

International Comparison of Global City Financing

A Report to the London Finance Commission

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Cities are important drivers of productivity, innovation, and economic growth. To achieve their full economic potential, cities need to be able to provide a wide range of public services – “hard” services such as water, sewers, and roads but also “soft” services such as cultural facilities, parks, and libraries that will attract skilled workers. As a number of authors have noted, cities that fail to provide these services will lose their economic advantage (Inman, 2005), (Chernick, Langley, & Reschovsky, 2010). The challenge cities face is to raise enough revenue to deliver high quality public services that will attract businesses and residents in a way that does not undermine the city’s competitive advantage.

The purpose of this study is to provide an international comparison of the current methods of raising revenues in seven global cities -- London, Paris, Berlin, Frankfurt, Madrid, Tokyo, and New York -- and to evaluate the benefits and risks associated with greater devolution of revenue tools to the Greater London Authority (GLA). The first section sets out information on the municipal finances of the seven cities. It begins with some background material on the cities in terms of the national context, governance structure, and other relevant information for comparing finances. It also explains the difficulties in comparing revenue information for different cities when there is no single source of data. The second section begins with a discussion of what is meant by local fiscal autonomy and looks at the extent of local fiscal autonomy in each of the seven cities. The third section reviews some of the implications of local fiscal autonomy for cities in general, and the ability to promote economic development and attract investment, in particular. The fourth section reviews the impact of local taxes on economic activity and evaluates the risks of cities becoming too reliant on locally-raised taxes. The fifth section summarizes the implications of greater local fiscal autonomy for London. There are two appendices: Appendix A provides a summary of the governance structures of the seven cities. Appendix B provides more detailed tables on the revenues and expenditures for six cities.

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1. Municipal Finances of Seven International Cities

Information for seven international cities on expenditure responsibilities and revenues is the starting point for understanding the extent to which they enjoy local fiscal autonomy. This section provides some background on the cities and information on the distribution of expenditures and revenues; the next section evaluates the extent to which they enjoy fiscal autonomy.

1.1 Background on the Seven International Cities

The nature of expenditure responsibilities, the types of revenue tools, and the extent of local fiscal autonomy will vary according to whether a city is located in a unitary country with a national government and local governments (but no state/provincial governments) or a federal country where there is a federal government plus state/provincial governments, and local governments. Three of the cities (London, Paris, and Tokyo) are located in unitary countries. Three cities (Berlin, Frankfurt, New York) are in federal countries and one city (Madrid) is in a country with regions which are similar to provinces or states in a federal country. The Autonomous Community of Madrid (the state government) performs a number of local government functions; the City of Madrid also performs local functions.

Information on population, structure, governance, and roles and responsibilities for the seven cities is provided in Appendix Table A-1. The cities in this study vary in size from under 1 million people (the City of Frankfurt) to over 13 million (Tokyo Metropolitan Government). The political boundaries of most of these cities rarely cover the entire economic region, however. New York City for example, is part of the New York metropolitan region which incorporates part of Southern Connecticut, Northern New Jersey, and lower New York State with more than 2,000 local government including school boards, villages, cities, special districts and other incorporated state agencies. Although there are some special purpose bodies that provide services that cut across beyond municipal boundaries (such as the Regional Plan Association and the Port Authority of New York and New Jersey), there is not one government that covers the entire metropolitan region.

Some cities are single-tier cities (e.g. New York) while others are two-tier cities (e.g. London with the Greater London Authority plus 32 borough councils and the City Corporation). Others are city-states (e.g. Berlin and Tokyo) meaning that they take on the responsibilities of city and state governments and can collect the revenues assigned to both cities and states. It is thus not surprising that, depending on their structure, some cities carry out more functions and have more revenue tools than others.

1.2 Problems with Data Comparability

There is no comparable data on the municipal finances of individual cities. Although it is possible to find comparable information on the revenues and expenditures of all local

governments within a country in sources such as (OECD, 2011) and (IMF, 2011), there is no up to date research on the municipal finances of individual local or metropolitan governments.² As a result, the information in this report has been put together from local budgets and financial statements as well as data from national statistical offices.

Since there is not one source of information on the finances of the cities in this study, a number of problems of comparability have arisen:

- The data are available for different years in different cities. In some cities, many years of data are available while in others only one year is available.
- Capital and operating expenditures/revenues are treated differently in different cities. For this report, the focus is on operating expenditures and revenues since these are the most readily available and the most straightforward to compare across cities. Operating expenditures also give an indication of the range of services delivered in a municipality.
- The categories of expenditure are different in different cities and it is not always clear what is included in each category. Moreover, the information is more disaggregated in some cities than others.
- In a number of cities, selected services are delivered by separate purpose bodies (e.g. transit commissions, water utilities). In some cities, the budgets of these agencies are consolidated with the municipal budget but in other cities they are not. In some cases, only the subsidy from the city to the separate agency is included in the municipal budget. The City of Paris, for example, participates in or is the owner of several enterprises that provide services. These services are financed by user charges and transfers from the City budget. The City pays subsidies to the public transport companies and covers almost half of the budget of the Prefecture de Police; transfers to the municipal company in charge of social programs also account for a significant percent of budget of City. The City of Madrid makes compulsory transfers to two public companies that provide transportation services.
- The information in this report focuses on individual cities and does not take account of overlapping governments. In Paris, for example, the City (commune) and Department of Paris each provide services in the City. In Madrid, the dominant local government in the metropolitan area is the Autonomous Community of Madrid which is, as noted earlier, a provincial government that is roughly coterminous with metropolitan area that includes the City of Madrid. It should thus not be surprising that comparisons of expenditures and revenues across cities do not tell the whole story. Per capita expenditures for the City of Madrid, for example, are lower than for the other cities. Nevertheless, the information gathered for this study is restricted to cities so the provincial/regional government expenditures and revenues are omitted. As much as possible, these issues are noted in the report.

² This finding has been confirmed by authors such as (Bahl, 2010) and (Clark, 2012).

1.3 Municipal Finances

This section summarizes the findings gathered from the information on expenditures and taxes. More detailed information on the revenues and expenditures can be found in Appendix B for most of the cities for the most recent year available.³

Expenditures

Table 1 shows total municipal operating expenditures per capita for the seven cities. Operating expenditures range from a low of £1,267 per capita in the City of Madrid to £4,561 per capita in New York City and £4,910 in Berlin. Not surprisingly, some cities make larger expenditures per capita than others because they have both city and state responsibilities (e.g. Berlin) whereas as others make fewer expenditures because the state government is delivering regional services (e.g. Madrid).

Each of the cities provides a range of municipal services such as water and sewers, police and fire protection, transportation, social housing, social services, parks and recreation, and urban planning. The distribution of operating expenditures can be found in the tables in Appendix B where it can be seen that education accounts for over 30 percent of local operating expenditures in New York City and London (mostly at the borough level), almost 16 percent of total local operating expenditures in Tokyo, but only 2 percent in Madrid. Education expenditures do not appear at the local level in the City of Paris. Where education does not account for a large proportion of local expenditures, it is provided at the state or national level.

Transportation is a significant expenditure in London (where highways and transportation account for almost 12 percent of expenditures of the GLA and boroughs combined), Madrid (where roads and transit account for 18 percent of expenditures), and Paris (where 5 percent of expenditures go to the regional transit authority).⁴ In New York, expenditures on transportation services represent a small proportion of the municipal budget because transportation is delivered by a separate agency – the Metropolitan Transit Authority (MTA). As noted earlier, the existence of special purpose bodies that deliver some services in some cities makes it difficult to compare city expenditures.

Taxes

Table 1 also provides information on total municipal taxes per capita for the seven cities (including local and shared taxes). Tax sharing refers to a system whereby the central

³ Data for other years can also be made available on request.

⁴ As can be seen from the tables in Appendix B, the transportation category is defined differently in different cities. Sometimes the category includes both roads and transit and sometimes only one or the other. In Paris, the expenditures of the regional transit authority are not consolidated with the city budget and only the subsidy from the city to the authority is included.

government collects revenue from a tax (e.g. the personal income tax) and shares that revenue with sub-national governments (provincial/state and/or local governments).⁵ Although tax sharing is often regarded as part of own-source revenues, it is really similar to an intergovernmental transfer because, in both cases, the central government transfers funds to sub-national governments that have no influence over how much they will receive (Bird R. M., 2011).⁶ In Table 2 and the discussion of local fiscal autonomy in section 3, shared taxes are treated separately from local taxes.

Although expenditures per capita are relatively high in London compared to the other cities in the table, taxes per capita (the council tax) are much lower. Taxes per capita are highest in New York City where, as will be shown below, the city has access to a wide range of taxes. Per capita taxes differ in part because of the number taxes levied and in part because of the dependence on intergovernmental transfers. Both of these topics are discussed below.

Table 1: Municipal Operating Expenditures and Taxes per Capita

	Municipal Operating Expenditures per capita (£)	Municipal Taxes (local and shared taxes) per capita (£)
London – GLA plus boroughs (2011)	3,199	476
Berlin (2010)	4,910	2,570
Frankfurt (2010)	3,577	2,140
New York (2011)	4,561	3,078
Madrid (2009)	1,267	490
Paris (2011)	2,699	1,896
Tokyo (2010)	3,301	2,312

Source: See Tables in Appendix B.

Table 2 lists the variety of local and shared taxes for all seven cities.⁷ As noted above, shared taxes are listed separately (where these have been clearly identified) because they are different than local taxes.

⁵ Taxes can be shared on the basis of geographic origin, by a formula based on population, per capita income, or other factors.

