

Metropolis Observatory
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06

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Financing metropolitan public policies and services



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Introduction

Around the world, rapid urbanization has created economic opportunities that attracted more than half of the planet's population to settle in urban areas, a number that is expected to grow to two thirds by 2060. Metropolitan areas, characterized by a densely populated urban core surrounded by a number of less populated cities, towns, villages, and suburbs, are also on the rise: they are home to 1.6 billion people (41 percent of the urban population) and this number is expected to increase by more than 600 million people by 2030 (UCLG, 2016). Improvements in transportation over the last twenty years mean that people are coming from further away for work opportunities and to access services, recreation, culture, and more.

On the other hand, this has also resulted in serious challenges, most visibly noticeable in metropolitan spaces: increased pollution, transportation gridlock, deteriorating infrastructure, increased violence and crime, inadequate housing, rising poverty and urban slums, and widening income disparities.

Local governments face pressure to expand and maintain “hard” services such as water, sewers, transit, and roads, as well as “soft services” such as social services, housing, education, and health. To compete internationally, they also need to provide

services that enhance the quality of life of the city such as parks and recreational and cultural facilities. And, cities need to preserve inclusiveness and promote sustainability. In the end of the day, these governments not only have to figure out how to do all of this, they have to find ways to pay for it.

Who should pay, then, for services and infrastructure in metropolitan areas? Should it be the direct users of the services? Should it be the taxpayers living in the metropolitan territory? In the latter case, how should the taxes be calculated considering the differences within the territory and the daily commutes of the metropolitan population? And what if revenue from upper layers of government (e.g. regional and national) and loans are added to the budget, how to ensure that the resources are fairly distributed?

In the sixth issue paper of the Metropolis Observatory, Enid Slack tries to answer these questions and addresses some of the current metropolitan finance issues around the world. As she suggests that metropolitan areas need revenues that match their expenditure responsibilities and more fiscal autonomy than other urban and rural areas, she realizes that only once an effective metropolitan governance structure is designed, will an appropriate fiscal structure be achieved.



Octavi de la Varga
Metropolis Secretary General

Paying for municipal services and infrastructure in metropolitan areas

Metropolitan areas are important generators of employment, wealth, and productivity growth and are often the major economic engines of their country

Large metropolitan areas are different from other cities and towns and these differences have implications for metropolitan public finance. The most obvious difference is that they have a much larger population. Their population is also more concentrated and more heterogeneous in terms of social and economic circumstances, often with a relatively higher proportion of immigrants and in-migrants. Metropolitan areas are important generators of employment, wealth, and productivity growth and are often the major economic engines of their country. The 300 largest metro economies in the world, for example, account for almost half of the global output (Bouchet et al., 2018). Most innovation occurs in large cities and metropolitan areas where people can reap the benefits of close proximity, often referred to as “agglomeration economies.” Big cities also serve as regional hubs for people from adjacent communities who come to work, shop, and use public services that are not available in their own communities.

All of these factors are reflected in the magnitude and complexity of metropolitan public finance. Municipal expenditures per capita tend to be higher in metropolitan areas and different in nature than in smaller municipalities (Bird and Slack, 2013). For example, the need to move large numbers of people around generally make a good transit system essential to the effective functioning of the metropolitan area. In terms of revenues, larger cities usually have a larger per capita property tax base because of higher property

values and more commercial/industrial properties, which tend to be taxed at a higher rate than residential properties. Because of their higher level of economic activity, big cities are also more able to levy income and sales taxes, if they are allowed to do so. A larger income tax base also reflects gentrification, which drives out lower income households to secondary cities.

It is easier to tax sales, income, and fuel, for example, when the distances people have to go to avoid the tax are large. Because residents and businesses can easily cross municipal borders to do their shopping, locate their business, or buy gas, taxes are more easily levied on a metropolitan basis. Of course, there needs to be a taxing authority at the metropolitan level for this to work.

Who should pay for services

An important rule of sound fiscal decentralization is that finances should follow functions (Bahl and Bird, 2018). In other words, how local governments pay for services depends on what services they provide. As the European Charter of Local Self-Government (Article 9, Paragraph 2) puts it, “local authorities’ financial resources shall be commensurate with the responsibilities provided for by the constitution and the law.” Those who spend the most — usually the largest cities — obviously need the most to spend. For the most part, however, they also have the greatest ability to tax.

