slack, 2013). In China there is only an indirect downward accountability to the local population. Still, the combination of higher taxes without improvements in local services would weaken the popularity of appointed local leaders. This might be supported by a revamped central evaluation of local leaders that is focussed on the quality of public resources delivered and budgetary balance. Finally, potential lenders would see local tax as a way to harden the local budget constraint and to strengthen the creditworthiness of subnational governments.

Empowering urban local governments to levy higher or lower tax rates would allow the fiscal system to preserve some of the innovation and the competitive strategy of local governments that has served China so well. The use of land lease sales in recent years and the use of extra budgetary charges in the 1990s and 2000s are examples of this resourcefulness (Wong, et. al. , 1995, 1997; and Bahl, 1999). With taxing powers, local governments would have the wherewithal to expand the delivery of services that are in high demand or that would allow them to better capture their comparative advantage. It would also improve the creditworthiness for local governments by showing a stronger ability to service debt or to maintain public facilities. In general, local taxing powers would give local governments an instrument to use in shifting their competitive strategies from the back door to the front.

International Experience [1]

The problem in China, as it is in most countries, is to identify good instruments for local revenue mobilization, i. e. , local taxes that can be administered at reasonable cost, yield significant revenue and not result in exporting the burden of payment to residents of other jurisdictions. The international experience is that most industrial countries and some large middle income countries have decentralized taxing powers, but most developing countries have not.

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1 The examples discussed here are summaries from Bahl (2010).

In terms of the strategy proposed here, an important criterion is that the local government be able to set the tax rate. This limits the choice of tax instruments to those that are not amenable to tax burden exporting, and to administrative considerations. While all taxes impose an administrative cost, and no tax is ever completely free of the exporting problem, some taxes offend these criteria less than others. Still, a number of local revenue-raising options more or less fit the criteria.

One underlying objective of fiscal reform in many industrial countries is to increase the fiscal self-sufficiency of local governments, i. e., to improve the so-called "vertical balance". In some countries, this strategy has succeeded, especially when it is focused on larger urban governments. The Tokyo metropolitan area government has both city and prefecture (state) status, hence it has access to a broader tax base than do other local governments in Japan. About 70 percent of all metropolitan government revenue is from local taxes. Toronto has a more traditional financing structure for a local government. It relies primarily on the property tax and user charges. The Toronto metropolitan city funds about 60 percent of its budget from property taxes and user charges. The property tax alone accounts for 41 percent of revenues (OECD, 2009).

Local governments in some the Nordic countries and Spain rely primarily on individual income taxes, and New York City makes heavy use of a combination of retail sales tax, personal and corporate income taxes, and business taxes. Stockholm's local governments cover about 80 percent of their expenditures from local sources, primarily from an earned income tax. In Paris, the principal local tax is a business tax—a form of value added tax that now exempts payrolls.

Metropolitan local governments in some industrial countries do not have significant taxing powers (Slack, 2007). The Greater London Authority receives most of its revenues from central government grants. The Stuttgart Regional Authority has no taxing authority. The Greater Vancouver Regional District is financed primarily by user fees and intergovernmental transfers.

Large urban governments in most low and middle incomecountries do not rely heavily on local taxation. Despite the arguments that local governments in metropolitan areas could feasibly handle a greater range of taxes, most are limited to property taxes and user charges as the main sources of revenue. There are some exceptions to this general pattern, notably in Brazil, Argentina and Colombia where the large cities rely heavily on gross receipts taxes to finance services.

PROPERTY TAX

The property tax has great potential as a revenue source in China. It is an opportune

time to realize this potential. Most important, it could fill a revenue gap at the subnational government level, and could be especially productive in larger urban areas. To get some idea of the revenue potential, note that industrial countries raise more than 2 percent of GDP in property tax while low income countries raise about 0.6 percent of GDP on average (Bahl, 2009).

International Experience (Bahl, 2010)

The property tax is a favorite among the English speaking federal countries, but it is less important among non-English speaking countries and among unitary countries in general(Lotz, 2006). It is mostly an urban tax. Property tax revenues account for one-half or more of local government financing in the Toronto, Montreal and Melbourne metropolitan areas, and it accounts for 34 percent of the budget in New York City.

Different patterns emerge for some metropolitan area local governments in other OECD and transition countries. Municipalities in the Netherlands, including those in the Randstad region, receive less than 5 percent of revenues from the property tax. There is no local government property tax in Norway (OECD, 2006a, p. 176). In Copenhagen, the primary revenue source of municipalities is the income tax, and property taxes play only a minor role. The same is true in Stockholm, Tokyo and in the Swiss cities. The property tax is somewhat more important in Madrid at the city level, but financing is dominated by income taxes levied at the regional government level. In Busan and Daegu Korea, the property tax is an important source of local financing, but most of the revenue is derived from a tax on property transfers.

Governments in most developing countries do not seem to have bought fully into the idea that the property tax is a good fit for financing local public services provided in metropolitan areas. While it is true that property values are growing in most metropolitan areas, valuation in most urban countries fails to capture this growth. This seems to be the case even in countries with large metropolitan areas (Mathur, et. al., 2009; de Cesare, 2004). Moreover, delays in general revaluation are commonplace, significantly lowering the revenue-income elasticity of the property tax. The property tax as practiced in low income countries generally fails the tests for a good subnational government tax in terms of its high administrative cost and its unpopularity with voters.

There is a great deal of variation in the extent to which the property tax generates meaningful revenues for metropolitan cities. In Cape Town, about 20 percent of metropolitan government revenues are derived from a tax levied against the capital value of land and improvements. This is about the same share of revenues that is received from intergovernmental transfers.

The primary source of revenue for municipalities in the Mexico City metropolitan area

and in the Istanbul metropolitan area is the property tax. However, in neither case are the local governments empowered to set the tax rate or determine the tax base. There is some local government discretion in metropolitan cities in India but the results are much the same. The low yield is largely attributed to the poor administration of the tax. For example, in Mumbai only about 70 percent of properties pay tax, and in Kolkata properties are assessed at about 20 percent of their value (Mathur, et. at., 2009).

Advantages and Disadvantages

Because the ownership of real property wealth is usually concentrated in the highest income classes, the tax burden tends not to fall heavily on low income households. To the extent that higher taxes are paid on properties that tend to have better public services, the property tax might be seen as a benefit levy. Finally, since residential property taxes are capitalized into reduced property values, market decisions will be more rational because owners will pay a charge for the benefits of local services delivered, and speculators will face a real cost of holding their land off the market.

The major problems with the property tax have to do with its difficult administration and its unpopularity with property owners. With respect to the former, good administration requires identification of all parcels and their ownership, valuation and revaluation, collection from individual owners, and it requires extensive recordkeeping and updating. All facets of the administration must be done well to realize the full revenue benefits from the tax.[1] The political unpopularity, which seems disproportionate to the tax burden, has to do with the tax falling on accrued income rather than realized income, the judgmental nature of the assessment, and the visibility of the tax.

Potential in China

China is one of the few countries in the world that does not levy an annual tax on residential property. In theory, China could generate considerable revenues with such an urban tax. An annual property tax that would yield the equivalent of one percent of GDP may be a feasible reform target in China.

Certainly there is considerable property wealth that can be taxed. By one estimate, the level of urban household wealth held in the form of property is about 200 percent of GDP (Li, 2013). Even a relatively low effective tax rate of 0.5 percent on this gross measure of the tax base would yield the equivalent of 1 percent of GDP in revenues. Interestingly, and hypothetically, this amount of revenue would recapture nearly 80

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1 A survey and analysis of the practice of property taxation in cities of developing countries is in McCluskey and Franzsen (2013). See also Bahl and Martinez (2008) and Bird and Slack (2004).

percent of the revenue loss due to giving up the 25 percent share of VAT (Column 3 of Table 5 – 1).

Table 5 – 1: Selected Options for Subnational Government Taxation [1]

Tax	Proposal	Yield the as a Percent of the Domestic VAT Share	Additional Revenue as a Percent of the Domestic VAT Share
Property Tax	Set annual property tax at 1 percent of GDP	79	79
Urban construction and maintenance taxcombined with education surtax	Set sur – rate at 12 percent of liability	91	44
Piggyback on individual income tax liability	Set sur – rate at 10 percent of liability	9	9
Motor Fuel Tax	Shift to subnational govt.	34	34
Motel Vehicle and Boat Tax		6	0

Source: Calculated from data in China Statistical Yearbook and the Websites of Ministry of Finance.

Moreover, property values are likely to continue growing, and even at a lower rate than in the past could generate a strong base elasticity. Note the trends in urban property value indexes reported in Table 5 – 2. The property value index more than doubled in all four provincial cities between 2005 and 2010.

Table 5 – 2: Property Value index in Selected Cities

Year	Beijing	Tianjin	Shanghai	Chongqing
1993	2255			
1994	2740			
1995	3227	2119	2477	1017
1996	4057		2968	1018
1997	5357		2891	1033
1998			3026	1161
1999	4787	2157	3102	1080
2000	4557	2274	3326	1077
2001	4716	2308	3658	1133
2002	4467	2414	4007	1277
2003	4456	2393	4989	1324

1 This simulation is based on 2012 data.

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Year	Beijing	Tianjin	Shanghai	Chongqing
2004	4972	2965	6361	1573
2005	6162	3987	6698	1901
2006	7375	4649	7039	2081
2007	10661	5576	8253	2588
2008	11648	5598	8115	2640
2009	13224	6605	12364	3266
2010	17151	7913	14212	4040
2011	15517		13448	4492

Source: CIEC dataset.

Revenue mobilization is of course an important objective, but the property tax also can be structured to encourage land use patterns that might lead to reductions in external costs. If the base of the tax is the assessed market value of the user right, for example, it could approximate an annual charge on location rents. This would provide an incentive for all users to develop and use land more intensively and could be made more consistent with an infill strategy for urban development. So would a tax on vacant property in the built up area that is imposed at a differentially higher rate. Again, this would not be a tax directly on the land, but on the market value of the user right. If the market value increased, so too would the tax. Liability would rest with the holder of the user right. With respect to property taxation, unused properties would be taxed the same as occupied properties, at their value in highest use.

Other property-related financing instruments might be useful in achieving the objectives of recapturing some of the value created by public investment, and increasing the density of cities. These might include CEPACs as used in Brazil (Wetzel, 2013)[1], special assessments, betterment levies, valorization, and tax increment financing (Smolka 2013).

If China continues with its interest in property taxation, the door would be open to move toward the design of a comprehensive tax on property in urban areas. There is already an existing array of real estate taxes operating in China — land use tax, deeds tax, and land value added tax. Together these now account for revenues equivalent to about 1.6 percent of GDP (Man, 2013). These might be combined into a new

1 The CEPAC, used in Brazil, is a bond — issued by the municipal government and sold in public auction — that grants its holder the right to augment the construction area in excess of legislation or to construct buildings that deviate from the guidelines and use foreseen by the legislation (Wetzel, p. 336).

property tax regime that would include the new annual property tax, a capital gains tax on transfers of real property, and a set of value capture and land use taxes on real estate. Valuation, cadaster and even collections could be unified or tightly coordinated, and the revenue yield could be quite significant. The new comprehensive property tax structure could be harmonized with the income and value added taxes to insure full coverage of property related income and to avoid double taxation.

Implementation Concerns

Adopting a broad based tax that is new to China, and to the taxpaying culture, is always difficult. Three questions have continuously come up when the property tax has been discussed. In fact, none of these three sets of concerns is a serious roadblock to property taxation.

- The first concern is whether a property tax can be imposed when the owner of the land is the State? The answer is that the tax can be levied on the user right to the land and liability is with the holder of the user right. When the lease expires, the user right reverts back to the state. But the land is taxed, albeit indirectly. The assessed value of the user right will reflect the location value of property.

- The second issue is whether the property tax can be a local government levy but imposed under a national law. There are two arrangements that can satisfy this condition. Under one, the tax can be imposed under a national law and be administered by the national government, but tax rates can be set by the local government. The other is that the tax can be imposed under national law but be administered by the local government with rates set by the local government. Under either of these arrangements the property tax would be a local levy.

- The third issue is the confusion about whether a lease payment and a property tax amount to double taxation. These are two distinct payments for two different purposes. The lease purchases the right to use the land. The property tax is a payment for public services provided by the government. The lease purchase amount does not include the payment of any present or future property taxes.

Another important implementation issue is the piloting of the property tax. In principle this is a good idea. In practice, a better approach than the one taken in Chongqing and Shanghai would be to change the sequencing of designing the pilots. This would involve, first, making a central decision on the basic structure of the tax and its administration, and then, implementing the pilots. This would allow some learning from the pilots after which the proposed structure and administration could be modified based on these lessons

MOTOR VEHICLE TAXES

Local government taxes on the ownership and use of motor vehicles could fit a Chinese strategy for coping with urbanization. The number of motor vehicles is growing faster than the population in urban areas (Table 5 – 3), their use imposes infrastructure costs on urban local governments, and they generate external costs that are for the most part uncompensated. Nearly 80 percent of the vehicle fleet is privately owned.

Table 5 – 3: Motor Vehiclesand Population in 2008 and 2011

Municipality	2008			2011		
	Numberof Civil Vehicles (10000 units)	Population (10000 units)	Per Capita Vehicles	Number of Civil Vehicles (10000 units)	Population (10000 units)	Per Capita Vehicles
Beijing	313. 68	1695	0. 19	470. 53	2019	0. 23
Shanghai	132. 12	2141	0. 06	194. 75	2347	0. 08
Tianjin	108. 47	1176	0. 09	190. 78	1355	0. 14
Chongqing	73. 64	2839	0. 03	129. 68	2919	0. 04

Sources: China Statistical Yearbook, 2009 and 2012.

The rapid growth in motor vehicles compared to that of the road network has been instrumental to the growing congestion levels and longer commutes. The result is a heavy external cost in terms of congestion and pollution. One study of Beijing has put the level of external costs at between 7. 5 percent and 15 percent for all types of externalities (reported in World Bank and Development Research Center, 2014, pp. 187 – 262).