⁶ The one potential difference between revenue sharing and an intergovernmental transfer is that, with revenue sharing, local revenues are tied to what the central government collects and automatically increase as that revenue source increases. They may also be a more reliable funding source than *ad hoc* transfers which can change from year to year.

⁷ More detailed information is provided in the tables in Appendix B.

Table 2: Local and Shared Taxes, Seven Cities

London	Paris	Berlin	New York
Council tax	Property tax on developed land	State taxes:	Real Estate Taxes
	Property tax on undeveloped land	Wealth tax	Payments in Lieu of Taxes (for property tax)
Frankfurt	Residence tax	Inheritance tax	
Property tax	Local economic contribution (on business premises and business value added)	Real estate transfer tax	Sales and Use Taxes:
Estate tax	Tax on refuse/garbage collection	Motor vehicle tax	General Sales
Business tax on income	Front walk sweeping tax	Racing and betting tax	Cigarette
Municipal share of sales tax	Parking fees	Beer tax	Commercial Motor Vehicle
Community share of sales tax	Electricity consumption tax	Fire protection tax	Mortgage
Other taxes, including gaming taxes and dog taxes	Real estate taxes (e.g. land transfer tax)		Stock Transfer
Key allocations made by the federal government		Local Taxes:	Auto Use
Land transfer tax allocation		Tax on land	
Trade tax allocation		Business tax	
	Tokyo	Trade tax allocation	Income Taxes:
Madrid	Metropolitan inhabitant tax on individuals, corporations, interest income	Entertainment tax	Personal Income
Property tax	Enterprise tax on individuals and corporations	Dog license fee	General Corporation
Business tax	Real property acquisition tax	Second home tax	Financial Corporation
Vehicle tax	Golf links tax		Unincorporated Business Income
Tax on construction	Automobile acquisition tax	State share of national taxes:	Personal Income (Non-Resident City Employees)
Tax on land value increase	Light-oil (gas-oil) delivery tax	Wage tax	Utility
	Automobile tax	Assessed income tax	
Shared taxes:	Mine-lot tax	Non-assessed tax on earnings	Other Taxes:
Personal income tax	Fixed assets tax	Interest income tax	Hotel Room Occupany
Value added tax	Special tax on land holding	Corporation	Commercial Rent
Excise taxes	Hunter tax	VAT	Horse Race Admissions
	Establishment tax	Import VAT	Conveyance of Real Property
	Urban planning tax	Other	Beer and Liquor Excise
	Accommodation tax		Taxi Medallion Transfer
	Shared taxes:	Local share of state taxes:	Surcharge on Liquor Licences
	Local consumption tax	VAT	Refunds of Other Taxes
	Metropolitan tobacco tax	Wage and income tax	Off-Track Betting Surtax
	Local transfer taxes	Withholding	

It can be seen in Table 2 that London has only the ability to levy the council tax (residential property tax).⁸ Unlike the other cities, the non-residential property tax (non-domestic rates) in the UK is a national tax that is redistributed to local governments on a per capita basis as a general grant (King, 2006). Local authorities have recently been given some authority to levy a supplement on the national non-domestic tax rate, however.

The other cities in Table 2 levy a residential property tax but they also levy a non-residential property tax and have access to a much wider range of other taxes:

- Because Berlin is a city-state, it has access to a number of state and local taxes as well as shared taxes. The largest tax in terms of revenues collected in Berlin is the local share of the wage tax; the property tax is relatively small.
- The City of Frankfurt, similar to other German cities, levies a number of different taxes (property taxes, land transfer taxes, a tax on local business profit etc.) plus it receives a share of other taxes (such as the value added tax). The main local tax is the trade tax which is levied on business profits. The tax rate is set by the municipality.
- The City of Madrid receives about 19 percent of its revenues from the property tax but also shares in personal income, value added, and excise tax revenues.⁹
- New York has a broad array of taxes, more so than most other US cities. Although it receives 27 percent of its revenues from the property tax (residential and non-residential), it also receives 9.5 percent from sales and use taxes, almost 23 percent of revenues from income taxes, and another 3 percent from other taxes.
- The City of Paris receives its revenues from four main taxes -- property tax on developed land, property tax on undeveloped land, residence tax, and local economic contribution (as well as some additional taxes). The local business tax in France was replaced in 2010 with the local economic contribution which comprises a business premises contribution and a contribution on business value added. This reform significantly changed the way in which local authorities are funded in France.
- Tokyo levies 16 taxes – the largest is the fixed assets tax (19 percent of general fund revenues) followed by the metropolitan inhabitant tax for individuals (12.5 percent), the metropolitan inhabitants tax for corporations (12 percent), and the enterprise tax for

⁸ London also levies a congestion charge which is not included in Table 3 because it is considered to be a user fee.

⁹ Municipalities in Spain with more than 75,000 inhabitants and capitals of provinces are eligible for shared tax receipts. The percentages of the shares are: 1.6875% of personal income tax, 1.7897% of VAT, and 2.0454% of excise taxes on hydrocarbons, tobacco, spirit and alcoholic beverages.

corporations (9 percent). The enterprise tax is largely based on business value added. In terms of shared taxes, Tokyo receives 6 percent of its revenues from a local consumption tax (a value added tax), 3 percent of its revenues from local transfer taxes, and 0.5 percent from a tobacco tax. Local transfer taxes are national taxes of which a fixed percentage of revenue collected is transferred to local governments. The local transfer tax includes revenues from a number of national taxes – local gasoline, special tonnage, petroleum and gas, automobile weight, aircraft fuel, and special local corporate transfer taxes.¹⁰ A portion of the taxes collected by the Tokyo Metropolitan Government is allocated to the 23 wards within the metropolitan government area.

Generally, when local authorities levy local taxes, the funds collected go into the general revenues of the municipality rather than being hypothecated (earmarked) for specific purposes. There are some exceptions, however. For example, for the most part, local taxes are not hypothecated in Tokyo but the local roads transfer tax (a shared tax) is limited to costs associated with roads (Tokyo, 2012). Other examples can be found in cities other than the ones in this study. In Chicago, for example, regional sales taxes provide the largest funding source for transit and supplement fares, senior government grants, and other revenues received through advertising and other own-sources. Vancouver employs a range of dedicated funding tools for transportation, including a gas tax, parking sales tax,¹¹ a share of municipal property taxes, a hydro levy, and bridge tolls. The dedicated funds from each of these revenue sources are remitted to the regional transportation authority for the Greater Vancouver region (Translink).

There are also examples of hypothecation through ballot initiatives (referenda) in the US for transit and public libraries. In Los Angeles, voters approved (by a two-thirds majority) in 2008 a half-cent sales tax for 30 years under Measure R to fund specific new transportation projects and programs. Salt Lake City is another locale that passed ballot initiatives in 2000 and 2006 by significant majorities, each imposing ¼ cent sales taxes dedicated to transit expansion as part of the region's comprehensive 30-year plan. (Institute on Municipal Finance and Governance, 2012a). In Los Angeles, local residents recently supported a ballot initiative to secure stable funding for the public library system. Measure L amends the City Charter to increase the share of budget funding allocated to public libraries (Institute on Municipal Finance and Governance, 2012b).

The literature on earmarking suggests that there are both advantages and disadvantages. The case for earmarking is largely based on benefit grounds. When there is a close link between the

¹⁰ Other local governments in Japan also receive local allocation taxes, but Tokyo does not. Local allocation taxes are designed to correct fiscal imbalances among local governments in Japan and ensure that they are all allowed to provide an adequate level of services. Grants to municipalities are calculated by a fixed formula that allocates a percentage of national tax revenues – income tax, liquor tax, corporation tax, consumption tax, and tobacco tax.

¹¹ The parking sales tax was rescinded after a year as a result of public opposition.

earmarked tax and the use of revenues to finance additional expenditures, earmarking reveals taxpayer preferences for the public services and sends a clear signal to the public sector about how much of the service to provide (Bird & Jun, 2005). Politicians like hypothecation because it reduces taxpayer resistance to higher taxes and taxpayers like the greater accountability that they perceive with how the funds will be spent. The most cited argument against hypothecation is that it leads to inefficient budgeting by creating rigidities in the expenditure allocation process and preventing the authorities from reallocating funds when priorities change (Bird & Jun, 2005).

2. Local Fiscal Autonomy

Before evaluating the extent to which each of the seven cities enjoys local fiscal autonomy, it is important to understand what we mean by fiscal autonomy. Although a city that relies more heavily on taxes is assumed to have more local fiscal autonomy than a city that relies more heavily on intergovernmental transfers, the extent of local fiscal autonomy in both cases depends on the characteristics of the revenue source. This section reviews what is meant by local fiscal autonomy with respect to taxes and intergovernmental transfers.

In terms of local taxes, autonomy refers to the freedom that local governments have over their own taxes. A truly local tax is one for which the local government can (Bird R. M., 2011), (Blochliger & Rabesona, 2009):

- decide whether to levy the tax or not;
- determine the precise base of the tax;¹²
- set the tax rate;
- administer (assess, collect, enforce) the tax;
- keep all the revenue collected; and
- grant tax allowances or reliefs to individuals and firms.

The OECD has set out a series of indicators that rank local fiscal autonomy for sub-central governments (SCGs) in decreasing order from highest to lowest taxing power (see Table 3). These indicators range from full power over tax rates and tax bases at one extreme to no power over rates and bases at the other extreme. Tax sharing, where the central government collects revenue from a tax and shares it with sub-national governments, appears towards the bottom of the table suggesting that it entails little or no local autonomy because the local government has no control over the tax rates or tax base. As noted earlier, tax sharing is virtually synonymous with intergovernmental transfers (Bird R. M., 2011).

