LAND-BASED FINANCING TOOLS TO SUPPORT URBAN DEVELOPMENT IN SOUTH AFRICA

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The findings, interpretations, and conclusions expressed in this report, as well as any errors, are the sole responsibility of the authors.
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<tr>
<th>Acronym</th>
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<tr>
<td>AGP</td>
<td>General Administration of Ports</td>
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<tr>
<td>ASBTAD</td>
<td>Atlantic Station Brownfield Tax Allocation District</td>
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<td>BID</td>
<td>Business Improvement District</td>
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<td>CAPMSA</td>
<td>Corporación Antiguo Puerto Madero</td>
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<tr>
<td>CBD</td>
<td>Central Business District</td>
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<tr>
<td>CEPAC</td>
<td>Certificado de Potencial Adicional de Construcción</td>
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<tr>
<td>CID</td>
<td>City Improvement District</td>
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<td>CSP</td>
<td>Cities’ Support Program</td>
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<td>DRCA</td>
<td>Dulles Rail Corridor Association</td>
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<td>EDA</td>
<td>Economic Development Authority</td>
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<td>EPA</td>
<td>(United States) Environmental Protection Agency</td>
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<td>FAR</td>
<td>Floor Area Ratio</td>
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<td>JNR</td>
<td>Japanese National Railways</td>
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<td>JNRSC</td>
<td>Japanese National Railway Settlement Corporation</td>
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<td>LBF</td>
<td>Land Based Financing</td>
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<td>LEADER</td>
<td>Landowners Economic Alliance for Dulles Rail</td>
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<td>MPRA</td>
<td>Municipal Property Rates Act</td>
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<td>MSA</td>
<td>Municipal Systems Act</td>
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<tr>
<td>OU</td>
<td>Operação Urbana</td>
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<td>RFEI</td>
<td>Request For Expressions of Interest</td>
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<td>RFP</td>
<td>Request For Proposals</td>
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<td>RFQ</td>
<td>Request For Qualifications</td>
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<td>South African Cities Network</td>
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<td>Special Assessment District</td>
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<td>SPLUMA</td>
<td>Spatial Planning and Land Use Management Act</td>
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<td>Special Rating Area</td>
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<td>TAD</td>
<td>Tax Allocation District</td>
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<td>TDRs</td>
<td>Transferable Development Rights</td>
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<td>TIF</td>
<td>Tax Increment Financing</td>
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<td>TOD</td>
<td>Transit-oriented Development</td>
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<td>UCA</td>
<td>Pontificia Universidad Católica Argentina</td>
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<td>ZEIS</td>
<td>Zona Especiais de Interesse Social</td>
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Executive Summary

The concentration of economic activity in South Africa’s largest cities makes them critical to driving national economic growth and poverty reduction efforts. South Africa aligns with a global trend: across high to low income countries and among unitary and federal systems, GDP becomes concentrated around urban agglomerations of cities and metropolitan regions.

Agglomeration economies in cities can drive growth, as urban density is recognized as a critical element in creating economies of scale and scope across factors and markets, as well as producing a range of economic externalities. The high concentration of South Africa’s GDP in its five biggest metropolitan areas demonstrates the significance of these large cities to the country’s economic trajectory, although the relatively low densities of South African cities limit the positive impact of urbanization.

South Africa has long recognized that unlocking the economic potential of its cities is pivotal to the country’s overall development. However, as citizens continue to migrate to cities for economic and educational opportunities, increased urbanization is putting pressure on the capability of the metropolitan municipalities to adequately provide infrastructure and public services. Furthermore, a history of under-investment in infrastructure that has created a backlog of increasingly urgent upgrades that further constrains the already limited financial and other resources that cities have to maintain their inefficient and sprawling infrastructure. To help unlock the economic potential of urbanization, metropolitan municipalities need to address some of the structural obstacles that constrain potential growth, such as unequal access to public services.

Meanwhile, there are opposing trends with regard to fiscal transfers to municipal governments. South Africa’s national economy has remained stagnant, limiting growth in fiscal transfers; meanwhile, devolution of responsibilities to municipal governments has increased the amount of capital cities require to meet their obligations. Devolution has resulted in higher operating and capital budget requirements to meet ongoing service delivery needs, address backlogs of deferred maintenance, and invest strategically in infrastructure to create a platform for future growth. These fiscal pressures are compelling the national government and municipalities to investigate methods for cities to increase own-source revenue and more efficiently leverage capital so as to increase the social, economic and fiscal return on public investment.

With these spatial and fiscal challenges in mind, the South African National Treasury’s Cities’ Support Program (CSP) requested support from the World Bank to identify land-based financing (LBF) mechanisms that could be used primarily to maximize and unlock the value of government assets, advance a city’s spatial reorganization goals, and promote transit-oriented development. Specifically, the CSP seeks to assist cities to become more productive, inclusive, and sustainable through promoting mixed-use development, stimulating regeneration of core city center areas, increasing density around transit nodes, and finding supplementary sources of capital and operating funds.

In this context, the World Bank prepared this report to illustrate how land-based financing can be used to support South Africa’s metropolitan municipalities in advancing their respective policy and fiscal goals.

Land-based financing generally refers to policy and regulatory mechanisms that allow the public sector to participate in the appreciation of real estate values resulting from public and, at times, private improvements. These improvements may make land parcels more accessible in the case of transit investments, or may prepare land for private sector development through the provision of network infrastructure (such as water connectivity and sewerage access) and additional public amenities (such as public open spaces, hospitals and schools).

Each mechanism involves specific market, institutional and/or regulatory pre-conditions, and has relative advantages and disadvantages depending on the specific project and market circumstances. The selection of an appropriate mechanism is dependent on, among other things, the city’s policy goals, fiscal situation, the ability and willingness to take on risk, real estate market conditions, and the institutional and regulatory capacity to implement each tool.

This report’s intended audience is public sector finance, urban planning, real estate and transport officials from the South Africa National Treasury and the metropolitan municipalities, who are focused on stimulating urban/metro development. The report’s primary objectives are to:

- Provide a baseline of knowledge to South African urban practitioners about common global land-based financing practices; and
- Identify which tools urban professionals may be able to implement based on a city’s existing institutional, market, and/or regulatory context.

In this vein, the report explores various tools commonly used by municipalities globally to participate in the creation of land value, and provides information on how these tools function, the costs associated with their use, the appropriate circumstances for their use, and the
advantages and disadvantages of each (Chapter 3). Certain tools in this report may not yet be possible within South Africa’s existing regulatory framework, current institutional capacity, and current real estate market conditions; however, they are included for knowledge purposes and with a view toward future possibilities. Case studies are included to provide practical examples that demonstrate how these mechanisms are applied in practice.

1. Special Assessment Districts

Special assessments, also often referred to as betterment levies, entail an additional tax or assessment paid by property owners within a defined geographic area (the “special assessment district”) to fund public improvements. Notably, the tool tries to collect these additional taxes from owners who will derive benefit from the improvements, (thereby matching cost and benefit incidence).

Once a local government establishes the special assessment district (SAD), an assessment rate is applied to properties within that district. The rate may vary depending on the type of land use (e.g., residential, commercial, industrial), and the municipality may apply either a constant rate or phased rate increase until the needed funding amount is reached. The length of time the assessment is in place can also vary, and will be decided upon based on local regulations and the financing required.

These additional taxes are used to pay for capital improvements made within the SAD. This capital payment principally occurs in two ways:

i. The municipality pays for the up-front cost of the investment and is repaid over time by the special assessment revenues; or
ii. The assessment revenue cash flow is securitized.

This tool can be used when private property owners acknowledge that their property could rise in value sooner if they agree to be assessed at a higher rate, rather than wait for the public sector to identify and deploy capital funds for a specific improvement.

2. Tax Increment Financing (TIF)

Tax Increment Financing (TIF) is a mechanism whereby a local government can invest in catalytic infrastructure and other capital investments using funds generated by future, anticipated incremental tax revenues within a defined geographic boundary, a TIF ‘district,’ and are unlocked by the initial catalytic investment.

As a result of land development and infrastructure improvement, property values increase within the TIF district, prompting an increase in the tax revenues collectible in that district. The increased taxes (“increments”) generated after the baseline year (when the TIF district was declared) are then collected on a periodic basis, during a defined time period, and deposited into a “ring-fenced” escrow account.

The municipality, or local government authority, is then able to use the tax increment to fund significant capital costs upfront, through borrowing against anticipated cash flows. The bonding capacity would be equivalent to the present value of the incremental tax revenues which would be received by the government, over the desired borrowing period (usually 10-25 years).

An example of TIF in practice might be where a municipality invested funds in remediating a well-located but environmentally contaminated former industrial site that a developer was interested in redeveloping into a mixed-use residential and commercial neighborhood. Proceeds from a TIF bond issuance could be used to pay for the remediation whereby the future, incremental property revenue generated by the new project would cover debt service payment on the bonds. In this example, it would make sense to deploy TIF if the redevelopment project were financially infeasible but for a TIF-facilitated investment in environmental remediation.

It should be noted that the TIF mechanism does not involve a rate increase. Rather, the mechanism relies on an anticipated increase in property values within the TIF district. When deployed effectively, this tool can make projects self-financing and expand a city’s balance sheet. SAD revenues are considered more secure than those of TIF cash flows. While a TIF district is financed by debt in anticipation of future increases of property value, SADs capture a guaranteed percentage of current property value (with a history of tax payments) in addition to a portion of future increases in property value.\(^2\)

3. Development Charges

A development charge, also known as an impact fee, is a charge that a local government imposes on the developer of a new development project to pay for all or a portion of the costs to the public sector of providing public services to the new development. Development charges have been used by local governments to help offset fiscal burdens created by new developments related to municipal infrastructure and provision of public services such as sewer and wastewater treatment systems, road networks, public school systems and parks.
Development charges are calculated by assessing the costs that the development would impose on the current municipal infrastructure network and what additional capacity or infrastructure would be required to ensure that the new development is adequately serviced. For example, a new shopping center may result in increased motor traffic. To mitigate traffic impacts, a municipality may require the developer of the shopping center to pay for construction of a turn lane and traffic lights.

Calculation methodologies for these fees differ across jurisdictions and can be charged on an actual cost basis, an imputed/notional cost basis, or as a flat fee. The treatment of costs related to different types of municipal service infrastructure may also differ. The fee is often able to be paid either in kind or in cash.

4. Leveraging the Value of Municipal Real Estate

Municipalities worldwide – large and small, rich and poor – own or control sizable portfolios of underutilized or underperforming real property assets. As such, opportunities exist for municipalities to advance their fiscal, economic, environmental and social policy goals through more strategic use of those assets. Transacting in municipal land can take the form of sales, auctions, leases, or any other conveyance that sees the rights and entitlements to city-owned property transferred at below market cost value in exchange for a policy benefit required by the municipality. In addition, cities have the ability to enhance the value of their properties by, for example, locating municipal buildings and functions strategically (such as within nascent neighborhoods or adjacent to transit facilities) or using it to anchor new developments.

The market value of real estate, municipal or otherwise, is determined by establishing the highest and best use of the asset, given existing legal, physical and regulatory constraints and market demand. For example, in a thriving city center, the highest and best use of a vacant, developable site might be as a high-rise office block; allowing a developer to construct an office project on that site would maximize the financial value of that parcel of land, and would maximize the amount that a developer would be willing to pay the site’s owner for the developable site.

A city may determine that there are other non-market uses or policy objectives which are desirable to take into account on city-owned properties – such as construction of public open space, requirement of below-grade (rather than above-grade) parking, above-market architectural standards, or mandatory inclusion of “affordable” housing units within a market-rate residential project. If the city chooses to impose requirements on the site in order to realize policy goals, those encumbrances would of course decrease the market value of the development site, i.e., the amount that a developer would be willing to pay for the land would adjust so as to take into account the cost to the developer of complying with the city’s policy goals.

To leverage the value of municipal real estate effectively, a city must:

i. Be able to calculate and understand the market value of its holdings;
ii. Understand the cost of additional infrastructure that may be required to unlock a site’s market value;
iii. Articulate, as precisely as possible, the policy goal(s) the city is trying to achieve (for example, 10% of all units within a new market-rate residential project must be “affordable”, as defined by ABC, for the first 15 years after project completion);
iv. Understand the likely cost (to the market) of meeting such policy goal(s);
v. Be able to estimate the residual land value of city-owned sites; and
vi. Have technical capacity and authority to negotiate with private real estate developers regarding these issues.

Depending on a city's policy goals, legal and regulatory framework, and institutional capacity, it could decide to convey a parcel of land for a fee; receive an in-kind payment of infrastructure in lieu of cash; or participate as an equity partner in the development.

5. Sale of Development Rights

Through their control of land use planning and zoning regulations, municipalities have the power to affect the market value of real property assets. Municipalities are able to monetize the value created by adjusting regulations by, for example, levying fees in exchange for allowing increased density (“up-zoning”) or for rezoning of uses from low-value (e.g., agricultural) to higher value (e.g., commercial office).

Municipalities can also raise revenue through selling development rights through an auction system, whereby, for example, the municipality auctions the rights to develop in a specified geographic area to the highest private sector bidder. Sao Paulo and New York City, for example, have sold development rights in certain targeted geographic areas and used the revenue generated by those sales to fund specific infrastructure and other public improvements.

It should be noted that the availability of unused development rights does not necessarily confer market value. During a down period in a local real estate cycle, for example, unused development rights will command less value than when market demand is robust.
6. Density Bonus

A "density bonus" is a zoning tool in which a municipality permits a developer to increase a project’s height and/or bulk greater than the zoned maximum in exchange for the developer providing a specified public good.¹

Municipalities have offered density bonuses to developers in exchange for various public goods, such as construction of civic open space and streetscape improvements. Density bonuses have been used widely in the United States as a tool to incentivize construction and inclusion of below-market-rate residential units within a larger, market-rate residential development. The concept is that, by offering additional density in exchange for a negotiated public good (in this example, the public good of including below-market-rate residential units at a location where such units otherwise would not be constructed), the municipality creates a financial incentive whereby a developer would increase his net income and/or profit margin by constructing additional market-rate units as well as a number of below-market-rate units.

Unlike the tool of selling development rights, a density bonus does not generate direct revenue to a municipality. Rather, a density bonus is more akin to a one-time, in-kind ‘grant,’ in which a private sector developer’s cost of capital investment in a public good can be “offset” by the granting of additional, monetizable development rights, greater than the zoned maximum, for a specific development site. Also, while a density bonus can be deployed to stimulate additional construction of a public good, a density bonus does not address support that may be required on an ongoing basis for operations and maintenance of the public good that has been constructed. As such, a city may need to combine this tool with other resources in order to address ongoing subsidy required for the public good.

7. Land Readjustment Scheme

In a land readjustment scheme, multiple property owners within a defined geographic boundary pool their properties together in order to enable spatial reconfiguration and unlock higher overall market value for the combined property.

Owners have also, in some examples, leveraged a portion of the combined value of their properties to fund public infrastructure upgrades required to unlock the spatial reconfiguration and higher market value.