Given this situation, it is understandable that Chinese policy has focused on controlling automobile use in large urban areas, and a good start has been made in this direction in a few cities. However, there is arguably even more to be gained by giving subnational governments additional control over motor vehicle taxation. The result could be to discourage the use of private cars, at the margin, while generating new revenues to defray some of the costs involved.

Chinese cities could continue to use tax and charge policies either to increase the price of owning and using a motor vehicle, relative to using a public transport system, or to make a different housing location choice. This could be done by charging drivers for the full cost of using private vehicles, including environmental and social costs, through mechanisms such as higher registration fees, higher gasoline taxes, higher tolls and parking fees or various forms of congestion pricing. Depending on the price

elasticity of demand, local governments will generate significant revenues from this to cover the general costs of urbanization. Structuring these taxes to have the desired impact on vehicle use is a much more complicated matter, and is not independent of housing prices, land use restrictions and patterns of infrastructure investment. Still, at the margin, local government taxation of motor vehicle ownership and use can have environmentally friendly impacts.

At present, Chinese subnational governments are not funded to any significant extent by taxes on motor vehicles. The registration tax on motor vehicles produces only a small revenue flow, and the tax on motor fuels is a central government levy. The experience with parking fees, toll and congestion charges as resource allocation measures is growing, but has not yet become a major subnational government revenue source.

The annual tax on motor vehicle registrations is based on engine capacity, as it is in most countries. At present, revenues from this tax are equivalent to only about 6 percent of that received in VAT revenue sharing (Table 5 – 1). Motor vehicle registrations do meet the criteria for a good local tax. Given the number of motor vehicles, and the growth in these numbers, there is good revenue potential. For the most part, the burden of the tax (or charge) is borne locally. Administrationof the tax is by the local governments and is straightforward. Higher registration costs can stimulate tax avoidance measures such as registration in a lower taxing jurisdiction, but this can be controlled by registration requirements, periodic inspections and stiff penalties. The revenue potential of motor vehicle ownership charges is much greater than is presently collected, and significant increases could be realized if local governments decided to tax automobile ownership at a higher level (and were empowered to do so).

The taxation of motor fuels is a more lucrative tax base, and it would more directly tax the use of motor vehicles. The question is whether this could be locally administered in China's larger cities. Ideally, the tax would be collected at the pump. Alternatively, it could be assessed at the factory gate as it is now, but the destination of shipments could be tracked. This would put in place a system whereby the rate of motor fuel tax could vary from one local government to another. Even at the current central government excise tax rates, a motor fuels levy would enable local governments to recoup about one-third of the lost VAT revenue sharing (Table 5 – 1).

Would it be fair to levy a higher tax on motor fuels in large cities? China's gasoline prices are already above those in most developing countries, and above those in the US, but below the average in the European countries (World Bank and Development Research Center, 2014, pp. 439 – 535). On the other hand, Chinese gas prices are not high enough to cover the external costs of congestion and pollution.

Would it be efficient to levy a higher rate of gasoline tax in China's large metropolitan areas? At the margin, this would lead to a higher cost of living and would be a factor affecting migration decisions. Higher gasoline prices would be consistent with other urban planning goals, such as reducing the congestion and pollution that come with automobile use, and raising the price of urban sprawl. In all of this, however, it is not so clear that the elasticities of substitution are high enough to make much of a difference unless there were very large rate increases.

Congestion and emissions can be also reduced by demand management. Shanghai, Beijing and Guangzhou have introduced vehicle ownership and/or usage control. These municipalities set a cap on vehicle registrations and established a quota for newly registered license plates. The motor vehicle management agencies allocate these quotas via license-plate auction (e. g., Shanghai), lottery (e. g., Beijing), or a combination (e. g., Guangzhou) (World Bank and Development Research Center, 2014, pp. 439 – 535) [1].

The World Bank (World Bank and Development Research Center, 2014, pp. 439 – 535) argue that road pricing and parking charges are the most direct way of taxing congestion and air pollution in dense urban areas. Fuel taxes and licensing fees are alternatives, but less targeted. Road pricing is common on China's expressways and has been discussed for heavier use in several urban areas. Parking fees are another way to tax road users, and the experience with higher charges on parking has been good. Parking fees and taxes are price-elastic, and there is evidence that they are effective reducing car trips and reducing the share of cars in the modal split (OECD, 2010).

LOCAL RETAIL SALES TAXES

Local government sales taxes can be efficient instruments of urban government finance if collections can be shifted from an origin basis (place of manufacture or distribution) to a destination basis (place of consumption) (Bird, 2006; Mikesell, 2007). In the United States, for example, a local government retail sales tax is collected at the point of consumption. Under an origin-based arrangement, such as China's VAT, by contrast, collection is at the point of production and some of the tax burden may be borne by consumers who live in another jurisdiction. This problem is well known, but easier administration trumps economic efficiency nearly every time. For example, Buenos Aires, Bogota and the Brazilian cities all levy a sales tax on gross receipts, which is not destination-based but is very revenue productive. There has long been a call to abolish the turnover tax in Buenos Aires but the absence of a "suitable" alternative has held off reform.

1 Interestingly, the auction price in Shanghai has increased despite an increase in the number of plates sold.

If administration on a destination basis could be made feasible, sales taxes on selected items of consumption could be revenue productive and would pass some of the tests of a good local tax. This might be done adequately for some items of consumption, for example, high end jewelry, durables and imported luxury goods. But for most consumer goods, a retail sales tax would encourage tax avoidance by providing an incentive to shift the point of consumption to informal traders that are not easily policed by the tax authorities.

The problems with collection from informal sector retailers is also the reason why the revenue productive excises cannot be converted to retail sales taxes with higher rates imposed on consumption in cities. Otherwise, particularly beer, liquor and cigarettes would be attractive revenue bases. There is another option. All of the excise revenue could continue to be collected as at present, but the revenues could be assigned to cities on some formula basis. This would be a transfer of revenue, but would not give the local governments any power to increase or reduce rates, or to differentiate their rate from that in other urban areas. In effect, it would be another tax sharing transfer.

China has begun the process of folding its business tax into the VAT, mostly to broaden the base of the value added tax. Another reform direction, however, would have been to convert the business tax into a local business VAT imposed on the costs of factors of production. Bird (2013, p7) argues that the experience in France, Italy and Japan suggests that a local tax based on value added and levied on an origin basis may not only be a sensible way to charge business for benefits obtained from local public services, but may also be administered adequately and with no serious economic costs.

PIGGYBACK TAXES

Some of the administrative problems with local taxation can be avoided by adoptinga "piggybacking" approach, i.e., to allow the local government to select a tax rate to be imposed on a central government tax base. Piggybacking is already done in China with the urban construction and maintenance tax and the education surtax. In these two cases, the base is the aggregate tax collections from VAT, excise taxes and the business tax, and the revenues from this surtax are allocated fully to the local government. The sur-rate, however is set by the central government.

The piggyback tax proposed here might be viewed as a benefit charge, i.e., a payment for using city services.[1] Under such a reform, the existing UMCT and

1 The benefit charge argument is sensible, because local businesses make use of local government services and so do the local residents that purchase their goods. But VAT and excise taxes are origin-based and so there will be some exporting of the tax burden to other jurisdictions, depending on the trading area of these firms.

education surcharge would be replaced with an "urban service tax". The local government then could be given the option of increasing the piggyback tax rate above its present level. As may be seen in Table 5 – 1, if the rate were increased from its present level of about 9 percent to 12 percent, the additional revenue generation would be large enough to recoup about 44 percent of the lost VAT-shared revenues. The effective rate of the piggyback tax relative to GDP would rise from 0. 6 percent to about 0. 8 percent.

The individual income tax could be added to the list of options for piggybacking. As shown in Table 5 – 1, a 10 percent levy on a base of individual income tax collections could generate enough new revenue to recover about 9 percent of the lost VAT revenue sharing. The effective rate of the income tax would increase only from about 1. 1 percent of GDP to 1. 2 percent. There are good arguments to use the individual income tax revenue sharing, including the lower likelihood that the burden will be exported. But the already high tax rate on labor is a major drawback. Unless the social security contribution rate can be lowered, this is probably not a viable option.

The piggyback approach is used to a considerable extent in industrial countries (Bahl, 2010). The primary source of revenue for Swiss cities is a piggyback personal income tax; the city of Rome levies a piggyback income tax on a base defined by the central government, and Danish local governments tag on to an income tax base set by the central government. US local governments in many states impose a sur-rate on the state government retail sales tax base. At least three cities—Bangkok, Moscow, and Seoul—have their own surtax on the VAT (Martinez-Vazquez, 2013).

There are, of course, problems with this approach. It is still an origin-based tax, and some of the burden will be exported as is the case now. Another issue is that the revenue take will be vulnerable to changes in central government tax policies, such as increased thresholds or exemptions, or lower tax rates. Finally, it would displace the existing UCMT and education surcharge.

USER CHARGERS AND OTHER NON – TAX REVENUE

Chinese local governments raise about 20 percent of their current general revenue from non-tax sources (excluding land revenues). In industrial countries, the most important element of non-tax revenues is user charges, which mostly are levied according to the quantity of service consumed. Water supply, electricity, refuse collection and disposal, and mass transit are cases where user charges are most common. The policy goals are to ration the use of the resources and to recover the full cost of providing the service. The record of cost recovery is good in industrial countries but rarely good in low income countries. Take urban rail transit as an example. The percentage of transit

costs recovered from fareboxes can be as high as 149 percent in HongKong (MTR), 137 percent in Osaka (OMTB) and 100 percent in London, or it can be as low as 9 percent in Austin (CMTA) and 28 percent in Milan(Lindquist, 2009). [1]

There is considerable space for capturing revenues from user charges and from certain benefit charges, but the historical record in China is not a good one. User charges imposed on the residential sector achieve only low rates of cost recovery. For example, a recent study of approximately 600 urban water utilities in China showed that only 44 percent generated positive net margins, even though real tariffs had grown at 3.7 percent annually over the previous five years (World Bank, n.d.). Continued government subsidies provided the necessary financing in most cases.

The reason most often given for the poor record of cost recovery is the resistance from users to making a direct payment for public services, or even to making a direct payment of taxes for general local services. As Bird and Slack (2013, p140) note, "All too often, however, a vicious circle exists in which the low quality of local public services makes it difficult to collect user charges, with the result being further deterioration in the service levels.

ADMINISTRATIVE CHARGES

A major component of non-tax revenues is administrative charges, i.e., department charges for services provided, e.g., charges for forms or for services rendered by a department of government. Administrative charges account for about one-third of non-tax revenues of local governments (excluding land lease sales). The central government is discouraging this practice on grounds that it arbitrarily raises the price of some government services relative to others, it allows departments to exploit their monopoly position in delivering the service, it leads to a costly system of revenue raising, and it dilutes the power of local governments to control their system of fees and charges. Some provinces are complying with the government directive and reducing administrative charges, which leads to a revenue loss.

Another important element of non-tax revenues is fee for services provided, such as tuitions, hospital charges and charges for refuse collection and disposal. These are more in the nature of benefit charges to recoup some of the expenditures made on a particular service, but have not been very productive revenue instruments in China. Refuse collection charges are not even levied. As the fee goes to the general pool of budget, it is difficult to distinguish the interests of users of the services and the general

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1 http://www.wsdot.wa.gov/NR/rdonlyres/55CF12C9-9D4E-4762-A27A-407A44546BE2/0/TrasitFareboxRecoveryandSubsidiesSynthesisKTaylorFINAL2.pdf

taxpayers. A new design is necessary to link cost recovery to the service provided.

REVENUE POTENTIAL

As is shown in the simple calculations that are summarized in Table 5 – 1, some of these local government tax options have the potential to compensate subnational governments for reductions in shared tax revenues and unconditional grants. Columns 1 and 2 in Table 5 – 1 describe the proposed tax reform, and column 3 compares the revenue yield with a hypothetical reduction in VAT revenue sharing. The comparative (illustrative) benchmark we use here is elimination of the 25 percent VAT share to subnational governments. The data in column 4 show how much of this revenue yield is incremental to the subnational governments, i. e., how much is over and above the amount that would have been received in the absence of the reform.

These results indicate good prospects for increasing subnational government revenues with a piggyback tax. For example, if the UCMT surcharge is increased to an effective rate of 12 percent, it would yield an amount equivalent to 91 percent of the present shared VAT receipts, or "new" revenues from UCMT equivalent to 44 percent of the loss. The total new revenues from this package of reforms (property tax, UMCT increase, and motor vehicle taxes) would more than cover a loss in transfers equivalent to the 25 percent local VAT share.

INTERGOVERNMENTAL TRANSFERS

Intergovernmental transfers are the primary source of subnational government financing. The system has served China well by channeling more than 80 percent of all revenues raised to lower levels of government, and by giving them responsibility to spend it. But the system has been changed in a piecemeal fashion over the past three decades and it is not clear that there is any longer an underlying strategy for the intergovernmental transfer system. And particularly, it is not clear how the system is responsive to the new concerns raised by urbanization.

Because so many different objectives are tied to shared taxes and grants, it is not surprising that the intended overall emphasis of the transfer system is unclear. The present system seems to be addressing incentives for revenue mobilization (with derivation tax sharing), equalization and gap-filling (with unconditional grants) and stimulating spending on particular functions (earmarked grants). Some of the programs are equalizing (some conditional grants and earmarked grants), but this is offset by tax sharing and tax rebates that are counter equalizing. Tax sharing transfers may stimulate revenue mobilization but earmarked grants may dampen revenue

mobilization. And so it goes.

As the system has been adjusted to deal with new problems, it has also become more complicated. For example, the tax sharing system allows local governments to retain a significant share of revenues according to where they are collected. But in the case of the VAT and the enterprise income tax, taxes may be filed at a headquarters location; hence there may be little correlation between where the tax was paid and where the tax burden lies. The government introduced an unconditional grant program but it has become laced with conditions. Likewise, the earmarked grant system has become unwieldy, with hundreds of different programs and with no clear overall focus. With complication has come increased monitoring and compliance costs.