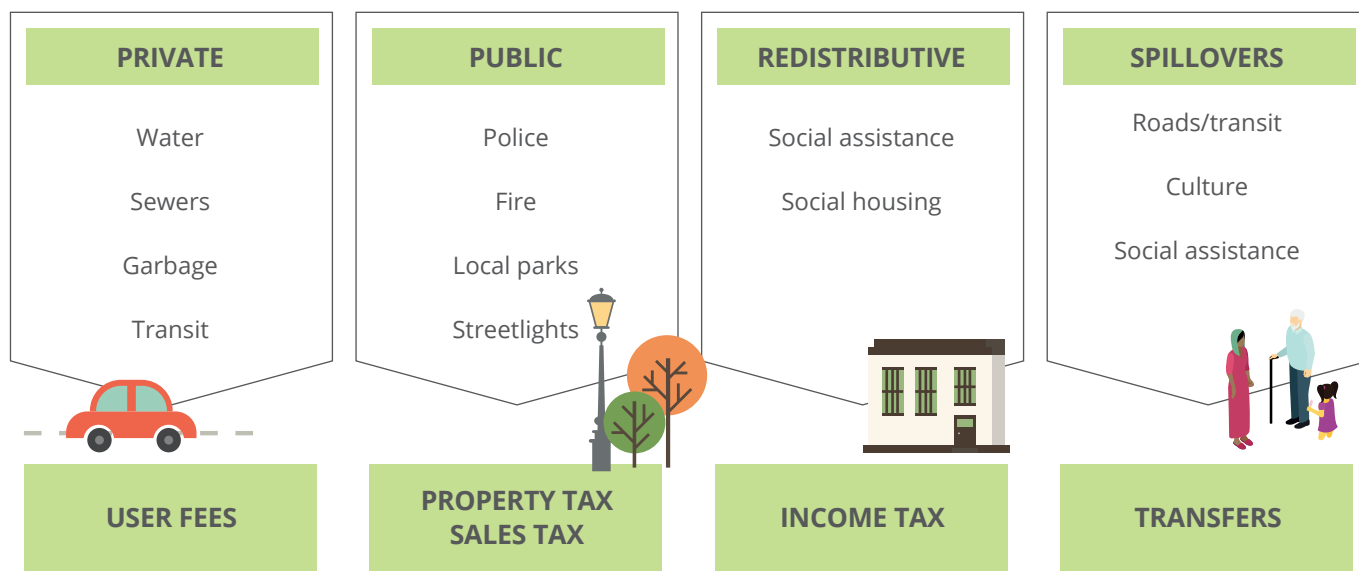
A review of subnational governments in 101 countries suggests that there is wide variation in the spending responsibilities across countries (OECD/UCLG, 2016). Cities are responsible for delivering services ranging from fire and police protection to water, sewers, and waste collection, to roads and transit, to health and social services. Both theory and experience suggest that there needs to be a clear link between expenditure and revenue decisions if governments are to use their resources in the best possible way to satisfy the preferences of those they represent. The best way to design a local revenue system is first to decide what services should be delivered locally and then to put into place the local revenue system (a combination of user

fees, taxes, and transfers) to pay for them. To ensure that local governments deliver the right services, they need to allocate the costs of providing a service as directly as possible to those individuals, firms, neighbourhoods, and groups that enjoy the benefits.

Figure 1 illustrates the funding tools that are appropriate to pay for different services. For those services with “private good” characteristics, where it is possible to identify the beneficiaries and exclude those who do not pay (such as water, sewers, solid waste collection and disposal, transit, and parking), user fees are efficient and fair. In general, cities should adopt user fees wherever there is a clear link between the fee charged and

Figure 1.

Different Services — Different Revenue Sources



the benefit received. When this link is in place, the user can choose the amount of the good he or she wishes to consume and governments know how much to provide.

Services with “public good” characteristics generate collective benefits that all local residents enjoy but the benefits cannot be assigned to individual beneficiaries. Thus, specific charges cannot be levied for services such as fire protection, neighborhood parks, local streets, and street lighting. Instead, some form of local benefit-based taxation, such as the property tax, is appropriate. Sales taxes could also be used to pay for services with public good characteristics and are particularly attractive when substantial numbers of commuters and visitors from neighboring areas visit the city to work, shop, or enjoy cultural or recreational facilities.