Land readjustment schemes have been implemented in various countries including Australia, Canada, Germany, Indonesia, Japan, the Republic of Korea, Nepal, Taiwan, China, and Turkey. In Japan, for example, land readjustment schemes have been used to promote transit-oriented development (TOD) around existing or new rail stations in urbanized areas, by increasing the FARS and densities of the areas surrounding these new transit hubs. Zoning modifications increase the maximum FAR, creating “surplus” floor area, which a municipality may choose to sell to a developer.

A large-scale land readjustment in an urbanized area may require new public infrastructure (e.g., wider roads, additional electric substation, a public plaza). This new infrastructure would likely require public resources to finance and build. The proceeds from the sale of surplus floor area may be used to substantially cover the costs of needed new infrastructure. Other resources or financing tools may be necessary.
section 1.
The South African Municipal Finance Framework
The local government sphere in South Africa is charged with providing a broad range of services to residents, including access to water and sanitation, access to electricity, the building and maintenance of local roads and in-city public transport, and solid waste management. The execution of these functions requires up-front capital expenditure as well as operational financial, institutional, and human resources, all funded by municipalities.

As a result of the progressive reassignment of functions from national and provincial departments to local government, South African municipalities will increasingly assume responsibility for additional human settlement and transport functions. As of this writing, responsibility for construction and operations of both public housing and public transport are shared among national, provincial and local spheres of government; however, responsibility for provision of these services will increasingly devolve to local governments, based on the principle in the South African constitution of subsidiarity and associated enabling legislation.

Although South Africa’s system of conditional and unconditional fiscal transfers will continue, the amount of the transfers are not anticipated to match the increased capital and operating cost burden of the devolved public transport and housing functions. As such, municipalities will bear an increased fiscal burden.

For provision of public housing, local governments assume two important responsibilities:

i. they are required to supply land on which new housing units will be developed; and
ii. they are required to provide the new housing units with local infrastructure and public services, including water supply, sanitation, electricity distribution, solid waste and storm water disposal, municipal road, and community facilities.

In general, South African municipalities are responsible for the installation, operation, maintenance and regulation of local roads, bus and bus rapid transit services within the municipal boundaries. Theoretically these services complement the transport infrastructure and services provided by provincial and national governments which include rail, long distance bus and the national and provincial road network.

The National Treasury and the National Department of Human Settlements each offer conditional grants to support municipalities in delivering transport and housing functions, for example the Urban Settlements Development Grant; Municipal Infrastructure Grant; Integrated City Development Grant; Human Settlements Development Grant; the Public Transport Network Grant; and Integrated National Electrification Programme Grant.

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**Figure 1 Funding of Municipal Operating and Capital Budgets (SACN 2015)**

**DIRECT TRANSFERS**
- Equitable Share & RSC Levy Replacement Grant
- National/Provincial Operating Grants

**OPERATING REVENUES**
- Municipal Operating Budget
- Rates and Taxes
- Service Charges

**SOURCES OF CAPITAL FUNDING**
- National/Provincial Infrastructure Grants
- Surplus/Cashbacked Reserves
- Municipal Borrowing

**INDIRECT TRANSFERS**
- Municipal Capital Budget
Sources of Municipal Funding

Figure 1 above illustrates how the various sources of funding come together to fund municipalities’ operating and capital budgets.

As illustrated, South African cities’ operational funds are generated by two main sources:

**Cities’ own revenues:** The local government sphere (unlike the provincial sphere) in South Africa has revenue-raising capabilities, with the principal operational revenue raised coming from property rates, service charges, and associated surcharges (mostly electricity) as well as other miscellaneous fees, taxes, and levies.

**Local government’s equitable share:** The equitable share is an unconditional and formula-based transfer that is made to the city based on the Division of Revenue Act. According to the South African Cities Network (2015), metropolitan municipalities account for 26 percent of transfers made to municipalities (up from 20 percent 10 years ago). While this increase is welcome for cities, the proportion of the South African population who live in metropolitan municipalities is approximately 40 percent. The disparity is theoretically offset by cities gaining a larger share of conditional grants, and also by their capacity to generate own revenues, which is larger than that of smaller municipalities.

City-specific conditional grants: These conditional grants are tailored to cater to cities’ specific infrastructure delivery needs. They include but are not limited to:

i. Urban Settlements Development Grants;
ii. Municipal Infrastructure Grants;
iii. Public Transport Network Grants;
iv. Neighbourhood Development Partnership Grants; and
v. Integrated Cities Development Grants.

As shown in Figure 1 above, the capital funding required by cities is derived from a combination of surplus operating budgets, capital grant transfers from national and provincial spheres, and municipal borrowing.

When funds in excess of the operational expenditure budget are generated by the municipality, these can be applied to fund capital expenditures and/or debt repayments for capital already employed by the municipality. The allocation of these funds is determined by the municipality based on its financial strategy, market conditions, and their balance sheet funding considerations.

Motivated by significant unmet investment needs and macroeconomic constraints, the National Treasury has increasingly been encouraging city governments to improve efficacy of service provision and explore alternative ways to fund infrastructure – including engaging the private sector.

Figure 2 Capital Funding Breakdown (2009/10 and 2013/14)

sector in infrastructure provision, where appropriate. The SA Cities Network (2015) in their State of City Finances 2015 concurs with this policy guidance and provides two relevant recommendations:

1. Cities should explore options for additional taxes and charges and make better use of existing revenues;
2. Cities should increase the use of municipal borrowing, and also explore other innovative financing options (such as property-related instruments) to finance infrastructure.

**Constraints on Municipal Finances**

**Economic Growth Trends**

Due to ongoing slow macroeconomic growth, South African municipalities are facing fiscal pressures on multiple fronts:

i. Slow growth in national tax collections will translate into slow growth in the equitable share that can be distributed to municipalities.

ii. The market value of real estate assets, and therefore the amount of collectible rates, may be outpaced by inflationary increases in municipal expenses (e.g., wages, maintenance etc.).

iii. Cities’ ability to increase the rate levied on properties is limited given that households themselves are under financial pressure. The ability to collect current and increased general assessment rates on property owners may become difficult.

In the squeeze of flat revenues and increasing expenses, municipalities are forced to reprioritize their operational and capital expenditure programs and consider delays in planned investments. The capital funding breakdown provided in Figure 2 exemplifies these pressures Comparing 2013/2014 to 2009/2010, cities have relied less on these internally generated funds and increasingly on grants provided by national and provincial governments and to a lesser extent on borrowing.

Given the tight fiscal operating environment, cities also are constrained in their capacity to take on the planning and predevelopment costs of large, urban regeneration and development projects that, in the long-term, could boost cities’ overall fiscal and environmental efficiency and allow them to achieve their development agenda.

The fiscal burden for municipal transport is best illustrated by the significant operational deficits being created by the bus rapid transit operations, which must largely be borne by the local fiscus.

**Local Limitations**

Municipal funding limitations have contributed to suboptimal development outcomes and created structural constraints to local economic growth. For example, municipalities are expected to provide land for public housing, which has been largely constructed at the urban periphery since lowest-cost land is typically located here, and since low-scale and low-density housing offers the lowest cost per unit. This peripheral public housing development has various unintended consequences:

i. it increases service installation and operating costs for municipalities;

ii. it contributes to growing demand for transport subsidies by cities to ensure residents have access to social and economic opportunities; and

iii. it exacerbates existing urban sprawl and worsens fiscal sustainability.

Land-based financing tools present an opportunity for city governments to access alternative revenue or co-financing strategies.
The South African Municipal Finance Framework

View of Johannesburg skyline from the highways. Metropolitan buildings of the business district in South Africa's largest city.
section 2.

Conceptual Framework for Land-Based Financing
The unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision, or due to the general growth of the community must be subject to appropriate recapture by public bodies (the community). — United Nations, 1976 (Vancouver Action Plan)

The concept of land value capture broadly refers to a methodology through which incremental increases to property values (betterment), created through some public investment or regulatory action, are recouped or redirected by the state using various incentives, taxations, or fees. Property values can also increase through market forces or private landowners’ building improvements that are unrelated to specific public sector actions. Land-based financing (LBF) does not attempt to “recoup” or “redirect” these general value increases; rather it is aimed at recouping those value increases experienced by private landowners, but stimulated by public sector action and investment.

The rationale underlying the value recoupment is a more equitable distribution of newly created value, particularly when much of that value has been created through public sector intervention.

Property Taxes

In South Africa, property taxes are collected by local governments using an applicable rate levied on the capital value of a property (whether residential, commercial, industrial, or agricultural). This capital value includes the land itself, along with any capital improvements made to the land. The revaluation of the property generally takes place at intervals of between two and five years, depending on the city’s policy and capacity.

These property taxes are used by the municipality to deliver a range of public goods and services (both operational and capital), such as roads, storm water and water services, and refuse removal. According to McCluskey and Franzsen, the “value of land and natural resources reflects benefits received from government expenditures, synergistic spillovers and the general progress of civilization.” This makes property tax a very efficient tax system, because land value and the benefits derived can be reasonably directly linked. The system theoretically also creates equitability if valuations are well-maintained.

As a result of this tax structure, some value increases are taxed through a uniform and reasonably well-administered local government system. From a land-based financing perspective, a few points should be noted:

i. The standardized property taxation system creates a baseline of recurrent revenues for cities, allowing for long-term capital planning.
ii. The longer the timeframe between valuations, the greater the chance of a mismatch between recorded value and true value, and the more inequity is created in the system.
iii. Taxation occurs at a standard rate imposed by a municipality, and not to the full extent of property value increase.

Property tax is the single largest form of land-based financing used by local governments in South Africa. All other mechanisms are thus additional to this baseline of taxes.

Value Attribution

Real estate value is incrementally created throughout the development process by various public and private stakeholders. Figure 3 opposite provides a conceptual illustration of this process over time. As can be seen, initially the land needs to be entitled with zoning and rights, allocated in accordance with the local, regional and city planning frameworks in place. Following entitlement, additional infrastructure may be required to adequately link the site to bulk municipal networks for roads, sewers, water and electricity.

Only once the site has been adequately entitled and linked to infrastructure will the top structure have functional value. In reality many of these phases are compressed, and take place in parallel (notably the development of bulk infrastructure and top structure).

Property values are thus a composite of numerous investments made by the public and private sectors. Accordingly, the party bearing the bulk of the cost or risk of an investment should be entitled to the value that is generated by that investment; and the right to property and land value should not vest solely with the landowner. Underpinning this land-based financing model is the premise that landowners are not entitled to all value that accrues to a property because they are not the creators of all the components of that value.

Figure 3B opposite demonstrates how each of the stakeholders along the development timeline creates value – and the levers, risks and returns which are linked to that value creation. The public sector acts as a propelling stakeholder early in the development process to create significant land value through the planning and entitlement phases.

The realization of value may not always occur in the sequential manner that the conceptual models imply. In fact, many of these processes (especially in inner city or
Figure 3A and 3B Value Creation in the Development Process

**PRE-TENDER**
- Maximize social and economic impacts
- Regulatory and fiscal
- Policy efficacy and delays
- Long-term 30+ years

**LAND DEVELOPER**
- Financial returns for institutional investors and shareholders
- Regulatory approvals capital contributions JV with vertical dev.
- Timing and cycle
- Medium-term 5-15 years

**PRIVATE VERTICAL DEVELOPER**
- High financial returns with low time-value impact
- Market expertise and fiscal sale capacity
- Cost control and execution
- Short-term 1-3 years

**DEVELOPMENT TIMELINE**

**FLOW OF SURPLUS VALUE**
brownfield development) are not sequential. For example, city infrastructure may have been installed 50 years ago, with rezoning and re-entitlement taking place in response to current market forces.

Land-based financing tools provide an opportunity for the flow of surplus value, created throughout the development process, to be recouped by the public sector. These tools could for example allow the land developer to capture future land value and allocate a share of it to deliver infrastructure in cooperation with the public sector.

**Recoulement or over-taxing?**

The principal counterargument to the government’s right to capture value increments is that municipalities already impose property taxes and are therefore already extracting value from property owners. The municipality levies these rates to ensure that functioning roads, services, and other infrastructure are delivered to its citizens. Further, property value increases are taxed by the national government through a capital gains tax. By this logic, any attempts at “capturing” further value should be resisted to prevent the state from overtaxing land and property owners. This perspective, however, ignores the disproportional benefits of subsequent public action that may accrue to certain groups of property owners, and the rate of taxation relative to these benefits.

In contrast, the argument can be made that the installation of, for example, a commuter train station or a new access road adjacent to a specific site will have windfall benefits for the land owner at the cost of the general public. Similarly, if a property owner knew that the creation of a new transit station or road adjacent to their property would double their property value, but would be contingent upon their paying a 20 percent tax on that windfall, economic rationale would dictate that this investment would still be profitable, despite factoring in a windfall tax, capital gains tax, and other rates. As mentioned above, the standardized rate applied for property taxes or capital gains taxes may not fully recoup the value of windfall benefits derived from state action.

The underlying contestation principally relates to how the costs (of public investment and effort) and value resulting from these investments are distributed equitably between public and private actors.

Even if the equitability of the transaction is not contested, the calculation of the value allocated is difficult, because many of the subcomponents of value are extremely hard to untangle and ascribe values to. This raises several questions:

i. How does one calculate the value ascribed to population growth increases accurately?

ii. Where public investments are made, does the property market actually recognize this value that will now be redistributed?

iii. Are standard property rates and taxes already taking these value increases into account?

The locational characteristics of land parcels are unique, so calculating the potential change to the value of a parcel caused by some intervention by the state is difficult. One site may react quite differently from another to an external public investment stimulus. In many cases, this calculation is done before an investment is being made, so it is theoretical and not yet realized – and therefore easily contested.11 This inability to accurately calculate these value increases will place the underlying fairness of the methodology in jeopardy.

From a regulatory perspective, local governments are empowered to change land use or increase the extent of the rights that accrue to a land owner. In this instance, the value creation is more direct and the calculation of value more simply derived. The use of regulatory tools may therefore be more attractive to local governments, because they require less financial investment and implementation resources than financial tools, and are more easily negotiated and calculated, while also allowing municipalities to spatially transform.

In his discussion of development charges, Savage12 argues that the failure to adequately charge property owners or developers the costs due from them to municipalities has various inequitable and inefficient outcomes, such as the transfer of benefits from public to private purses, and the reallocation of benefits from other (arguably more pressing) government agendas such as pro-poor investments.

**Types of LBF tools**

Various types of LBF tools may be employed, depending on the specific project contexts. Tables 2 and 3 provide descriptions of the tools themselves and the circumstances under which each one is relatively more appropriate.

It is important to note that LBF tools are applied on a case-by-case basis, and are applicable in only specific market contexts. For this reason, they offer supplementary resources that can be combined with other financing tools.

It is useful to distinguish between tools that create a direct financial benefit, and those that further the policy goals for the city. The mechanisms that generate direct fiscal benefits include tax increment financing, special assessment districts, and development charges. Other tools such as density bonuses and land readjustment schemes also create value, but these values may be realized more indirectly through the achievement of spatial restructuring or planning goals.
In practice, the various tools can be aggregated to achieve multiple financial and policy goals simultaneously, and their categorization into “financial” or “policy” tools is not clear cut. More important for municipal officials and urban practitioners in South Africa is that different enabling legislation or regulations are likely to be relied upon to implement the various tools. As an example, where taxes and charges are raised, financial regulation such as the Municipal Finance Management Act and Municipal Property Rates Act will be important. The achievement of other policy-oriented goals may be enabled by other municipal planning frameworks or by-law enactment.