The first step toward reform is for the government to decide on the primary objectives of the intergovernmental transfer system. For example, will it be to stimulate revenue mobilization by subnational governments, or equalization, or to encourage spending on targeted functions, or will it be a softening of conditionality to provide more autonomy at the local level, or more conditionality to capture externalities? Will there be a separate regime to address the issues surrounding metropolitan cities? All of these objectives are worthwhile, but the question is where the emphasis will lie? The answer to this question will help government find its way in developing a transfer system that will match the present day economy.

The time may be right to consider whether a formula distribution based on expenditure needs and fiscal capacity differences would be a better approach than derivation-based revenue sharing. Such a switch, under an equal yield distribution, would result in some provinces getting more transfers than they do now, and some getting less. The amounts of gain and loss will depend on the formula chosen, but they could be quite large. Some of the losers under such a switch probably would be the richer provinces, including perhaps the larger metropolitan city-provinces. Presumably, they would be left to rely more heavily on local taxes and user charges, and would have an incentive to impose higher rates. Some of the winners could be provinces where expenditures related to urbanization are greater. All of this would lead to a major change in the intergovernmental financing system.

ELEMENTS OF THE REFORM

Reforming the intergovernmental transfer system would be done in tandem with reforming revenue assignments. This would make possible the replacement of lost transfers in some provinces with increased local taxes. The architecture of the reform (the level of vertical sharing and the formula for horizontal distribution) must be worked out based on government objectives, administrative constraints, and politics.

Moreover, the reform would need to be a gradual process, because it would cause budgetary and political disruption in the system. That said, it is important to begin by setting an end goal for the reform program, even if it will take many years to fully implement.

To suggest the possibilities and the problems involved, an illustrative option for reforming the intergovernmental transfers system is presented below. This might be read as a "proposal" only in the sense that it is suggestive of the elements of formula—based transfer program, and suggestive of how its feasibility might be analyzed. The goals emphasized for this version of a reformed system are simplification, an inter-provincial distribution of revenues that better reflects expenditure needs, and a system of revenue sharing that would allow the central government to make neutral discretionary adjustments.

Vertical Sharing

In this illustrative reform, the *vertical sharing pool* would include all taxes where the tax rate is set by the central government. This would include virtually all tax revenues raised in China. The vertical share of the subnational government sector could be stated as a flat percent of this total pool, rather than as different sharing rates for each tax. By our estimates, using 2012 data, the present 40 percent local share for income taxes, 25 percent share for VAT, and the sharing rates for all other taxes, generated revenues for subnational governments of 4732 billion Yuan in 2012. In the same year, a general sharing rate of 47 percent, applied to revenues collected from all central and local taxes, would have generated this same amount of revenue.

We would also propose to fold the present package of unconditional grants into the general revenue sharing program. This would enhance local spending autonomy, so as to preserve the information advantages of provincial and local governments. In this case, the vertical share of subnational governments would increase by another 26 percent of all tax collections.

So, vertical sharing would become relatively simple. Of the total amount of taxes raised (i. e., taxes where the central government had responsibility to set the tax rate), 73 percent would be transferred to the subnational governments on an unconditional basis. The central government would have the discretion to adjust the general sharing rate up or down, depending on factors such as the need to protect expenditure/revenue balance, the costs of urbanization, compensation for expenditure reassignments, etc. Conditional grants would be outside this general revenue sharing regime.

This would be quite a different structure for vertical sharing for China, and would

have quite different effects. There would be a number of advantages:

- The revenue impacts of central government discretionary changes in any one tax, on subnational government revenue budgets, would be muted. This is because the sharing pool would include all taxes, and all taxes would be shared at the same rate. For example, a new national exemption under VAT would cause a loss in national tax revenues, and this loss would be shared among all provinces (by formula) irrespective of how large VAT was in their tax base. The same would be true in the case of an increase in VAT resulting from a rate increase.

- The adoption of a uniform sharing rate would simplify the system because it would eliminate many special cases that have to do with affiliation of enterprises.

- All sources of tax revenue would now be on a level playing field as far as the attraction of industry is concerned. The value to a local government of attracting a firm that will generate a future flow of one million Yuan in income tax will be the same as one that generates a future flow of one millionYuanin VAT.

- A single sharing rate makes adjustments by the central government less arbitrary. A change in expenditure assignments, say the assignment of responsibility for financing social insurance programs, would call for a higher rate of retention for the central government. The estimation of the needed change in the revenue sharing arrangements could be more easily accomplished under a single rate of vertical sharing from all tax collections. For example, it would eliminate the need to decide whether any new central government responsibilities for services would be financed by value added taxes or by income taxes.

There also could be disadvantages. One is that the "entitlement" feature of tax sharing might be lost. The simplification of the revenue sharing regime that this system would bring might be an inducement for the central government to make regular changes in the general sharing rate. This kind of instability in the vertical share could undermine long term fiscal planning by subnational governments.

Another possible disadvantage is that the central government would lose some of the advantages of being able to fine tune the flow of revenues to the subnational governments. Under the present system there are many instruments for doing this, e.g., change the sharing rate on income taxes but not VAT, or abolish the business tax, etc. Under this proposed reform, the discretionary change in the vertical dimension of revenue sharing is one-track, i.e., the single sharing rate.

Horizontal Sharing

The distribution of this revenue sharing pool among provinces is the second dimension

of this proposed change in the system of revenue sharing. The change would involve fully distributing shared taxes according to a single formula, rather than according to origin of collections as under the present system or according to several formulae and ad hoc distributions as in the case of the present system of unconditional grants.

Formula grants refer to methods of distributing revenue entitlements according to an objective set of indicators. This has appeal because it can be objective and depending on how it is constructed, is acceptable as a fair approach. It also has the advantage that the grant share of each local government does not change very much in the short run, for example as in the case of a province's share of national population or relative level of per capita income. There also are some undesirable features of such transfers. While the formula itself is objective once it is determined, the process of making the determination is not so objective in that it requires a great deal of judgment, and is susceptible to favoritism. Moreover, the choice of variables to be used in the formula may be restricted by the quality of the data available.

This approach could have a number of advantages for China.

- Depending on how the formula was constructed, it could allocate transfers to provinces where expenditure needs are greater and taxable capacity is lower. These might include some provinces that are most burdened by costs of urbanization.
- The incentive for subnational governments to compete for tax bases using industrial subsidies would be lessened because the amount of tax base they attract with subsidies would be unrelated to the amount of revenue sharing they receive. This might force subnational governments more toward a form of competition that is based more heavily on the provision of quality public services.
- A formula approach for the entire revenue sharing pool would offer a better possibility for equalization and for the reduction of fiscal disparities, than does the present system.
- Any particular tax features of a city would no longer matter in the distribution of revenue sharing, e.g., an export port city, or a city with significant presence of non-taxed government activity, etc. The amount they receive back would be based on objective measures of need.

There also would be disadvantages.

- It changes the basic nature of the intergovernmental transfer system. At present the subnational governments have an entitlement to a share of revenues raised (though this entitlement can be changed by the central government). The proposed system would break the link between what is raised locally and what is returned in the form

of intergovernmental transfers.

- The change would almost certainly introduce political arguments over the formula. For example, low income provinces might want the poverty rate to be highly weighted, large provinces might argue for heavier weights on population size or land area, and rich provinces might want to take into account the amount of infrastructure that must be maintained. If the result of this debate is a compromise with offsetting effects, there is a risk that little will be achieved.

- The formula approach will result in elimination of an incentive for subnational governments to increase the rate of revenue mobilization. The link between "what you get" and "what you raise" would be gone.

- There might be a gap between the formula that government desires in order to achieve its objectives, and the formula that can be supported by available data in which all have confidence.

The interprovincial effects of adopting a needs-based formula approach would of course depend on what variables are included in the formula and on how they are weighted. The choice of the variables to enter into the formula would depend on the government's objectives, and on the availability of data that are untainted by gaming of the system. There are many options here, and countries have constructed many different formulae.

If the goal of the formula allocation is equalization, the concentration of high cost population and low per capita GDP might be weighed heavily in the formula. If the goal is to provide more funding where expenditure needs are greatest, the formula elements would concentrate on measures reflecting the cost of providing a minimum service level. If the goal is to reward tax base development, then the level of consumption or the level of income might be considered. Other factors, such as revenue stimulation might be included directly in the formula.

International Experience

Many approaches can be taken to constructing a formula. The great variation in the practice might be summarized under three more or less common approaches. The first might be called *the standard needs-standard revenue gap*. The idea here is to set the amount of grants to each local government according to the gap between the amount of expenditures required to deliver a minimum level of services and the amount of local revenue that could be raised at a "normal" level of effort. Many consider this to be the best of the approaches. It was developed in Australia and is also used in Italy, Korea and in China (for equalization grants).

The second approach is more ad hoc, in that it develops a formula based on impressionistic reasoning *about indicators of fiscal capacity and indicators of expenditure needs*, and then weights each indicator in the distribution formula. These can be very complicated or very simple. Most commonly, population is used as the basic measure of expenditure needs, though its weight in the formula may differ from country to country (e. g., 75 percent in Spain and 10 percent in India). Other indicators of expenditure need are also chosen in different countries, e. g., the percent elderly in Korea, population density in Germany, energy cost in Mongolia, and percent of population with no access to health care in South Africa.

Third, some provision is made for fiscal capacity, i. e., giving less transfer revenue to places with greater fiscal capacity (Switzerland, Germany, and India) but more to places that make a greater tax effort (Spain). Finally, formal set-asides are provided in some cases where the government feels that a factor is important to include, but it cannot be measured, e. g., state capitals in Brazil and "backward" states in India.

Conditional Grants

The final element of this reform package is the provision for conditional grants to address externalities and to more directly address special needs in provinces with high rates of poverty. *The earmarked grants* would continue under this proposal, but would be greatly simplified. At present there are hundreds of different conditional grant programs in the system. This is too complicated to effectively monitor and it imposes significant compliance cost. If conditional grants are deemed necessary to protect spending levels where external benefits might not be taken into account, then a sensible reform might be a consolidation of these grants into a much smaller number of block programs. This part of the proposal is not fully in step with the direction of international practice. The trend in OECD countries seems to be toward unconditional grants (Blochinger and Vammille, 2010).

SIMULATION OF IMPACTS

To illustrate the impact on the distribution of transfers, the results of a hypothetical transfer program are simulated using actual data for 2009. The program would operate under the following rules.

- The vertical share is 63 percent of total tax collections (exclusive of land lease revenues), or Yuan 3780 billion in 2009. The vertical share for conditional grants is Yuan 1099, as it was in 2009.
- Every province receives 80 percent of its receipts of shared tax and local tax, plus unconditional grants in 2009 as a base transfer. Of the remaining 20 percent of the

vertical share:

- ○ 30 percent is distributed among all provinces according to an equal weighting of population size and HDI.
- ○ 70 percent is distributed according to population.

- Conditional grants are distributed as at present.

The simulated results are presented in Table 5 – 4. The simulation is revenue-neutral with respect to the levels of 2009, so that the distributional results can be shown and compared to the present system.

In column 1 of Table 5 – 4, the present level of per capita revenues from shared taxes and all grants is shown. Column 5 shows the per capita distribution under the proposed program. Column 6 shows the difference in terms of the per capita gain or loss, and column 7 shows the percent gain or loss. Column 9 shows the difference as a percent of per capita GDP. Presumably, this difference is the amount that would be made up with local taxes and user charges, if the local government was willing to levy an increase. Alternatively, it could be made up with transition assistance from the central government.

To take one example from Table 5 – 4, Beijing would lose 1759 Yuan per person under the proposed program, or an amount equivalent to about 14. 9 percent of what is received now. This loss would be equivalent to about 2. 7 percent of local GDP. For all provinces, 17 would gain under this move to a formula system, but 13 would lose.

We might also summarize the changes in terms of richer vs. poorer provinces. While the simple correlation with per capita GDP does not change significantly, the coefficient of variation under the present system is 0. 89, while that under the hypothetical formula distribution is 0. 71. This suggests less dispersion in the distribution.

We can learn much from such simulations. One lesson is that falling back to a population allocator would not likely be acceptable because of the significant short term losses to some provinces. For example, Shanghai would lose the equivalent of 2. 4 percent of GDP under this plan, and Tibet would lose over 8. 7 percent. On the other hand, Henan would gain over 1. 1 percent. However the patterns that do emerge give reason for optimism that a formula could be developed that would not have such extreme shifts in transfer revenues.