Services that redistribute income are best funded from income tax revenues because the income tax is the most progressive tax -- in other words, the tax as a percentage of income increases as income increases. Redistributive services include social assistance and social housing, for example.

For some services, the benefits (or costs) may spill over metropolitan boundaries, but provision at the metropolitan level is still desirable. For example, a road constructed in one jurisdiction may be used by residents of another jurisdiction, without any charge to them. The result is an under-allocation of resources for that service, because the providing municipality bases its expenditure decisions on the benefits captured within its jurisdiction alone and does not take account of the benefits to those outside the jurisdiction. One way to provide an incentive to the municipality to allocate

more resources to the service generating the externality is a transfer from a state/provincial or national government. Of course, another way to address this problem is to deliver the service at a metropolitan or regional level.

Who should pay for infrastructure?

Figure 2 shows the different fiscal tools that are appropriate to pay for different types of infrastructure. As with services, user fees play an important role for infrastructure with private good characteristics. Where user fees cannot be charged, local taxes (property and sales, for example) are appropriate to pay for infrastructure that has a short life. Property taxes (or pay-as-you-go financing methods more generally) are less appropriate for large infrastructure that lasts for 30 or 40 years because there would be a large spike in taxes in the year of the investment. Land value capture taxes are a refinement of local taxes where infrastructure increases land values; development charges are appropriate for growth-related capital costs associated with new development. For services where the benefits (or costs) spill over municipal boundaries, a national or state/provincial transfer may be appropriate.

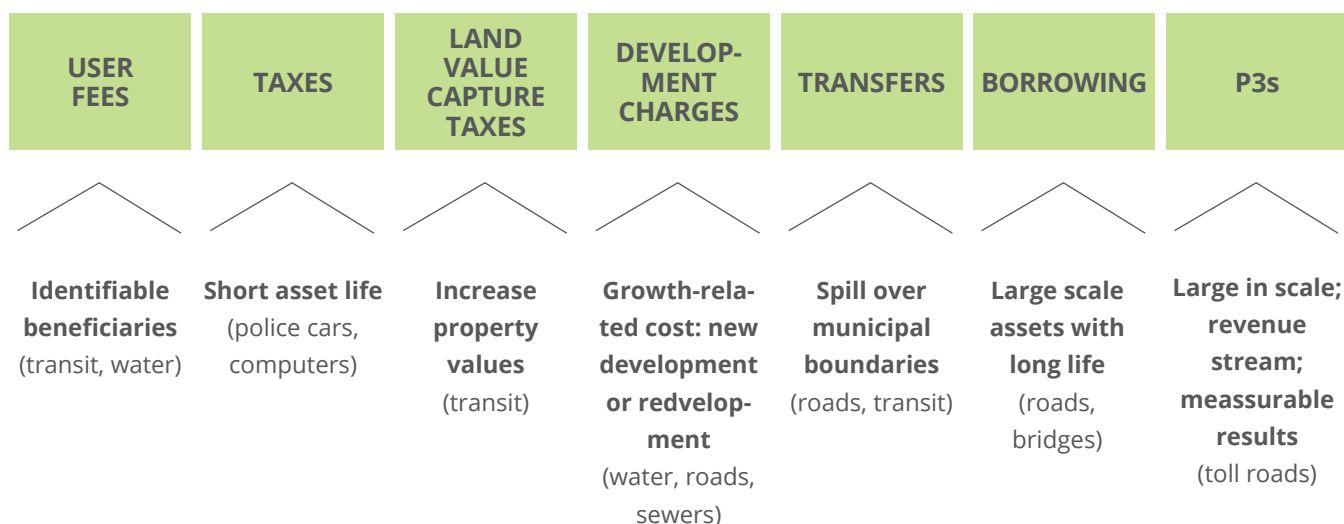
So far, the discussion has been about funding sources to pay for infrastructure. Borrowing for assets with a long life and public-private partnerships are financing tools. With financing tools, local governments still need to raise revenues to pay back what they borrowed or make availability payments to the private sector (if there are no user fees).

Borrowing is an appropriate way to pay for infrastructure investment. Where the

One way to provide an incentive to municipalities to allocate more resources to services generating externalities is to deliver the service at a metropolitan level

Figure 2.