Although each tool is different, they all clearly share one characteristic: All require dedicated staff to administer the tool, to monitor development associated with the tool, and to enforce agreements made with developers who utilize the tool. The capacity to implement these highly technical tools, with continuous and sustained negotiations with developers across multiple political terms appears to exist in only a few South African metropolitan cities.

<table>
<thead>
<tr>
<th>LBF Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Increment Financing (TIF)</td>
<td>To finance capital improvements up front, TIF captures the net new or incremental taxes that are created when a vacant or underutilized property, or a targeted geographic area, is redeveloped.</td>
</tr>
<tr>
<td>Special Assessment District</td>
<td>To finance specific infrastructure or services when no other source of funds is available, a special assessment district entails an additional tax or assessment paid by property owners, within a defined geographic area, who would benefit from the public improvement(s).</td>
</tr>
<tr>
<td>Development Charges</td>
<td>A fee that is imposed by a local government on a developer of a new or proposed development project to pay for all or a portion of the costs of providing public services to the new development.</td>
</tr>
<tr>
<td>Leverage Municipal Real Estate</td>
<td>A local government sells, leases, or discounts the value of a city-owned property and transfers the development rights to a private developer for economic development or other spatial or developmental purposes.</td>
</tr>
<tr>
<td>Density Bonus</td>
<td>A zoning tool that permits developers to increase height and/or bulk in a project by allowing building heights or floor area ratios (FARs) greater than the zoned maximum, in exchange for a public or a social good.</td>
</tr>
<tr>
<td>Sale of Development Rights</td>
<td>A zoning tool, similar to a density bonus, that permits developers to increase height and/or bulk in a project by allowing building heights or floor area ratios (FARs) greater than the zoned maximum, in exchange for a fee that goes toward funding public improvements.</td>
</tr>
<tr>
<td>Land Readjustment Scheme</td>
<td>When landowners pool their land together for reconfiguration and contribute a portion of their land to promote transit-oriented development.</td>
</tr>
</tbody>
</table>
section 3.
Overview of Select Land-based Financing Tools
SPECIAL ASSESSMENT DISTRICTS
SPECIAL ASSESSMENT DISTRICTS

What It Is

A special rating or assessment is an additional tax or charge that is paid by property owners within a defined area known as the “Special Assessment District” (SAD). These additional assessments are levied by the local government in exchange for some benefit that the SAD receives as a result of a specific public improvement. Special assessments are also called betterment levies in some jurisdictions.

The rate imposed by a SAD may vary depending on the type of land use (e.g., residential, commercial, and industrial) or may vary by the assumed benefit that a specific property derives (based on access or proximity). The rate and length of time the assessment is in place can also vary with the municipality applying constant rate or phased rate increases, until the needed funding amount is reached.

It is important to note that an increase is seen in the rate charged per unit of value of the property. This distinguishes it from Tax Increment Financing (TIF), which retains a similar rate but relies on an increase in property values over time.

These additional taxes are used to pay for capital improvements, made through public investment, but that disproportionately benefit the property owners within the SAD.

This payment principally occurs in two ways:

i. The municipality pays for the up-front cost of the investment and is repaid over time by the special assessment revenues, or

ii. The assessment revenue cash flow is securitized to create upfront capital, much like the process for TIF.

In South Africa, the Municipal Property Rates Act (MPRA) provides the regulatory authority to establish a “special rating area” (SRA), which is very similar to a SAD.

Historically, these SRAs took the form of city improvement districts that were used to augment operational services, rather than capital improvements. An “Internal service district,” which is contemplated in terms of the Municipal Systems Act (MSA), could serve as an alternate mechanism available to create an excess levy for a specific area. In contrast to SADs used in the United States, the use of SRA’s to fund capital improvements (such as access roads) appears to be quite limited in South Africa. The use of SRAs to fund capital improvements is, however, not without precedent in South Africa.

This lack of use for capital improvements appears to emanate from two issues: (1) There is no universal SRA framework that is used by SA’s municipalities: while SRAs are permitted through a national regulatory framework for municipalities, local by-laws are required to administer

TOOL PROFILE

Focus Areas

- Transit-oriented development
- District-serving improvements

Project Type

- Infrastructure improvements such as building and maintaining public or private roads; watershed management; improvements for pavements and public trails; street lighting; installation of municipal water and sewage systems; and the creation and maintenance of public parks
- Can fund capital and/or operation costs of project

Goal

- Pay for infrastructure
- Promote economic development

Case Study Example

Tysons Corner, Virginia, USA
and govern SRAs. The variability in the frameworks may or may not empower SRAs to apply their funds to capital improvements; (2) Balancing governance and flexibility: In general, SRAs have life spans of 3–5 years, which are renewable. This time span is too short to allow these SRAs to structure debt that can be deployed for capital improvements. These life spans are however determined by local legislation and buy-laws, and even where these life spans are short, exceptions are often able to be negotiated (through approval by mayoral committees or sub-committees for example) where the conditions to do so are appropriate.

A municipality can choose to apply a tax by increasing the rate charged per value of property (which makes the MPRA applicable), or to impose a surcharge as contemplated by the MSA. This will have implications on the implementation mechanism that is required – that is, the choice between a special rating area, and an internal service district. An analysis of which mechanism is more or less applicable in the South African context has not been conducted here but should be considered before using an SAD-like structure for a redevelopment project.

SADs can be flexibly designed to finance a variety of capital infrastructure projects (see “Tool Profile”). Special assessments may also partially underwrite the cost of major maintenance programs. Cities have financed large-scale repairs and the maintenance of streets, sidewalks, sewers, and similar facilities in part with special assessments.13

The need for assessment districts typically arises when the local government does not have sufficient existing capacity for a service or when the city does not have the financial resources necessary to provide services for newly created neighborhoods that are located beyond the service’s current operating area. The local government grants SADs the authority by to assess owners of properties within their boundaries for funds that will not be used to cover the operating costs and debt service for the new infrastructure.

To obtain the up-front capital necessary for the construction of the improvements, a municipality may choose to issue debt backed by the SAD’s cash flow. The city may also choose to recoup its own capital expenditure over time through the collection of the additional taxes. In general, the cash flow of special assessments due to the city by the SAD is seen as more secure than that of TIF cash flows, because they are defined and calculable over their implementation period.

The city may be required to secure other financial resources to fund the total cost of building and/or operating the improvements. Tysons Corner, Virginia, in the United States, offers one example of where a successful SAD has been implemented, using multiple sources to finance the capital costs of building a metro rail line. See Chapter 4 for a summary case study.

How It Works

Establishing the SAD: The local government typically establishes a SAD by first identifying the geographic area that would likely benefit from capital investments in infrastructure. A special assessment district may apply to all properties that are physically connected to the public improvement;14 for example, a SAD may encompass all properties within this area that are physically connected to and impacted by the construction of a new local roadway. A SAD could also apply to all properties that specifically benefit from the public improvement. For example, if a municipality would like to build a public parking structure in its central business district, the SAD may apply to all the properties in a predefined area that will use and benefit from the public parking structure.

Regulatory Framework: The process for setting up a SAD depends on the local and national regulatory framework. Typically, in the United States, the formation of SADs may be initiated either by the local government or by a petition signed by the owners of property within the limits of the district to be created. For example, the state of Texas requires that at least 50 percent of property owners in a district must agree to form a district and petition the local government to implement it.15 In other U.S. jurisdictions, instead of consent from local property owners, a citywide vote is required to form a SAD and/or to issue any special assessment bonds.

To set up a SAD in the United States, a municipality must identify various factors:

i. the needed infrastructure improvements and the improvements’ estimated costs;16
ii. the boundaries of the SAD;
iii. the types of properties affected; and
iv. the tax rates that will be applied for each type of property in the district (e.g., residential, commercial, industrial), based on a formula for funding the public improvements.

Depending on the governing regulatory framework, the municipality may be required to hold public hearings and/or work with local property owners to petition for approval to adopt a SAD. Ultimately, the local governing body approves the plans for the public improvement and the adoption of a special assessment district to help finance the project. Presentations to the local governing body for approval typically include the following information:

- Confirmation that the governing regulatory framework allows for the creation of an assessment district
- Proof that the creation of such a SAD is in the public interest
- Delineation of the boundaries of the district
- Description of the improvements to be acquired and/or constructed
• Creation of a SAD fund according to applicable laws
• Estimate of the project cost
• A proposed financing approach, which will depend on whether the municipality is authorized to sell special assessment bonds or issue other debt
• Declaration of the proportion or the amount of the cost, if any, to be paid by the municipality or other entities
• The method of assessment of the cost to be borne by the property owners within the assessment district.

When a SAD is created, the special assessments are typically placed on the landowners’ annual property tax bills.

Calculating the assessment: The formula used to calculate the amount of the assessment has typically been based on the assessed property value, though it may also be based on the benefit from the infrastructure improvements. In the state of California in the United States, assessments are based on mathematical formulas that take into account how much each property will benefit from the installation of the improvements.17

The assessment rate is typically set on a per unit (e.g., square meter) basis. The local government may decide to set the tax rate to be constant or to increase over time, depending on the financing need. The length of time that taxes are charged can also vary and depends on when the needed funding amount is reached; if special assessment debt is issued, the assessment will be in place until the debt is paid off in full, with the term of the publicly issued debt typically 15 to 20 years.

Regulatory Framework in South Africa: It is not yet clear whether the design of the Special Rating Areas (SRAs), as contemplated in the Municipal Property Rates Act in South Africa, is able to fully replicate SADs, and more investigation of this is necessary. The mechanism appears to be similar, in that it creates a separate, focused organization for a specific locality, and because it has some capacity to execute financial duties. Its ability to make long-term capital and implementation commitments within the regulatory context of the MFMA and Municipal Systems Act remains to be seen.

Figure 4 outlines the general process of implementing a SAD.

What It Costs

Setting up a SAD entails both fiscal and administrative costs, again in line with the requirements for setting up SRAs in South Africa.

In addition, the creation of a SAD can be legally complex. Doing so may require hiring outside legal counsel if a municipality does not have in-house expertise in setting up these districts. As with a TIF, a municipality can expect to pay for the following services and requirements:

Feasibility consultants: A municipality may hire an independent consultant who estimates the assessment revenue to be generated by the district over the period that the assessment is active. The same (or a different) consultant may also perform a market study to determine the likely market demand and/or value impact of the proposed project, or an economic impact study of the proposed development.
**Engineering reports:** These specify the improvements to be made as part of the project and confirm the cost of the improvements.

**Legal counsel:** Legal counsel should be secured to set up a legal structure to establish a SAD and retain separate counsel to support the municipality in issuing or obtaining debt.

If the municipality intends to use debt (whether publicly or privately created) to create up-front capital, additional services would be required. Issuing debt in order to create up-front capital involves relatively high transaction costs compared to other types of capital that might be accessible to a municipality. In the case of SADs in the United States, a revenue bond is typically issued and backed by the special assessments.

**Bond trustee:** Typically a bank, the bond trustee receives the revenues pledged as security for the bonds, holds all the accounts and funds associated with the bonds, pays bondholders the principal and interest due, and enforces all covenants enumerated in the legal agreement for the bonds.

**Debt service reserve:** This is usually required by investors and gets built into the project budget. Additional funds are put into the project budget and reserved in case there are any years when project revenues are not enough to pay annual debt service.

Similar to a TIF, a municipality’s general counsel is typically integrally involved in the SAD debt issuance and works with outside counsel to protect the interests of the city. Other participants involved in the transaction may include independent financial advisors, rating agencies and debt insurers. The fees for these services would be included in the capital raised.

Once the district is established, all costs associated with setting it up and administering it (e.g. attorney fees and printing and postage for public notices) may be rolled into the debt issuance, and are typically paid by the property owners within the SAD. Any of the (normally minimal) ongoing costs of administering the district year to year are also typically paid from the funds in the district.18

Special assessment debt has historically been considered by the market to be riskier than a general obligation bond since they are revenue-backed, but is considered to be less risky than TIF debt. Whereas TIF debt is backed by anticipated future tax revenues, SAD debt is backed by predetermined amounts to be paid by property owners falling within the SAD.19 As with TIF, a municipality should consider how best to mitigate the potential risks of non-repayment and the potentially negative impact it could have on the city’s credit rating. Investors may require credit enhancements, which can add complexity and increase the cost of the transaction.

**When to Use It**

The following key characteristics can be used to determine whether it is appropriate to use SADs for a specific urban regeneration project:

- **When the goal of the project is to build or repair public improvements or services that provide a district/neighborhood-wide benefit**
- **When no other source of funds is available within the required timeframe to finance the infrastructure improvements.**
- **Where local support is likely:** Property owners are willing to contribute to the cost of investing in major capital improvements in anticipation of likely future financial gains.

SADs have historically been utilized when there is urgency among local property owners to access positive economic impact. In other words, private property owners acknowledge the potential future financial gains through increased property values that they could realize sooner if they took action rather than waited for the public sector to identify capital funds. Local property owners typically have consensus support to partner with the municipality and contribute capital to help pay for public infrastructure improvements.

Setting up a SAD requires both support by local property owners, and legislative approval to levy additional taxes on property owners within a specific geographic area. To gather support for a proposed SAD, the municipality should form a project planning entity or committee that can spearhead community outreach and development of the district. Thorough planning and dissemination of project information – including the identification of project motivation, costs, potential benefits, construction timeline, and financing needs – are critical to successfully implementing a SAD and gaining support from property owners.

It is important to communicate that there is an estimated maximum amount needed to be raised by the SAD, so that property owners know that there is a limit to the assessment and how long they can expect to pay it. The development process may require the negotiation of offers to local property owners to gain their support. If the municipality is issuing debt with the additional security of its full faith and credit, it should have sufficient debt capacity. Special assessments should be used sparingly so as not to negatively impact the municipality’s creditworthiness.
A major limitation of SADs is that they can be used only to finance projects or services of localized benefit, that is, to benefit only those taxpayers that are being assessed within the district. This prohibits projects with a citywide scope, such as new roadways spanning an entire city, from being financed through SADs.

Advantages

Reliable source of revenue: Once established, SADs are generally a reliable source of revenue for a municipality. They can be used as a means of raising money off balance sheet and without increasing property taxes in the city more generally. And once the infrastructure cost is paid off, the city benefits from having a larger balance sheet (as the owner of the infrastructure).

Stimulating Private Investment: SADs can result in the development of public improvements that provide district-wide benefits and that can have a catalytic effect of stimulating private investment within the district. In an area that has not attracted much private development, the construction of public improvements can serve as a motivating factor for private developers to invest, assuming that the correct business and market conditions are also in place. Private investment within a SAD can in turn enhance economic development across the city as a whole.