A second lesson is that the distributional impacts can respond to other formula elements that may reflect government policy. For example, it could be changed in the direction

Table 5 – 4: Impacts of a Population Formula Distribution of Shared Taxes and Unconditional Grants (Based on Data in 2009)

Province	(a) Per Capita Receipts of Shared Tax and Local Tax Plus Unconditional Grants	(b) Per Capita 80 Percent of Receipts of Shared Tax and Local Tax Plus Unconditional Grants	(c) Per Capita 6 Percent of Receipts of Shared Tax and Local Tax Plus Unconditional Grants Weightedby HDI and Pop	(d) Per Capita of the Left 14 Percent Taxes and Grants Taken Nation as a Whole	(e) Total e = b + c + d	(f) Difference f = e – a	Difference as Percentage	f as Percent of Per Capita GDP
Beijing	11781	9425	201	397	10023	– 1759	– 14. 9	– 2. 7
Tianjin	5590	4472	194	397	5063	– 527	– 9. 4	– 0. 9
Hebei	2043	1634	169	397	2200	157	7. 7	0. 6
Shanxi	2656	2124	169	397	2691	35	1. 3	0. 2
Mongolia	4263	3410	176	397	3984	– 279	– 6. 5	– 0. 7
Liaoning	3674	2939	181	397	3517	– 157	– 4. 3	– 0. 4
Jilin	2853	2282	175	397	2854	1	0. 0	0. 0
Heilongjiang	2597	2077	172	397	2646	50	1. 9	0. 2
Shanghai	10985	8788	199	397	9384	– 1601	– 14. 6	– 2. 4
Jiangsu	3519	2815	183	397	3395	– 124	– 3. 5	– 0. 3
Zhejiang	3814	3051	182	397	3630	– 184	– 4. 8	– 0. 4
Anhui	1935	1548	161	397	2106	171	8. 9	1. 0
Fujian	2492	1993	175	397	2565	73	2. 9	0. 2
Jiangxi	2017	1613	162	397	2172	155	7. 7	0. 9
Shandong	2144	1715	176	397	2288	145	6. 7	0. 4
Henan	1719	1375	165	397	1938	219	12. 7	1. 1
Hubei	2110	1688	170	397	2255	145	6. 9	0. 6
Hunan	1838	1470	166	397	2034	196	10. 7	1. 0
Guangdong	3154	2523	178	397	3099	– 55	– 1. 8	– 0. 1
Guangxi	1895	1516	161	397	2074	179	9. 4	1. 1
Hainan	3564	2851	166	397	3414	– 149	– 4. 2	– 0. 8
Chongqing	2466	1973	168	397	2538	72	2. 9	0. 3
Sichuan	2039	1631	162	397	2190	151	7. 4	0. 9
Guizhou	2208	1766	146	397	2309	102	4. 6	0. 9
Yunnan	2113	1691	149	397	2237	123	5. 8	0. 9
Tibet	9138	7310	139	397	7846	– 1291	– 14. 1	– 8. 7
Shanxi	2622	2098	170	397	2665	42	1. 6	0. 2
Gansu	2187	1750	154	397	2301	114	5. 2	0. 9
Qinghai	5187	4150	156	397	4703	– 484	– 9. 3	– 2. 5
Ningxia	4063	3250	165	397	3812	– 251	– 6. 2	– 1. 2
Xinjiang	3685	2948	163	397	3508	– 177	– 4. 8	– 0. 9
National average	2836	2269	170	397	2836	0	0	0. 0

Sources: calculated from data in China Statistic Yearbook 2010 and dataset of the Ministry of Finance of China.

of more equalization by allocating a portion of the pool according to the concentration of poverty in the province.

A third lesson is that big changes in the formula elements can shock the distribution enough to stimulate public opposition. This is shown by the simulations in Table 5 – 4. In such cases the new formula should be phased in gradually to give the subnational governments an opportunity to adjust. In this case, it would be phased in simultaneously with increased local government taxing powers and changes in revenue assignment. The goal would be to find a system that would result in a revenue gap for each province (column 5 of table 5 – 4) that could be feasibly covered by increased subnational government revenues. Note also that this illustration calls for a hold harmless at 80 percent of the existing distribution. If the migration to a new formula were to be phased in over a five year period, the subnational governments would have ample time to make local tax and charge adjustments.

SUBNATIONAL GOVERNMENT BORROWING

Denying subnational governments the power to borrow is not a viable public policy for China. Responsibility for financing infrastructure rests largely with subnational governments, and they must respond to the increase in demand for public facilities that emanates from urbanization and economic development. Debt finance is not a source of revenue, of course, but it is an efficient approach to financing long-lived capital facilities and it offers a way to generate the resources necessary for large scale public investment efforts. Subnational government borrowing must be a part of China's strategy for absorbing the public sector cost of urbanization.

BORROWING FRAMEWORK

Before subnational governments in China can be given the power to borrow, some fundamental issues must be addressed. These include the need to establish a program of credit analysis for local governments, the need to establish more independence of lenders and borrowers, the need for local governments to have a stable flow of revenues that is adequate to service debt, and the need for an overall borrowing framework that would establish the rules under which local governments could borrow. In principle subnational governments could issue either general obligation bonds, backed by their revenues, or revenue bonds, backed by a flow of revenues from either tariffs or from a dedicated revenue stream.

Borrowing by subnational governments in China would need to be strictly disciplined, both by the law and by close monitoring of the practice. As the fundamental issues

outlined above are addressed, the restrictions can be loosened.

All countries have introduced policies to discipline subnational government, but this is especially important in countries that are new to the use of internal capital markets for this purpose. The goals of these regulatory policies are to protect investors and local governments from fiscal behaviors that would jeopardize timely repayment. In China subnational government public finances would be restricted in several ways:

- Debt finance would be allowed only for capital facilities with a long service life. The construction of capital facilities for SOEs in the competitive sector would be a strictly prohibited use of these funds.
- The amount of borrowing would be kept within the limits imposed by higher level governments and would be based on repayment capacity.
- The avenues by which subnational governments can use loan funds to soften their budget constraint on current expenditures would be closed off.

INTERNATIONAL EXPERIENCE

The regulatory programs that countries have adopted to keep subnational governments close to such objectives include both fiscal rules and market approaches. The programs adopted differ in structure from country to country, and while they have generally contributed to holding off a subnational debt crisis in middle and low income countries in the last decade, each has faced problems and has required adjustments (Liu and Waibel 2010). The experience in some Latin American Countries can be instructive (Bahl and Sethi, 2012).

Local governments in Peru may borrow, but under a strict set of fiscal rules that are designed to protect a hard budget constraint. These rules include limits on debt service, debt levels, deficits, and the rate of growth in public spending. There are also special limits on spending in election years. The sanctions for violating the fiscal rules include an intercept (i.e., an automatic withholding) of certain transfers and, in extreme cases, direct intervention in the operations of the local government. About 55 percent of internal debt, and all external debt, belongs to local governments in metropolitan Lima.

Mexico does not have a fiscal responsibility law but instead relies on a market-based approach to control borrowing by subnational government. Long-term borrowing is secured with a trust fund arrangement where loans are collateralized by unconditional grants (participaiones) and own-source revenues. It is required that long-term debt be registered with the Ministry of Finance and that approval for the borrowing be given by

the local congress. Credit rating agencies provide an independent analysis of the riskiness of loans to individual state and local governments, and these ratings are used to calculate a capital risk weighting of bank loans. The sanction is that banks will not lend to subnational governments that are not creditworthy, and the sanction will hold up so long as the federal government holds firm on its no-bailout policy.

Restraints on borrowing in Colombia are governed by a set of laws passed between 1997 and 2003. The approach involves a combination of fiscal rules to strengthen fiscal discipline, the introduction of a rating system, and the introduction of a workout system for local governments that are in financial trouble. The fiscal rule targets include ratios of interest payments to operational savings, and debt stock to current revenues. When a government fails to meet the targets, it is classified in the "red light zone" and is prohibited from borrowing. The result of these practices has been a reduction in subnational government debt outstanding from 9.6 percent of GDP in 2001 to 5.4 percent in 2005.

Argentina adopted a fiscal responsibility law in 2004 that applied to both the national and subnational governments. It required that the growth in subnational government spending (excluding debt services) be lower than the growth in GDP, that debt service be less than 15 percent of current revenues, and that a three-year forecast of budgetary position be maintained. There are few hard sanctions in the 2004 fiscal responsibility law and a number of loopholes make it possible to avoid any penalties at all.

Subnational debt levels either declined or grew more slowly than in the period before fiscal responsibility laws (Liu and Webb 2011). It is not possible to estimate how much of this was due to economic performance and how much was due to regulatory policies. On the other hand, it can be noted that some subnational governments have taken advantage of flaws in the regulations to soften their budget constraint. Some of these flaws are in the implementation of the regulatory framework and some are due to structural problems with the design. The four countries reviewed here have addressed such issues with varying degrees of success.

The use of supplier credits and accumulation of arrears in the payment of employer wages and benefits is another form of borrowing to cover current expenditures. So is the underfunding of pension funds. This way around the Golden Rule has been used by local governments in Mexico and Peru. Under Peru's fiscal responsibility law, borrowing through arrears is reported and covered under the allowed debt ceiling. In Mexico it is not. Another example was the use of short-term borrowing by some Mexican states to cover current account deficits in 2009. These loans were not registered with the Ministry of Finance, not secured by the trust fund arrangement, and not approved by the local congress.

The experience with monitoring compliance with fiscal rules and applying the sanctions has been mixed. There is a long history of not enforcing the fiscal responsibility laws in Argentina, and "…those who have missed their targets have faced little political fallout" (Liu and Webb 2011). By 2009, the fiscal responsibility laws in Argentina had been suspended. There is also inadequate monitoring and enforcement by the central government of the fiscal rules in Peru, and widespread noncompliance by municipal governments.

Central governments in all of these countries seem to have made a creditable commitment to a no-bailout policy. However, a challenge to this commitment, and to the hard budget constraint mandate and the Golden Rule, seems to have arisen with respect to cyclical smoothing. In fact, Peru has made explicit provision for a relaxation of the debt ceiling for subnational governments during recession, and Argentina has shown a willingness to do this on a discretionary basis.

Mexico allowed its state governments to borrow to cover revenue shortfalls in the 2009 – 2010 recession. It is estimated that states could have faced cuts of more than 20 percent of their unconditional grants (Revilla 2012). The amount in their collectively owned rainy day fund was not large enough to cover the shortfall. The solution was to borrow against the future flow of revenues into the stabilization fund. [1] In one sense this approach "worked" because cuts in essential services or insolvency were avoided. The borrowing however, was by subnational governments to cover current expenditure, and there was no agreement to increase state taxes to help repay the stabilization fund.

A Model for China

The model proposed here for China is one where all local government borrowing would be controlled by a national framework which specified the conditions under which subnational government borrowing could take place. The two most important parts of the framework would be the limits on the purpose of borrowing and the limits on the amount of borrowing. On the first of these, the normal practice is to limit debt finance to the construction of long-lived assets in the public sector. The financing of capital projects in the competitive sector would not be an eligible use of these funds. The second limit is on the amount which a subnational government could borrow, if it could borrow at all. The limits would be prescribed in the framework. In theory, subnational governments could draw on three sources of revenue to secure a loan: user charges, an intergovernmental transfer intercept, and dedicated sources of own source local revenues.

1 The stabilization fund is capitalized with "excess" federal tax revenues.

Subnational governments that passed the creditworthiness test would be permitted to borrow without permission of the provincial or central government. Those with a weak credit rating would require approval. Those subnational governments below the line on repayment ability would have limited or no access to debt finance, and their infrastructure needs would be handled either directly by higher level governments or by capital grants. Among the measures used to set the boundaries of creditworthiness for local governments would be the level and structure of GDP, the level and stability of recurrent revenues, the budgetary position of the local government, the level of contingent liabilities, and the level of debt outstanding.

Certification that a local government had passed the creditworthiness test would probably come from the central government. Local governments and local development banks are not sufficiently independent to allow them to do the monitoring of the local government financial condition. To be eligible to borrow, a local government would have to fully disclose its financial condition, using a standardized reporting system.

LAND FINANCE

The proper role of land revenues in Chinese public finances is complicated, in part because government is a monopoly owner of land. Land is an exhaustible resource, and its use for urban development is limited by food security concerns. This leads to suggesting that it be treated as a below-the-line financing source for capital projects. Otherwise, spending the revenue from the sale of land leases is no different than spending cash balances from the local government account. Turning government assets into badly needed public infrastructure should be applauded, especially at a time when the migration of hundreds of millions to cities is putting great pressure on urban infrastructure.

But, as was discussed, the structure of the program was flawed. The treatment of farmers and collectives who had user rights to the land was unfair, land collateral for loans to provide infrastructure for the sites led to a non-transparent approach and arguably to over borrowing, the wealth of riches allowed some local governments to make unwise investment decisions, and urban sprawl was encouraged.

What to do now? The option of cutting off the practice of land financing of urban infrastructure is almost certainly not a starter because the program has become so important, i. e. , land revenues are now equivalent to more than one-third of ordinary budget revenues in China. Moreover, the infrastructure needs related to urbanization are great, and another 300 million migrants to cities is expected in the next decade.

We can say this: Subject to the constraints related to food security, the basic problem is not with the practice of converting farmland assets into productive urban facilities and ultimately higher quality urban services, but it is with the way in which this is being done. This suggests that the best route is to reform and rationalize the practice. And here there are good alternatives. But several changes in the law, the administration, and the division of the real revenues from land conversion need to be worked out and fitted together. The workout will be no easy matter and certainly it will be politically charged.

The first order of business is to address the compensation question. One alternative is to abandon the practice of expropriation of farmland at the value in agricultural use. In its place, the government could allow negotiations between developers and collectives/farmers to establish a market value. Or, the farmers could be allowed to negotiate directly with the local government. Either of these arrangements would lead to a reduction in the profits from land transactions and at the margin would reduce land lease revenues that are used to finance public infrastructure.

If farmers were allowed to negotiate prices with developers (directly or through government), the profits on the sale of the lease could be subject to taxation.[1] The local government could then levy separate development charges on the buyer. This would put government in the right place, i.e., as taxing the profits at a reasonable rate rather than arbitrarily expropriating much of the profits. This would mean less of a surplus from land lease sales accruing to the government budgetary accounts, but it would be more fair and more in line with the right role for governments.

Second, if local governments are to be chased away from some of the high profits associated with land sales, they should be given additional taxing powers as a kind of compensation for giving up some of their claims on land lease revenue, and to provide them with an additional base for financing local services and repaying debt. The property tax is a viable candidate for local taxation, but this alone will not make up for the revenue loss from shifting away from expropriation and land lease sales. As noted above, there are other alternatives that might add to a significant strengthening of the urban government finance base. Land revenues are now running at about 3.8 percent of GDP per year, after account is taken of the cost of preparing the site for the sale of a lease. The proposals for local taxation, described above, could reasonably be expected to yield 5 percent of GDP or more.

Third, there is the problem of dealing with the urban sprawl that has come with the extensive use of land leases (World Bank and Development Research Center, 2014,

1 This would be done with a capital gains tax if levied on profits, or a transfer tax if levied on sales value.

pp439 – 535). The goal of making urban economic development more compact could be helped by the introduction of a property tax which would impose a holding cost on land in the built-up area that is being held off the market. At the margin, this might divert some real estate investment to the built-up area.

Fourth, any reform in this area needs to bring more focus to the question of how the public monies are spent. This will be particularly true if financing through local government borrowing will be limited to public sector projects. In this case, the profits from land lease sales could not be used for investments in the competitive sector. Moreover, under a local government borrowing regime, loans to prepare sites for sale of land leases would be directly competitive with public purpose infrastructure investment. Under the present system, where much of the spending is off-budget, it is complicated to even track the spending outcomes.[1] This would be another factor driving down the profitability of the sale of land leases.

