

Working Paper Series
Macroeconomic Policy and Financing for Development Division

FINANCING METROPOLITAN GOVERNMENT IN BEIJING CITY

WP/19/01

March 2019

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FINANCING METROPOLITAN GOVERNMENT IN BEIJING CITY¹

by

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Introduction

Beijing is one of the most populous cities in the world, and its economy is still growing rapidly. It has the peculiar status of being both a province and a metropolitan city government, and it is home to the national capital. Both of these features challenge its expenditure demands and its finances.

In this paper we explore the governance, service delivery and financing of the Beijing metropolitan area government. The basic question we ask is the extent to which Beijing City captures some of the advantages of being a metropolitan areawide government, and the extent to which it avoids some of the disadvantages. In particular, we are interested in whether metropolitan governance can lead to a higher rate of revenue mobilization at the local government level. Is there a next step that cities like Beijing might take to improve their fiscal position, and what can other countries learn from the Chinese experience with metropolitan government finance?

In the next section, we discuss the economic position of the city, within China, and the ways in which this shapes its fiscal performance. Then we turn to an analysis of the fiscal structure, including governance, expenditure assignments, revenue assignments, borrowing and other capital financing powers. We then consider the extent to which Chinese subnational governments face a hard budget constraint.

In the final section of this paper we ask whether the Beijing City government has captured the benefits that might be expected for a metropolitan areawide government.

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I. Economic structure and performance

Beijing accounts for 1.6 percent of the national population, but 3.5 percent of the national GDP. Moreover, during the past decade, its economy has been growing at a faster rate than GDP in China. With a per capita GDP equivalent to nearly US\$ 18000, Beijing is at about the same average income level as the Czech Republic, Portugal and Chile. Over 80 percent of Beijing's GDP is earned in the tertiary sector, with about half of that coming from education, health and social services.

Beijing's general place in the Chinese economy is described in Table 1. It is the richest province in the country with a per capita GDP more than twice the average level in China. It has the second highest level of per capita government expenditures in China and is estimated to account for about 10 percent of tax collections by comparison with its 1.6 percent of national population. Beijing occupies an important place in the Chinese economy.

But despite its comparative advantages and significant resources, Beijing City faces major problems in dealing with service delivery and maintaining the quality of public services. Some of these issues are a result of spillover activities and air pollution from jurisdictions beyond its metropolitan boundaries. But in other cases, Beijing City is a victim of its success. Many migrants have flocked to the city to find work and enjoy amenities, and this has contributed to an overcrowding. Traffic congestion is a serious and costly problem, air pollution is well beyond acceptable levels, water supply is not adequate, and there is a shortage of affordable housing.

Beijing's initial response has been to control population in the city by limiting migration to the city with even tougher Hukou enforcement, and by expelling low priority economic activity from the city limits. However, the time may be coming when the city will address these issues with more market-like reforms such as raising the tax price for Beijing residents.

II. Fiscal governance and budget structure

Beijing city has provincial status in China.² The Mayor and the provincial council are appointed either directly or indirectly by the central government. Oversight is provided by the Party Chair and executive committee, of which the Mayor is a member. Beijing City is divided into 16 districts in a hierarchical way, and district officials are appointed. The districts vary widely in population size from 3.86 million to 311 thousand. There is a separate budget for each district, and a consolidated budget for Beijing city.

Formally, fiscal governance is highly centralized. The appointed lead officials at the city and province level are responsible for budget planning and execution. There is limited budgetary discretion on the revenue side of the budget but more discretion on the expenditure side.

² Shanghai, Tianjin and Chongqing also have provincial status.

However, some budget discretion is gained through “backdoor approaches” such as off budget activities, as are discussed below when we take up the question of whether subnational governments in China are bound by a hard budget constraint. Enterprises owned by the local government can play an important role in providing this informal budget discretion.