Cost-Effective Finance: For the local government, SADs can provide an additional, cost-effective source of funding for capital improvements (apart from ongoing tax fee collections). One advantage of SADs is that they traditionally generate very limited negative fiscal impact. Instead, they link costs to benefits. They provide infrastructure and services for a specific group of taxpayers who will benefit from the public improvements and have agreed to additional self-assessment, rather than burdening the entire city with costs for a localized project.

Lower Risk: When compared with TIF, SADs involve lower repayment risk and are less speculative, since the revenue is tied to only a specific public improvement rather than linking public improvements and anticipated future private development that may or not take place.

Good for specific uses: SADs can be particularly effective at achieving transit-oriented development objectives if funding a transport project

Disadvantages

Municipalities must consider the challenges that arise in establishing SADs.

Timing: The timing for implementing a SAD depends on how quickly a municipality can move to authorize the creation of one. Unlike other LBF tools, the implementation of SADs typically hinges on obtaining the support of local property owners, and this can be challenging and time-consuming. Lack of support could result in inability to use a SAD as a financing tool.

Set-up Costs: Setting up a special assessment district has high transaction costs since these often require the issuance of debt.

Disagreements with property owners: Unwillingness by ratepayers to agree to an additional assessment can halt the proposed creation of a SAD. Establishing the different tax rates for the various types of property in the district may cause controversy, and affected property owners may not agree with the tax rate established for them. Disagreements may also occur as to which properties should be within the physical boundary of the SAD and which should not be, that is, who would be a direct recipient benefiting from the new infrastructure and who would not. Setting up a special assessment district can become highly litigious, and therefore careful administration and execution are necessary.

Difficulty of negotiating with multiple property owners: Implementation of this tool has historically been easier when a few property owners hold the majority of land within the designated area, or much of the area is vacant or underutilized commercial or industrial land, with few current residents living in the district. This has made it easier to negotiate any required public benefits agreements, relative to building support of hundreds of owners of smaller parcels.

Varying tax rates: Occasionally, SADs have also been controversial because they tax a specific population more than others.

Tax delinquency: The government runs the risk of increasing tax delinquencies if the assessment is not structured with support of local property owners; if the bond is backed by the full faith and credit of the municipality, this could jeopardize the city’s credit and borrowing position.

Regulatory limits on borrowing: The required length of time required to repay financing of infrastructure (say, 10 - 20 years) may not align with regulatory limits on how long special rating areas can be employed (three to five years).

Inequitable benefits: The use of SADs could facilitate the creation of uneven distribution of infrastructure delivery across districts.

With these potential challenges, SADs require both political will and public support to establish. As a municipality is considering the creation of a SAD, it should proactively
anticipate these challenges. It is critical to involve property owners and other stakeholders into the decision-making process of establishing the terms of the special assessment district.

A municipality can avoid many of the disadvantages by encouraging stakeholder participation and through adequate planning that includes a long-range capital improvement program. Because setting up a SAD can become controversial, it is also important for the local government to have skilled legal counsel to assist the city with putting the proper controls in place.

Conversely, well-resourced communities may be able to use this mechanism to obtain public improvements that are not available to others, creating enclaves of high infrastructure delivery. For a country like South Africa, where uneven infrastructure delivery has caused spatial distortion, these enclaves would be a perverse outcome. Sound administration capabilities are required by the local government to implement and administer the SAD on an ongoing basis. Cities need to ensure that their systems are able to accommodate for this differentiation in taxes in comparison to the general revenue pool and also allow for rate changes (as dictated by the SAD financing or community agreements) over time.

### ADVANTAGES

- Reliable source of revenue
- Stimulating Private Investment
- Cost-Effective Finance
- Lower Risk
- Good for specific uses

### DISADVANTAGES

- Timing
- Set-up Costs
- Disagreements with property owners
- Difficulty of negotiating with multiple property owners
- Varying tax rates
- Tax delinquency
- Regulatory limits on borrowing
- Inequitable benefits
TAX INCREMENT FINANCING
What It Is

Tax increment financing (TIF) allows local governments to invest in infrastructure and other improvements and to pay for the cost of those investments by borrowing against a designated area’s future tax revenues. TIF captures the future anticipated increase in tax revenues generated by the improvements. It is used when the completion of the project is expected to result in an increase in value of surrounding real estate, generating additional property (and potentially other) tax revenue.

TIF allows local governments to invest in projects or encourage development. It offers the possibility, if structured well, of almost no negative fiscal impact. TIF can be applied to a specific project (e.g., a vacant or underutilized property) or to a targeted geographic area. The funds generated can be used to finance infrastructure (e.g., streets, water systems, and sewer provision), environmental remediation, construction or rehabilitation of buildings, and other improvements that may otherwise be infeasible to construct. Local TIF legislation will determine which development costs would be eligible to utilize TIF funds.

Many municipalities in the United States that have deployed TIF require a “but for” test to justify the creation of a TIF district: A project would not be feasible to develop but for the use of TIF. Stated differently, the development project could not have gone ahead if the TIF, and the infrastructure it funds, was not used. If other means exist that would make the project feasible, then TIF would not be deemed necessary.

As an example, the municipality may have prioritized a certain part of the city in its infrastructure budgeting, while depriving a specific neighborhood of the enabling infrastructure required to facilitate increased private development. The TIF in this case would provide funds outside of the current budget envelope to facilitate this private development. In this way, it could be used to accelerate the development of an area where there is pent-up demand but insufficient infrastructure to service the demand, fulfilling the “but for” test).

The rationale for the use of TIF is therefore that

1. It creates a mechanism that allows a project to self-finance in the absence of other capital sources for infrastructure; and
2. It presents an opportunity to use this financing to increase the property rates base in the long term.

Atlantic Station in the city of Atlanta, Georgia, in the United States, is a project that utilized TIF. See Chapter 4 for a case study summary.
How It Works

Set up the TIF District: Implementing TIF entails the local government establishing a “TIF district,” which is a geographic area in which municipally collected property taxes (and sometimes sales taxes and/or other local fees) are captured into a single collection fund. This fund is segregated from the general fund of the local government, and the taxes collected are pledged solely to the repayment of the TIF debt obligation. TIF boundaries might follow those of a precinct regeneration plan; for other projects, the area from which the tax increment would be drawn might be broader.

For example, a TIF district may encompass an entire central business district, including areas where regeneration is not planned. The amount of tax revenues collected at the time at which the TIF district is formed would become the “baseline.” Additional property and/or other designated tax revenues, projected to be generated as a result of the TIF-funded investment, above the baseline, would be deemed the “increment”.

Estimate incremental tax revenues and TIF duration: The period during which incremental tax revenues may be captured and pledged varies from city to city. Typically, the increment is captured for 10 to 20 years, but some cities have created TIF districts for up to 50 years. Usually a municipality captures these revenues only until the TIF repayment obligation has been paid off. However, if incremental revenues exceed the repayment obligation, some cities choose to use excess revenue to pay for other borrowing or investment activities. Once the TIF debt repayment obligation has been paid, the incremental revenues will be available to the original taxing entity (e.g., the city’s treasury department) from that point forward.

Anticipated incremental tax revenue can be estimated based on the proposed development program, market feasibility, and estimated absorption rates. Figure 5 illustrates an example of a 10-year TIF district with the base tax amount set in year 1 and the anticipated incremental taxes over a 10-year period (years 2 to 11).

After year 11, the taxes generated are no longer considered incremental and instead return to the municipality’s general fund.

Implementing the TIF: The successful implementation of TIF requires significant planning, financial analysis, and administrative and legal approvals. The process and timeframe for setting up a TIF district depends on a municipality’s legal and regulatory framework as well as its institutional capacity. In general, however, implementing TIF requires that the following tasks are initiated by the municipality (see Figure 5). The municipality will often involve third-party advisors to assist with preparing deliverables as part of the process.

Techniques to Finance Development Costs Upfront

The new development made possible by a TIF investment can create significant new tax revenue. However, this new revenue would be generated and collected over a number
of years; no revenue is available at the inception of the project when the TIF-eligible development costs are being incurred. For the project to commence and progress, the developer or the municipality must borrow or invest up-front. Historically cities have used the following financing methods to deploy TIF:

**Debt Obligations**: The municipality can create TIF debt obligations backed by a percentage of projected future, higher tax collections created by increased property values and/or new business activity within a designated geographic area. This is the most commonly-used financing technique for implementing TIF in the United States. Based on assumed debt obligation terms and estimated transaction costs, the municipality could assess whether the incremental increase in tax revenues would generate enough to cover the capital to develop the project. TIF debt obligations are typically issued at the same time as project construction commencement. The tax increment is collected upon completion of the project, and every year thereafter until the end of the TIF period, and is used to service the debt payments. In the early years before tax increment is generated as a result of the project, the city should identify a source or sources to pay debt service (or roll the anticipated non-revenue-generating years into the total issuance amount). Wider TIF district boundaries may also be drawn to ensure that the debt coverage ratio is adequate.

TIF debt obligations are revenue-backed (i.e., not backed by the full faith and credit of the sponsoring government). However, cities have sometimes chosen to offer credit enhancement of the city’s general revenue fund (which has lower risk than the TIF fund) to access relatively more cost-effective debt obligation terms. In this variation of TIF, the risk of repayment can fall heavily on the municipality if
the TIF debt obligations are not structured well. If the city does not offer full faith and credit as a backstop, then the city would not be legally responsible for repayment beyond whichever repayment sources were designated in the legal documents. If the debt obligations are fully backed by revenue (with no credit enhancement), the holders carry the full risk of shortfalls between revenue and debt service payments. In establishing the size of the potential issuance, the potential revenue to be generated by the TIF district is used as a starting point. In the United States, however, it is often scaled down to create a debt coverage ratio of 1.2 to 1.5 to reduce the risk of default.24

Pay-as-you-go financing: Instead of a city issuing debt obligations, the developer may pay for TIF-eligible development costs with its own funds, with the promise of being reimbursed by the municipality as incremental taxes are generated – thus “pay-as-you-go financing.” When a municipality agrees to reimburse the developer for TIF-eligible development costs, the developer must borrow or invest equity to pay for the eligible project costs and use the pledged TIF revenues as collateral and source of repayment to the bank issuing debt or the investors providing equity.

This form of TIF requires a developer to absorb the financial risk up-front, where the developer is required to invest its own capital and can get repaid (an amount that typically includes interest) only after the project delivers and begins to get absorbed by the market. Since developers typically do not wish to undertake the risk, this method is not commonly used.

Short-term anticipation notes: In anticipation of a future TIF debt obligation issuance, the municipality may issue a short-term, higher-interest debt security in anticipation of future tax increments. This product is called a short-term anticipation note and is similar to bridge financing, which governments have used to provide immediate funding for capital expenditures.

A municipality may provide such notes to the developer, who is then responsible for “monetizing” or selling them to the highest bidder (often through a third-party intermediary). Proceeds from the sale pay for the TIF-eligible project costs.25 Banks and institutional investors typically purchase the notes, taking on the project completion risk and the risk that the tax increments will not materialize, in return for promises to be paid back with interest. The debt on these short-term anticipation notes is serviced by the municipality.

A city might issue short-term anticipation notes if the developer does not have the ability to front costs or if the city cannot get good financing terms for the TIF bond because of high risk associated with the project.

Deciding between these three approaches to implement TIF depends on many variables, for example:

i. the size of the project (e.g., a developer may be more likely to have financial resources to pay as it goes on a smaller-scale project than a large-scale, more costly project);
ii. certainty of revenue timing;
iii. quality of the developer’s credit (if considering pay-as-you-go financing) or the quality of city’s credit (if the city is considering backing the TIF debt obligation); and
iv. the relative efficiency of each financing method.

The decision may also be greatly influenced by the financial opinion of underwriters or investors.

For a city considering using TIF, it must be understood that financial risk is associated with each of the three approaches, regardless of who issues the debt (whether the city, the developer, or a bank or institutional investor). Financial risk is involved with all three approaches because they all rely on the actual amount of tax revenue that the project will generate to repay the debt. The actual amount of tax revenue generated is a function of numerous variables, including market conditions and the success of the project itself.

Public offering vs private placement of debt

The local government may choose to issue debt to the public market through a public offering, or it may choose to place the debt with a few investors or banks through a “private placement” transaction. A private placement transaction slightly changes the parties involved.

Determining whether to issue a bond through a public offering or through private placement depends on many factors. Generally, the larger the amount and the more high profile the project, the more likely the debt could be sold publicly because a public offering may attract more investors (as the bonds can then be sold in lower denominations). On smaller transactions, it may not be necessary to attract many investors, and, thus, it may not be necessary to issue the debt through a public offering. When TIF debt is privately placed, typically only a few investors are necessary to purchase the entire amount.

The mechanics of rating debt, reducing and repaying TIF obligation: Some cities invite a third-party rating agency, such as Fitch or Standard & Poor’s, to rate the debt, especially if issued publicly, because doing so may secure lower interest rates on the debt issuance, and the rating agency’s opinion directly affects the final investment grade quality of the issuance to potential investors. To reduce the risk to investors and to get the best interest rate pricing, the municipality may
decide to issue the debt after the developer completes certain construction milestones rather than at the start of construction, reimbursing the developer for construction costs incurred using the capital proceeds of the issuance. The achievement of certain construction milestones by the project will reduce the risk that the project will not get completed, giving comfort to investors and therefore reducing the interest rate.

A municipality may choose to require guarantees from the developer or a third party for the payment of debt service on the debt and/or issue the debt with municipal backing or credit enhancement. This backing or enhancement provides additional security to investors for the repayment of the debt if there is considerable risk of non-repayment on a particular project.

Inherently, development, economic, and construction risks are associated with any regeneration project, as discussed below. As a precaution, in case the project does not perform as expected, a debt repayment guarantee and/or a credit enhancement would reduce the project’s risk, improve the debt rating, and lower the repayment interest rate – all of which would be beneficial for the city.

Typically, TIF debt proceeds are deposited into a separate account managed by a third party and then released at specified points, depending on how the deal is structured. A portion of the tax increment pledged gets deposited into this account, and funds are drawn upon to service debt payments. The debt covenants and contracts would specify exactly how funds would flow year-on-year. In other words, if more funds are received than needed to service debt payments in one year, the contract documents would specify if the funds would go toward the following year’s payment obligation or toward another public need. Once the TIF obligation has been repaid, the incremental revenues will be available to the original taxing entity from that point forward.

**Documents Typically Involved in a TIF Transaction**

Typically several basic documents are necessary for the issuance of TIF debt:26

- A TIF plan, or redevelopment plan, is usually the guiding document for the municipality and developer(s) that establishes the goals and objectives of the TIF district.
- After a plan is finalized, a development agreement typically becomes the binding document between a municipality and the development partner. The development agreement specifies the roles and responsibilities of the parties. It details the terms and conditions under which the municipality and the developer each participate in the development process. It also includes the financial provisions of the

![Fig 7 The TIF Parties](image-url)
What It Costs

TIF typically requires professional economic development and planning staff along with external partners, such as legal counsel or underwriters, to properly administer it. For a municipality, the transaction costs of issuing TIF debt are usually higher than general obligation debt. The interest rate on other forms of debt, such as a general obligation bond or a special assessment debt issue, is generally higher than the interest rate on TIF debt. Repayment of TIF debt is typically limited to the pledged tax revenue of a project district, and as a result, the repayment risk and the interest rate on TIF debt tend to be higher.