Finally, there is the question of what to do about the financing platform. Here there are two issues. First, if a UDIC is involved in what is essentially a private sector activity (e. g., managing an industrial park), the capitalization from the local government could be called back and the UDIC could be privatized. Under the right circumstances it might join the local government in a public private partnership for the provision of public services. Second, if local government direct borrowing is allowed, arguably the major rationale for the local investment companies would be gone. Any professional service they offer could be contracted from the private sector on an as-needed basis, or the UDIC could be brought into a local government department.

A reform such as this would have important and controversial impacts. Whether this is in the best interests of China depends on how well it matches up with national goals. Consider the following pros and cons of this proposal:

- Because the purchase price of land to the local government would increase, it would reduce the funds available to the local government for public infrastructure spending. This would be a dangerous policy at a time when urbanization will place such great demands on infrastructure services.

- This proposal would reduce the advantages of land use patterns that favor urban sprawl. Fringe area land would be relatively more expensive than it is now, property taxation would increase the holding cost of land in the built up area,

1 Technically, the Government Fund, which is the account where the land based infrastructure activity is reported, is part of the local government budget. However, the UDICs are responsible for much of the transactions, and their accounts are less transparent, notwithstanding the local government guarantee on their debt.

motor vehicle taxes would increase the commuting costs, and a formula-based transfer system would reduce the fervor about competing for future VAT revenues. All of this would contribute to less public revenues from land leasing, and possibly could make suburban land relatively less attractive (vs. land in the built-up area) than it is now.

- Adjustments in land compensation policies would lead to what some would see as more justice in the distribution of profits from land lease sales. That is, the owners of agricultural land user rights would be treated the same as urban non-residential land user rights. Such an arrangement would put local governments closer to their traditional role, i. e., taxing the gains from land rather than using monopoly power to expropriate the land and buy it at less than market value.

CHAPTER SIX
THE PAYOFFS FROM REFORM

INTRODUCTION

The proposal here is for a comprehensive structural reform rather than a piecemeal fix of the present system. Because the Chinese approach to public financing makes it difficult to separate tax structure reform, tax administration reform, and intergovern mental fiscal reform, it is important to consider how the various elements of the reform fit together and the joint impact they might have on the economy. The elements of the reform can be phased in gradually and over time, but developing the long run plan to modernize the entire fiscal system should be done at the outset.

The proposal above is an outline of such a comprehensive reform. The exact details, such as the new tax rates and bases, intergovern mental transfer formulae, borrowing rules, expenditure assignments, and the like, are not here. This requires a painstaking work to be done by a government-appointed commission that is fully armed with data and fully informed about government policy goals. Nor do we take on the tough questions of how laws and regulations might be changed, or discuss the very difficult issues of political economy.

THE REFORM PACKAGE

The reform package described here is built around seven key sets of policy and administrative change:

1. Provide incentives for subnational governments to focus more heavily on the provision of good public services, and less on direct involvement in the competitive sector.

2. Shift responsibility for financing social insurance programs, including the legacy costs and unfunded liabilities, to the central government level. Subnational governments could continue to be involved heavily in the delivery of some programs, but the level of financing and the benefit packages would no longer be tied to the fiscal strength of the provincial and local governments.

3. Authorize subnational governments to make use of certain taxes and to set rates within specified limits. The tax sources that might be considered are property and land taxation, motor vehicle taxes, and the UCMT/education tax. Provide incentives for subnational governments to move user charges closer to cost recovery levels.

4. Convert the existing revenue sharing system to one that features a single sharing rate for the vertical pool, a formula-based system for distributing the transfers, and a much simplified earmarked grant system.

5. Allow local governments to borrow within a restrictive framework, both in terms of the purpose for which they may borrow, and the amount they may borrow.

6. Retain the sale of land leases as an instrument for the financing of public infrastructure, but restructure the program. Among the changes needed are a more equitable method of compensating farmers for the sale of their user rights, elimination of the financing platform or its conversion to a type of PPP arrangement, the use of auctions for land leases sales vs. "placements", and account for all transactions in the government fund budget in a more transparent way.

7. Change the system of local budgeting to one that features full transparency and allows government to do a better job of planning and managing its fiscal affairs.

A summary of the impacts of this reform, discussed below in some detail, are presented in Table 6 – 1.

Table 6 – 1: Comprehensive Reform Program

Subject	Reform	Comments/ Impacts	Implications for Urbanization
Expenditure Assignment	Transfer responsibility for social security financing to the central level, including legacy costs.	Would equalize benefits and contribution rates among provinces; Local government expenditures would be reduced; Total expenditures by central government on social security would rise above the present level of 6 percent of GDP; Will improve the vertical balance in the intergovernmental fiscal system.	Full portability of benefits; disparities between residents and migrants would be reduced. Disparities among provinces and among local governments would be reduced.

Con.

Subject	Reform	Comments/ Impacts	Implications for Urbanization
Expenditure Assignment	Transfer selected subnational functions to the central level.	Central government expenditures would increase by an amount that would depend on the functions transferred; externalities would be accommodated; Will improve the vertical balance in the intergovern mental fiscal system.	Some service levels would be improved and could lead to attracting more economic activities. These would include environmental protection and urban transportation.
Revenue Assignment	Adopt local government rate setting for property tax, surcharges on UMCT/ education tax, and motor vehicle taxes. Target revenue yield could be 5 percent of GDP.	Would increase overall rate of revenue mobilization, provide local governments with more autonomy to borrow or expand service levels, could have an equalizing impact. Residents in higher cost cities would pay a higher tax price; Will improve the vertical balance in the intergovernmental fiscal system.	Potential migrants and new businesses would factor in the higher cost of public services in destination cities; the higher cost of urban sprawl would be partially compensated by increased taxes.
Intergovern Mental Transfers	Restate the vertical share for intergovern mental transfers as one sharing rate for all tax collections.	The claim of the central government on total fiscal revenues would rise, depending on the increased cost of social insurance programs, and other programs that are assigned to the central government.	
Intergovern Mental Transfers	Replace derivation sharing with needs – based formula sharing.	A shift in the distribution of transfers away from the higher income provinces; Provides incentive to mobilize revenues through local tax sources.	Less incentive to provide industrial subsidies to attract tax base; More expenditures for general public services.
Intergovern Mental Transfers	Move unconditional grants to the general revenue sharing program. Simplify earmarked grants by converting to a smaller number of block grant programs.	Reduces compliance costs and monitoring costs, but removes some targeting of specific areas for spending.	Grants targeted on migrant workers might be reduced.

Con.

Subject	Reform	Comments/ Impacts	Implications for Urbanization
Debt	Give local governments the power to borrow within specified limits.	Would eliminate the use of informal channels of local government borrowing; the financing platform would become redundant. Would stimulate the development of a bond market.	Might slow the mobilization of revenues through the sale of land lease.
Land Lease Sales	Compensate farmers according to a market price for land, but tax the difference between the lease price and the agriculture price; all sales of leases by auction.	Would dampen the use of land lease sales and would therefore reduce the funding available for public investment in infrastructure. Would reduce the vulnerability of local government to fluctuations in land lease sales prices.	Urban sprawl would be relatively less attractive than compact development by comparison with present arrangements; Infrastructure to absorb migrant workers and new companies might be reduced
Budgeting	Adopt a new budget format that separates current from capital spending and revenues. Require that all revenues, expenditures, assets and liabilities be fully reported.	Would permit development of a capital budget, and could lead to better comparative measures of credit worthiness.	

IMPACTS OF THE REFORM

The government will have interest in four broad impacts of this proposed fiscal reform. The first is whether it will bring about a better balance between revenues and expenditures made at the central and at the subnational government levels. The second issue is whether unwanted distortions are addressed by the proposed changes in expenditure and financing policies. The third is if more fair and equitable outcomes are promoted. Finally is the degree to which the proposed changes reinforce the macroeconomic policy objectives of the government. Importantly, this final objective includes how the public finance system will accommodate the costs of urbanization and capture its benefits.

REVENUE – EXPENDITURE BALANCE

The Chinese intergovernmental fiscal system is not well balanced. The central government raises nearly all of the tax revenues but accounts for only about 15 percent of direct spending. The remaining 85 percent of direct expenditures is in subnational government budgets, but these local governments have no independent taxing power. If the social security and government fund budgets are considered, the system has an even more unfavorable vertical balance. The concern that local government expenditure budgets are overloaded is increasingly heard. The overload is not sustainable, and in the past has been dealt with by allowing backdoor approaches to shore up local government budgets. The time may have come to find a more permanent solution.

The reform package proposed here would remove some of the fiscal overload by shifting some expenditure responsibilities to the central level. Most importantly, the central government would assume financing responsibility for social insurance. This proposal would have short run and long run cost implications for the central government. Initially, the central government would need to level up the benefits across provinces, to cover the deficit in current funding (equal to about 25 per cent of costs) and to address the legacy costs that resulted from closing some SOEs. In the longer run, the central government would need to deal with the underfunding in the system.

Other expenditure programs are candidates for shifting to the central government. These include functions where there are significant spatial externalities (environmental protection and natural resource management) and where regional and national coordination is necessary. An area of importance that is now emerging is the management and financing of the largest metropolitan areas. Boundaries have grown together and significant costs and benefits of some public services are spilling over these boundaries. Some form of central intervention, and perhaps financing, is in the not too distant future. Until a detailed analysis of the expenditure budgets is carried out, we cannot estimate the cost that the central government will assume.

Expenditure reassignments would be accompanied by revenue reassignments. One possibility is an increase in the share of total revenues retained by the central government. The proposal outlined here is that a single sharing rate would be set for all taxes levied by the government. The new, higher retention rate for the central government would reflect the new central government responsibilities. The result would be an improved balance in the intergovern mental fiscal system.

Finally, the system would be better balanced because local government taxation would be introduced. This would include a revamped set of property taxes, surcharges on central taxes and motor vehicle taxes. When the tax administration is developed enough to allow destination-based sales taxes, certain of the excises also could be converted to retail sales taxes.

EFFICIENCY IMPLICATIONS

The present public finance system has introduced biases that effect market decisions and individual choices. These biases have been welfare reducing. Some of the fiscal policy changes in this reform package could reduce these distortions and give some efficiency gains to the economy.

First, local taxing powers would allow those urban governments that provide better services to charge a higher tax price to their residents. In some cases, this will happen automatically, as in the case of a property tax levied against the value of property. That is, services will be more costly to provide in large cities, where property values are higher, and therefore where property taxes are higher. In other cases, local governments will set a higher tax price with discretionary increases in the tax rate, e. g. , by levying a higher rate of piggy back tax. Either way, the higher tax price could bring about a number of changes in choices made. Residents and businesses would be asked to pay the higher marginal cost in cities that provided better (higher cost) services. This would be factored into the location decisions of both companies and migrants and at least at the margin will contribute to a more efficient size distribution of cities, and to an improved pattern of business location. It also might stimulate resident groups and business groups to pressure local governments for more cost effective service delivery.

Second, a proper rejiggering of expenditure assignments would lead to taking better account of the external costs and benefits of spending decisions. In cases where the reforms lead to more centralization, externalities could be internalized and more efficient levels of service could follow. Examples are natural resource management, environmental protection, food safety, and regional transportation.

Third, moving from derivation-based revenue sharing to a formula system would reduce the incentives for local governments to compete for tax base. The amount of intergovern mental transfers received would now depend on expenditure needs, such as population size or the concentration of low income families, rather than on the amount of new VAT or company income tax generated. The choice between investments in education and investments in industrial development, for example, would now be on a more level playing field. This should result in more rational decisions about industrial

attraction strategies and subsidies.

Fourth, the increased level of compensation to farmers (and reduced profits to local governments and developers) could reduce revenues from the sale of land leases, and slow down the rate of increase in peri-urban infrastructure investment. This will not be a positive factor for China, given the amount of new urban infrastructure that is needed. On the other hand, there are positive impacts. Some excess capacity could be used up and budget allocations could be focused more on social services and on infrastructure maintenance. The slowdown in urban fringe development might also be slowed by taxes on property and motor vehicles. This could limit urban sprawl and at the margin lead to choices of more compact development that would better capture agglomeration economies. Whether any of these changes in relative prices will matter, however, depends on level of taxation chosen and on the price elasticity of demand for suburban land.

EQUITY AND INCLUSIVENESS

This reform package would also have positive impacts on equity. The shift to a formula-based system of intergovern mental transfers would at least hold out the possibility of more equalization among provinces by comparison with the present derivation-based system. The transfer formula could be structured to take expenditure needs and the concentration of poverty more directly into account, and no longer would reward those provinces with a stronger tax base. The degree of equalization that resulted would depend on the formula chosen.

A second area where equity gains would be made is with shifting responsibility for the financing of social insurance programs to the central government level. Lower income subnational governments would no longer be required to cope with fiscal capacity constraints and a heavy concentration of resident low income workers. Pensions and health insurance would be a national program where benefits and contributions would not depend on place of residence.

Third, equity will be served by revisiting the expropriation and compensation policies now followed in converting farmland into urban land uses (World Bank and Development Research Center, 2014, pp187 – 262). This might happen in one of several ways. Farmers could be given stronger property rights with respect to farmland and/or homesteads, or the central government could mandate an arms-length determination of the compensation rate that more closely approximates market value, and impose a capital gains tax on the profit.

FISCAL POLICY AND ECONOMIC POLICY

There also are gains to be made in rationalizing subnational government fiscal decisions so that they are more in step with national macroeconomic policy goals. China's government debt is not presently at a dangerous level, but land-backed borrowing by UDICs has put some local governments in fiscal jeopardy. While this backlog problem must be dealt with, granting subnational governments the power to borrow under a framework that limits their debt liability to their ability to repay would remove an important future risk to the economy.

Local government taxation would reinforce national objectives. Providing incentives for subnational governments to raise some of their own revenue would move local officials a step closer to accountability and fiscal discipline. A property tax levied at a reasonable level, and with the right structure, could help curb speculation in the housing and land markets. Heavier taxes on motor vehicle registration and motor fuels would be consistent with the goal of lower carbon urbanization.