Different Infrastructure — Different Fiscal Tools



benefits of a capital investment (for example, the construction of a water treatment plant) are enjoyed over a long period of time, say 25 years, it is both fair and efficient to pay for the project at least in part by borrowing. The stream of benefits matches the stream of costs over time through the payment of debt charges. In order to have a sound borrowing program, a sound subnational fiscal structure needs to be in place. That means access to adequate own-source revenues, stable intergovernmental transfers, and an institutional structure that can deal with problems that might arise (Bahl and Bird, 2018). In general, big cities tend to have greater access to capital markets than smaller ones and they pay lower servicing costs. Access to capital markets can be particularly difficult in the Global South. One way to ease access is through Municipal Development Funds (MDFs), which are financial intermediaries that pool funds from many sources and

lend them to local governments to finance projects.

Public-private partnerships (called P3s, 3Ps or PPPs) are partnerships between a government body and a private sector party under which the private sector provides infrastructure or services that have traditionally been delivered by the public sector. P3s are widely used in Europe and Australia, reflecting both the expectation of an improvement in the efficiency and effectiveness of local public service delivery and, in some instances, the desire to reduce the public sector financial obligations connected with such projects. How successful such arrangements are from the perspective of either partner depends very much on the details of how the contractual arrangements are structured and how the risks are shared. Public-private-people partnerships (P4s) also engage citizens to help design and deliver services and infrastructure.

Leveraging increasing land values

The rapidly increasing land values that have accompanied urbanization, particularly in the Global South, make the property tax and land value capture attractive potential revenue sources for metropolitan governments (Bahl and Bird, 2018).

Property Taxes

Property taxes are the backbone of municipal finance in most countries of the Global North and increasingly play an important role in the Global South. The property tax is a good tax for local governments. The tax connects the types of services funded at the local level (for example, roads, transit, parks, and so on) and property values so that tax may be thought of loosely as a benefits tax. Property taxes are considered to be less distortionary than other taxes because the impact on where people locate is considered to be smaller than the impact of income taxes on the decision to work or sales taxes on consumption patterns. Real property cannot shift location in response to the tax and thus it is difficult to evade. Property tax revenues tend to be stable and predictable. Finally, the tax is visible and accountable. Unlike the income tax, the property tax is not withheld at source. Unlike the sales tax, it is not paid in small amounts with each daily purchase. Instead, the property tax generally has to be paid directly by taxpayers to finance very visible municipal services. Visibility makes local governments accountable to taxpayers but it also makes it difficult to increase or reform the tax.

Despite these virtues, property taxes do not yield much more than three

percent of the gross domestic product in very many countries. The limited use of property taxes in many Latin American cities (such as Buenos Aires, São Paulo, and Bogotá) reflects, at least in part, their access to sales taxes that are more productive, more easily administered, and less politically contentious than the property tax (Bahl and Bird 2018). Reliance on intergovernmental transfers in places such as Mexico City also accounts for low property tax revenues.

Weak administration is another reason why property tax revenues are so low. The process of taxing property - property identification and management, valuation, billing and collection, enforcement, and taxpayer service - is not done well in very many countries. In the Global South, in particular, there is often little or no information on property ownership or the characteristics of the property needed to provide an estimate of the tax base, especially in metropolises with large informal settlements, where property registries are nearly nonexistent. Valuers are few in number and property values are often out of date. Low tax rates and inadequate tax collection procedures add to the reasons why revenues are low.

Yet, there is significant potential to increase property tax revenues and many countries are attempting to do just that. In particular, new technology has improved tax administration around the world. Geographic Information Systems (GIS) have made it easier to identify properties. By matching the properties paying the tax with those in the GIS, for example, governments are able to identify and pursue many who were not paying the tax. Doing so, however, requires

Property taxes are the backbone of municipal finance in most countries of the Global North and increasingly play an important role in the Global South

adequate resources (human and financial) and political will. An alternative to pool such resources with lower costs and in a collaborative way, involving citizens, is through the use of blockchain technologies (Govela, 2018).

Finally, to be successful at increasing property tax revenues requires taxpayer support, which is more likely to be forthcoming if they receive improved local services and perceive that the taxes are being administered fairly.