¹² Control over the tax base (but not the tax rate) is not common in OECD countries. This situation likely reflects the policy of banning tax reliefs and abatements as a tool for local and regional economic development, particularly in the European Union (Blochliger & Rabesona, 2009).

Whatever tax or taxes are chosen at the local level, the most important element of fiscal autonomy is the ability of local governments to set their own tax rates.¹³ International experience tells us that the most responsible and accountable local governments are those who raise their own revenues and set their own tax rates (Bird R. , 2011). Unless local governments can alter the tax rates, they will not have local autonomy or the accountability that comes with it. Tax autonomy can also lead to greater efficiency in the public sector. It provides voters with some ability to decide on tax levels and thereby makes them more aware of public service outcomes. Some limited empirical research on the impact of tax autonomy suggests that it has a positive impact on the efficiency of municipal spending (Blochliger & Pinero-Campos, 2011). Local tax rate setting also provides predictability for local governments and gives them the flexibility to change rates in response to different circumstances.

Table 3: Taxonomy of Taxing Power

a.1	The recipient SCG sets the tax rate and any tax reliefs without needing to consult a higher level government.
a.2	The recipient SCG sets the rate and any reliefs after consulting a higher level government.
b.1	The recipient SCG sets the tax rate, and a higher level of government does not set upper or lower limits on the rate chosen.
b.2	The recipient SCG sets the tax rate, and a higher level of government does set upper or lower limits on the rate chosen.
c.1	The recipient SCG sets tax reliefs – but it sets tax allowances only.
c.2	The recipient SCG sets tax reliefs – but it sets tax credits only.
c.3	The recipient SCG sets tax reliefs – and it sets both tax allowances and tax credits.
d.1	There is a tax-sharing arrangement in which the SCGs determine the revenue split.
d.2	There is a tax-sharing arrangement in which the revenue split can be changed only with the consent of the SCGs.
d.3	There is a tax-sharing arrangement in which the revenue split is determined by legislation, and where it may be changed unilaterally by a higher level of government, but less frequently than once a year.
d.4	There is a tax-sharing arrangement in which the revenue split is determined annually by a higher level of government.
e	Other cases in which the central government sets the rate and base of the SCG tax.
f	None of the above categories a, b, c, d, or e applies.

Note: This is the classification used in the data collection exercise but there may be need for clarification in the future. For example, the sub-division of the “c” category cannot be applied to sales taxes (including VAT) where the concepts of allowances and credits (in the sense that they are used in income taxes) do not exist. Also, it may be more appropriate to qualify the definition of the “d.3” category to say that the change is normally less frequent than once a year, as specific legal restrictions on frequency may not exist.

Source: (OECD, 1999) as reproduced in (Blochliger & Rabesona, 2009).

Local governments that depend on transfers from senior levels of government have less fiscal autonomy than those that rely more heavily on own-source revenues (taxes, user fees, etc.). But, even with transfers, there can be more or less local autonomy depending on the type of transfer. The main focus of transfers is to stimulate spending on specific services or to equalize fiscal disparities, or, in some cases, both. Transfers can be unconditional (non-hypothecated) or conditional (hypothecated). Unconditional transfers have no strings attached to the use of funds;

¹³ In some countries (such as Norway, Korea, and Japan) where sub-central governments have the authority to set tax rates, they set the same tax rate across the country (Blochliger & Rabesona, 2009).

they can be spent on any expenditure function or used to reduce local taxes. In some cases, unconditional transfers are given on a per capita basis. In other cases, unconditional transfers provide equalization whereby the amount of the transfer depends on a formula that takes account of the expenditure needs of the municipality, the size of its tax base, population size, or other factors.

Conditional transfers, as the name suggests, have conditions attached to them. These transfers must be spent on specific functions, such as roads or parks. Conditional transfers can be lump-sum transfers (also known as block grants), which do not require the municipality to provide matching funds, or they can be matching transfers, which require the recipient to match donor funds. A donor may offer a transfer that covers 80 percent of the cost of road construction, for example. Under this type of transfer, municipalities would have to raise the funds to cover the remaining 20 percent of the cost. Matching transfers stimulate local spending and, by extension, local taxes.

Conditional transfers tend to offer less local autonomy because the donor government determines where the funds will be spent. Conditional grants are fungible, however, in the sense that, even though they come with strings attached, there is no guarantee that the recipient will spend the funds on what the donor government intended. This is particularly true for large cities, which are more likely to be spending substantial funds already in the area specified by the donor government (Slack, 2007). Unconditional transfers result in more local fiscal autonomy but, as with any type of transfer, still raise concerns about accountability. When the level of government that makes the spending decisions (the local government) is not the same as the level of government that raises the revenues to pay for them (national or state government), accountability is blurred. Local governments are more likely to carry out their expenditure responsibilities in a responsible manner if they have the autonomy to raise the revenues to pay for them.

Fiscal autonomy in the seven cities

At one level, as noted above, local fiscal autonomy can be measured by the reliance of cities on own-source revenues versus intergovernmental transfers. A city that relies on revenues it has to raise on its own (such as taxes and user fees) has more local fiscal autonomy than a city that relies more heavily on transfers from senior levels of government.

Table 4 shows that, at almost 74 percent of the revenues of the GLA and boroughs combined, intergovernmental transfers in London are relatively high compared to the other cities. Even when shared taxes are removed from own-source revenues and added to transfers for other cities, transfers to London are still substantially higher as a percentage of revenues than in the other cities. Although municipal taxes per capita in Berlin appeared to be significant (Table 1), a significant portion of those taxes are shared taxes over which the city has little control.

Table 4: Distribution of Own-Source Revenues, Shared Taxes, and Transfers
(%)

	Own-source revenues (taxes, user fees, other own-source revenues)	Shared taxes	Intergovernmental Transfers
London (2011/12)	26.2		73.9
Berlin (2010)	39.5	35.0	25.5
Madrid (2009)	58.5	4.5	37.0
New York (2011)	69.1		30.9
Paris (2011)	82.5		17.5
Tokyo (2010)*	82.3	9.5	7.7

Note: *Included in own-source revenues are some taxes over which the metropolitan government has limited flexibility over tax rate setting.

Source: Calculated by the author based on information in the tables in Appendix B.

To the extent that local fiscal autonomy is determined by the reliance on own-source revenues, it appears from Table 4 that Paris and Tokyo have the most fiscal autonomy and London has the least. Yet, in order to assess the extent of local fiscal autonomy, it is necessary to understand exactly which level of government sets the tax rate and the extent to which limits are placed on local tax rate setting. Although it was not possible to delve into each and every tax for each of the seven cities, observations on selected taxes in each city give some idea of the extent of local autonomy with respect to taxes.

For Tokyo, Table 4 separates out shared taxes such as local transfer taxes (3 percent of total operating revenues), local consumption taxes (6 percent of total operating revenues) and a tobacco tax (less than 1 percent of local government revenues).¹⁴ The local consumption tax is calculated as 25 percent of the national consumption tax and the revenues are allocated to prefectures by a formula that apportions 75 percent by retail sales, 12.5 percent by the number of employees, and 12.5 percent by population. The prefectures then allocate half of what they receive to municipalities, 50 percent on the basis of the number of employees and 50 percent by population. Although these taxes appear in the metropolitan government's budget as local taxes, the tax rate is legally fixed and local governments do not have the authority to set their own tax rates. For the majority of other local taxes, standard tax rates and maximum tax rates are established by law and local governments have the ability to set tax rates within a limited range (Mochida, 2006). Even with the property tax, when the assessed value of property was raised to 70 percent of market value, the national government imposed a limit on tax increases to 15

¹⁴ In Tokyo's own financial statements (as shown in Appendix Table B-12), local consumption taxes and the tobacco tax are included in own-source revenues. Own-source revenues as a percentage of total operating revenues thus appear larger in that table than in Table 4.

percent over a three-year period (Mochida, 2006). So, what appears to be extensive local autonomy in Tokyo is actually somewhat more restricted than it appears from their financial statements.

The council tax in London does not meet all of the criteria for local fiscal autonomy because the GLA and boroughs do not determine the base of the tax and tax rate setting is restricted by the national government. Non-domestic rates are not included as a local tax because these rates are a national tax in which the central government determines the tax base, sets the tax rate, collects the revenues, and redistributes the funds to local governments. In 2009, however, provisions were made for the GLA (and other local authorities) to levy a supplement of up to a maximum of 2p in the pound on the national non-domestic rate for properties with a rateable value greater than £50,000. The revenue from the supplement is retained by local authorities and can be used to promote economic development.

From the list of tax revenues in New York City, it would appear that the city government has considerable autonomy in raising revenues. Nevertheless, even New York City has to get approval from the state government in Albany to levy new taxes. For example, new taxing authority required to implement a system of congestion pricing that would levy a charge on cars driving into Manhattan was refused by the New York State legislature in 2008 in large part because suburban voters and drivers were opposed to it (Kantor, 2010a). Moreover, New York State recently introduced a new capping law for property taxes (the most significant local tax in terms of revenues) that limits the annual growth of property taxes to 2 percent or the rate of inflation, whichever is less. In the last 30 years, a number of states in the US have imposed limits on the tax rates that cities can levy on residential and/or non-residential properties.¹⁵ The most famous tax limitation is Proposition 13 in California which bases the property tax on the acquisition value of property (or the 1975-76 assessment for those properties that have not changed hands since that time) plus the lesser of 2 percent per year or inflation until the property is sold.