Beijing’s budget structure, like that of other provincial and local governments in China, has four components (Bahl, Goh and Qiao, 2014). The general public finance budget houses the general administrative expenditures and includes the finances of most of the basic public services. It includes both current and capital expenditures, and some subsidies to locally owned enterprises. The government fund budget includes other capital expenditures, notably spending for urban infrastructure and industrial policy purposes, and includes the land leasing activities. There is no separate capital budget. The social security budget accounts for social security expenditures and revenues, since pensions, health care, disability, and unemployment compensation are mainly local government functions in China. Finally, the SOE operations budget, which is relatively new, reflects some of the transfers to city-owned SOEs and ownership dividends paid to the city.

Transparency is an issue of concern in two important respects. First, detailed data on provincial and local government finances has not been released since 2009.³ Second, data on all financial transactions of State-owned enterprises are not readily available. Therefore, it is not possible in this paper to net out all intra-budget transfers or transfers from the city budget to the SOEs. Without this information, a fully accurate consolidated budget cannot be developed. The use of state-owned enterprises as a backdoor route to finance public services in China has been important to cope with the pressures of urbanization but it also has been used by local governments to avoid a hard budget constraint.

Our best estimate is that the Beijing city Government spends an amount upwards of 40 percent of GDP generated in the metropolitan area. (Table 2)⁴ The general public finance budget accounts for about two-thirds of this amount.⁵

III. Expenditure assignment

Provincial and local governments in China account for about 85 percent of all government spending. As this statistic suggests, subnational governments are assigned a broad range of expenditure responsibilities, including education, social security and economic development support. In addition, subnational governments own enterprises that provide important public

³ The data used in this paper are reported in the Beijing Statistical Yearbook, (2016 and 2017). However, these data do not include detailed information that enable accounting for inter-budget transfers.

⁴ GDP is reported by the statistical bureau of Beijing as a measure of gross regional product determined by a value, income and product approach.

⁵ Some transfers between budgets have not been netted out, and much of the deficit implied by the data shown in Tables 2-4 is due to this double counting. Expenditures may be overestimated in these tables. In particular, the revenues of the social security fund are understated to the extent subsidies have not been included.

services, but sometimes provide a backdoor to get around stringent government regulations on revenue mobilization and debt issuance, and sometimes compete directly with the private sector (World Bank and Development Research Center of China, 2013).

In China there is no formal schedule of the responsibilities of each level of government, as appears in the budget law of many countries. Rather, the budget law gives substantial expenditure responsibilities to subnational governments. However, expenditure assignments are far from being transparent and clear, mostly because of the presence of extensive concurrent expenditures among different levels of government (Qiao and Liu, 2013; Bahl, Goh, and Qiao, 2014).

One of the most difficult problems for China to deal with is the blurring of responsibilities between the public and private sectors by the local government ownership and subsidy of state-owned enterprises. Both the Beijing City Government and its underlying districts own enterprises.⁶ Some of these are public companies that are directly involved in service delivery. Others are involved to varying extents in private sector activities and still others function more as financing platforms. Though statistics are not readily available to show how much these SOEs are drawing from the resources of the government sector, there have long been calls to more clearly define the roles of the public and private sectors in China.

The expenditure discretion of local governments in China, and in Beijing City, is limited. This is done in several ways:

- The base compensation of local government employees is fixed by the central government
- Conditional grants carry constraints on how the money must be spent
- Minimum expenditures are sometimes fixed, or pegged to GDP, by unfunded mandate

While there is not detailed estimation of the extent to which subnational government expenditure discretion is limited, former Minister of Finance Lou Jiwei (2013) estimated that it amounted to about half of all local government fiscal expenditure in 2012.⁷

All of this said, we can note that the participation of Beijing City in the delivery of services is very significant. Total government expenditures in the four budgets noted above is equivalent to about 40 percent of GDP in Beijing city (Table 2). The general services budget where most public services are provided takes up over 60 percent of total Beijing City spending. The health, education, welfare and social security expenditure account for nearly one-third of total spending by the City (Table 3).

Some services are provided by public companies. For example, the subway system is operated by five companies including the Beijing Mass transit Rail Operation, which is a Beijing owned enterprise. The Beijing Water Works group is another example. However, the full financing

⁶ A popular belief is that the number of SOEs is growing. At the end of 2011, there were 144,700 state owned enterprises, among which only 113 are central SOEs. (Tian, Xia, and Chen, 2010; and http://news.xinhuanet.com/English/indepth/2012-10/24/c_131928023.htm).