Land Value Capture

With continuing urbanization, it is expected that public investment will continue to rise and so will property values. For this reason, land value capture as a way to finance major infrastructure projects is gaining popularity around the world, both in the Global North and Global South. The idea behind land value capture is to recoup some or all of the unearned increment in private land values arising from two sources – public investment in infrastructure or a change in zoning regulations.

When land values rise due to an increase in public investment, a tax can be levied on those property owners who benefit (indirectly) from roads, transit, water and sewerage systems, and other major infrastructure through increased land values. One way to capture the land value increase is with a special assessment, a specific charge or levy added to the existing property tax to pay for additional or improved capital facilities that border on those properties. The Greater London Authority, for example, adds a supplementary levy on the property tax on adjacent properties to pay for part of the cost of the Crossrail, the new railway line for London and the South East.

Tax increment financing (TIF) is another way to capture land value increases that is used in many US jurisdictions to revitalize downtown neighborhoods. Property tax revenue from the designated revitalization area is divided into two categories for a specific period of time (usually between 15 and 30 years). Taxes based on pre-developed assessed property values are retained by the municipality for general use; taxes on the increased assessed values arising from redevelopment (the

> São Paulo has successfully issued Certificates of Additional Construction Potential to capture the increased land value arising from a change in building rights.



tax increment) are deposited in a special fund to repay the bonds that have been issued to finance public improvements in the redeveloped area.

Land value capture is also used to recoup the unearned increment arising from a change in municipal land use regulations. Calculating the increase in land value arising from a change in regulations (or from a public investment) can be complicated and difficult for the public to understand. In Toronto, in return for an increase in density, the city can negotiate with the developer to provide public amenities such as parks or special lighting. In São Paulo, the increase in land value is determined by the market in an auction of development rights (Bahl and Bird, 2018). The city issues certificates that represent the right to develop property in a particular area and these certificates are sold in electric auctions on the São Paulo stock market exchange (Walters, 2016). The city benefits from additional

revenue and developers benefit from the expected future increase in land value.

Some cities use land sales and leases to capture some of the increase in land value that comes with urbanization. When the government owns the land and leases land use rights, it has an important source of revenue as well as the ability to shape urban form. Well-established land leasing systems with strong revenue generation are found in China in cities such as Beijing (Walters, 2016).

Finally, development charges are a one-time, up-front levy imposed on developers to finance growth-related capital costs (sewers, water, roads, etc.) associated with new developments. The main rationale for charging developers is that growth should pay for itself and not be a burden on existing taxpayers. Development charges (or impact fees) are widely used in North American cities to pay for infrastructure in new developments.

> **Beijing** uses an auction approach for pricing land leases. Revenues are used to pay for infrastructure



Local fiscal autonomy and a mix of taxes

Financial redistribution in metropolitan areas can be achieved through intermunicipal equalization or revenue sharing schemes

A city that relies more heavily on own-source revenues (taxes and user fees) and has freedom over levying its own taxes is assumed to have more local fiscal autonomy than a city that relies more heavily on intergovernmental transfers. We know from international experience that the most responsible and accountable local governments are those that have greater tax autonomy. Tax autonomy can lead to greater efficiency in the public sector by providing voters with some ability to decide on tax levels and be more aware of public service outcomes. Some limited empirical research on the impact of tax autonomy also suggests that it has a positive impact on the efficiency of municipal spending (Blöchliger and Piñero-Campos, 2011).

In part because of their greater ability to pay, big cities should have more 'fiscal autonomy' than other areas. When big cities deliver services for which the benefits spill over municipal boundaries, however, intergovernmental transfers may be required to ensure allocative efficiency (Slack, 2015). Some externalities can be internalized within the jurisdiction if boundaries are extended to include all of the users of the service. Transfers may be appropriate, though, for services that generate externalities beyond the borders of the metropolitan area – for example, 'hub' or nodal services for national transportation or other networks or clear contributions to national competitiveness in the international economic arena.

Financial redistribution in metropolitan areas can be achieved through intermunicipal equalization or revenue sharing schemes, as can be found in cities such as Seoul and Johannesburg (UCLG, 2016). Where senior governments do give

transfers to metropolitan areas, however, funding needs to be predictable so that they can plan for future expenditures.