Local autonomy in Frankfurt is mainly derived from the property tax and trade tax. Under the German property tax, the value of property is multiplied by a centrally-determined tax assessment figure. The resulting tax assessment amount is then multiplied by a municipal tax rate. Similarly with the trade tax, the tax is determined by deducting a tax-exempt amount from trading profits and then multiplying the resulting amount by a tax assessment figure which is fixed by federal legislation (Werner, 2006). The tax assessment amount is then multiplied by a municipal tax rates without restrictions. There are also several other municipal taxes in Germany which are fairly small in terms in revenues – alcohol tax, entertainment tax, dog license tax, pub license tax, hunting license tax, fishing license tax, and second home tax (Werner, 2006). Municipalities have autonomy to decide whether to levy these taxes and at what rates. But it is important to remember that German cities overall rely heavily on shared taxes.

¹⁵ For a detailed description of property tax limitations in US states, see (Haveman & Sexton, 2008).

Paris derives a significant portion of its revenues from own sources. As with other municipalities in France, it has control over its taxes and constraints are minimal (Prud'homme, 2006). There are no shared taxes between the central government and local governments in the sense that tax proceeds are shared but tax bases are shared. With the property tax, for example, both the commune and département councils can levy a tax rate on the same tax base. The local tax assessment and collection are done by the central government which hands over the revenues to the local governments minus a service fee but tax rates are set locally (Prud'homme, 2006). Local governments cannot raise new taxes on their own but they can set tax rates. There are, however, constraints on maximum tax rates for the main taxes.

Local fiscal autonomy also depends on other own-source revenues over which the city has control. In addition to taxes, these include user fees (such as the congestion charge, transit fees, charges for water and sewers, recreational facilities, etc.), and other own-source revenues such as investment income. User fees are an important source of revenue to pay for local services. In London, user fees (sales, fees, congestion charge, and other charges) account for almost 8 percent of total operating revenues of the GLA and boroughs combined and 20 percent of municipal operating revenues in Madrid. User fees appear to be less significant in New York City (4 percent of revenues), Paris (6 percent of revenues), and Tokyo (1 percent of revenues) but these small numbers likely reflect that special purpose bodies are delivering some of major services that are funded by user fees (e.g. transit).¹⁶

3. The Implications of Local Fiscal Autonomy for Cities

Are cities with greater fiscal autonomy more successful than cities that rely more heavily on intergovernmental transfers? It is difficult to draw conclusions about local fiscal autonomy and the economic success of a city because it is not clear what is meant by economic success and it is difficult to isolate the impact of local fiscal autonomy. Nevertheless, Table 5 provides information on selected indicators of how well cities are doing -- Gross Metropolitan Product (GMP) per capita and two global city rankings. GMP per capita measures the size of the economy of the metropolitan area and is defined as the market value of all final goods and services produced within the area in a year. With the exception of Tokyo where GMP information is for Central Tokyo, GMP per capita for all other cities reflects the metropolitan area. It is likely that Central Tokyo has the highest GMP per capita at least in part because it does not include the entire metropolitan area.

If we compare dependence on own-source revenues (Table 4) with GMP per capita (Table 5), it is difficult to draw any firm conclusions in part because the data refer to different years but, more significantly, because the data on revenues refers to each city and the data on GMP refers to the

¹⁶ This information is taken from the tables in Appendix B.

metropolitan area.¹⁷ Nevertheless, there does appear to be some relationship between dependence on own-source revenues of a city and the size of its metropolitan economy – New York and Paris are at the upper end of both dependence on own-source revenues and GMP per capita. London, is lower in the ranking of the seven cities on own-source revenues but not that low on GMP per capita.

Table 5: Selected Indicators

	GMP per capita, 2009 (£)	Global Power City Index 2011 (35 cities)	Global Cities Index 2012 (66 cities)
London	31,389	1	2
Berlin	21,919	16	20
Frankfurt	36,238	17	23
Madrid	26,772	22	18
New York	37,393	4	1
Paris	42,599	6	3
Tokyo*	44,676	8	4

Notes: *GMP refers only to Central Tokyo and not the metropolitan area; credit ratings for Tokyo are for 2011; for the other cities, they are for 2012.

Sources: GMP: Eurostat (2012), US Department of Commerce Bureau of Economic Analysis (2011), Bureau of General Affairs, Tokyo Metropolitan Government (2010).

Global Power City Index: Institute for Urban Strategies, The Mori Memorial Foundation, 2011

Global Cities Index: ATKearney, 2012

In terms of city ranking studies, Table 5 provides rankings from the Global Power City Index for 2011 and the Global Cities Index for 2012. There are many studies around the world that rank cities according to their economic competitiveness, cost of doing business, quality of life and other factors. The two studies here rank cities according to a composite index that includes most of these factors.¹⁸ The Global Power City Index ranks 35 cities on 69 indicators in six categories: economy, research and development, cultural interaction, livability, environment, and accessibility. The Global Cities Index ranks 66 cities according to 25 metrics across five dimensions: business activity, human capital, information exchange, cultural experience, and political engagement. London, Paris, New York and Tokyo rank highest among the seven cities in both ranking studies. Not much can be concluded from these studies about the relationship between local fiscal autonomy and economic competitiveness -- London ranks low on autonomy but consistently high on global cities rankings.

¹⁷ The opposite is true for Tokyo where revenues refer to the Tokyo Metropolitan Government and GMP refers to Central Tokyo.

¹⁸ Although cities (and the media) like to look at city ranking studies, there are limitations to each of these studies. For example, it is important to understand the underlying rationale for undertaking these studies, who is doing them, the intended audience, the methodology used to calculate scores and rankings, the source of information, the way in which the data are manipulated, etc. For a good critique of city ranking studies, see (Taylor, 2011).

Local tax autonomy and tax competition

The competitiveness of metropolitan areas could increase with more local fiscal autonomy which would allow them to raise the additional revenues they need to provide the goods and services to attract businesses and people (OECD, 2006). Tax competition, using the setting of tax rates to promote local and regional economic development or to increase the size of the tax base, is only possible at the local level if cities have the fiscal autonomy to set the rates. In the American model of small, fragmented local governments and high dependence on own-source revenues, the pursuit of tax revenues is a high priority (Kantor, 2010b).

Tax competition is widespread in OECD countries and is used to attract mobile individuals and firms.¹⁹ Since the mobility of individuals and firms is affected by tax levels (among other factors), governments use taxes as a way to attract mobile factors. Taxes most affected by tax competition are taxes on capital and capital income because they are more susceptible to tax base mobility (Blochliger & Pinero-Campos, 2011). Residential property taxes are the least affected by tax competition but tax-induced migration from differential business tax rates can be significant.²⁰ For example, the business tax base elasticity in Germany (percentage change in the tax base in response to a percentage change in the tax rate) is 1.4 suggesting an adverse impact of the tax rate on the local tax base (Buttner, 2003). A reduction in the local tax rate would lead to an increase in tax revenues.

Other factors also affect tax competition and tax base mobility. First, large jurisdictions which benefit from agglomeration economies are less affected by tax base mobility and thus they can set higher tax rates. In Spain, for example, municipalities that enjoy agglomeration economies have higher tax rates and lower tax mobility than those located outside of the agglomeration (Blochliger & Pinero-Campos, 2011). Similarly, in the US, metropolitan areas levy local wage and income taxes that suburban areas are unable to levy. Second, capitalization reduces competition and mobility because, if tax rate changes are capitalized into the value of properties, moving after a tax hike would have no benefit --property values would be immediately lowered by the net present value of future tax payments. Third, spending on public services may compensate for higher tax rates (especially spending on education and infrastructure). For local governments with little or no tax autonomy, competition tends to be done with subsidies and spending programs. Fourth, fiscal equalization reduces the incentive to lower tax rates and attract

¹⁹ The New York City Industrial Development Agency, for example, provides industrial firms that acquire, construct or renovate industrial space with real estate tax reductions, mortgage recording tax waivers, and sales tax exemptions on purchases of materials to construct, renovate or equip facilities. Developers of industrial space in designated areas of the city can also get mortgage recording waivers and sales tax exemptions on purchases of materials. Most of the other incentives tend to be provided by the state government, however.

²⁰ Property tax competition is more about “tax mimicking” whereby voters benchmark fiscal outcomes across jurisdictions and punish politicians if they get too out of line with tax rates in neighbouring jurisdictions. This is known as yardstick competition and exists when the local tax rate is significantly influenced by neighboring tax rates (Brett & Tardif, 2005).

mobile tax bases because a much larger tax base would be accompanied by a reduction in grants (Buttner, 2003).

Tax incentives

Where local governments have tax autonomy, they can use tax incentives to pursue economic development goals. There is a significant literature on non-residential property tax incentives in the US, in large part, because of the proliferation of these incentives in that country where they cost state and local governments between \$5 and \$10 billion per year (Kenyon, Langley, & Paquin, 2012).²¹

Tax incentives can be helpful in some cases. When they succeed in attracting new business to a city, they can increase income and employment, expand the tax base, and revitalize distressed areas (Kenyon, Langley, & Paquin, 2012). In the best of all cases, attracting a large facility can increase worker productivity and attract other firms to the area, creating agglomeration economies (benefits from firms locating in close proximity) (Glaeser, 2002). Yet the overall findings from the US literature suggest that tax incentives have a poor record in promoting economic development. Some of the findings are reviewed below.