⁷ www.ce.cn/xwzx/gshz/gdxw/201311/21/t2013_1782314.shtml.

of these enterprises are not included in the City Budget. The absence of full financial data makes it impossible to estimate the extent to which user charges on services cover full costs.

IV. Revenue assignment and revenue performance

All legal taxing powers in China rest with the central government. Subnational governments have no power to set the tax rate or the tax base. Therefore, it might be said that nearly all tax revenues of Beijing City are intergovernmental transfers. The one important exception to this is land and leasing, as we discuss below. Tax administration has also been centralized in 2017, after the elimination of the local government business tax, the central government State Administration of Taxation assumed responsibility for assessment and collection of all taxes.

A. Public Finance Budget Revenues

The intergovernmental transfers in the Beijing city budget are of two kinds: shared taxes, which are more like entitlements, and grants, which may be conditional or unconditional. The central government now awards 50 percent of actual collections of VAT to the province where it was collected. The share for corporate and personal income taxes is 40 percent, also distributed on a derivation basis. Beijing City benefits from the derivation approach because it is a higher income province. It receives about 13 percent of revenues from shared VAT and income taxes.

Grants are distributed in a number of ways, including by formula. Sometimes they are highly equalizing and meant to go to the poorest local economies. In other cases, they are meant to compensate subnational governments for an unusual loss in revenues or increases in expenditures, in other cases they have to do with special projects or needs, and in other cases they are formula-driven. The overall distribution of conditional and unconditional grants favors lower income provinces.⁸ In addition, tax rebate grants, originally introduced to return some additional share of taxes to richer provinces in order to lessen resistance to the tax sharing program, are highly counter equalizing. In total, Beijing receives about 20 percent of its budget from grants (Table 4).

China levies a family of taxes on real estate, though it is one of the few countries in the world that does not impose an annual property tax. At present, a tax on urban land use tax, a tax on real estate used for business purposes, a land value added tax, a farmland tax, and a property transfer tax are imposed. Together these taxes on real estate produce revenues equivalent to about 2.47 percent of GDP.

The government has been discussing the imposition of a local property tax for a decade, and declared that it would do so “when the time is right”. Despite strong statements made after the 19th National Party Conference, no action or concrete announcements have been made. There are a number of reasons for the slow progress, including the difficulties of putting a full

⁸ Bahl, Goh and Qiao (2014, p310) found a statistically significant negative relationship between per capita grants received and per capita GDP.

property tax administration in place and in resolving the contentious issue of whether property taxes and leases involve double taxation.

B. Land Leases

The practice of selling land leases began modestly in China in the late 1980s but grew rapidly during the next two decades. By 2013 land leases accounted for over 7 percent of GDP and over 30 percent of public finance budget revenue. The appeal is easy to see. It provided local governments with an own revenue source that they could control, and it offered local governments a way to finance the significant infrastructure and public services necessary to support urbanization. Very quickly, the program became too valuable to abandon.

But the amount of land conversion to urban use and the way in which land conversion is practiced have raised important economic and social concerns (World Bank 2012). The first is that the relatively 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 channelled 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.

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.

A third problem is a lack of transparency in the process. The detail of the UDIC⁹ 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 (Wong 2013).

Fourthly, 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. Compensation payments to farmers (their share of land profits) have steadily decreased, 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, 187-262; Wang, et al 2011).

Finally, the process of obtaining land and constructing infrastructure has in some places taken on a life of its own, that is, it may have overtaken public policy in terms of how much new land acquisition and building of infrastructure should take place. The OECD (2010) reports that the

⁹ 'Urban development investment companies'. More information on UDICs is provided in the later discussion.

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: 127–187).

Land leases have become an important source of revenue for subnational governments. Leases generated an amount of revenue equivalent to about 7.5 percent of GDP for Beijing and about 5.8 percent for all of China between 2013 and 2017. The land leasing program has been reformed in several respects, and now it follows a more transparent and regulated approach, but it is still too early to do a full evaluation. The solutions for some key issues are still to be found. Even though policy makers realize that the revenue flow is not sustainable, they are hesitant to abandon this practice. This is not only because the municipal government does not have alternative sources to replace the revenue for financing infrastructure construction, but also because land leases are the dominant source for servicing municipal debt.