A municipality can expect to pay for the following transaction services and requirements:

- **Feasibility consulting**: This may involve an independent consultant who estimates the tax increment to be generated by the district over the life of the debt. The same consultant (or a different one) may also perform a market study to determine the likely market demand of the project being proposed or an economic impact study of the proposed development. The feasibility consultant is typically paid through the debt proceeds, although some consultants may require a separate up-front payment not contingent upon the successful placement of the debt.

- **Engineering reports**: These specify the improvements to be made as part of the project and confirm the cost of the improvements. They are typically paid from the capital proceeds of the debt.

- **Outside legal counsel**: Legal counsel specializing in revenue debt obligation transactions should be secured. Typically, a municipality does not have this type of specialized counsel in-house. They are usually paid from the capital proceeds of the debt.

- **Debt obligations trustee**: This is usually a bank that receives the revenues pledged as security for the public debt obligations, holds all the accounts and funds associated with them, pays holders the principal and interest due, and enforces all covenants in the legal agreements.

**Debt service reserve**: This is typically required by investors and is built into the project budget. Additional funds are put into the project budget and reserved in case there are any years when project revenues are not enough to pay annual debt service on the capital.

**Other Players**: The municipality’s general counsel is typically a party to the transaction and works with outside counsel to protect the city’s interests. Other participants may include developer(s), developer’s counsel, independent financial advisors, rating agencies, and debt insurers.

In the case where a city issues a TIF bond through a public offering, two additional key players are involved:

- **Underwriter**: This role is typically served by an investment bank that has a municipal financing practice. The underwriter generally structures and markets the debt obligations, purchases the debt obligations from the issuer (local government), and sells them to investors. The underwriter is usually paid from the proceeds.

- **Underwriter’s counsel**: The underwriter’s counsel protects the underwriter’s interests and typically drafts the offering document, the purchase agreement, and various other documents as well as performing due diligence. They are paid either from the proceeds of the debt obligations or as part of the underwriter’s expense component in a transaction.

In the case where a city issues TIF debt through private placement, a financial advisor is involved instead of an underwriter and the underwriter’s counsel, and the advisor helps the municipality size the transaction and to structure and accept bids from investors. Usually the financial advisor and the municipality’s financial counsel negotiate the terms and conditions of the transaction with the bank(s) and bank’s counsel.

Most transaction costs are established on a sliding scale, and depend on the extent and size of the project. On larger transactions, the financing fees are generally a lower percentage of the overall transaction, typically 2 to 4 percent. The project should be of a scale to generate enough tax revenue to justify the cost of issuing the debt and support the debt servicing.

**When to Use It**

TIF can be a powerful tool for closing financing gaps for difficult urban projects. These are the key criteria used to determine whether a project is suitable for the use of TIF:

- When the city’s main policy goal is to catalyze large-scale public infrastructure and private investment in an area targeted for urban regeneration.
• For a project or area that would be infeasible to develop otherwise: TIF reduces up-front site-preparation and infrastructure costs of development, which enables the developer to access private financing to complete construction of the new development.
• In a market where the construction of improvements is expected to result in a significant increase in the value of surrounding real estate.
• For a project that results in sufficient incremental tax revenue to support the issuance of debt, which in most cases is in the form of municipal bonds. This is useful when the absence of prior development interest in a site with otherwise excellent attributes is related to a site-specific impediment (e.g. a former rail yard that requires environmental remediation).
• In an area where land uses will be up-zoned and changed to higher value uses and there is strong demand to build greater density (or to build higher value uses).

Ideally TIF should be utilized only when the private sector is ready to begin construction as soon as infrastructure funding requirements have been addressed, or after infrastructure construction has commenced.

**Market Context:** It is most appropriate to use TIF in a market where there is potential for property taxes to significantly increase as a result of improvements to the area. It is less appropriate to use it in a mature market where only a marginal increase in tax revenues would be expected.

Certain steps can be taken to maximize value creation:

i. through planning and designing the development with careful thought as to what would make the site marketable and attractive to potential users.

ii. by phasing the delivery of the project if there are multiple components so that the market is able to absorb each product over time, rather than a project resulting in an oversupply of a product at a given time.

iii. establishing that the development plan is feasible in terms of financing and execution. This would ensure enough incremental tax revenue to repay any debts incurred.

Although a city can carefully plan a TIF project, increased property values are not guaranteed as a result of redevelopment. While the installation of public infrastructure in the area may have a positive effect, the effects of broader economic cycles, over which governments have no control, may outweigh the project’s positive impacts. As a result, property values may remain the same or decline.

**Institutional and Regulatory Context:** The use of TIF requires several major institutional preconditions. Most importantly, the municipality must have legal authority to set up a taxing district. If it does not, this would need to be set up and may take significant time and effort on the part of the municipality and legal counsel to work with the governing authority to institute TIF. Further, if a municipality decides to issue debt that includes an additional pledge of a portion of the full faith and credit of the city, then the city should take into consideration how the pledge would impact the city's debt capacity. The city would need to evaluate its other priorities that require the issuance of debt and its existing debt.

In the South African context, the regulatory powers of cities provided for in (principally) the Municipal Financial Management Act, the Municipal Systems Act, and the Municipal Fiscal Powers and Functions Act have no specific restrictions limiting the ability of cities to implement a TIF structure. However, there are some limits to implementation, although these are not specifically expressed in law, because no clear implementation mechanism exists as yet.

One of the main advantages of using a TIF structure in the United States is the ability to create a debt obligation that is designed to be self-financing and have minimal to no impact on the city’s borrowing capacity for other general obligations. The accounting treatment of TIFs on a South African city’s balance sheet is unclear, however, and would be dependent on the interpretation by the financial auditors of what constitutes a liability for the city. Additionally, while South African cities have the ability to “ring-fence” property tax flows, subject to certain preconditions, the appetite to do so may be limited.

The implementing city may be required to conduct valuations for the TIF district more often in order to take advantage of the value increases. It is not clear whether the MPRA allows for supplementary valuation rolls to be used to do this.

**Mitigating Risk to the Municipality**

**Risks to Consider:** Since TIF debt is revenue-backed and not necessarily backed by the full faith and credit of a municipality, it is considered riskier than general obligation municipal debt. The interest rate on TIF debt will ultimately be dictated by the market, and how the market interprets the risk profile of that specific set of cash flows.

A municipality must consider how best to mitigate the potential risk of non-repayment if the project does not result in the anticipated increase in property tax revenue. Investors typically require a reserve that amounts to one year of debt service. TIF bonds may also involve various forms of credit enhancements (such as default insurance or guarantees), which can decrease risk to the municipality.
but also add complexity and increase transaction costs. Some bondholders require proceeds from the debt to be held in separate trust accounts until certain milestones are met. As a result, developers may receive the proceeds over time as the tax increment generated to support the debt becomes available. This approach protects the local government and lenders from default risk, and it places an added incentive on developers to complete their projects in a timely manner.

**Mitigating the financial risks:** To help mitigate financial risk to the municipality of issuing TIF debt, two measures may be taken:

- **Debt structuring:** The municipality should structure the debt conservatively, with an appropriate level of security to be able to pay the debt service in the event that the projected tax revenue is not achieved, and to protect the project from default. Investors traditionally require a debt service reserve fund. Additionally, a municipality may choose to enhance security by requiring third-party guarantees from developers and/or provide a credit enhancement to provide additional security to repay the debt obligation.

- **Development agreement between the city and private developers:** To align incentives between the city and any private developer(s) regarding the proposed project, the municipality must structure a development agreement with the developer(s) such that risks are assigned and borne by the parties best able to manage them. The municipality should require payment, performance and/or corporate guarantees to ensure that the developer will be able to perform and complete the project as scheduled. In the event that market demand declines during the construction of the project or after the project’s completion, threatening the success of the project, the development agreement should be structured in a way that modifications can be made to the development program or phasing.

## Advantages

**Increased Tax Revenues:** TIF can result in a positive economic impact because TIF projects produce public and private improvements that are intended to increase the value of surrounding properties in the district. This can in turn result in increased property tax revenue for a municipality.

**Ease of Negotiation:** Implementation of this tool has historically been easier when a few property owners hold the majority of land within the designated area, or when much of the area is vacant or underutilized commercial or industrial land, with few current residents. This has made it easier to negotiate any required public benefits agreements, relative to building support from hundreds of owners of smaller parcels.

**Minimal Fiscal Impacts:** TIF can provide a new up-front source of capital for a project or area that would be infeasible to develop otherwise. If structured carefully, TIF as a land-based financing tool can have minimal negative fiscal impacts and could in fact be self-financing. It may allow a municipality to use its existing resources on other priorities.

**Distribution of Risk:** Another positive impact of TIF is that TIF distributes the financial risks among the local government, developers, and investors/lenders, rather than having the municipality bear the majority of the burden.

In other words, TIF is a tool to finance public infrastructure necessitated by an urban regeneration project with an identified revenue stream — the incremental taxes created by the project — without using a city’s other scarce sources of funding, such as intergovernmental transfers, capital reserves, or tax revenue.

## Disadvantages

Despite its practical and fiscal advantages, TIF is not a one size fits all instrument, and comes with several disadvantages or caveats depending on the circumstances and the nature of project:

**Unnecessary Investments:** TIF as a financing tool has sometimes received criticism in municipalities where TIF funds have been authorized for investments that were arguably unnecessary, such as to offer financial incentives to attract a company to move into the city.

**Districting Issues:** Some cities have drawn TIF districts so large that they capture incremental revenue from areas that would have appreciated in value regardless of the TIF designation. Municipalities should be aware of these criticisms so as to minimize public opposition and/or distrust regarding the local government’s use of taxpayer revenue.

**Unsuitable Real Estate Conditions:** TIF is only effective when real estate market conditions are robust and planners understand these conditions in both the city and TIF area.

**High Transaction Costs:** TIF can bring high transaction costs associated with the issuing of revenue bonds: the riskier the venture, the higher the bond rate; the more secure, the lower the rate.

**Lengthy Timeline:** TIF is not a quick fix: it may involve a long timeframe of development, absorption, and debt payback, not a quick process.

**Repayment Risks:** All debt carries risk; the scale of TIF funding requires careful identification and mitigation of
risks of repayment.

**Changing Property Values:** The successful application of TIF requires regular revaluation of the tax base (property values), perhaps on a shorter periodicity than standard practice.

**Higher Cost to Taxpayers:** The calculation of the increments can erode core tax revenues and result in an unintended cross-subsidy from taxpayers in general to the specific location to maintain basic existing service delivery and infrastructure maintenance.

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### ADVANTAGES

- Increased Tax Revenues
- Ease of Negotiation
- Minimal Fiscal Impacts
- Distribution of Risk

### DISADVANTAGES

- Unnecessary Investments
- Districting Issues
- Unsuitable Real Estate Conditions
- High Transaction Costs
- Lengthy Timeline
- Repayment Risks
- Changing Property Values
- Higher Cost to Taxpayers

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Atlantic Station. Photo by Adam Gilman
What It Is

An impact fee, referred to in South Africa as a development charge, is a fee that is imposed by a local government on a new or proposed development project to pay for all or a portion of the costs of providing the public services needed to accommodate the additional population attracted by a new development project. The primary purpose of a development charge is to have the private developer, rather than the city, contribute to the cost of additional municipal infrastructure arising from more intensive development. Additional infrastructure and services could include new roads, utilities, parks, schools, or other services.

Development charges have been utilized strategically by municipalities in South Africa to offset the burdens of new development on the community. Impact fees allocate costs more equitably, ensuring that new developments pay a fair share of the public costs that they generate. Revenue from development charges can be used for the actual construction costs of building new infrastructure or to cover debt service expenses a city may incur to install the infrastructure. In many cases local authorities will already have installed infrastructure through debt financing and will then apply the development charge receipts to repay the existing debt.

How It Works

Calculating Development Charges: Development charges can be calculated in a number of ways. In general, the payment is based on the financial impact that the development will have on the municipally managed infrastructure systems (water, sanitation, roads, etc.). For example, to mitigate the effect of increased motor traffic to a new shopping center, a municipality may require the developer of the shopping center to pay for construction of a turning lane and traffic lights.

Some municipalities in the United States have charged impact fees for commercial development projects to offset the rising housing prices caused by economic growth. These fees are referred to as “commercial linkage” fees. In this case, impact fees can help promote a jobs-housing balance and can be used to finance below-market housing. In general, the calculation of this impact can be either on an actual (or incurred) costs basis, or on a notional cost basis.
This is the case in South Africa too. The charges levied on a development could comprise a number of chargeable elements:

i. those that can be directly apportioned to the impact of the new development;
ii. direct costs that will be shared with other developments or areas (for example, the installation of a wastewater treatment works that serves an area broader than the development); and
iii. sunk or historical costs where the development is benefiting from past infrastructure installation.

The costs levied to recoup these charges are complex to calculate. Municipalities in South Africa do, however, have a long history of implementing them administratively, although the application of development charges to developments is uneven both between cities and within cities. Fees are typically imposed as a one-time charge before the issuance of a building permit. The municipality will need to have dedicated staff to negotiate, administer, and collect the fees.

**Types of Payment:** The payment of these charges can take various forms. In general, municipalities can accept cash, in-kind payments – such as a new public park, community clinic, or other public good – or some combination of the two. In all cases, they should be of a similar value. In-kind payments are beneficial when, for example, a public park can be constructed in tandem with the principal development itself to minimize costs and construction time.

Development charges can serve to discourage development on greenfield or undeveloped sites since the cost for extending infrastructure to a greenfield area is higher than it would be for extending infrastructure in infill areas. Thus, these charges can implicitly act to incentivize urban infill development because development costs may be lower where infrastructure and services already exist.

**Regulatory Considerations:** To regulate and guide implementation of impact fees, a legislative or policy framework should be in place. Depending on state or national laws, legislation may enable and regulate local use of impact fees. Local laws may also govern the application of impact fees on a city-wide basis, or they can enable fees to be negotiated on a project-by-project basis. On a project-by-project basis, legislation will authorize the municipality to collect impact fees for a development that requires additional infrastructure and services, prior to granting approval of the project moving forward.

**What It Costs**

The municipality faces few fiscal costs, besides administrative costs, in utilizing development charges. Developers build the development charge into their overall project budget, and usually pay it when a building permit is issued. For bulk connection fees, the fees may be paid over several years, allowing a developer to use income from the development’s operations rather than make the payment before the development is built.

Within the scope of the local regulations, South African cities have the discretion to enter into debt arrangements and negotiate the payment of development charges with developers. These arrangements allow for some flexibility in how and when the payment is made to the local authority.

It has been argued that these charges can discourage development by placing too high a financial burden on the developer. To mitigate this concern, the city should require that a financial analysis of the cost of investment and benefits as a result of the investment be conducted to determine how the development charges impact the developer’s bottom line. Building new infrastructure may be necessary to mitigate potential negative impacts as a result of a process of harmonizing the implementation of development charges on a national basis to ensure the rigorous application of these charges as well as their equitable calculation. This process is expected to culminate in guidelines for development charges to be used by cities in 2017.