Studies show that property taxes are not a major factor in inter-metropolitan location decisions but they have played a role in intra-metropolitan location decisions (Bartik, 1991). The reason for this conclusion is that municipalities in different metropolitan areas are not as close substitutes as municipalities within the same metropolitan area. These results are not surprising. In terms of inter-metropolitan location decisions, business activity is most influenced by market conditions, the availability and cost of a skilled labour force, the presence of necessary production materials, and proximity to markets. Different metropolitan areas have different labour markets with potentially large differences in wages and the quality of available labour. There could be vast differences, as well, in the cost of transporting goods to and from the metropolitan area. Since property taxes account for a relatively small proportion of the total costs for most businesses, any reduction in the tax is unlikely to be large enough to initiate a relocation decision or to encourage significant business activity.

Intra-metropolitan location decisions, on the other hand, may be affected by property tax differentials. The smaller the area over which the business is choosing to locate, the more similar are the non-tax factors. Within a large urban or metropolitan area, for example, market conditions and cost variables (such as labour, transportation, and energy costs) tend to be reasonably uniform. In this context, the fiscal factors take on more significance: lower property taxes in one community will generate lower costs at the margin and higher profits for businesses

²¹ A study of stand-alone property tax abatements in the U.S. indicates that 35 states allowed for these abatements in 2004 (Dalehite, Mikesell, & Zorn, 2005). In 2007, there were at least 7 other states that allow municipalities to offer a reduction in property taxes but only in conjunction with a larger economic development program (Wassmer, 2007).

locating in that particular community (Bartik, 1991). The review of intra-metropolitan studies suggests an average elasticity of -2.0 for taxes with respect to business activity. This estimate means that a reduction in taxes of 10 percent will increase business activity by 20 percent. The elasticity within metropolitan areas is about four times the elasticity between metropolitan areas.

The impact of intra-metropolitan tax differentials is expected to be greater for other taxes as well. In the City of Frankfurt, for example, the main source of tax revenues is the business profits tax (trade tax). In the Rhein-Main region (which includes the City of Frankfurt), Frankfurt levies the highest rate of taxation. Lower tax rates in adjoining communities provide an incentive for businesses in Frankfurt to relocate to other parts of the metropolitan area and discourage business attraction in Frankfurt (Nelles, 2012). Indeed, Nelles describes the exit of a major taxpayer from the City to a surrounding municipality within the metropolitan region where taxes were lower. Another author also suggests that lower tax rates in a number of the surrounding suburban municipalities have been successful in reducing the tax revenues of the City of Frankfurt (Werner, 2006).

Higher taxes matched by better public services will not discourage firms from locating in a municipality because public services also influence economic development. Expansion of public services may reduce the prices paid for those services by business (for example, education expenditures may reduce the quality-adjusted prices of labour by increasing the supply of workers of a given quality) (Bartik, 1991). Firms prefer to locate in communities with extensive business-related services because, without local government provision of these services, the firms would likely have to provide them on their own.

The influence of taxes on business location, even within metropolitan areas, varies for different types of business activities because industries differ in terms of their responsiveness to fiscal variables. For example, tax-sensitive firms are more likely to locate in a low-tax jurisdiction. According to studies that have been undertaken on different industries, manufacturing location decisions tend to be more sensitive to taxes than non-manufacturing location decisions. The reason is that the manufacturers are more oriented to the national market. Local costs will have a larger effect on their profits because it will be more difficult to pass these costs on to consumers. Moreover, manufacturers tend to be more capital intensive and local property taxes are taxes on capital (Bartik, 1991). Empirical studies confirm that capital-intensive industries are more sensitive to taxes on capital than are other industries.

Where there are advantages to locating near similar activities (a phenomenon known as agglomeration economies), the tax will have a less significant impact. Some examples might include a trendy shopping area or the financial district where there are significant advantages from being in a particular location. In these cases, the property tax will be less important in the business location decision than in those cases where business is fairly mobile.

Finally, if one jurisdiction lowers its property tax rate on businesses and neighbouring jurisdictions keep their taxes the same, the expected impact on business activity in that jurisdiction is likely to be much greater than if all jurisdictions in the metropolitan area lower their business tax rates (Wassmer, 2007). Property tax incentives are effective for the first jurisdiction that implements them but once they proliferate across the metropolitan region, they lose their effectiveness in promoting economic growth (Kenyon, Langley, & Paquin, 2012).

Tax increment financing

Tax increment financing (TIFs) is an economic development tool that is widely used by cities in the US to encourage the redevelopment of areas in need of revitalization.²² Under a TIF arrangement, cities designate a portion of the city for capital investment (known as the TIF district) and earmark any future growth in property taxes to pay for investments in infrastructure and other economic development initiatives (Merk, Saussier, Starpoli, Slack, & Kim, 2012). TIFs are not tax abatements in which property taxes are forgiven. Rather, TIFs use the increase in tax revenue generated from the development to pay back funds that have been borrowed to make capital investments. TIFs were recommended for local authorities in the UK by the City Finance Commission as a way to encourage infrastructure investment (City Finance Commission, 2011) but are only being considered for Enterprise Zones in the Local Government Finance Bill.

TIFs have been very successful historically at stimulating development in central cities of major US cities. There are some potential problems associated with TIFs, however. TIFs may not be able to generate the predicted tax revenues and the resulting lack of funds could threaten efforts to revitalize the designated area. Where more than one taxing authority is affected by the TIF (e.g. municipality, school district, county, etc.), there is often resentment that their property taxes are frozen at a time that they are experiencing growth in demand as a result of the revitalization. TIFs target funds to a designated area and this targeting may be at the expense of areas on the periphery of the TIF district or at the expense of overall municipal growth.

Although originally designed to stimulate private investment in central cities so that they could compete for development with suburban areas, many authors have called into question the recent use of TIFs in the US.²³ In particular, the requirement that a TIF district has to be a “blighted” area and that the development would not take place “but for” the incentive have been compromised (Youngman, 2011) and (Talanker, Davis, & LeRoy, 2003).²⁴ In this era of fiscal restraint and declining intergovernmental transfers, municipalities are using TIFs simply to raise

²² TIFs were first introduced in California in 1952 and, since that time, they have spread to almost all US states. They are probably most widely used in Chicago where, by 2005, 10 percent of all property taxes were earmarked for TIF purposes and TIF districts covered more than 25 percent of the geographic area of the city (Quigley, 2007).

²³ Earlier studies of TIFs that expand on their benefits include, for example, (Wassmer, 1994) and (Anderson, 1990). More recent studies question the use of TIFs. See, for example, (Youngman, 2011) and (Briffault, 2010).

²⁴ In one state (Wisconsin), almost half of the 661 TIFs were used to develop open space including a superstore on what had previously been an apple orchard; other applications of TIFs include a golf course project on greenfield in Des Moines, Iowa to pay for sewer lines and a shopping mall in St. Louis, Missouri (LeRoy, 2008).

revenues and not necessarily to improve blighted neighbourhoods. As a result, cities are often extending TIFs to affluent neighbourhoods where there is the greatest chance of increasing property values sufficiently to pay back TIF bonds and to farm properties that offer the greatest potential for property value increases in part because they are undeveloped but also because of the reclassification from farmland (levied at a low tax rate) to commercial or industrial properties (levied at a high tax rate) (Merk, Saussier, Starpoli, Slack, & Kim, 2012). The stipulation that development would not have taken place “but for” these expenditures has typically meant that expenditures are used for infrastructure for the development or to reduce the risk to developers so that they are willing to undertake the development. The “but for” test has become a *pro forma* gesture, however, to justify that TIFs are not simply giveaways to developments that would have occurred anyway (LeRoy, 2008) and (Youngman, 2011).

4. The Impact of Local Taxes on Economic Activity: Is There a Downside to Devolution of Taxes to Local Governments?

If London were given access to more tax revenues, what are the risks of devolution and greater autonomy? There are two potential problems associated with more local tax authority. First, tax differentials among neighbouring jurisdictions could result in tax base mobility -- individuals and businesses leaving the metropolitan area in response to more taxes or higher taxes – and reduced economic activity. As will be reviewed below, studies on tax impact suggest that the smaller geographic scope of the taxing authority, the easier it is for taxpayers to find a nearby location with lower taxes (Mikesell, 2010). Second, an economic downturn could result in lower revenues collected (and lower expenditures) if the new taxes are responsive to economic growth.

*Impact on economic activity*²⁵

The concern about tax base mobility is probably most significant for local sales taxes because of the ability of shoppers to cross a municipal border where the tax rate is lower. Tax base mobility depends on the goods that are being taxed and the geography (Blochliger & Pinero-Campos, 2011): taxes on goods that are easy to transport (e.g. cigarettes) are more responsive to tax differentials than taxes on goods that are more difficult to transport (e.g. gasoline); taxes with a narrow tax base (e.g. excise taxes) are more prone to tax competition than broad-based sales taxes; origin-based taxes (taxes paid where the goods are produced) are more prone to tax competition than destination based consumption taxes (taxes paid where the goods are consumed) because firms are more mobile than consumers.

Local governments in six US states are permitted to levy an additional tax on cigarettes sold in their jurisdiction. New York City levies a fairly high surcharge on cigarettes. Large differentials

²⁵ This section of the study focuses on the impact of different taxes on economic activity and not the advantages and disadvantages of each tax. For a more detailed discussion of each tax, see (Nera Economic Consulting , 2005) and (Loughlin & Martin, 2005). For a discussion of the implications of the country comparisons of taxes for the UK, see (Travers, 2005).

in tobacco tax rates, such as in New York, create an incentive to form illicit businesses that purchase cigarettes in low-tax cities and sell them in high-tax cities. Furthermore, the likelihood of illegal tax evasion constrains local own-source revenue autonomy in a devolved system (Schroeder, 2006).