A shift in local government emphasis, away from private purpose and toward public purpose, could improve the efficiency of the Chinese economy. Moving the UDICs into the formal local government structure, or to the private sector, would be a step in this direction.

With respect to the issue of transparency in government, the package of reforms proposed here calls for a reformatting of local budgets, the elimination of UDICs in their present form, and provisions for full disclosure of financial information by local governments as part of the borrowing framework. This transparency in the accounts can help the goal of making local officials more accountable for local government outcomes, and can make subnational government fiscal planning more effective.

Factor markets could be strengthened in three fundamental ways by this proposed reform.

- *Land markets* have been driven by subnational governments' land conversions that were necessary to finance infrastructure. These conversions have led to urban sprawl and contributed to pollution. Reform that allows subnational borrowing and that more equitably compensates for expropriated land will help to rationalize the land markets.

- *Labor markets* have been distorted by subnational governments' inability to provide social benefits to migrant workers and by the non-portability of social security and health insurance. Reforms to intergovernmental transfers that will better match

financial resources to migration patterns as well as centralization of social insurance would improve the labor market, strengthen social equity, and stimulate the conversion from industrial to services-oriented production.

- *Capital markets* would be strengthened by creating creditworthy subnational governments and by installing a regulatory regime that would benefit lenders and borrowers for infrastructure investments.

There is a more general question of how these public finance reforms match up with the fiscal implications of the wave of urbanization that is before China in the next two decades. One could argue that this package has several features that will enable urban governments to better capture the benefits and bear the costs of urbanization. First, better public services at the local level and the portability of pension and health insurance benefits will improve labor mobility and create more efficient markets. Second, increased local government revenue mobilization, and an increased flow of transfers to more needy subnational governments, will shore up local public finance budgets to cover the incremental costs of urbanization. Third, increased local taxation and formula-based revenue sharing, together with reformed land lease financing practices, could result in a slowing down of infrastructure investment at the urban fringe and less urban sprawl.

CHAPTER SEVEN
REFORMING THE PUBLIC FINANCE SYSTEM IN CHINA: CONCLUSIONS AND SUMMING UP

The revenue and expenditure growth in China over the past 20 years has been admirable and has led to vibrant public sector. Over 500 million people have been lifted out of poverty, the urban infrastructure has developed quickly, and social services have improved significantly. But the rapidly growing economy that has made all of this possible has also hidden some important deficiencies in the system of public financing. It would not be incorrect to say that China has outgrown its traditional approach to public financing, and has come to a crossroads where a different approach to reform is needed.

BACKGROUND

Urbanization will make China a different country over the next two decades. The government's goals are to create a growing middle class, re-orient production and employment toward higher value-added services, increase equity, and drive the next stage of growth with household consumption rather than with investment. McKinsey (2009) has projected that the urban economy will generate over 90 percent of China's GDP by 2025. But the public finance system that effectively led an investment-driven growth strategy will encounter greater obstacles in this, more urban China. Already, some fundamental flaws have shown up in the existing system and threaten to add further equity and efficiency costs.

FISCAL PROBLEMS

Today's fiscal problems are not the result of short-sighted or misguided policy decisions so much as they are a product of China's outgrowing its public finance system. Rapid economic growth over 30 years led to dramatic changes in the structure of the economy. Economic reforms drew on market principles to fuel the growth and restructuring. However, the public finance system, particularly the intergovern mental fiscal system, has been little changed since the major 1994 reforms. There have been some effective fiscal adjustments, particularly in the area of taxation, but overall it has

not responded to the needs of the changing economy and to the new demands of a more mobile and more urban population.

The problems with the fiscal system might be summarized by the following:

- *Uniformity*. Local problems and priorities differ, but the present public finance system is driven primarily by uniformity in financing and similar incentives for local officials to promote industrial development. Under the present system, local governments cannot raise taxes or borrow to finance general public services that their citizens might want.

- *Infrastructure Finance*. Urbanization has driven up the demand for public infrastructure, and subnational governments have been creative and successful in meeting this demand. However, the main financing instruments by which they did this – the sale of land leases and borrowing through financial intermediaries – are not sustainable.

- *Inequity*. China is beset with inequities that it does not want, and these are largely a product of the pattern of growth that has developed. Concentration of income and wealth has increased, regional variations in fiscal capacity have grown, most migrant workers receive less public service benefits than do hukou residents, and farmers appear to be disadvantaged by land polices. The present public finance system may have contributed to widening these disparities. Social security financing is left to the lower levels of subnational governments where resources are most limited, derivation-based revenue sharing and tax return grants favor higher income regions; there is little targeted relief for servicing migrant workers; and the fiscal system does not offer formal guidance on the compensation of farmers for expropriated farmland.

- *Weak central coordination*. Metropolitan areas are growing together, local problems are becoming regional problems, and the actions of one city or province are having greater impacts on well-being on other cities and provinces. Environmental constraints to development are becoming more prominent and costly.

THE TRANSFORMATION TO SERVICES

China's previous transformation from agriculture to industry was led by central government actions to liberalize the economy. But the next transformation – from industry to services – will require more initiative and direction from urban centers. Cities will need flexibility to adapt quickly to new circumstances as the structure of the economy changes and new opportunities emerge. This might include revenue mobilization to meet the infrastructure needs of the new business sector, the public

service needs of migrant workers, and the provision of amenities required to attract and hold a high quality labor force.

China's fiscal system is already under stress and incompatible with current demands for public services. As urbanization accelerates, another 200 million migrants to urban areas are expected. And as the middle class expands over the next two decades, governments will be required to expand and improve existing services. The shift to services will require new infrastructure investments for transportation, energy, water, and public services. The cost pressures on urban local government budgets will be great.

There also will be fiscal benefits from urbanization and the growth in the services economy. But the extent to which the incremental revenues from urbanization will cover the incremental costs will depend in part on how fast the development of the service sector materializes, and on whether the incentives to local officials to promote industrial development on the urban fringe are dampened. If these incentives remain as they are, continued urban sprawl will lead to higher costs of urbanization, and this will use up some of the fiscal benefits.

COMPREHENSIVE FISCAL REFORMS

Public finances should help to integrate migrants and their families into urban areas. But this will be done at a time when slower economic growth will dampen revenue growth, and when revenues from land conversion may taper off. Management of the government sector during this transition, and especially the finances of subnational governments, will present major public policy challenges. The government will need to decide on the extent to which it lets fiscal policy be dictated by finding incremental fixes for the problems, or whether it gets ahead of the problems by beginning a major structural reform.

The reform program will involve both major institutional changes, and some changes in the basic ideas about the role of the state in China. The central challenge is finding a way to move toward a fiscal system that more clearly separates the traditional functions of government (delivering quality public services in an equitable way) from the investment and production functions of competitive sectors.

Designing a forward-looking fiscal system to support these transitions involves more than adjusting a series of isolated policies. In China, tax policy and tax administration, expenditure assignment, and intergovernmental fiscal relations are too inter-related to be considered separately. For example, changing expenditure responsibilities is important but requires complementary changes in intergovernmental

transfers to match resources with mandates. Changes in the distribution of transfers might need to be introduced simultaneously with broader local taxing powers or flexibility to increase user charges. Reform of land conversion raises the question of whether subnational governments should be allowed to borrow directly. Should subnational governments be allowed to borrow, the demand for credit needs to be met by supply and this leads to questions about creditworthiness and the function of intermediaries. The long run goal in China is not to address a single issue, but to reform the system. The reforms can be gradual, but the path should be dictated by the structure that China has in mind for the long run.

EXPENDITURE ASSIGNMENT

The place to begin a comprehensive fiscal reform is with a rethinking of the division of expenditure responsibilities between central and subnational governments. Once expenditure responsibilities are sorted out, then it is possible to estimate spending gaps and develop an efficient financing plan that builds on economic principles.

GETTING THE ASSIGNMENTS RIGHT

China has not systematically considered government responsibilities since before the 1994 reforms. China's more complicated and more urban economy almost certainly does not fit well with an expenditure assignment regime that was put in place 30 years ago. It would be appropriate for a well-staffed inter-ministerial Blue Ribbon commission to study the matter and to recommend changes in the division of expenditure responsibilities between levels of government. The end result could be a new budget law that assigns the responsibilities for each government function, specifying those functions that would be the exclusive responsibility of the central government and those that would be the exclusive responsibility of the local governments. One goal of reform should be to minimize concurrent responsibilities, i. e., functions that are the responsibility of more than one level of government.

Reform of expenditure assignments should center on three areas:

- *Government and the Private Sector.* The central government should continue its strategy of separating government sector from activities that compete with the private sector. The principles for deciding what should be public and what should be private relate to market failures, externalities, economies of scale, or income distribution. In this regard, a new set of regulations could limit subnational governments' direct involvement in activities that compete with the private sector. A related question is whether to allow subnational governments to compete for

industry using fiscal subsidies, or whether this part of industrial policy should be limited to the central government. In a swiftly evolving economy, the fiscal system should encourage mobility of people and enterprises to the places where they are most productive, not to where they get the best tax or land deal from local government.

- *Social Insurance*. There is a good case for transferring responsibility for the social insurance functions to the central government. *Pensions* are presently the responsibility of city and county government in China. However, the resulting variations in benefits and contribution rates among provinces and local governments conflict with the goal of uniform standards for all citizens. There is also a growing demand for portability as the labor force is becoming more mobile. If pensions were managed by the central government, they could be more nearly uniform throughout China, could do a better job of contributing to labor mobility, and the possibility of fully funding the system would be more likely.

- *Health Insurance* is more complex because there are advantages from subnational management and there is a case – both cost-based and demand-based — for some local variations in services. However, the financing of health insurance can benefit from centralization, which could result in all citizens having access to minimum standards of health care and reimbursement benefits. City and county governments, and even some provincial governments do not have the resources to achieve this goal, though they do have the incentives to contain costs. Portable health insurance will be instrumental in improving labor mobility, and this can be more readily achieved with centralized financing. With the aging of the population, national financing of health insurance would remove a future risk to the economy.

- *Centralization of Other Functions.* Subnational governments have been assigned responsibilities that have significant inter-regional spillovers and these might be more effectively managed on a centralized basis. Detailed analysis by a government commission would uncover many functions for central assignment, but economic growth, food safety, river basin management, inter and intra urban transportation, and environmental protection are candidates.

REVENUE ASSIGNMENTS

Financing requirements at the central and local level of government will be driven by reassignments of expenditure responsibilities and by expenditure needs. At present the central government is "overfunded" relative to its expenditure responsibilities, and the subnational governments are "underfunded". The result is the extreme vertical imbalance that now exists in China.

Central Government Revenues

If the central government takes on the responsibilities for financing the social insurance functions, it likely will need to increase the share of budget resources that it retains. This will be necessary to cover the current deficits in the pension budgets, the legacy costs, the management of the programs, and the cost of fully funding the insurance programs. The funding for this and other centrally funded programs could come from a higher rate of retention of revenue sharing by the central government, a lower rate of expenditures on conditional grants, or increased revenue mobilization. The net results of this will be to bring central government expenditure responsibilities more into balance with its revenue raising powers.

Subnational Government Revenues

Subnational governments could be given some discretion to levy taxes, on certain bases and within a range of rates, and to retain all revenues raised from the new local taxes. This would be a major change in the intergovernmental fiscal system.

Revenue mobilization could be improved under decentralization because local governments have information advantages in collecting some types of taxes, particularly property and land taxes. There are also regional efficiencies. Substituting local taxes for some intergovernmental transfers would lead to a higher tax price in the larger urban areas and force labor and capital to take this into account in their location decisions. Local government taxation might strengthen the link between the quality of services delivered by local governments, and the taxes that local citizens and business are asked to pay. This may strengthen accountability. In addition, local taxation might be seen as a way to harden the budget constraint, and to strengthen creditworthiness. Empowering urban governments to set tax rates would preserve some of the innovation and competitive strategies they showed in using land lease sales in recent years and extra budgetary charges in the 1990s and 2000s.

The problem in China, as it is in most countries, is to identify good instruments for local revenue mobilization, i. e., local taxes that can be administered at reasonable cost, yield significant revenue and not result in exporting the burden of payment to residents of other jurisdictions. The international experience is that most industrial countries and some large middle income countries have decentralized taxing powers, but most developing countries have not.

Property Tax. The property tax could fill a revenue gap at the subnational government level and could be especially productive in larger urban areas. Industrial countries raise more than two percent of GDP in property taxes while low income countries raise about 0. 6 percent of GDP on average. An annual property tax that would yield the

equivalent of one percent of GDP may be a feasible reform target. Because real property wealth is usually concentrated in the highest income classes, the tax burden tends not to fall heavily on low income households. To the extent that higher taxes are paid on properties that tend to have better public services, the property tax might be seen as a benefit levy. Finally, if residential property taxes are capitalized into reduced property values, market decisions will be more rational because owners will pay a charge for the benefits of local services delivered, and speculators will face a real cost of holding their land off the market. The property tax could also be structured to encourage more intensive land use and to reduce urban sprawl.

Motor Vehicle Taxes. Local government taxes on the ownership and use of motor vehicles could fit a strategy for coping with urbanization. The number of motor vehicles is growing faster than the population in urban areas, their use imposes infrastructure costs on local governments, and they generate external costs that are for the most part uncompensated.

At present, Chinese subnational governments are not funded to any significant extent by taxes on motor vehicles. The registration tax on motor vehicles produces only a small revenue flow, and the tax on motor fuels is a central government levy. The experience with parking fees, tolls, and congestion charges as resource allocation measures is growing but has not yet become an important subnational government revenue source.

Motor fuels are a potentially more lucrative tax base, and could more directly affect the use of motor vehicles. The question is whether it could be efficiently administered in China's larger cities. Ideally, the tax would be collected at the pump, but it could be assessed at the factory gate as it is now. Road pricing is common on China's expressways and has been discussed for heavier use in several urban areas. Parking fees are another way to tax road users, and the experience with higher charges on parking has been good.