C. Social Security

Social security in China refers to a package of programs which includes pensions, health insurance, unemployment insurance, and a variety of health and welfare programs. These are the responsibility of the city and county governments and are managed in a separate account of the local government.

Local governments have some discretion over the payment of benefits and the financing of social security programs. Financing is by payroll taxes and government subsidies, with government guidelines calling for a combined employer and employee tax rate of 40 percent of wages. In fact, the actual rate appears to be considerably lower in some local governments.

As can be seen from Table 2, Social security expenditures account for about one fourth of all spending by the Beijing city government.

D. Debt Financing¹⁰

The Budget Law of the People's Republic of China has long restricted borrowing by subnational governments to that prescribed by the State Council. As a result, formal provincial and local government direct borrowing in China is quite small, equivalent to only about 10 percent of GDP.

This limitation on borrowing powers created a serious public financing problem because responsibility for financing infrastructure rests largely with subnational governments. To meet their capital financing needs, local governments turned to agents who would borrow on their behalf.¹¹ These development companies were capitalised by the local governments, mostly with

¹⁰ In this section we draw on Bahl and Qiao, 2018.

¹¹ These agents are called by several names, including 'urban development investment companies' (UDICs), 'special purpose finance vehicles' or 'financing platforms'.

user rights to land that were purchased from rural collectives (farmers) and converted to state-owned status. They then borrowed to finance the infrastructure improvements necessary to lease the land, using the expected revenue stream from the land leases as collateral. By 2013, about half of the debt outstanding of subnational governments was borrowing by the development companies. About two-thirds of this debt was guaranteed by the local governments (the guarantee status on the other one third was uncertain) (see Painter 2013).

Because of the risks embodied in this approach, the budget law was revised in 2014 to allow provincial governments to issue bonds. A debt swap programme amounting to 22 per cent of GDP facilitated the transition by converting the debt of locally owned finance companies to local government bonds. Subnational governments could now issue bonds through the provincial government, subject to the ceiling set by the central government and the approval by the local government.

The land leasing programme 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 to a 2013 level of about 45 per cent of GDP (IMF 2013).

In 2015, the revised budget law gave provincial governments the power to borrow through bonds. Amendment to the Budget Law laid out a legal framework to allow local governments sell bonds directly to raise funds for projects of public interest under quotas approved by the State Council. But it is prohibited to finance current expenditures, or any form of local government credit guarantees to individuals or entities. The central authority also required that \$2.3 trillion debt outstanding by the end of 2014 be swapped through issuing bonds within three years, by 2018.

Meanwhile, the central government issued various policies to further close the ‘back doors’ and tried to build a warning system to help local governments avoid an insolvency problem. But this reform, even though it goes in the right direction, does not significantly affect the borrowing incentives of local government, and the ‘back doors’ have not disappeared as expected. Recently, the central government has urged local governments to check the size of their off-budget debt and evaluate the quality of their debts and assets. It has further urged efforts to amend irregularities in government investment funds, public-private partnership programs and government procurement of services. The central government also has empowered provincial-level governments to assume overall responsibility for debts incurred by local governments within their jurisdictions.

This flurry of regulations is in the right direction, but they still do not get to the fundamental question, where will subnational governments find the revenues to repay the loans, and what will happen if they do not repay them.

V. Are subnational governments bound by a hard budget constraint?

In theory, provincial and local governments in China must obey a hard budget constraint. This seems a clear intent of the formal system of intergovernmental fiscal relations. Revenues are fixed as shares of national taxes and more or less objective rules for the distribution of grants. Borrowing by local governments is limited to capital projects and is subject to central government approvals and by quotas. The research envelope is pretty well-defined and appointed subnational government officials are pretty much bound to following the rules of the formal system.

On the other hand, there is an informal system of intergovernmental finance that operates parallel with the formal, rule-based system. Provincial and local governments use their powers to create and own enterprises and other vehicles to borrow on their behalf, and to carry out off-budget activities. General revenues and local government assets are used in many ways to subsidize these activities, and the process is not transparent.