The Spatial Planning and Land Use Management Act (SPLUMA) also provides powers to the Minister of Rural Development and Land Reform to issue further guidelines on development charges (Hickey-Tshangana 2012).
of the project, such as increased traffic or pressure on utility services. Therefore, it is not unreasonable to expect a developer to pay for new public infrastructure or services to ensure the success of the project.

**When To Use It**

Below are two key preconditions to determine whether it is appropriate to use development charges for a specific urban regeneration project:

- When private developments are planned that will result in a more intensive land use and require new infrastructure or public services.
- In cities that have a strong demand for private development – that is, in cities where developers are attracted to build commercial or residential projects and stand to make a considerable profit in spite of having their profit reduced as a result of any required impact fee.

**Advantages**

Development charges have two main positive impacts for a municipality:

- **More equitable distribution of costs**: They can serve as a direct source of capital to pay for new infrastructure and services, by linking costs with the developer who will profit from the development. Thus the developer rather than the municipality or local taxpayers pays the costs for any necessary infrastructure associated with a new development.

  - **Encourage sustainable development**: Development charges can serve to disincentivize development on the urban fringe where basic infrastructure and services may not exist. Impact fees may be less or zero for developments in the urban core.

**Disadvantages**

The challenges in applying Development Charges need to be managed to ensure that they do not disincentivize development:

- **High costs**: Where development charges are too high, disincentives to development may occur, impacting economic development.

  - **Out-of-date inputs**: The cost inputs for calculating development charges must be kept up-to-date to remain effective.

  - **Developers passing on costs**: End users, such as affordable housing tenants/owners, could be negatively impacted when developers pass the charge through.

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**ADVANTAGES**

- More equitable distribution of costs
- Encourage sustainable development

**DISADVANTAGES**

- High costs
- Out-of-date inputs
- Developers passing on costs
LEVERAGING THE VALUE OF MUNICIPAL REAL ESTATE
What It Is

Leveraging municipal real estate occurs when a local government sells, auctions, leases, or conveys city-owned property at no (or reduced) cost, and transfers the development rights to a private developer for economic development purposes or to achieve some other policy goal. This applies to property that is not needed for public use, and may be a large site, such as a currently defunct rail yard or decommissioned airport, or a smaller site such as a closed school or office building.

The city may seek to maximize the market value of the site by obtaining full value for it as a nonstrategic/surplus area. Alternatively, a city can leverage the value of municipal real estate to achieve certain policy goals and require that a developer take on certain costs and risks that might otherwise fall onto the public sector. The costs of achieving these objectives will be offset against the value of the municipal property.

In the case of promoting dense housing development, a city might require a developer to include low-income housing units (that the developer would otherwise not be willing to build without receiving a subsidy) along with market-rate units. A city could also require that certain public amenities (such as a community park) are built in exchange for this below-market sale.

There are three principal ways in which the value of municipal real estate can be leveraged to achieve city objectives:

- **Land Lease or Sale**
- **Land as in-kind payment for infrastructure**
- **Land as equity for development**

These are detailed in the How It Works section, below.

How It Works

**Selecting Development Partners:** A municipality may choose to dispose of city-owned properties through a competitive bidding process or through a sole-source transaction, depending on local regulations. Once a developer is selected, the municipality and the developer negotiate the land disposition deal structure with the goal of aligning public and private interests.

**The Tender Process:** City-owned properties may be sold or leased through a competitive tender process or through sole sourcing, depending on local regulations. If issuing a tender, the municipality typically identifies its goals for the redevelopment of the site and may issue a Request for Proposals (RFP). Respondents are typically required to submit a development plan for the site, a financial offer...
to the city, and other pertinent information for the city to review and evaluate to select a development team.

Before issuing an RFP, a municipality may choose to conduct one or two preliminary processes to improve the likelihood of receiving the most attractive proposals to meet the city’s goals. The municipality may issue a Request for Expressions of Interest (RFEI) if it first wants to gauge the market’s appetite to redevelop the property and identify parties that would be interested in participating in the bidding process, without requiring interested parties to invest significant time and financial resources to put together a comprehensive proposal.

Municipalities may skip this step or, after issuing a RFEI, issue a Request for Qualifications (RFQ) to screen applicants and ensure they have experience and a qualified team to successfully redevelop the property while meeting the municipality’s goals for the site. Responding to an RFQ usually takes less time and financial resources than responding to an RFP, so this step may be beneficial to both the municipality and interested parties. It allows the municipality to potentially short-list developers interested in submitting a proposal, so that the municipality can focus its time on responses that are submitted by qualified teams only. For developers, RFQs can provide an early indication of their competitiveness. For teams that are deemed not qualified, they are able to disengage without having invested significant time and money to the process.

**Drafting Agreements:** Once the municipality has selected a private development team to sell or lease a city-owned site, the municipality and the developer typically enter into negotiations and draft land disposition and development agreements. A municipality may require the selected developer to pay deposits of the purchase price or lease payment before transferring the property for private development to ensure the developer’s good faith. Once the land disposition and development agreements have been finalized, along with other supporting legal documents necessary for the real estate transaction, a municipality may require approval by the local governing body/council.

After gaining the necessary approvals, the municipality and developer jointly execute the legal agreements, enabling the developer to start the necessary predevelopment work, and providing site control assurance so that the developer can seek financing for the development.

Once the developer has completed its predevelopment work and has received the financial commitments it needs to complete the project, the municipality may convey the property to the developer in exchange for a single fee payment, commencement of lease payments, or development in lieu of any cash payment.

The ability of the city to leverage its municipal real estate value through appropriate business models is dependent on its ability to enter into suitable agreements that allow it to realize its policy goals. These in turn are governed by the applicable regulatory, institutional, and legal frameworks for the cities.

**Determining Land Value:** As discussed earlier, discounting land value may be necessary to make a project feasible. One method to determine the appropriate value that a developer should pay is through a residual land value calculation. This typically involves a municipality first determining the market value of the city-owned property by commissioning an appraisal. The property would be appraised based on

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**Legal and Regulatory Considerations:** In South Africa, the most pertinent legislation impacting on the ability of municipalities to transact real estate and structure these transactions are:

- The Municipal Financial Management Act, in particular the promulgation of Asset Transfer Regulations, which appear to inhibit the ability of cities to cede and subcontract certain real estate rights, thereby impacting private party funding requirements, commercial structuring, and subletting.
- The Municipal Systems Act, which creates restrictions on a municipality’s ability to acquire or hold an interest in corporate entities with a private party (companies, trusts, etc.), thereby limiting joint venture property development options.

Uncertainty by municipalities in classifying real estate projects as formal public-private partnerships (PPPs) creates a lack of clarity on which regulatory regime is applicable.

Notably, the regulatory environment does not specifically contemplate complex real estate transactions – creating a lack of clarity as to the most transparent and effective methods to enact certain types of municipal real estate transactions. This does not invalidate the intent of the legislation and regulations, but rather may require more clarity on how this legal and regulatory framework can be used to help cities achieve their policy goals through complex real estate transactions.
the proposed development program, and the residual land value would be calculated by subtracting the total estimated development cost, including the cost of infrastructure, from the appraised value of the completed project. The net value would be considered the value of the land and would be the amount that the developer is expected to pay the municipality for the property.

As an alternative to using a residual land value calculation, a municipality and private developer can negotiate the purchase price or lease for the city-owned property based on actual buildable space. To help a municipality understand the market where the city-owned property is located, commissioning a market study or an appraisal can help to identify particular uses that are in demand and financially viable to develop in the particular location.

If the city and developer have agreed on a physical redevelopment plan and the dimensions of the public improvements have been determined – for example, new roadways, sidewalks, public parks, and/or plazas – the municipality may agree for the purchase price, or the lease payments to be based solely on the buildable areas for private use. For example, if a city-owned site is five hectares and the physical plan includes one hectare of public infrastructure, then the purchase price or ground lease for the city-owned property would be calculated using four hectares of buildable space.

Revenue from the lease or sale of city-owned property traditionally goes to the municipality’s general fund. However, revenue can be used for a special project-specific purpose, which may require special legislation. An example where land disposition revenues were used for a special purpose is Puerto Madero, a site in Buenos Aires, Argentina. See Chapter 4 for a case study summary.

In determining land value, it is important that the city understands that it has value creation tools at its disposal. These are principally the ability to up-zone or rezone properties, where the change in zoning is appropriate based on market demand. These tools can be leveraged to ensure that maximum value is generated for the city, which can be received through a sales price, in kind or converted into equity.

In certain instances, the city is also able to locate new or existing functions on land that forms a part of the urban regeneration precinct it wants to develop. For example, an office block used by city officials, or a hospital serving nearby residents could be used to anchor a precinct. Co-location of municipal and commercial properties can generate value as it guarantees some activity and footfall within a neighborhood. Additionally, having the security of a municipal lease (over a section of new office developments, for example), would also decrease the private developer’s financing risks.

A city-owned land disposition typically follows the process shown in Figure 8.
What It Costs

Minimal financial and administrative costs are associated with the disposal of city-owned property – although a municipality may be expected to pay minor costs, such as an appraisal of the property and a title report. Cities do not typically account for the estimated market value of city-owned land on balance sheets, so selling or leasing city-owned land typically results in a positive fiscal impact due to a one-time fee or ongoing payments. Long-term economic and social benefits may also result, such as the creation of jobs, housing, and generation of tax revenue once the site is put into private use. Additional benefits are also to be derived from reduced holding costs and opportunity costs associated with not developing such as a reduction of future rate income and delaying the achievement of development goals.

However, if a site is physically challenging to develop, the city may not receive market value for the property, and additional public subsidies may be required, to mitigate financial risks to the developer or investors. If a site has either of the following physical characteristics, the municipality may need to contribute capital to make the project feasible:

i. Significant environmental constraints, such as contamination that need to be remediated or wetlands that need to be preserved; or
ii. A building that requires significant rehabilitation costs, such as costs associated with historic preservation requirements that limit the development potential.

Additionally, if a municipality prescribes the inclusion of a social good such as affordable housing, open space, parking, or other public or social good, this may reduce the value that the city receives from the developer for the land, and public subsidies may be required.

Although not a cost, a main consideration of disposing of city-owned property is the loss of an asset that may have future financial or policy value (e.g., a historic building that a city may want to ensure serves a public purpose in the future).

When To Use It

Municipal land disposition may be appropriate for urban regeneration projects under particular circumstances, including:

- A *city-owned property is no longer needed for a public use* (e.g., decommissioned power plant): Therefore, it may be appropriate to dispose of the property for economic development purposes.
- A *municipality has legal authority to dispose of public property for private redevelopment*: if the municipality would like the revenue to serve a special purpose, special legislation may be required.
- *Land may be disposed of when market conditions are positive and where the site does not have major development constraints, which make the project infeasible*: in this case, the municipality may obtain maximum value for the asset.

As discussed, cities are able to monetize the value of their real estate in three principal ways, described in greater detail here:

**Land Lease or Sale**

Under optimal market conditions, a municipality may choose to lease or sell excess city-owned property and expect to gain maximum value for the property. Because land is a long-term asset, selling or long-term leasing a city-owned property may be most appropriate where there is strong market demand for development at a time when the municipality can obtain the maximum value for the asset. Catalyzing urban regeneration in a weak market through the sale or long-term lease of a city-owned property would most likely require public subsidies as attracting private financing would be difficult (unless the developer was mission-driven and willing to put much of its own resources into the project).

A city may prefer, for policy or regulatory reasons, to maintain property ownership as long as possible to maintain control of the development of city-owned property. It is important to consider that if a property is sold on a simple fee basis and transferred to private ownership, the city has little to no control over what gets developed on the property in the future and can no longer ensure that the project matches the development goals of the city. Therefore, a city may prefer to lease property long-term rather than sell it outright to maintain control of its use in the future.

It is typical for cities to sell small sites for predominantly residential development as it can be more challenging for developers to obtain financing for residential rental projects. For commercial developments, it is typical for a city to convey the property as a long-term lease, since commercial entities more often seek space to rent rather than purchase, and commercial lease properties are typically not as challenging in terms of obtaining financing as residential lease properties.

Selling or leasing land for a fee to attract the investment of private capital to redevelop the site is appropriate under particular conditions:

i. when the property is located in a market with strong demand for the type of development that the
municipality envisions for the property;
ii. when the proper infrastructure is for the most part in place;
iii. where there are no major physical challenges that would be costly to address to redevelop the site; and
iv. Where the municipality has identified property it is willing and legally able to dispose of for private redevelopment.

The leasing of municipal property to private developers may impose additional constraints:

i. Obtaining finance for the development may be more complicated for the developer.
ii. The public sector will be a landlord and have obligations associated with this role.
iii. There is no guarantee that the municipality will, at the end of the lease term, inherit an asset if any buildings erected are poorly maintained.

Land as In-Kind Payment for Infrastructure

This financing approach is viable for large-scale urban regeneration projects in which city-owned property comprises a meaningful percentage of overall land value. It may be used where public infrastructure improvements are necessary, and where the public land has sufficient market value to enable a financially viable transaction. In this scenario, the market value of the land can contribute a significant amount toward the cost of infrastructure, and a private developer would be able to earn a reasonable return on its investment to justify the development risks.

For projects that require construction of new infrastructure, selling or leasing city-owned property at market value to a private developer and expecting the developer to finance the necessary infrastructure improvements may prove challenging for a city. The developer who purchases the property may argue that public infrastructure is the responsibility of the local government and therefore should be funded through public resources. Instead, a municipality may discount the value of the land to the developer, so that the developer can use its capital sources to perform the necessary infrastructure work.

One reason that cities have used this approach is that it can be more cost effective and timely for a single entity – the private developer – to coordinate construction of both infrastructure and vertical development. This is preferable to the public sector leading the horizontal development process first, and after infrastructure has been completed, then the municipality transferring over the responsibility of vertical development to a private developer. Public sector-led construction projects may require a lengthy procurement process and would require up-front capital expenditures. By having a private developer manage the entire development process, both horizontal and vertical construction, the regeneration project may be completed more efficiently and expeditiously.

Another case where a municipality may wish to contribute its land as an in-kind payment is when the land is adjacent to a privately-owned site and the public and private sites can be combined as one regeneration project. Rather than put a city-owned property up for bid for redevelopment by itself, it may be more beneficial to seek the adjacent property owner as a development partner.

The municipality does not necessarily have to forego the value of the city-owned site if there are few development constraints and the municipality is able to get market value for the property. But if there are physical challenges or policy goals that entail below-market uses, then the municipality may choose to contribute the land as an in-kind payment.

Land as Equity for Development

This occurs when a municipality enters a joint venture project with a developer. In this scenario, a municipality might enter into a partnership with a private developer for the purpose of redeveloping either one or a number of city-owned sites, or a targeted urban area that contains both publicly owned and privately owned properties. The public sector “invests” the value of its land assets, and the private sector partner invests cash. Essentially the value of the public-owned property is converted into an equity stake in the overall development.