Several authors have attempted to estimate the impact of a differential sales tax and the overall results suggest that a sales tax rate of 1 percentage point higher is associated with per capita sales along a state's border (in the US) that are between 1 and 7 percent lower (Sjoquist & Stephenson, 2010). Local sales taxes thus have a clear and negative impact on the local economy (Mikesell, 2010). In addition, when the sales tax is an important local revenue source, there can be intense competition for sales tax base. One result in the US is that cities seek commercial activities over residential and industrial activities. Shopping centres are particularly attractive in cities that rely heavily on sales taxes. Since the likelihood that people will change jurisdictions in response to a sales tax differential will be less when the geographic area of the taxing jurisdiction is large, however, it would seem that metropolitan areas are better able than smaller local governments to take advantage of sales taxes and reduce the competition (Slack, 2010).

Turning to income taxes, one study of the effects of taxes on city employment levels in New York City and Philadelphia suggests that these taxes have had significant negative effects on employment levels in both cities (Haughwout, Inman, Craig, & Luce, 2004). The authors' estimates indicate that Philadelphia lost almost 173,000 jobs between 1971 and 2001 because of an increase in wage tax rates over the period. Similarly, New York City lost 331,338 jobs (8.7 percent of total jobs) in 2001 because of an increase in city income tax rates. Cuts in these tax rates, according to the authors, would likely be an efficient way to increase city jobs.

Land transfer taxes (stamp duties) reduce house prices and household mobility. An empirical study of the municipal land transfer tax in Toronto estimated the effects of this tax in the first eight months of its operation (Dachis, Duranton, & Turner, 2008).²⁶ The authors concluded that its effects were significant and detrimental. A 16 percent decline in the sales of single-family houses and an average fall in the selling price of \$6,400 was attributed to the tax. Furthermore, the authors also estimated that taxes resulted in reduced household mobility, with about 3,500 families that would have moved not doing so because the existence of the tax and that the economic costs of reduced mobility were significant.

²⁶ Under the City of Toronto Act, 2006, Toronto was given permission to impose a municipal land transfer tax in addition to the provincial land transfer tax. For properties containing at least one, and not more than two, single family residences, the municipal rate replicates the provincial rates, omitting one bracket: 0.5 percent for the first \$55,000; 1 percent on the amount from \$55,000 to \$400,000 and 2 percent on the amount over \$400,000. As with the provincial tax, first-time purchasers of a newly constructed or resale property with two or less single-family residences are eligible for a rebate, in this case ranging up to \$3,725 (the amount paid on a \$400,000 house). For other properties, Toronto's rates reflect the considerable value of some of its properties, encompassing much higher brackets than the provincial rate: 0.5 percent for the first \$55,000; 1 percent on the amount from \$55,000 to \$400,000; 1.5 percent on the amount from \$400,000 to \$40,000,000, and, 1 percent on the amount over \$40,000,000.

As David Ricardo pointed out two centuries ago, taxes on the transfer of property are in a sense the ultimate “anti-market” and anti-development tax. Such taxes may ‘lock-in’ properties and hence discourage change and development (Sexton, 2008). Their popularity around the world is presumably attributable primarily to administrative convenience (Bird & Slack, 2004). As Dachis, Duranton, and Turner emphasize, a more efficient way to raise revenue would likely be to increase the property tax by a small amount. Nonetheless, despite the economic advantages of encouraging efficient property transfers rather than discouraging them through lock-in effects, voters who adamantly resist increases in property taxes seem much more willing to accept taxes that are imposed on those who actually buy or sell properties (Bird, Slack, & Tassonyi, 2012).

The Mirrlees Review also recognized the inherent flaws in a stamp duty land tax.²⁷ The Review recognized that the transactions on which the tax is levied are easy to identify and measure, but the case for maintaining the tax is weak (Institute for Fiscal Studies, 2011). The tax is inefficient: “by discouraging mutually beneficial transactions, stamp duty ensures that properties are not held by the people who value them most” (Institute for Fiscal Studies, 2011, p. 403). As noted above, the Review also concluded that the tax provides a disincentive for people to move thereby resulting in potential inflexibilities in the labour market and encouraging people to stay in properties of a size and location that they may not have otherwise chosen. The Mirrlees Review recommended replacing the stamp duty with a housing services tax for residential property and a land value tax for business property.

With respect to property taxes, evidence suggests that some cities cannot raise property taxes further without decreasing tax revenues. Haughwout et al. provide econometric estimates of the effects of property taxation on local economic activity in four major U.S. cities – Houston, Minneapolis, New York City, and Philadelphia (Haughwout, Inman, Craig, & Luce, 2004). In theory, each tax rate climbs a “revenue hill.” At low tax rates, an increase in the tax rate will raise revenue; at high rates, however, an increase in the tax rate would actually reduce revenue because people and businesses would leave and the tax base would shrink. At the very top of the ‘hill’ is the rate that will maximize revenues.

The peak of the hill is where the rate to base elasticity is -1.0. If the rate-base elasticity is greater than this – for example, -0.5 – then a small increase in the rate will increase revenues and the locality is on the upward-sloping part of the curve. If it is less- -- for example, -1.3 – it is on the downward-sloping part of the curve and a rate increase will actually reduce revenues. If a city is already at the peak (the elasticity is -1.0), an increase in tax rates will not yield additional revenues.

²⁷ The stamp duty land tax in the UK on residential property is levied at rates of 0% on transactions up to £125,000, 1% between £125,000 and £250,000, 3% from £250,000 to £500,000, 4% between £500,000 and £1 million, 5% between £1million to £2 million, and 7% over £2 million. For non-residential properties, the tax is levied at a rate of 0% on transactions up to £150,000, 1% up to £150,000 where the annual rent is £1,000 or more, 1% between £150,000 and £250,000, 3% between £250,000 and £500,000, and 4% over £400,000.

The authors conclude that, although Minneapolis is the only one of the four cities studied that imposes only a property tax, it is also the only one positioned comfortably down the left-hand side of the hill, with substantial unused revenue capacity. The rate-base elasticity of the property tax was found to be close to or less than -1 in Houston (ranging from -0.89 to -1.13), New York (-0.77 to -0.90), and Philadelphia (-.41 to -0.80). In contrast, this elasticity (for the most recent tax base and rate) was only -0.16 to -0.36 in Minneapolis.

Impact in an economic downturn

A downturn in the economy would be expected to lead to a reduction in local revenues and expenditures. For example, the OECD Territorial Review for Madrid claimed in 2007 that the construction tax and land value tax, which have relatively unstable revenue streams, saw their revenues decrease following the earlier housing crisis (OECD, 2007). Similarly, the economy of Tokyo slumped considerably in 2008 following the global economic crisis and metropolitan tax revenue fell by about 1 trillion yen in 2009 (from 5.25 trillion yen in 2008 to 4.25 trillion yen in 2008) and by another .15 trillion yen in 2010 to 4.10 trillion yen (Tokyo, 2012).

A survey of municipal associations in 2009 on the global crisis found that the impact on municipal expenditures and revenues varied across cities in different countries. For example, local government capital expenditures and investments increased in some cities because they participated in national economic stimulus programs that targeted local infrastructure; in other cities, capital expenditures fell. In some cities, own-source revenues declined more quickly than transfers but in other cases the reverse was true. In terms of own-source revenues in European cities, 62 percent of respondents experience a drop in taxes and 42 percent a drop in user fees. In US cities, revenues from sales and income taxes were expected to drop by 3.8 percent and 1.3 percent respectively, but property tax revenues were expected to remain stable. In terms of shared taxes in European cities, 36 percent of respondents experienced a drop in revenues; 55 percent of respondents in a CEMR (Council of European Municipalities and Regions) survey experienced lower intergovernmental transfers.

Overall, the results of the survey suggested that the impact of the global crisis was likely worse for cities with limited fiscal autonomy and high dependence on transfers (United Cities and Local Governments, 2009). Although one might expect local governments to introduce new taxes and fees or increase existing ones in response to declining revenues, these actions were not taken by those surveyed. Although it is always difficult to raise taxes, the lack of action also reflects the inability of many local governments to introduce new taxes or to set their own tax rates. In the US, where cities have some tax autonomy, 25 percent of respondents increased property tax rates, 5 percent increased sales taxes, and 1 percent increased income taxes (United Cities and Local Governments, 2009).

In terms of property taxes in the US, a study of the largest central cities used data from 1997 to 2008 to forecast the impact of the recession and housing crisis on central city expenditures between 2009 and 2013 (Chernick, Langley, & Andrew Reschovsky, 2011). The study predicted that average real property tax revenues would fall by 3.2 percent between 2009 and 2012 and could fall by as much as 25 percent in communities that were hard hit by the housing bubble and subsequent crash. The predicted decline in property tax revenues coupled with cuts to state aid and the decline in other city revenues led the authors to predict that real per capita expenditures would fall by 7 percent, on average over the forecast period.

The types of taxes that a city levies will determine, in part, its responsiveness to changes in the economy. The responsiveness of income and sales taxes to changes in the local economy represents an advantage for cities that levy these taxes in an economic boom but may be a problem in an economic downturn (Slack, 2010). Because the income tax, for example, is cyclically sensitive, it can leave a local government in a difficult financial position during an economic downturn. Local governments that rely on income tax revenues would thus need to be equipped to manage the risk (Lyons Inquiry into Local Government, 2007). As will be discussed below, this concern is greater where there is little revenue diversification.