Local Retail Sales Taxes. Local sales taxes can be efficient instruments of urban finance if collections can be shifted from an origin basis (place of manufacture or distribution) to a destination basis (place of consumption). This might be possible for some consumer goods such as high end jewelry and imported luxuries. But for most consumer goods, a retail sales tax would encourage tax avoidance by shifting the point of purchase to informal traders that are not easily policed by the tax authorities.

Piggybacked Taxes. One way to avoid some of the administrative problems with local taxes is a "piggybacking approach", i. e., to allow the local government to select a rate to be imposed as a surtax on a central government tax base. Piggybacking is being used in China with the urban construction and maintenance tax and the education

surtax. In these cases, the base is the aggregate tax collections from VAT, excise taxes and the business tax, and the revenues are allocated to the local government. The surcharge rate, however, is set by the central government. We estimate that a 12 percent piggyback rate would raise nearly half the amount presently received in VAT shared taxes.

The individual income tax also could be piggybacked. A 10 percent levy on a base of individual income tax collections could generate enough new revenue to recover an amount equivalent to about 8 percent of VAT revenue sharing. The effective rate of the income tax would increase only from about 1.1 percent of GDP to 1.2 percent.

INTERGOVERNMENTAL TRANSFERS

Intergovernmental transfers are the main revenue source for subnational governments. The present system channels over 80 percent of all revenues to lower levels of government. But it has been changed in a piecemeal fashion over three decades and it is not clear that its structure relates to an underlying strategy or that it any longer addresses the major issues of China's economic transformation.

There are many objectives tied to the use of intergovernmental transfers in China: incentives for revenue mobilization (with derivation tax sharing), equalization and gap-filling (with unconditional grants) and stimulating spending on particular functions (earmarked grants). Some programs are equalizing (some conditional grants and earmarked grants), but this is offset by tax sharing and tax rebates that are counter-equalizing. Tax sharing transfers may stimulate revenue mobilization but earmarked grants may dampen revenue mobilization. As the system has been adjusted to deal with new problems it has become more complicated. One system cannot serve all objectives, so choices have to be made. The first step in reform is to decide what should be the primary objectives of the transfers going forward. Revenue mobilization?Equalization? Targeted spending? Local autonomy?

The time may be right for a major change in the system. An option discussed here is to move to a single sharing rate. This vertical pool would be distributed according to a formula based on expenditure needs and fiscal capacity differences rather than derivation-based revenue sharing. Such a switch could result in some provinces getting more transfers than they do now, and some getting less, and the difference could be large. Some of the losers probably might be the richer provinces, including perhaps the larger metropolitan city-provinces. Presumably, they would be left to rely more heavily on local taxes and user charges, and would have an incentive to impose new local taxes.

The architecture of the reform (the level of vertical sharing and the formula for distribution) must be worked out based on government objectives, administrative constraints, and politics. Moreover, the reform would need to be gradual, because it would cause budgetary and political disruptions. That said, it is important to begin by setting an end goal for the reform program, even if it will take many years to fully implement.

SUBNATIONAL GOVERNMENT BORROWING

A principle of public finance holds that current expenditures should be financed from current revenues and long-term investments should be financed over the life of the asset. Debt financing allows the matching of the costs of investment with the long term flow of the benefits. At present, subnational governments in China cannot borrow so they have resorted to roundabout financing techniques for infrastructure investments: borrowing through a financial intermediary and using the user right of land as collateral. These instruments have been effective, but they are not sustainable.

This is a propitious opportunity to consider whether subnational governments should be given the power to borrow through capital markets to finance long-lived assets, when the right preconditions are met. These preconditions include transparent financial statements, credit analysis of local governments, arms-length transactions between independent lenders and borrowers, a stable flow of local government revenues to service debt, and a framework of regulations under which local governments could borrow.

The goals of these regulatory policies are to protect investors and local governments from fiscal behaviors that would jeopardize timely repayment. Subnational government public finances would be regulated so that:

- Debt finance would be allowed only for public capital facilities with a long service life.
- The amount of borrowing would be kept within the limits determined by repayment capacity.
- The avenues by which subnational governments can use loan funds to soften their budget constraint on current expenditures would be closed off.
- Repayment of the debt would be tied to either user charges, locally raised revenues or intergovernmental transfers, but standard creditworthiness tests would be mandatory.

Local government and local development banks are not sufficiently independent to allow them to monitor local government financial condition. Certification that a local government is eligible to borrow could come from the central government. To be eligible to borrow, a local government would have to disclose its financial history using a standard reporting system. Over time, the central government's role can be reduced as China develops private credit bureaus and strong, independent financial institutions capable of regulating sub-national borrowing through market processes.

LAND FINANCE

The Chinese practice of financing urban infrastructure by selling land leases is a risk to the stability of public finances. Repayment of land-backed debt in periods of downturns in property values is a concern. However, land revenues are now equivalent to more than one-third of ordinary budget revenues in China, so the practice cannot be abruptly discontinued.

Aside from considerations related to food security, the basic problem is not with the practice of converting farmland assets into productive urban facilities and higher quality urban services, but it is with the way this is being done. The best route is to reform and rationalize the practice. The other issue of concern is whether any new approach would lower the risk faced by government. The following might be considered:

- Allow farmers to negotiate a lease price with developers directly, or through the government. The government would then tax the capital gain and the farmer would divide the remainder with the collective. This would mean less of a surplus from land lease sales accruing to government, but it also might be seen as more fair and as offering more equitable incentives to governments.

- If land lease revenues decline then governments will need to replace the lost revenues (about 3.8 percent of GDP) in order to finance needed infrastructure. A combination of property tax, motor vehicle tax and surcharges could be an adequate replacement.

- Land lease sales have contributed to the low-density sprawl that is growing around urban centers. As sales decline, there could be greater incentive to increase densities in built-up areas. A property tax might help rationalize the land market by imposing a holding cost on land in the built-up area that is being held off the market.

- UDICs present two policy issues related to reforming land finance. First, if the UDIC is involved in what is essentially a private sector activity (e.g., managing

an industrial park), the capitalization from the local government could be called back and the UDIC could be fully privatized. Second, if local government direct borrowing is allowed, arguably the major rationale for the local investment companies is gone. Any professional services they offer could be contracted from the private sector on an as-needed basis, or the UDIC could be brought into a local government department.

CAPITAL BUDGETING

Subnational government budgets have four accounts: (1) public finance account, (2) government fund budget, (3) SOE operating account, and (4) social security account. In addition, there are separate accounts for public service units, public enterprises, state owned enterprises, and for UDICs. One reason for this arrangement is to maintain a balance between revenues and expenditures in all but the social security budget, and in doing this to reduce or eliminate budget deficits. The amount of revenue available to spend is determined by transfers from the center, payroll taxes, and land revenues, and the amount spent stays within this revenue envelope.

Each of the four budgets is managed with some independence by a different department. It therefore presents a challenge to efficient public management. In particular, because current and capital expenditure appears in three difficult accounts, it is difficult to separate current and capital financing arrangements and it is difficult to track the overall budget health of the local government.

An alternative budget structure might be more consistent with the general objective of bringing all of a government's expenditures under the control of the subnational government. The alternative would make all budget transfers very transparent so that consolidation would be possible. The idea is to construct a comprehensive budget that consolidates the fiscal activities in the local government accounts and in the accounts of the special purpose local government enterprises. This type of budget structure would have two other important advantages. First, it would permit a ready comparison of the fiscal health of multiple jurisdictions. This is important because indicators of creditworthiness will be necessary to support any proposal for local government borrowing. Second, this format can support the development of a capital budget and a medium-term financial plan for capital outlays.

THE PAYOFFS FROM REFORM

The Chinese approach to public financing makes it difficult to separate tax structure, tax administration, and the system of intergovernmental transfers. So, the starting

premise in reforming the fiscal system is that it should be a comprehensive structural reform rather than a piecemeal fix. The elements of the reform can be introduced gradually and over time, but developing and making clear the long run plan to modernize the entire fiscal system should be done at the outset. The major reform elements discussed above include:

- Shift responsibility for financing social insurance programs, including legacy costs, to the central government.
- Authorize subnational governments to adopt specific taxes and to set rates within limits: property taxation, motor vehicle taxes, and UCMT/education fees are all realistic possibilities.
- Revamp the revenue sharing system to one that features a single sharing rate for the vertical pool, a formula-based system for distributing the transfers, and a simplified earmarked grant system.
- Allow local governments to borrow within a framework that regulates the purposes and amounts of borrowing.
- Regulate the land lease system and change its structure towards higher rates of compensation for farmers, elimination of UDICs, auctions vs. placements of lease sales, restriction to public purpose activities, and implementation of property taxation to encourage a more efficient use of land.

CHANGES IN REVENUE EXPENDITURE BALANCE

The present intergovernmental fiscal system is vertically unbalanced, perhaps more than any country in the world. The central government raises nearly all tax revenues but accounts for only about 15 percent of direct spending. The remaining 85 percent of direct expenditures is in local budgets but these local governments have no independent taxing power.

This proposed reform will move the system toward balance. The central government will assume responsibility for financing the social security system, which would involve eliminating the deficit problem on current account, leveling up benefits, and eventually dealing with unfunded liabilities. Other expenditure programs are candidates for shifting to the central government and these would further improve the vertical balance.

Expenditure reassignments would be complemented by revenue reassignments, and the central government revenue share would be increased. A reasonable estimate is that the

additional burden for the central government will be higher, perhaps by as much as 2 – 3 percent of GDP.

On the revenue side, the payroll taxes would be transferred to the central government level and the central revenues would otherwise be increased by taking back an increased share of national taxes. Subnational governments would be given some independent local powers to raise taxes.

These changes would not eliminate the extreme vertical imbalance in the Chinese fiscal system, but it would move the system in the direction of a better revenue-expenditure balance at the two levels.

EFFICIENCY IMPLICATIONS

The public finance system has biases that affect market decisions and individual choices in ways that reduce national welfare. Four of the proposed changes here address some of these distortions.

First, local taxing powers would allow urban governments that provide better services to charge a higher tax price for the services. This could impact the location decisions of both companies and migrants and at least at the margin will contribute to a more efficient size distribution of cities. It also will stimulate residents and business groups to pressure local governments for more cost effective service delivery.

Second, the proposed changes in expenditure assignments would lead to taking better account of the external costs and benefits of spending decisions. Examples are natural resource management, environmental protection, food safety, regional transportation, and social security.

Third, moving from derivation-based revenue-sharing to a formula system would reduce the incentives for local governments to compete for tax base using fiscal subsidies. The bias in incentives that favor industrial vs service firms also would be removed. Because the choice between investments in education and investments in industrial development would be on a more nearly level playing field, this reform could lead to more balanced decisions about industrial attraction strategies and subsidies.

Finally, the increased level of compensation to farmers (and reduced profits to local governments and developers) may slow the rate of expansion in peri-urban infrastructure investment. The attractiveness of urban fringe development might also be slowed by taxes on property and motor vehicles. This could make urban sprawl more costly at the margin.

EQUITY AND INCLUSIVENESS

This reform package could improve social equity. The shift to formula-based intergovernmental transfers would at least hold out the possibility of greater equalization among provinces by comparison with the present derivation-based system. The transfer formula could be structured to take expenditure needs more directly into account, and no longer would reward those provinces with stronger tax bases. Equity could also be improved by shifting the financing of social insurance programs to the central government. Social security would be a national program where benefits and contributions would no longer depend on place of residence.

The reforms could also provide more equitable compensation for conversion of farmland into urban land uses. Farmers could be given stronger property rights with respect to farmland and/or homesteads, and the central government could mandate a compensation rate that more closely approximates market value.

FISCAL POLICY AND ECONOMIC POLICY

This reform package is in step with national macroeconomic policies. China's government debt is not yet at a dangerous level, but land-backed borrowing by UDICs could put many local governments in fiscal jeopardy. Granting subnational governments the power to borrow under a framework that aligns their debts with their abilities to repay would remove an important risk to the economy.

Local government taxation also would reinforce national objectives by moving local officials a step closer to accountability and fiscal discipline. A property tax levied at a reasonable level, and with the right structure, could help curb speculation in the housing market. Heavier taxes on motor vehicle registration and motor fuels would be consistent with cleaner urbanization.

Even a slight shift in local government emphasis—away from activities in the competitive sector and toward public purposes—could improve economic efficiency and increase public funds available for government services.

On the issue of transparency in government, the package of reforms proposed here calls for a reformatting of local budgets, the elimination of the financial platform in its present form, and provisions for full disclosure of financial information by local governments.

Finally, the reforms suggested here would move toward improving the efficiency of factor markets by removing some important distortions. These changes include the

approach to land conversion, local government borrowing under a regulatory framework, and making possible a full portability of social security benefits.

These comprehensive reforms have several features that will enable urban governments to better capture the benefits and bear the costs of urbanization. First, better public services at the local level, a pulling back from the Hukou system, and the portability of pension and health insurance benefits will improve labor mobility. Second, increased local government revenue mobilization and an increased flow of transfers to more needy cities, will shore up local public finance budgets to cover the incremental costs of urbanization. Third, increased local taxation and formula based revenue sharing, together with reformed land lease financing, could result in a slowing down of infrastructure investment at the urban fringe and less urban sprawl.

CONCLUSION

Over the past three decades the Chinese public finance system has grown rapidly but developed slowly. A booming economy, urbanization, and aggressive economic reforms led to rapid economic growth that raised 500 million people out of poverty. But the system of public spending and finance changed less than the economy. The political philosophy of strong central administrative control that has been moderated in other spheres of economic and social life continues to drive the fiscal system.

It may be time for the government to call for a rebalancing of policies from centralized administrative measures towards decentralized and market-oriented mechanisms. Rebalancing is not simply a matter of liberalization and market processes, but it requires improvements in government's effectiveness:

- Improve government capabilities at all levels in areas that only the government can manage – public finances, social services, urban planning, environmental sustainability;
- Redistribute resources, powers, and responsibilities among national, regional, and municipal governments so that each governmental body – at every government level – has authorities and powers that match its responsibilities; and
- Relax control and involvement in activities which are managed more efficiently by markets, particularly in the factor markets – those for land, labor and capital – where centralized regulation has produced costly distortions and the solution is not newer regulations, but fewer regulations.