Contributing city-owned land as equity is appropriate in several cases. When the regeneration project consists solely of city-owned property and challenges face redevelopment of the site, this adds costs to the development and may discourage the private sector from investing. Such challenges might include environmental remediation that may be necessary or presence of an historic building that requires rehabilitation or carries development constraints. Rather than let the property sit vacant and continue to cause blight in the neighborhood, the municipality may choose to contribute the value of the land to pay for these extemporaneous development costs to incentivize private investment and enable redevelopment of the site.

A municipality may also choose to contribute a city-owned site as equity if it wishes to catalyze regeneration of a larger area where the market has lacked investment. In either of these two cases, the residual land value of the city-owned property may not be significant; thus to put the property back into active use, it may require contributing the land for free while the developer pays for the cost of redevelopment and can still achieve a good financial return.
Advantages

Although disposing of city-owned land may not always generate direct revenue for a municipality, it can create secondary economic and physical benefits that can be quantitatively analyzed.

*Increased taxes and employment:* Transferring public property that has not previously generated any property taxes for private development puts the property on the city’s tax rolls. Redevelopment of city-owned property is a tool for creating new jobs. If the property gets redeveloped for commercial use, this can generate additional types of tax revenues, such as sales and/or income tax. There are potentially other public benefits depending on the development program for the site, such as the creation of affordable housing or public amenities.

*Enables project to self-finance:* Disposal of city-owned land can result in direct cash revenue for a municipality in exchange for leasing or selling city-owned land.

*Physical Benefits:* Disposing of a city-owned site can create physical benefits as well, such as by removing blight from a community. The new use for the site may have a purpose that serves and benefits the public; therefore, disposing of a property for private or nonprofit development can create a community asset.

*Risk Reduction:* This approach can help reduce an urban regeneration project’s overall capital financing risk, in that contributions of public land toward joint ventures generate funds upfront for the developer and therefore reduce some financing uncertainty (which can make it easier for a developer to secure private financing). Last, this approach is a lower cost source of financing, relative to borrowing from the capital markets.

*Minimal negative fiscal impact:* Another benefit of disposing of city-owned land as a redevelopment tool is that it may allow a city to invest in improvements without using capital sources. This approach creates minimal negative fiscal impact and puts an underutilized property into use.

Disadvantages

Disposing of city-owned property has a few drawbacks and challenges.

*Development constraints:* The city may not get the maximum value of the property if there are any major development constraints or burdens placed on the developer. A public subsidy may be required, and political concerns may be expressed regarding discounting land value to reach policy goals.
Night view at the waterfront in Puerto Madero, Buenos Aires
SALE OF DEVELOPMENT RIGHTS
**What It Is**

In an area targeted for redevelopment, and where a municipality would like to encourage dense development, it may sell development rights beyond the limits specified in land use regulations. This tool has been used in São Paulo, Brazil; Lima, Peru; Stuttgart, Germany; Hong Kong, China; and New York City, United States. In the city of São Paulo, for example, the municipality sells air rights by auction. See Chapter 4 for a case study summary.

In this context, development rights generally refer to the maximum amount of floor area permissible on a zoned site. Where appropriate, cities may choose to grant rights on specific properties in excess of the floor areas allowable in terms of the current zoning regulations.

These "excess density rights" are publicly controlled and have economic value that a municipality may choose to sell. A municipality may aim to encourage dense development in an area targeted for redevelopment; however, offering a density bonus as an incentive for a developer would not generate any direct revenue for the municipality. As an alternative, the municipality may sell the additional development rights. Proceeds from the sale of development rights may become a new capital source and may be used to help fund infrastructure and/or other public improvements.

This tool typically entails a municipality selling excess density rights on privately owned property. If a municipality owns property that has improvements that are not built to the maximum allowable density permissible by zoning, it may also sell its excess density rights, transferring them to a private site that is in a zone that is able to receive transferred air rights. The rights associated with transferring unused density from one property to another are commonly called "transferable development rights" (TDRs).

**How It Works**

*Regulatory Considerations:* Selling excess density rights or use of TDRs requires a well-designed regulatory framework and enforcement capacity. For a municipality to institute the sale of air rights in a particular area of the city, this typically gets codified in the city's zoning regulations. This may entail a planning process, run by the city, that includes informing the public and gaining their support, and developing a zoning resolution for review and approval by the local governing body.

The zoning resolution typically specifies the location and zoning district(s) where the sale of development rights is permissible. It may also specify the process in which a developer could apply to purchase and receive a zoning bonus.
Valuation: The municipality establishes the initial purchase price for the development rights, which is calculated on a per-square-meter (or square-foot) basis of floor area. The purchase price is set based on market demand for development rights. Depending on the location and the market, air rights may have significant financial value.

In New York City, air rights values are typically worth about 60 percent of comparable land values. But the value can differ given the desirability of the land. Two main factors determine the value of air rights and the frequency of their transactions: location and zoning. In New York, where there are areas that are zoned with no building height limitation, there have been many sales of development rights.

The initial purchase price is usually subject to adjustment for inflation in the years after the development rights are sold. For example, in New York City, the municipality set the price of additional square footage at $100 per foot in 2007. In 2014, with inflation, the price rose to $125.

Execution: If a city approves a zoning bonus application, it generally enters into a purchase agreement with the applicant. Payment for the development rights is typically due before the filing for or issuing of any building permit allowing more than the base maximum floor area for the zoning lot.

Implementing the sale of development rights typically involves the steps shown in figure 9.

What It Costs

The transaction costs associated with the sale of development rights vary, depending on the method of sale a city implements (e.g., sale via an auction to the highest bidder or a set-price sale in the open market). The sale of development rights requires a city to invest administrative resources to institute the appropriate mechanisms in the city’s zoning regulations, to administer the program, and to complete legal real estate transactions. Depending on the additional administration resources required, the sale of development rights may not result in a negative fiscal impact.

When To Use It

Below are key characteristics of a property suitable for the sale of development rights for a specific urban regeneration project:

- **To transform a low-density area into a high-density area:** For private or city-owned properties in an area where the municipality supports additional density beyond the existing maximum allowable floor area permitted on a zoning lot – for example, within “walking distance” of a transit hub.
- **When market demand for high-density development is strong:** That is, where the market demand for office and/or residential space is high and developable land is scarce. This creates the opportunity for a
municipality to capitalize on scarce developable resources. A shortage of vacant land increases the value of air rights. This increases the demand for purchasing additional development rights.

- **In an area where there are not restrictive height limitations**: A largely vacant area that is near an active commercial district is prime for incremental growth and the application of the sale of development rights. However, when the commercial market is flat, there is little incentive for commercial real estate developers to purchase air rights due to the expected low return on those air rights.

Additionally, this tool offers a few strategies are available to support a city that aims to create a mixed-income community where the sale of development rights is authorized. These may include:

i. the dedication of a portion of the development rights proceeds to finance the construction of low- and middle-income housing;
ii. the pairing of the additional rights with the tool of inclusionary zoning; and
iii. the construction of affordable housing units as a precondition for a developer receiving additional FAR.

### Advantages

**A new revenue source, with almost no negative fiscal impact**: The sale of development rights creates a direct positive fiscal impact, because it results in a direct return for a municipality. Selling development rights has traditionally been used to offset the costs of building new public improvements in an area where the sale of development rights is permissible or for improvements elsewhere in the city.

**Improvement in property values**: In addition to receiving a cash payment in exchange for development rights, this tool results in additional revenue for a municipality: adding development rights to a private property adds value to the property. The additional improvements result in a higher assessed value and, therefore, higher property tax revenue for the city.

**Retention of city-owned land**: TDR does not require selling city-owned land – an advantage in cities with scarce land resources, or where the Municipality does not itself own much property.

**Flexibility in disposal of proceeds**: The proceeds of a sale of development rights can be put into a fund to pay for building and operating infrastructure or other improvements that the municipality seeks to develop.

### Disadvantages

**Restricted applicability**: This tool is only useful if there is a demand for development rights, i.e., where the commercial real estate market is strong, and where developable land is scarce. TDR also applies only where density can be supported beyond permissible rights under the zoning regulations.

**Potential for Social Inequity**: If not administered properly, the sale of development rights may lead to social inequity. Private owners and developers will generally seek the highest return on their investment by using the development rights to build high-end commercial or luxury residential development, which a city may not intend to support. Regeneration done in this manner would benefit only the wealthy population.
DENSITY BONUS
Density bonuses are a zoning tool that allows developers to increase height and/or bulk in a project by allowing building heights or FARs greater than the zoned maximum, in exchange for a public or a social good. This tool is used primarily for projects that include the development of housing units.

The added density is intended to compensate the developer with additional revenue from the construction of additional dwellings. This recognizes the added costs of development or differences in profit margins between market rate units and the inclusion of below-market units or unprofitable amenities. The result is development that provides additional density and public benefits without direct public funding.

This tool does not generate direct revenue and is therefore not used for infrastructure or operational costs. Rather, it is intended as an in-kind payment in exchange for the development of a public or social good.

The rationale for this zoning tool is to use local market demand to promote a policy goal, usually in housing.

The city of Toronto, Canada, established a formal density program that requires a developer to execute a community benefits agreement in exchange for density. See Chapter 4 for a case study summary.

While density bonus programs are uniquely tailored to the specific market and the regulatory institutional context of a given city, the process for creating a density program typically involves the major steps shown in figure 10.
Additional considerations when implementing density bonus programs:

**Addressing Development Goals:** The density bonus program could be used to address one or several goals of the city’s development plan. For example, if the density bonus program is created to promote a city’s affordable housing goals, the program would identify the targeted level of affordability and tenure (rental and/or ownership). If the private housing market is producing rental housing affordable at a moderate-income level, the density bonus program may be focused on low or very low-income rental housing. The aims of the density bonus program may be reviewed and amended should the focus need to change.

**Assessing Density Bonuses:** In determining the bonuses to be granted, municipalities may choose to provide a FAR bonus or a units-per-acre/hectare system. However, density expressed in units-per-hectare may result in developers providing smaller units to maximize their unit yield. Therefore, expressing density in FARs would create fewer tendencies to reduce the size of units.
Some cities utilize a menu approach to density bonuses. For example, a city may grant a bonus to a developer for including either affordable housing or open space in a development. It is critical for a city considering the implementation of a density bonus program to understand whether there is market demand for a specific land use. If the density bonus does not match what the private sector demands, the program may not be used. The program should also be directed to areas with development capacity.

**What it costs**

Minimal negative fiscal impact and minimum administrative costs are associated with a density bonus program. In terms of administration, a density bonus program typically requires an amendment to a municipality’s comprehensive citywide land use plan and zoning regulations as well as staff to administer the program.

**When To Use It**

Density bonuses are a way to harness a strong market to construct affordable housing and other necessary public benefits. Communities that have strong housing markets and wish to develop affordable and diverse housing options not available through the private market may consider offering a density bonus system in single-family, multifamily, or mixed-use zones. Different levels of bonus may be offered for different development intensities.

The following key preconditions may be used to determine if it is appropriate to use a density bonus for a specific urban regeneration project:

- **A strong market** where the development of a needed public or social benefit is not available through the private market.
- **When market rents and/or home prices are high, land values are high, and land is scarce.** Under these conditions, density bonuses are more likely to be successful in lowering development costs or spreading costs across more units. If developers can easily develop market-rate housing at lower densities, the density bonus will not likely be accessed.
- **Where the municipality supports additional density beyond the existing maximum allowable floor area permitted on a zoning lot.**

**Advantages**

*Encouraging development:* Providing density bonuses can be advantageous for a municipality that would like to encourage dense, mixed-income development in specific areas of the city. They may provide an incentive for a developer to build additional floor area, which adds value to the overall development and can lead to a significant return for the developer even when developing a portion of the building with a below-market use or unprofitable amenity.

*Minimal fiscal impact:* Density bonuses do not require using a city’s financial resources to implement them. Therefore, they do not result in a negative fiscal impact. Although they do not provide a direct source of capital for a municipality, they typically result in secondary fiscal benefits. Density bonuses incentivize improvements of private property, which increases the value of that property and therefore, increases property tax revenue for the municipality. They can also result in a public or a social good that the municipality does not have to finance.

*Increases in tax revenues and employment:* If the property gets redeveloped with a commercial use, this may generate additional revenue in the form of sales or other business taxes. Redevelopment also creates jobs. Density bonuses may be used to encourage the development of affordable housing to help promote a sustainable, mixed-income community.

*Effective use of scarce land resources:* Another advantage of density bonuses is that they do not require public land resources to promote dense urban regeneration. These land resources may be scarce. Rather, density bonuses are used for privately owned lots within a specific area where intense development is encouraged. They may also promote dense development rather than a sprawling, low-density land use pattern.

*Minimal use of public infrastructure:* Density bonuses encourage the more efficient use of public infrastructure and generally do not require the development of costly additional infrastructure.

**Disadvantages**

*Minimal fiscal benefit to a municipality:* Density bonuses do not create a direct revenue source for a municipality, nor do they help pay for a municipality’s network infrastructure needs. In addition, this tool can create long-term operating liabilities for a municipality.

*Limited applicability:* Density bonuses are not useful in weak markets where developable land is abundant and there is low demand for dense development, which is costlier to contract.
ADVANTAGES

- Encouraging development
- Minimal fiscal impact
- Increases in tax revenues and employment
- Effective use of scarce land resources
- Minimal use of public infrastructure

DISADVANTAGES

- Minimal fiscal benefit to a municipality
- Limited applicability
A view of buildings in downtown Toronto viewed from the air.
LAND READJUSTMENT SCHEME
What It Is

A land readjustment scheme describes a scenario in which multiple property owners within a specific geographic area pool their properties together in order to enable spatial reconfiguration and unlock higher overall market value for the combined property.

Land readjustments have been an effective urban land development tool widely practiced by countries around the world, including Australia, Canada, Germany, Indonesia, Japan, Korea, Nepal, Taiwan, China, and Turkey. These countries have different land policies and land registration systems. Since every country has its own land readjustment legislation, no single land readjustment model has been standardized and used worldwide. Nevertheless, these countries have commonly recognized the main concept of land readjustment, with slightly different implementation and procedures.

One form of readjustment scheme to capture land value involves the local government, landowners, and developers joining together to consolidate multiple land parcels into a single site that can then be developed into a higher-density building or development project. In a targeted redevelopment district, the local government would modify zoning codes from single use to mixed use and increase the maximum floor area ratio.

In Japan, land readjustment schemes have been implemented to promote transit-oriented development in urbanized areas. Shinagawa Station in Tokyo demonstrates a land readjustment in an urbanized area within the city center. See Chapter 4 for a case study summary.

How It Works

Consolidating resources: A municipality seeking to promote dense, urban regeneration of a particular area may seek to work with local property owners and foster a partnership between owners and developers who have expertise and access to capital. The partnership between small parcel owners and professional developers could result in an urban redevelopment project that constructs a taller, higher quality building on the property prepared by assembling small parcels.