A soft budget constraint in a sector that accounts for 85 percent of government spending is a risky business. Governments that depend on central taxes for their revenues can be exposed by a stimulus package that requires tax cuts, tying debt repayment to land leases can be a problem when property markets move downward, and high levels of guaranteed debt can lead to a pressing of the central government for bailout funds when local government transfers are not adequate. Indirectly, this could lead to rechannelling expenditures away from necessities such as general public services and the operation and maintenance of the public infrastructure.

Periodically, the government moves to close off these backdoor approaches to subnational government finance. The new debt issuance rules in 2017, the land lease reforms in 2015, and the creation of a single tax collection authority in 2018 are notable recent examples. But the incentives for provincial and local governments to compete are strong and government ownership of enterprises continues to be a part of the public sector in China (Weingast, 2009; Bahl, Goh, and Qiao, 2014). It is further strengthened by a cadre reward system that strongly links personal advancement to economic development achievements.

VI. Does Beijing capture the advantages of its metropolitan government structure?

Typically, a metropolitan government structure leads to less inequity in access to public services within the urban area and to less disparity in tax burdens. It also can lead to better coordination of service delivery and it can enable the use of broad-based local taxes (Bahl, 2017, 2013). The question we ask here is whether Beijing City has been able to capture these potential benefits.

In principle, this should be the case. The dominant local government in Beijing is a metropolitan government. Beijing city government combines a metropolitan government structure, that delivers service within the urban boundaries to about 21 million people, with a set of companies owned by the city (and its underlying districts) that provide public services

and should bring technical efficiency to service delivery. The question we ask here is how this arrangement plays out in its impact on the efficiency and equity in the metropolitan region.

A. Home Rule

A disadvantage of metropolitan government in nearly all countries is that local voters usually have less influence on local government decisions because their vote is weighted less heavily.¹² In China, however, local government officials are appointed and so the welfare loss associated with a centralized metropolitan government structure is not so great as it might otherwise be. So long as provincial-local government officials are not accountable down to their voters, most of the economic efficiency advantages of a fragmented local government structure could not be captured in any case.

Beijing city has created a set of local governments within its metropolitan areawide structure. These 16 districts have separate budgets and some expenditure discretion, but no revenue discretion. Their officials are also appointed.¹³ Surely the district governments use local conditions and information about the local demand for services in making expenditure decisions, but the primary reason for their existence would seem to be the delivery of services in a less unwieldy and coordinated way. They are financed fully by the Beijing City government.

B. Fiscal disparities

If government services are delivered throughout the metropolitan area on a uniform basis, and if differences in the client populations are taken into account, there should be no interjurisdictional disparities. Moreover, economies of scale should be captured and coordination of public services should be easier.

The 16 district governments have some discretion over their expenditure budget, though they are limited by mandates and direct fiscal controls. However, they derive their revenues from transfers from the Beijing city government. These transfers are based on some combination of shared taxes on a derivation basis, formula grants and ad hoc distributions. We cannot know these methods exactly because some of this information has not yet been released to the public. But we can make an approximation, as follows:

1. We can approximate the vertical share of district governments as the ratio of (reported) district government expenditure to total Beijing City expenditures. We find that in 2016, total public finance budget expenditures of Beijing City were \$ 96 bn, of which 58 percent US\$55 bn was spent directly by district governments. This suggests that Beijing City spent US\$41 bn on city -wide services.
2. While we do not know how this sharing pool (US\$ 55bn was distributed), we can roughly summarize its impact of disparities by noting that the distribution of per capita

¹² When what is now the City of Toronto was created, the number of people represented by each councilor in one suburban municipality changed from 7,300 to 54,212 (Slack and Chattopadhyay, 2013).

¹³ The city is segmented into 16 district governments, 150 smaller administrative units, 143 town and 38 villages. This system is a useful way for the larger metropolitan area government to gain information about the demand for services and provides a way to deliver services within the metropolitan area.

expenditures, after transfers, to District governments favored places with a higher per capita income. The simple correlation is between per capita GDP and per capita expenditures in the district is 0.34.