A study of major cities in the Global North shows considerable variation in the extent to which cities enjoy fiscal autonomy (Slack, 2017). In Toronto, for example, own-source revenues account for about 80 percent of total revenues. Madrid relies on own-source revenues for almost half of its revenues. Berlin, which is a city-state with the ability to levy city and state taxes, relies on own-source revenues for only about 30 percent of its revenues with shared taxes and transfers accounting for the bulk of revenues. In Manchester, own-source revenues account for about 25 percent of total revenues of the Greater Manchester Combined Authority, other upper-tier authorities, and district councils combined.

To reduce dependence on intergovernmental transfers, large metropolitan areas not only need an appropriate governing structure, they also need more and different revenue sources. Property taxes and value capture, even if greater revenues are realized, are unlikely to be sufficient to pay for the wide range of services and infrastructure necessitated by rapid urbanization. Metropolitan cities need access to a mix of taxes that would be adequate to provide both enough stability (through the property tax) and enough elasticity (through good income or sales taxes) to finance the expanding services almost certain to be needed by large and rapidly expanding urban areas. Taxing vehicles and drivers -- through vehicle registration taxes, fuel taxes, pricing (tolls), and parking taxes, for example-- also makes sense, especially in metropolitan areas where roads are expensive to build and maintain (Bahl and Bird, 2018).

> In Greater **Manchester**, own-source revenues account for only 25 percent of total revenues of the upper tier authorities and district councils combined.



Photo by Ryan Taylor via Flickr

For a metropolitan area to succeed, each tier of government needs to know what functions it is responsible for and it needs adequate powers and financial resources to perform those functions

Metropolitan finance and governance

The services local governments provide in metropolitan areas and how they pay for them are inextricably linked to governance. What is needed is first to design an effective metropolitan governance structure and, second, to set out an appropriate fiscal structure. For a metropolitan area to succeed, each tier of government needs to know what functions it is responsible for and it needs adequate powers and financial resources to perform those functions (UCLG, 2016). Expenditure decentralization is rarely matched with revenue decentralization, however, and many metropolitan areas have inadequate revenue sources. As a result, they often have to rely on intergovernmental

transfers, which are often unpredictable and restrict their ability to control their own destiny (UCLG, 2016).

Many of the revenue sources discussed in this paper are only practical when employed on a metropolitan-wide basis and hence require some form of metropolitan structure. In a jurisdictionally fragmented area with no metropolitan structure, local property taxes and user charges are generally the only feasible own-source revenues. Governance options may include one or two-tier metropolitan governments, sectoral metropolitan agencies for a single service (such as public transport or

water), metropolitan policies carried out by regional or provincial governments, or voluntary cooperation (Tomàs, 2016).

There is not one governance model that stands above the rest. The types of governance structures (and financing mechanisms) that have emerged in the various metropolitan areas around the world reflect the local and national context -- differences in constitutional provisions, whether the country is federal or unitary, division of responsibilities, assignment of revenue sources, history and politics of the country, and a host of other factors. A

metropolitan area in a country with a long history of local autonomy, for example, may find municipal amalgamation difficult but may have authority to levy more taxes than metropolitan areas in other countries. As is often the case with institutional design, the questions are universal but the answers invariably depend on the national and local context.

Recommendations

The following recommendations would enhance the ability of metropolitan areas to deliver services and invest in infrastructure:

- The starting point for financing metropolitan areas is to have a proper metropolitan governance framework to permit efficient service delivery for the metropolitan area, enable the coordination of services across municipal boundaries, and share costs fairly throughout the metropolitan area. The precise model will depend on the local and national context.
- Metropolitan areas need a clear delineation of functions with revenues that match their expenditure responsibilities. Revenues should include a mix of user fees, taxes, and intergovernmental transfers.
- Metropolitan areas should have greater fiscal autonomy than other urban or rural areas in terms of greater responsibility for local services and greater ability to levy their own taxes and fees. Transfers are appropriate where the benefits of municipal services spill over the geographic boundary of the metropolitan area and they need to be predictable.
- Local governments should leverage the increase in land values arising from urbanization to pay for needed infrastructure. This means enhancing revenues from the property tax (particularly in the Global South where property tax revenues are low) but also implementing other land value tools that capture increases arising from public investment or a change in land use regulations.
- Governments in metropolitan areas should be permitted to borrow to make capital investments. To do so, they will need adequate own-source revenues, stable intergovernmental transfers, and an institutional structure that can deal with problems that might arise. In the Global South, they may also need help to access capital markets.



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