5. Implications of Greater Local Fiscal Autonomy for London

London has very limited fiscal autonomy and much less than the other six international cities in this study – Berlin, Frankfurt, Madrid, New York, Paris, and Tokyo. In particular, it relies much more heavily than the other cities on intergovernmental transfers and much less on locally-raised revenues. It can only levy the council tax and user fees (such as the congestion charge) and a small supplementary charge on non-domestic rates. Other international cities can, at the very least, levy a non-residential property tax (although the rates are sometimes constrained by higher levels of government) and many have the ability to levy other taxes as well.

Local fiscal autonomy for a metropolitan area is an important factor in making it more attractive to residents and businesses because it can raise the additional revenues needed to provide the goods and services to be internationally competitive (OECD, 2006). The challenge for economic competitiveness, as noted earlier, is to raise sufficient taxes to provide services without providing a disincentive for businesses and residents to locate in the city. Tax increases that are not matched by tax-financed compensating service benefits for taxpayers will drive taxpayers (residents and businesses) from the city (Haughwout, Inman, Craig, & Luce, 2004).

Flexibility to attract development

More local autonomy for London, in particular the flexibility to levy taxes on businesses (such as the non-domestic rates) at the local level, would mean that it would be able to engage in tax competition with other cities to attract development. Because London is a large metropolitan

area, some of the border problems arising from differential tax rates on a variety of taxes (e.g. income and sales taxes) may be less of a problem than in smaller jurisdictions where people and businesses may be more mobile between places. But, since the area of the GLA does not cover the entire economic region of South East England, there may still be border problems for some taxes. The use of tax incentives to attract development should be treated with great caution because the experience with tax incentives has been mixed, at best. Higher tax rates in London would not necessarily discourage investment if they are matched by high quality public services and, given the attraction of London for doing business because of agglomeration economies, tax incentives may not be needed.

Benefits from having a portfolio of taxes

Nevertheless, a mix of taxes would give London more flexibility to respond to local conditions such as changes in the economy, evolving demographics and expenditure needs, changes in the political climate, and other factors. A portfolio of taxes also would allow London to achieve revenue growth, revenue stability, and equity (Bahl, 2010), (Slack, 2010).

The property tax (council tax) is a good tax for local governments but, given that it is relatively inelastic (does not grow automatically as the economy grows), highly visible, and politically contentious everywhere, it is insufficient to fund the complex and increasing demands of governments in metropolitan areas such as London. But there are tradeoffs with other taxes – sales and income taxes grow more quickly than the property tax but the revenues are less stable.²⁸ Based on an analysis of data from 28 US states over the period from 1984/5 to 2005/6, Mikesell found that the annual change in local property tax revenue is less than for sales taxes (and income taxes) (Mikesell, 2010). In terms of revenue stability, however, he found that the revenues from the property tax are the most stable and the revenues from the sales tax least stable. Access to a portfolio of taxes would provide London with stability (through the property tax) and elasticity (through income, sales, or business taxes).

A more diversified revenue structure may also result in higher municipal revenues. An analysis of government revenues for 109 central cities in the US (combining city, district, and county taxing authorities) found that a more diverse revenue portfolio (one that is less dependent on property taxes) allows a city to raise more revenue (Chernick, Langley, & Reschovsky, 2010). Using data from 1997 to 2008, and controlling for other variables that are likely to have an impact on levels of revenue, per capita revenues in a city with a relatively diversified tax base (in the 75th percentile) are about 10 percent higher than a city in the 25th percentile.

To levy a given amount of revenue, relying on many sources means that the local government can set lower tax rates for any single tax base. Since the excess burden of a tax increases with

²⁸ Since income taxes increase or decrease in response to changes in wages and salaries, tax revenues respond immediately to changes in the economy.

the tax rate (i.e. the distortions increase as the tax rate increases),²⁹ a more diversified system should yield any given amount of revenue more efficiently (with a smaller negative impact on the overall tax base) (Chernick, Langley, & Reschovsky, 2010).³⁰ The authors also argue that greater revenue diversity may be associated with higher expenditure needs.

London would benefit from greater fiscal autonomy – access to a mix of taxes and the ability to set the tax rates. A mix of taxes would give it the flexibility it needs to respond to changing economic circumstances. Local fiscal autonomy and, in particular the ability to set tax rates, is also important for accountability: governments that raise their own revenues and set their own taxes to meet local expenditure needs tend to be more responsible and more accountable to taxpayers.

²⁹ For example, a residential property tax discourages investment in housing improvements; a retail sales tax discourages consumption of goods, etc. A mix of taxes can reduce the distortion of any one tax by keeping the tax rate low.

³⁰ The authors also argue that greater revenue diversity likely means a more complex tax system that people do not understand and thus they do not resist tax increases.

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Appendix A

Table A-1: Structure and Governance of Seven Cities

	Structure	Governance	Responsibilities of the City
New York City (Population 8.2 million)	<p>1 city with 5 boroughs</p> <p>Metro area: 29 counties in 4 states</p>	<p>Mayor is directly elected for 4-year term. Councillors are elected by majority vote from 51 districts and serve 4-year terms. Borough presidents are directly elected.</p> <p>Special purpose bodies such as the Port Authority of New York and New Jersey; Regional Plan Association</p>	<p>Building of houses, urban planning, transport, education, social services, police, assistance to boroughs, consumer affairs, prisons, culture, economic development, primary and secondary education, emergency services, environment, public health</p>
Paris (Population 2.2 million)	<p>City of Paris covers two administrative areas: the commune or municipality of Paris with 20 city districts (arrondissements) and the Department of Paris</p> <p>Metro area (Ile de France Region): 1 region, 8 departments plus 1281 municipalities</p>	<p>Mayor indirectly elected from council for a 6-year term. 163 councillors elected according to the list system. Each arrondissement has a council presided by an arrondissement mayor.</p> <p>The Department is administered by a General Council; President of Council is indirectly elected</p> <p>Regional authority with 209-member regional assembly elected for a 6-year term; president indirectly elected by regional councillors</p>	<p>Urban planning and development, road infrastructure, construction and maintenance of city facilities, education (nursery and primary schools) and assistance to student life, public health and public assistance, the environment (cleanliness, green areas, management of urban waste), transport, traffic and parking, economic development, housing, culture, solidarity and social affairs. Security and law and order are the competence of the Police Prefect of Paris.</p> <p>Social action and solidarity, health care protection for families and children, construction, capital expenditure and running costs of secondary schools, administration and maintenance of department archives and museums, land consolidation, school transport beyond urban fringe.</p> <p>Economic development, social, cultural and scientific development, regional town and country planning, transport, education, health care, environment</p>

	Structure	Governance	Responsibilities of the City
London (Population 8.2 million)	Two-tier government structure: Greater London Authority and 33 boroughs (including the City of London) London Metropolitan Region: Greater London, South East, and East of England: 50 local governments in 3 regions	Mayor of GLA directly elected for 4-year term. London Assembly is made up of 25 members – 14 elected by simple majority in single-member districts; 11 by system of proportional representation for the whole city. No institution for metropolitan area	GLA: economic development, transport, police and emergency services, culture and health Boroughs: education, housing, social services, street cleaning and maintenance, solid waste management, local urban planning, culture and recreation
Madrid (Population 3.3 million)	City of Madrid: 1 municipality with 21 districts Autonomous Community of Madrid – 1 province with 179 municipalities	Mayor indirectly elected by council. Council elections every 4 years. Provincial/state government with 179 municipalities	Urban planning and development, housing, economic promotion, management of public services of other administrations, public transport, traffic, telecommunications infrastructure, environment, public health, consumer affairs and health, person services (education, culture, sport, social care), public safety. Organization of local system, management of the territory, urban development, housing, public works, highways, railroads, transport, ports and water resources. Shared authority with national government on economic planning, industry, security, education, health
Frankfurt (Population 697, 000)	Frankfurt am Main - 1 city with 16 districts Frankfurt Metropolitan Area (Frankfurt/Rhein-Main Regional Planning Agency – 1 local federation with 75 municipalities	Mayor is indirectly elected by council which is elected every 5 years; members of districts are elected by a proportional system every 5 years. Regional council is formed by the mayors of municipalities	Waste management, public health, sports, planning, urban development, urban regeneration, land management, public housing, job promotion and technological development, citizen participation, libraries, traffic, youth policies, environment, parks and schools Regional planning

	Structure	Governance	Responsibilities of the City
Berlin (Population 3.5 million)	<p>City-state and two-tier government structure: 1 federal state with 12 boroughs</p> <p>Berlin Metropolitan Agglomeration: Berlin's 12 boroughs plus 53 municipal entities from Brandenburg</p>	<p>Mayor elected by 141-member House of Representatives who are elected for a 4-year term. Up to 78 representatives are elected by simple majority in single-member districts and 63 in a proportional open-list system. Senate (executive) exercises state functions and the 8 members are elected by the House of Representatives at the proposal of the mayor.</p> <p>No political or administrative institution</p>	Economy, employment and women's affairs, education, youth affairs and sport, science, research and culture, health consumer and social affairs, urban development, transport, environment.
Tokyo (Population 13.2 million)	<p>Central Tokyo with 23 districts</p> <p>Tokyo Metropolitan Government (TMG): 1 Prefecture (state) including Central Tokyo plus 26 cities, 5 towns, 8 villages</p> <p>Greater Tokyo: 4 prefectures</p> <p>National Capital Region: 8 prefectures</p>	<p>Each district directly elects a mayor and council for a 4-year term</p> <p>Governor is directly elected for a 4-year term. Assembly comprises 127 members from 42 electoral districts.</p> <p>No administration at this territorial level.</p> <p>No administration at this territorial level.</p>	<p>Districts administer most municipal services but have granted some metropolitan powers to TMG</p> <p>Coordination of metropolitan urban planning, environment (waste management, environmental impact assessment, pollution measures), social and health care services, supervision of private health care, economic and tourist promotion, promotion and management of public housing, management of port infrastructure, public health, universities, education.</p>

Source: Based on (Picorelli, Barros, Tomas, & Molle, 2009); (Bahl, 2010); (Travers, 2005); (OECD, 2007); (Slack & Chattopadhyay, 2013 forthcoming).