3. The amounts spent by the city government proper and that spent by the districts varied across functions, with the patterns being about as expected. The city government made greater direct expenditures for services with more regional benefits (science and technology and transportation) while the districts played a larger role in the social services.

C. Internalizing externalities and boundary problems

Metropolitan governance offers the possibilities of reducing or eliminating externality problems that are due to jurisdiction boundaries. Examples include the provision of mass transit services, solid waste disposal, and pollution control. Since the responsibility for such services lies with Beijing City, it has a comparative advantage vs a city that might be jurisdiction-fragmented. For most public services where spillovers might occur within the metropolitan boundaries, this would be the case. We estimate that Beijing City assigns such responsibility to itself by keeping 43 percent of the budget for delivering services with areawide benefits or costs.

But Beijing cannot resolve all of its externality problems because some are due to the present metropolitan boundaries being too small. For example, adjacent Hubei province holds significant smokestack industry, and prevailing winds in some seasons drop significant air pollution onto the city. The labor market area extends well beyond the present metropolitan area and mass transit arrangements with nearby Tianjin City and surrounding Hubei province are not coordinated, with the result that the journey to work is too long. The city now is working on addressing this set of boundary problems with the creation of a super metro with a population of 121 million including Beijing, Tianjin and Hebei.

VII. Regional taxation

One potential advantage of a metropolitan areawide government structure is the possibility of levying a broad-based income or consumption tax. If there is a jurisdictional fragmentation within the metropolitan area, the imposition of a broad-based tax will lead to the exporting of tax burdens to neighboring jurisdictions, and to significant fiscal disparities (Bahl and Bird, 2018).

In fact, the city of Beijing is financed by broad-based taxes. The VAT accounts for 18 percent of public finance revenues, the company income tax for 16 percent and the personal income tax for 8 percent. However, these are, in effect, intergovernmental transfers since local governments and provincial governments in China do not have independent taxing powers. The central government determines a nationally uniform tax rate and tax base and collects the tax. It assigns a sharing rate to the subnational government based on origin of collections.

Still, we can use the actual results of derivation-based sharing for Beijing City in 2016 to estimate the amount that might be collected under a piggyback arrangement for local taxation. If the city were given the option of imposing a 10 percent surtax on all value added taxes and income taxes collected in Beijing City, it would yield an amount equivalent to about 10 percent of the city government budget (about 4 percent of GDP). This amount could provide a substantial cushion for financing urban services, or it could cover about one half of land leasing revenues should they prove to be an unsustainable source of financing for urban development.

This piggy back approach to metropolitan government financing has a number of important advantages. It would require no new administration arrangements, nor would it provide any incentive for reduced effort at collecting central taxes. It would put metropolitan governments in a position of having to impose a higher tax price on public services delivered in metropolitan areas. The exporting of tax burdens to other regions is a concern. But the problem is lessened because labor and small firms that sell in local markets cannot escape to other jurisdictions in the metropolitan area to avoid the tax. In many cases, the objects of the tax are in the tertiary sector. In any case if this surtax is viewed as a user charge for local government services, it seems reasonable to view it as a payment for enjoying the advantages of Beijing services.

VIII. Conclusions

A metropolitan governance structure has important advantages for Beijing City. It allows the local government to coordinate public service delivery and control spillover effects within the metropolitan area, and it make possible the imposition of broad-based taxes. It also strengthens its technical efficiency by delivery of services through public companies, that are in many cases owned by the city. Many of these advantages come from the absence of jurisdictional boundaries within the metropolitan area that would lead to spillover effects and inter-municipal fiscal disparities.

There also are disadvantages to the metropolitan form of urban governance. Large metropolitan area boundaries do not allow for significant amounts of home rule, though Chinese local leaders are all appointed in any case. Beijing City is divided into 16 districts, supposedly to enable service delivery for local benefit functions and to allow for inputs from the local population about public service levels. Still local government decision making in Beijing is quite centralized.

The City has a wide range of functions and spends the equivalent of about 40 percent of local GDP. Financing from the central government is by shared taxes distributed on a derivation basis, and grants, and at the local level by leasing land. Local governments, including Beijing City, sometimes escape a hard budget constraint by channeling their transactions through state owned enterprises.