It is never exactly the right time to address deep-seated problems, and increasing urbanization and slower economic growth will not give the government wide latitude to

experiment with reforms. But without comprehensive and overdue structural changes, the projected movement of another 200 million workers and their families to cities will further aggravate some of the equity and efficiency problems and out-of-control practices that the present system has supported. The public finance reform that is called for is comprehensive, but its implementation can be gradual.

APPENDIX

Annex Table 1: Fiscal Revenue Structure of China: 2011 (In billion)

	Total		Central		Subnational	
Government Revenue[a]	10387. 44	100. 00	5132. 73	100. 00	5254. 71	100. 00
Total Tax Revenue	8973. 84	86. 39	4863. 17	94. 75	4110. 67	78. 23
Domestic Value Added Tax	2426. 66	23. 36	1827. 74	35. 61	598. 93	11. 40
Domestic Consumption Tax	693. 62	6. 68	693. 62	13. 51		
VAT and Consumption Tax from Imports	1356. 04	13. 05	1356. 04	26. 42		
VAT and Consumption Tax Rebate for Exports	– 920. 48	– 8. 86	– 920. 48	– 17. 93		
Business Tax	1367. 90	13. 17	17. 46	0. 34	1350. 44	25. 70
Corporate Income Tax	1676. 96	16. 14	1002. 34	19. 53	674. 63	12. 84
Individual Income Tax	605. 41	5. 83	363. 31	7. 08	242. 10	4. 61
Resource Tax	59. 59	0. 57			59. 59	1. 13
City Maintenance and Construction Tax	277. 93	2. 68	16. 94	0. 33	260. 99	4. 97
House Property Tax	110. 24	1. 06	0. 00	0. 00	110. 24	2. 10
Stamp Tax	104. 22	1. 00	42. 53	0. 83	61. 69	1. 17
Stamp Tax on Security Exchange	43. 85	0. 42	42. 53	0. 83	1. 32	0. 03
Urban Land Use Tax	122. 23	1. 18			122. 23	2. 33
Land Appreciation Tax	206. 26	1. 99			206. 26	3. 93
Motor Vehicles and Boat Tax	30. 20	0. 29			30. 20	0. 57
Tax on Ship Tonnage	2. 98	0. 03	2. 98	0. 06		
Vehicle Purchase Tax	204. 49	1. 97	204. 49	3. 98		
Tariffs	255. 91	2. 46	255. 91	4. 99		
Farm Land Occupation Tax	107. 55	1. 04			107. 55	2. 05
Deed Tax	276. 57	2. 66			276. 57	5. 26
Tobacco Leaf Tax	9. 14	0. 09			9. 14	0. 17
Other Tax Revenue	0. 42	0. 00	0. 30	0. 01	0. 12	0. 00
Total – Non – Tax Revenue	1413. 60	13. 61	269. 57	5. 25	1144. 04	21. 77
Special Program Receipts	305. 64	2. 94	36. 14	0. 70	269. 50	5. 13
Charge of Administrative and Institutional Units	403. 94	3. 89	40. 40	0. 79	363. 54	6. 92
Penalty Receipts	130. 14	1. 25	3. 88	0. 08	126. 26	2. 40
Other Non – tax Receipts	573. 89	5. 52	189. 15	3. 69	384. 74	7. 32

Data Source: China Statistical Yearbook, 2012

a. it excludes unconditional and conditional grants, also excludes government fund, social security contributions, and SOE operation account.

Annex Table 2: Intergovernmental Grants from the Central to Provincial Governments: 2010 – 2011 (volume in billion RMB)

Type of Transfer	2012		2011	
	Volume	Percent	Volume	Percent
General Unconditional Transfers	2659. 20	58. 59	2337. 83	58. 59
Tax Rebate	512. 08	11. 28	507. 84	12. 73
VAT and Excise Tax Rebate	388. 81	8. 57	378. 00	9. 47
EIT and IIT Rebate	91. 02	2. 01	91. 02	2. 28
Tax Return for Supporting Oil Tax and Fee Reform	153. 11	3. 37	153. 11	3. 84
Subnational Transfers to the Central Government	– 120. 87	– 2. 66	– 114. 29	– 2. 86
Equalization Transfer	858. 26	18. 91	748. 68	18. 76
Transfer for Important Ecological Function Regions	37. 10	0. 82	30. 00	0. 75
Transfers for Rewarding Large Grain Production Counties	27. 66	0. 61	23. 28	0. 58
Transfers for Supporting County-Level Government Basic Fiscal Capacity	107. 50	2. 37	77. 50	1. 94
Transfers to Minority, Border and Remote Regions	55. 93	1. 23	37. 00	0. 93
Transfers for Increasing Wage Expenditure of Public Employees	236. 16	5. 20	264. 70	6. 63
Transfer for Rural Fee-to-Tax Reform and Transfer for Abandon Agriculture Tax	75. 26	1. 66	76. 95	1. 93
Transfer for Resource Exhausting Cities	16. 00	0. 35	13. 50	0. 34
Transfer for Supporting Oil Tax and Fee Reform	61. 00	1. 34	58. 10	1. 46
Revenue Returned	122. 08	2. 69	102. 87	2. 58
Transfers to Replace Local Market Place Management Fee and Individual Industry and Commercial Entity Fee	8. 00	0. 18	8. 00	0. 20
Transfers to Fundamental Law Enforcement Units	46. 67	1. 03	42. 15	1. 06
Compulsory Education Transfer	160. 57	3. 54	106. 50	2. 67
Basic Pension and Di Bo Transfers	376. 29	8. 29	275. 10	6. 89
Rural Corporate Health Transfer	106. 33	2. 34	77. 98	1. 95
Transfers for Awarding Villages' Public Services	24. 56	0. 54	18. 47	0. 46
Special Purpose Transfers	1879. 15	41. 41	1652. 17	41. 41
General Public Services	25. 20	0. 56	20. 73	0. 52
Defense	2. 46	0. 05	0. 64	0. 02

Con.

Type of Transfer	2012		2011	
	Volume	Percent	Volume	Percent
Public Safety	22. 98	0. 51	23. 70	0. 59
Education	107. 44	2. 37	118. 45	2. 97
R & D	8. 11	0. 18	9. 19	0. 23
Culture Development, Sports and Medias	30. 11	0. 66	22. 72	0. 57
Social Security and Employment	140. 51	3. 10	146. 23	3. 66
Health	91. 06	2. 01	89. 67	2. 25
Green Society	193. 48	4. 26	154. 88	3. 88
Community Services	42. 72	0. 94	13. 13	0. 33
Agriculture, Forestry, and Irrigation	524. 79	11. 56	418. 40	10. 49
Transportation	310. 57	6. 84	296. 75	7. 44
Resource Exploring, IT, etc.	48. 43	1. 07	36. 28	0. 91
Service Industry	45. 08	0. 99	71. 07	1. 78
Financing Monitoring	4. 68	0. 10	3. 77	0. 09
Reconstruction After Earthquake	4. 69	0. 10	2. 16	0. 05
Land Resource Related	17. 95	0. 40	20. 02	0. 50
Affordable Housing	219. 07	4. 83	139. 18	3. 49
Food Reserves	34. 52	0. 76	35. 05	0. 88
Others	5. 32	0. 12	30. 07	0. 75
Total	4538. 35	100. 00	3990. 00	100. 00

Source: MOF of China.

Annex Table 3: Subnational Grants: 2009

Transfer Payments	Sub Provincial Level		City Level		County Level	
	Revenue of Transfer Payments (billionYuan)	Shares of Total Transfer Payment	Revenue of Transfer Payments (billionYuan)	Shares of Total Transfer Payment	Revenue of Transfer Payments (billionYuan)	Shares of Total Transfer Payment
Unconditional Grant	980	48	160	43	820	49
Subsidies Based on old System	66	3	24	6	42	3
Transfer for Balance	251	12	26	7	225	14
transfer for Minority Regions	10	0	3	1	7	0
transfer for Adjustment of Wages	193	9	29	8	164	10
Subsidies of Rural Tax-Fee Reform	81	4	0	0	81	5
Transfers for Supporting County-Level Government Basic Fiscal Capacity	53	3	2	1	51	3
Subsidies of Settlement	78	4	10	3	68	4
Subsidies of Debt-Resolving	5	0	0	0	5	0
Transferfor Resource-Exhausting Cities	8	0	4	1	3	0
Subsidies from Budget of Enterprises	14	1	7	2	7	0
Transfer for Supporting Oil Tax and Fee Reform	2	0	1	0	1	0
Transfers for Awarding Villages' Public Services	2	0	0	0	2	0
Transfers to Replace Local Market Place Management Fee and Individual Industry and Commercial Entity Fee	0	0	0	0	0	0
Transfer for General Public Services	1	0	0	0	0	0
Transfer for Public Security	33	2	10	3	23	1
Transfer for Social Security and Employment	84	4	7	2	77	5
Transfer for Education	43	2	27	7	16	1
Others	56	3	9	2	47	3
Conditional Grant	1062	52	213	57	849	51
Total Grant	2042	100	372	100	1669	100

Source: China Local Fiscal Yearbooks, 2009.

Annex Table 4: Shared Tax and Transfer: 2004 – 2009 (100 million Yuan)

Year	Subnational Level				Prefecture Level				County Level			
	Shared Tax	As a Percent of Revenue	Transfer Payments	As a Percent of Revenue	Shared Tax	As a Percent of Revenue	Transfer Payments	As a Percent of Revenue	Shared Tax	As a Percent of Revenue	Transfer Payments	As a Percent of Revenue
2004	1000	45	1037	47	363	45	367	46	362	35	589	57
2005	1273	48	1146	43	459	49	390	42	462	36	716	55
2006	1473	46	1347	42	528	48	454	42	576	36	899	55
2007	1925	46	1810	43	658	50	513	39	783	36	1194	55
2008	2326	40	2889	50	778	49	634	40	976	34	1647	58
2009	2616	37	3859	54	861	45	852	44	1147	32	2130	60

Sources: calculated from data in the Fiscal Data of Local Governments and The Report of Ministry of Finance.

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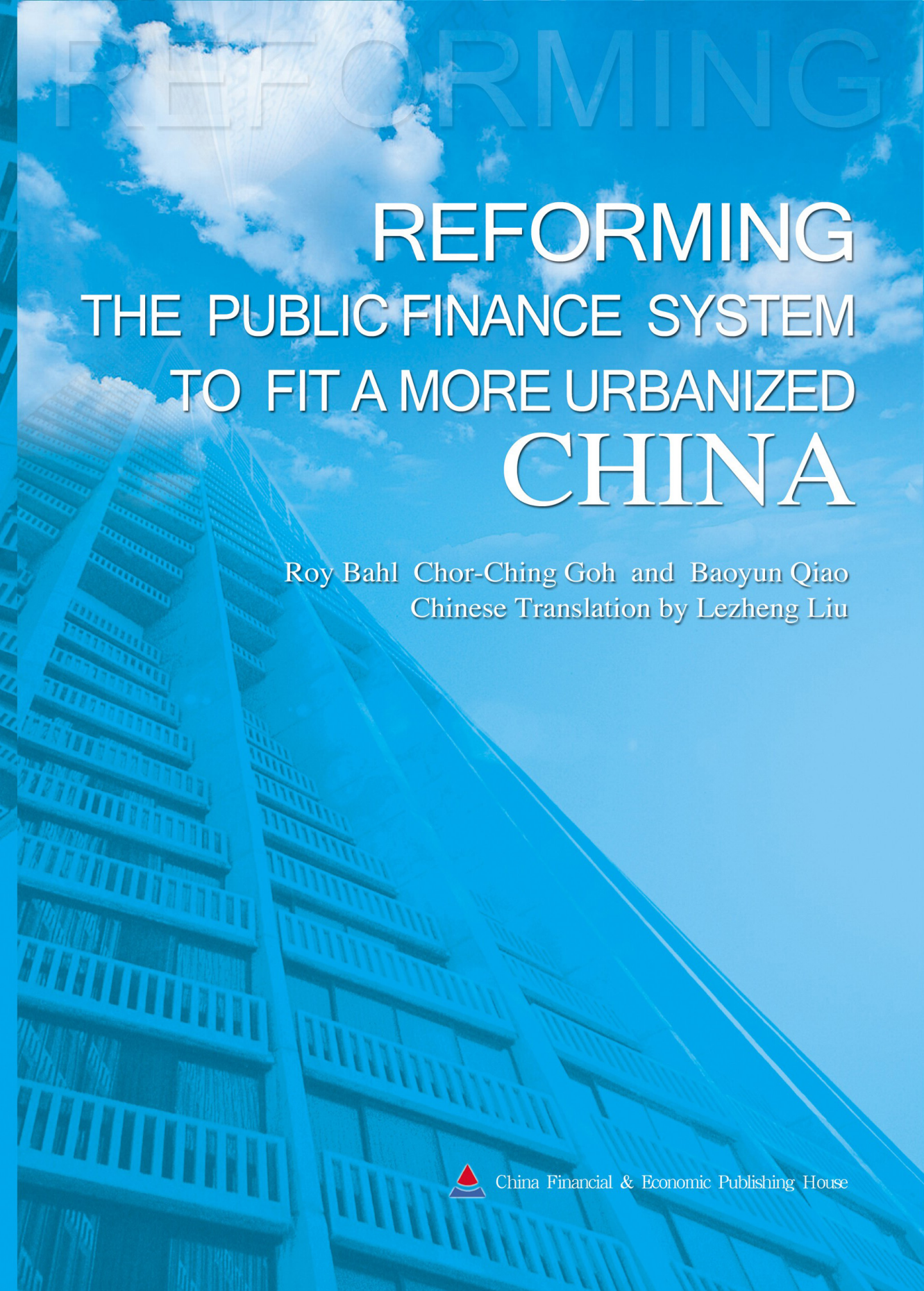

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Chinese Translation by Lezheng Liu

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