Appendix B

Table B-1: Distribution of Operating Expenditures,
London (GLA plus boroughs), 2011-12

	%
Education	31.1
Highways and transport services	11.9
Children social care	5.3
Adult social care	11.6
Housing services (excl. Housing Revenue Account)	5.1
Cultural and related services	2.9
Environmental and regulatory services	4.4
Planning and development services	2.2
Police services	14.5
Fire and rescue services	1.7
Central services	9.0
Other services	0.2
Total expenditures	100.0

Source: Source: United Kingdom Department for Communities and Local Government (2011-12) *Revenue Outturn – Service Expenditure Summary (RSX): 2011-12 data for ENGLAND.*

Table B-2: Distribution of Operating Revenues,
London (GLA plus boroughs), 2011-12

	%
Council tax	11.4
Sales, fees and charges	7.7
Other income	7.1
Transfers	73.9
Total operating revenue	100.0

Source: United Kingdom Department for Communities and Local Government (2011-12) *Revenue Outturn Summary (RS): 2011-12 data for ENGLAND*; United Kingdom Department for Communities and Local Government (2011-12) *Revenue Outturn – Service Expenditure Summary (RSX): 2011-12 data for ENGLAND.*

Table B-3: Distribution of Current Account Expenditures,
Berlin, 2010

	%
Staff expenditure	36.2
Current material expenditure	26.4
Interest expenditure	11.0
Other	26.4
Total	100.0

Source: Adapted from Amt für Statistik Berlin-Brandenburg (2011) *Die kleine Berlin-Statistik*

Table B-4: Distribution of Current Operating Revenues,
Berlin, 2010

	%
Taxes	
- Land taxes	2.9
- Local taxes	8.7
- Shared taxes	35.0
- Total taxes	46.6
Other	20.8
Net debt on credit market	7.2
Transfers	
- Inter-state equalization payments	13.0
- Federal transfers	12.5
- Total transfers	25.5
Total Revenue	100.0

Source: Adapted from Rechnungshof von Berlin (2011) *Jahresbericht 2011*; Amt für Statistik Berlin-Brandenburg (2011) *Die kleine Berlin-Statistik*; Berlin Senatsverwaltung für Finanzen (n.d.) *Steuereinnahmen - monatliche Übersichten*

Table B-5: Distribution of Operating Expenditures, New York City,
2011

	%
General government	3.4
Public safety and judicial	13.9
Education	31.5
City University	1.2
Social services	19.7
Environmental protection	3.9
Transportation services	1.9
Parks, recreation, and cultural activities	0.8
Housing	1.3
Health	2.8
Libraries	0.5
Pensions	11.4
Judgements and claims	1.1
Fringe benefits and other benefit payments	6.4
Lease payments for debt service	0.2
Other	-0.1
Total operating expenditures	100.0

Source: The City of New York New York (2011) *Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2011*

Table B-6: Distribution of Operating Revenues, New York City 2011

	%
Real estate taxes and payments in lieu of taxes	26.6
Sales and use taxes	
- General sales	8.6
- Cigarette	0.1
- Commercial motor vehicle	0.1
- Mortgage	0.7
- Stock transfer	N/A
- Auto use	0.0
- Total sales and use taxes	9.5
Income taxes	
- Personal income	12.5
- General corporation	4.4
- Financial corporation	2.3
- Unincorporated business income	2.7
- Personal income (non-resident city employees)	0.2
- Utility	0.7
- Total income taxes	22.8
Other taxes	
- Hotel room occupancy	0.7
- Commercial rent	1.0
- Horse race admissions	0.0
- Conveyance of real property	1.2
- Beer and liquor excise	0.0
- Taxi medallion transfer	0.0
- Surcharge on liquor licences	0.0
- Refunds of other taxes	0.0
- Off-track betting surtax	0.0
- Total other taxes	2.9
Penalties and interest on delinquent taxes	0.1
Total taxes	61.8
User fees and charges	3.6
Other own-source revenues	3.7
Total own-source revenues	69.1
Transfers	
- Federal categorical	11.9
- State categorical	17.2
- Non-governmental categorical	1.9
- Unrestricted federal and state aid	0.1
- Provision for disallowance of aid	-0.2
- Total transfers	30.9
Total revenues	100.0

Source: The City of New York New York (2011) *Comprehensive Annual Financial Report of the Comptroller for the Fiscal Year Ended June 30, 2011*.

Table B-7: Distribution of Total Expenditures, City of Madrid, 2009

	%
General government	5.4
Transportation	18.2
- Roads	14.1
- Transit	4.1
Protection (fire, police)	15.7
Environment (Drainage, water supply and distribution; Garbage collection and disposal and street cleaning)	11.0
Education	2.2
Social protection	10.0
- Health	2.2
- Social services	7.8
Parks, recreation, culture	7.2
Housing, urban planning and development	11.3
Debt charges	8.6
Other	10.4
Total expenditures	100.00

Source: (Bosch, Espassa, & Sole-Vilanova, 2013 forthcoming)

Table B-8: Sources of Operating Revenue, City of Madrid, 2009

	%
Taxes	
- Property tax	19.3
- Property-related taxes	7.2
- Other taxes	6.5
- Total taxes	33.0
User fees	20.1
Other own-source revenues	5.5
Total own-source revenues	58.6
Shared Taxes	
- Income tax	3.0
- Sales tax	1.5
- Total shared taxes	4.5
Intergovernmental transfers	
- Federal/central	34.1
- Provincial/Autonomous Communities	2.1
- Other	0.8
- Total intergovernmental transfers	37.0
Total revenues	100.0

Source: Based on (Bosch, Espassa, & Sole-Vilanova, 2013 forthcoming)

Table B-9: Distribution of Operations Expenditures, Paris, 2011

	%
Personnel	30.3
General	12.6
Social services	21.8
Police	4.1
Transit (regional transit authority)	5.2
Waste disposal agency	1.9
Operating grants	6.3
National guarantee (to compensate for increased revenues from tax change)	13.0
Transfers to rest of the region	2.5
Other management expenses	2.3
Total expenditures	100.0

Source: Adapted from Mairie de Paris (2012) *Rapport Financier: Exercice 2011*

Table B-10: Distribution of Operations Revenues, Paris, 2011

	%
Taxes	
- Property tax, residence tax, local economic contribution (business tax)	39.9
- Tax on refuse collection	5.5
- Front walk sweeping tax	0.9
- Parking tax	0.8
- Electricity consumption tax	0.9
- Land transfer tax	13.9
- Other	0.9
- Total taxes	62.7
User fees	5.7
Grants and investments	2.6
Other own-source revenues	11.5
Total own-source revenues	82.5
Transfers	17.5
Total revenues	100.0

Source: Adapted from Mairie de Paris (2012) *Rapport Financier: Exercice 2011*

Table B-11: Distribution of General Account Expenditures,
Tokyo Metropolitan Government, 2010

	%
Administration	4.3
Citizens, cultural and sports affairs	0.5
Urban development	3.4
Environmental protection	0.6
Social welfare and public health	14.4
Industry and labour	6.0
Public works	6.9
Port and harbour	1.1
Education and educational affairs	15.7
Police	10.5
Fire fighting	4.1
Debt service	8.1
Miscellaneous	24.4
Total expenditures	100.0

Source: Bureau of Finance, Tokyo Metropolitan Government (2010) *Budget and Settled Account of General Account by Item*

Table B-12: Distribution of General Account Revenues,
Tokyo Metropolitan Government, 2010

	%
- Metropolitan inhabitant tax	24.8
- for individuals	12.5
- for corporations	11.6
- Interest income rate	0.7
- Enterprise tax	10.3
- for individuals	0.9
- for corporations	9.4
- Local consumption tax	6.0
- Real property acquisition tax	1.2
- Metropolitan tobacco tax	0.5
- Golf links tax	0.0
- Automobile acquisition tax	0.3
- Light-oil (gas-oil) delivery tax	0.7
- Automobile tax	1.9
- Mine-lot tax	0.0
- Fixed assets tax	18.8
- Special tax on land holding	0.0
- Hunter tax	0.0
- Establishment tax	1.6
- Urban planning tax	3.6
- Accommodation tax	0.0
Total Metropolitan Taxes	70.4
User fees and charges	1.2
Metropolitan debt (bonds)	5.6
Other own-source revenue	12.2
Total own-source revenue	88.8
 Shared taxes (transferred national taxes)	 3.0
 National grants in aid	 7.3
Other transfers	0.4
Total transfers	7.7
 Total revenue	 100.0

Note: Totals may not add due to rounding

Source: Bureau of Finance, Tokyo Metropolitan Government (2010) *Budget and Settled Account of General Account by Item*; Bureau of Taxation, Tokyo Metropolitan Government (2010) *Municipal Taxes Received by Kind (Fiscal Years 2006-2010)*