One of the comparative advantages of the metropolitan government form is the potential to impose a broad-based tax at the local level. This happens because the boundaries of the

metropolitan city are large enough accommodate labor mobility to avoid increases in taxes. On the more general question of exporting tax burdens to other areas, the harmful effects might be mitigated by large metropolitan cities often being service rather than production oriented. We have simulated the results of imposing a surtax on the central government central government value added and income taxes, and find that it can yield significant revenue at low administrative cost and with economic costs that fall within a feasible range.

Table 1. Beijing vs China: 2016

Items	Beijing	China	Ratio (Beijing to China)
Per capita GDP (2016)	17,794.7	8,126.7	2.19
Per capita (province plus local government) expenditure			
Public Finance Budget	4,439.0	1,745.9	2.54
Fund Budget	992.2	478.7	2.07
SOE Budget	31.6	13.4	2.35
Social Security Budget	1,730.2	478.2	3.62
Total Four Budget	7,193.0	2,716.2	2.65
HDI Index	0.869	0.738	1.18
Per Capita Tax Collection			
VAT	841.4	204.3	4.12
CIT	758.8	110.4	6.88
PIT	395.8	43.9	9.01
Debt Outstanding as a percent of GDP (2017)			
	7.2	7.43	0.97

Source: Beijing Statistical Yearbook 2017, China Statistical Yearbook 2017

Table 2. Consolidated Expenditures for Beijing City and the Districts: 2016

Items	Amount (in million dollars)	Percent distribution	Percent of GDP (Beijing)
Public Budgetary	96,454.09	61.7	25.0
Governmental Fund Budget	21,560.15	13.8	5.6
State-owned Capital Operations	686.96	0.4	0.2
Social Security Fund	37,595.86	24.1	9.7
Total	156,297.07	100.0	40.4

Source: Beijing Statistical Yearbook 2017

Table 3. Sectoral Expenditures for Beijing City: 2016

Items	Amount (in million dollars)	Percent of total	Percent of GDP (Beijing)
General Public Service	5,528.21	3.5	1.4
Education	13,359.53	8.5	3.5
Science and Technology	4,302.43	2.8	1.1
Culture, Sports and Media	2,986.16	1.9	0.8
Social Security and Employment	10,782.56	6.9	2.8
Healthcare	5,991.15	3.8	1.6
Energy Conservation and Environmental Protection	5,470.70	3.5	1.4
Transportation	5,321.65	3.4	1.4
Urban and Rural Community Affairs	16,867.20	10.8	4.4
Agriculture, Forestry and Water Conservancy	6,677.66	4.3	1.7
Other General Public Budget	9,166.85	12.3	5.0
Total Expenditures of Governmental Funds	21,560.15	13.8	5.6
Budgetary Expenditure of State-owned Capital Operation	686.96	0.4	0.2
Social Insurance Fund Budgetary Expenditure	37,595.86	24.1	9.7
Total	156,297.07	100.0	40.4

Source: Beijing Statistical Yearbook 2017

Table 4. Consolidated Revenues for Beijing City: 2016

Sources	Amount (in million dollars)	Percent of total	Percent of GDP (Beijing)
Value-added Tax	18,281.92	14.1	4.7
Company Income Tax	16,488.72	12.7	4.3
Personal Income Tax	8,600.33	6.7	2.2
Central Government Grants	26,846.12	20.8	6.9
Business Tax	8,798.31	6.8	2.3
Real Estate Taxes	9,532.84	7.4	2.5
Urban Maintenance and Construction Tax	3,336.80	2.6	0.9
Income of Fines and Confiscations	687.41	0.5	0.2
Administrative Fees	833.60	0.6	0.2
Other Income	9,938.58	7.7	2.6
Government Fund Budgetary Revenue	19,819.49	15.3	5.1
Budgetary Revenue of State-owned Capital Operation	974.81	0.8	0.3
Social Insurance Fund Budgetary Revenue	5,189.17	4.0	1.3
Total	129,328.09	100.0	33.5

Source: Beijing Statistical Yearbook 2017

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