Retention of Property Rights: Through a developer-landowner joint venture, the original landholders and building owners are entitled to keep the property rights of floor spaces in the new building that are valued as equal to their original property (though sometimes one developer will purchase all of the property rights from the original owners to accelerate the redevelopment). Figure 11 and Table 2 illustrate a developer-landowner joint venture involved in a transit-oriented land readjustment scheme.
Figure 11 Land Readjustment Scheme in an Urbanized Area

Urban Redevelopment Scheme used in Japan
(Hypothetical Situation)

Source: Suzuki et al. 2015: 10.

Table 2 Stakeholder Contributions and Benefits in a Land Readjustment Scheme in an Urbanized Area

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Contributions</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landholders A, B, C, D, E, F, &amp; G</td>
<td>Land parcel for the new building</td>
<td>Joint ownership of land for the new building (Section A, B, C, D, E, F, &amp; G) with higher access and better local infrastructure and provision</td>
</tr>
<tr>
<td>Building owners a, b, c, d, &amp; f</td>
<td>Old buildings and housing units</td>
<td>Ownership of the new building (Section a, b, c, d, &amp; f) with higher access and better local infrastructure and service provision</td>
</tr>
<tr>
<td>Developer</td>
<td>Capital and property development expertise</td>
<td>Profit from Section X and from surplus FAR</td>
</tr>
<tr>
<td>Transit company</td>
<td>Construction of transit station</td>
<td>Transit supportive environment/increased ridership</td>
</tr>
<tr>
<td>Local government</td>
<td>Change in zoning code (from single use to mixed use with higher FAR)</td>
<td>Higher property tax revenue, promotes local economic development</td>
</tr>
</tbody>
</table>

Source: Suzuki et al. 2015: 11.
What It Costs

A master plan that involves a land readjustment of an urbanized area may require building new public infrastructure (e.g., wider roads, a public plaza, and/or other amenities) to support a dense, mixed-use urban development. This new infrastructure would require public and/or private resources to finance and build. If a municipality has land to contribute toward the joint venture, a private developer could potentially finance and build the necessary infrastructure. The proceeds from the sale of surplus floor area may be one resource to help pay for infrastructure costs, but other resources may be required.

When To Use It

A land readjustment scheme that is able to capture land value is possible where:

- A municipality aims to transform a low-density area into a high-density area.
- Land assemblage is necessary to implement the master plan for the area.
- The local government has modified zoning codes to increase the maximum allowable density.
- Market demand for high-density development is strong but developable land is scarce. A shortage of vacant land increases the value of air rights. In this case, owners of small parcels may take advantage of up-zoning and consolidate their property to construct a dense development and profit from the increased value as a result of the improved property.
- Local property owners and developers are willing to enter into a joint venture to redevelop their properties at a higher density, in exchange for future financial gains.

Advantages

Positive economic impacts: Land readjustments allow for cities to assemble land on which to build new infrastructure that provides public benefits. In some cases, there may be excess private land or floor area after the land readjustment and after owners receive a new parcel or floor space whose current market value is at least the same as the value of their original property. The municipality may sell these excess parcels or development rights to help pay for the costs of constructing public improvements.

Secondary economic benefits: Land readjustment schemes may also result in secondary economic benefits, such as the creation of new jobs. For transit-oriented developments, they may catalyze commercial development by businesses that would like to locate near public transit.

Increased tax revenues: In most cases, fiscal impact to the municipality is in the form of higher property and other taxes. By transforming an area characterized by underutilized parcels of land and reorganizing the neighborhood into a dense development, this may increase the value of property and may, therefore, increase property tax revenue for the municipality.

Potentially self-funding: Land adjustments may require minimal public funds to acquire land compulsorily for public purposes. They can result in surplus land or floor area that a municipality can sell and use the proceeds to substantially cover the costs of necessary new infrastructure for the redevelopment. In a carefully planned land readjustment project, local infrastructure investments could, in theory, be self-financing.

Sustainable development: Land readjustments promote dense, mixed-use development. They may foster economic growth of the area, for example in the creation of jobs, new housing, and additional tax revenue.

Involvement of original owners: Unlike expropriation, this tool allows original owners to participate in land redevelopment, enabling them to access financial gains generated by the project.

Disadvantages

Difficult to negotiate: The negotiation process between the local government and property owners on property valuation and reallocation issues may be lengthy and contentious. Property owners must be convinced of the benefits of giving up their property, potentially in exchange for potentially a smaller property with a higher value.

Resource-intensive: To construct the necessary public improvements, municipal capital resources may be necessary to finance and build the infrastructure. Land readjustments by themselves are not a financial resource to construct public improvements.
SECTION 3 OVERVIEW OF SELECT LAND-BASED FINANCING TOOLS

ADVANTAGES

• Positive economic impacts
• Secondary economic benefits
• Increased tax revenues
• Potentially self-funding
• Sustainable development
• Involvement of original owners

DISADVANTAGES

• Difficult to negotiate
• Resource-intensive

Shinagawa aerial view with station and buildings, Tokyo
section 4.
Case Study Summaries of LBF Tools
Public Policy Objectives

Tysons Corner, in the metropolitan Washington DC region, in the United States, provides an example of a special assessment district. Tysons Corner is a fast-growing employment and retail hub located about halfway between downtown Washington, DC, and Dulles International Airport in Virginia. It is the largest business center in the U.S outside of a major urban center, and the main economic engine for its region, Fairfax County. The region is projected to experience population growth of 45 percent and employment growth of 60 percent between 2005 and 2020. The County and major business interests in the area want to strengthen Tysons Corner’s economic base and unlock additional growth potential, which would increase the number of jobs and number of residents.

In 2003 approximately 25,000 people worked in Tysons Corner, commuting to the area predominantly by car, and to a lesser extent by bus. Congestion was a major issue in the area’s limited road network, which was at capacity and could not accommodate further increases in traffic. If not managed effectively, allowing for increased real estate development to drive growth and strengthen the economic base would exacerbate an already bad congestion problem.

As congestion had become a constraint on the development of real estate, local authorities came to see multi-modal transit-oriented development and the careful management of land use policies as the key to unlocking the area’s commercial potential.

Why Was the SAD Created?

Regional, state, and federal agencies joined together to create the Dulles Corridor Rail Association (DCRA), and together proposed a $5 billion, 23-mile (37-kilometer) extension of the existing regional Metrorail system, the “Silver Line,” to improve mobility through this rapidly growing part of the region. DCRA proposed that the construction of the Silver Line take place in two phases. Phase 1 has resulted in the construction of the line with four stations in Tysons Corner at an estimated total cost of $2.9 billion. By the end of 2016, this phase had substantially been constructed and the stations all opened. Phase 2, originally anticipated to open in 2018, would add a further 6 stations (which would include a stop at Dulles International Airport) and 11 miles (18 kilometers) of track.

As the project was conceptualized, it became clear that the transit authority lacked sufficient funds to finance construction. Since the Silver Line would benefit businesses located along the corridor and their customers, commercial landowners in Tysons Corner agreed to establish a SAD to partially fund the construction of Phase 1, up to $400 million. The rest of Phase 1 construction financing would come from Dulles toll road revenues, and the federal and state governments.

How Was the SAD Created?

In 2001 the State of Virginia passed a law that enabled property owners to petition to form SADs to support transit projects. The law required that the support of at least 51 percent of property owners (based on land area or assessed value) was needed to form a SAD. To establish a SAD to finance the Silver Line, the DCRA led a successful communications campaign to obtain support from landowners in the area. A group of elected officials and landowners along the proposed Silver Line corridor joined together to establish Landowners Economic Alliance for Dulles Rail (LEADER), with the purpose of drafting and submitting a petition to form a SAD.

LEADER’s petition represented 64 percent of the assessed commercial and industrial property value in the proposed district, above the 51 percent required under state law, and was submitted to Fairfax County in 2004. The Fairfax County Board of Supervisors County approved the petition a month later and appointed a commission to oversee the SAD that included an advisory board comprising area property owners.
How Does the SAD Work?

The Commission proposed an assessment rate of $0.22 cents per $100 of assessed commercial and industrial property value, in addition to current property taxes. The rate was approved in 2004 and has remained unchanged since then.

In 2011, on behalf of the County, the Fairfax Economic Development Authority (EDA) issued the first series of revenue bonds, secured by the special assessment, in the amount of $205.7 million, amortized over 25 years, at an interest rate of 4.29 percent. These bonds were rated by Moody’s, Fitch, and Standard & Poor’s. Since they were not general obligation bonds backed by the full faith and credit of the county, the SAD bonds were issued at a higher interest rate, approximately 20 basis points above the AAA bond benchmark at the time. The SAD bonds were oversubscribed, with market demand of $402 million. In 2012, the second and final series of bonds was issued in the amount of $42.4 million, also amortized over 25 years, with an interest rate of 3.61 percent. This provided an additional $48.4 million for Phase I construction. For this issuance, the County had orders for almost $108 million. These two issuances, together with $131.5 million in equity contributions from prior assessment collections accrued since the district’s inception in 2005, fully funded the County’s obligation of $400 million for Phase I of the project. Construction of Phase 1 was completed in 2014, with the Silver Line operating at four new stations in Tysons Corner.

Project Outcomes

Gaining support of local land owners. It is vital for a government or sponsoring agency to come to property owners ready with a study or plan communicating project costs and benefits, and why their support is needed. To this end, analyzing the economic impacts and communicating the specific benefits to landowners were critical for the government.45 LEADER, the local association of commercial land owners, championed the creation of the special assessment district because they understood the value that improved connectivity would bring to the area. Despite a number of setbacks in the approval process, and numerous revisions to the borders of the districts, LEADER and DCRA were eventually successful in convincing affected landowners of the value of the investment which they would be contributing towards, and the positive value impacts to be derived from the investment. Additionally, the SAD bonds issued were oversubscribed, demonstrating capital market support for the project.

There are a number of lessons that can be drawn from the sustained engagement with landowners – some of these are discussed below.

Success Factors and Lessons Learned

Several factors contributed to the successful use of special assessment district-backed bonds to fund infrastructure investments at Tysons Corner.

Existing Demand. The Tysons Corner area was already a successful commercial hub with demonstrated appetite for further development. The transit-oriented development solution was able to address these development demands, while providing a land-use solution that would mitigate the negative congestion impacts which would likely have resulted from approval of the increased take-up of development rights.

Formation of a multi-jurisdictional project planning entity at the inception of the project. Because the project had many stakeholders, it was important for the major stakeholders to be unified in their support of the initiative. The formation of DCRA, which included representatives from the regional transportation authority (Washington Metropolitan Area Transit Authority), the regional airports authority (Metropolitan Washington Airports Authority), and Fairfax County, was a critical component in the success of the SAD. As a multi-jurisdictional entity, DCRA was successful in project planning the complex project and leading an effective cross-jurisdictional community outreach campaign and advocates of the project.

The DCRA established a financial cap for the SAD. Since funds from the federal and state government were already identified and committed, this conveyed to local landowners that the project was at a fairly advanced planning stage and capable of being built. The cap also suggested to property owners that they would not be paying taxes ad infinitum, but that their contribution was going toward a finite, critical shortfall. The cap helped gain the support of local property owners.

The DCRA was able to clearly identify to property owners the project need and costs of inaction. The costs were evident to those working in Tysons Corner: density had brought with it an enormous increase in traffic, congestion, and a lack of pedestrian-friendly access to amenities, all adversely affecting the quality of life for those living and working in the precinct. Employers had turned to more accessible locations with superior amenities, closer proximity to airports, and a wider choice of housing options for workers.46 In the early 2000s, the DCRA produced an Environmental Impact Report to conduct an analysis of other alternatives to rail. The report involved traffic demand scenarios, and provided thorough evidence that rail was critical to long-term traffic management in the case of any...
envisioned increases in development. Understanding the need, the costs, and the benefits was critical to gaining the local owners’ support.

The SAD aligned with the redevelopment goals of the County’s master plan. The 1994 Tysons Plan envisioned a mass transit line in Tysons and transit-oriented development around the new stations. The Plan supported unlimited building densities (FARs) for properties located a quarter mile from the new transit stations. Aware of the Plan, property owners knew that they would be able to redevelop their properties at significantly higher densities and therefore profit, thus making increased tax payments more feasible. Redevelopment at higher densities had started in 2003, before the SAD was created. The incentive for property owners to increase tax payments as a result of the increased density supported by the County’s plan prior to forming an SAD played an important role for the success of the SAD.
TAX INCREMENT FINANCING CASE STUDY

ATLANTIC STATION,
ATLANTA, GEORGIA, USA
City Objectives

One example of a city’s successful use of TIF to finance urban infrastructure and catalyze regeneration can be found at Atlantic Station, in Atlanta, Georgia, USA. This 138-acre (56-ha) former steel mill is centrally located near the city’s downtown, and well-positioned along major thoroughfares. The site developer had initially proposed that a traditional office park with adjacent retail complex and residential blocks be constructed on the site.

However, given that the site was contaminated from decades of use as a steel mill, it was designated a brownfield by the U.S. Environmental Protection Agency (EPA). This designation required that the site undergo significant environmental remediation before it could be put to other uses. The costs associated with this remediation would render the development financially infeasible, and the design and development concept needed to be reassessed.

In a new iteration of the design concept, the developer made the case for remediating the site, encouraging a denser, more mixed use and transit-oriented development. This new urban form and central location provided significant environmental benefits in comparison to their initial proposals. As a result of this change, and the developer’s ability to communicate the environmental, economic, social and fiscal benefits of the new development proposal, the city and EPA were encouraged to assist the developers.

After significant negotiations among a range of public sector agencies (including the city, EPA and transit authorities), the public sector agreed to help advance the project by subsidizing the cost of required environmental remediation and site improvements, through issuance of TIF bonds. The use of TIF paved the way for follow-on investment by the site’s owner / developer in the construction of a brand new mixed-use neighborhood.

The public sector had two main policy objectives for the redevelopment of the former steel mill site into Atlantic Station. First, the city wanted to remediate the environmentally contaminated site. Second, it wanted to combat sprawl and increase attractive options for more compact, urban living. Although the closure of the steel mill contributed to the loss of thousands of jobs as it gradually scaled down operations between the 1980s and the late 1990s, metropolitan Atlanta was generally experiencing unprecedented growth. People had begun to move back into the urban core for the first time in 50 years, and Atlanta had become the fastest growing city in the southeastern region of the United States.

Due to its central location and size, Atlantic Station presented a tremendous opportunity – from the city’s perspective – to develop a new neighborhood that could attract additional residents closer to downtown. The city envisaged that the site could be developed into a high-density, mixed-use transit-oriented community, which would accommodate population growth in a sustainable way.

Development Program

The scale of the proposed project and the significant remediation required was challenging for the landowner, Ivaco Inc., and its development partners to handle without public sector support. As a result, a close collaboration with the city was established in order to finalize the master plan and redevelop the site. Because the site was designated a brownfield site and the redevelopment plan proposed major transportation infrastructure...
improvements, the redevelopment project had to obtain many regulatory approvals beyond those typically required for a development site. Collaboration between project stakeholders was important in order to address the overlapping complexity of local-, state-, and federal-level planning and regulatory approvals. The original plan evolved to meet the city’s economic, environmental, and social goals for the site.

In 1998 the city approved the rezoning of the site from “Heavy Industrial” to “Commercial and Mixed Use” in anticipation of its redevelopment. The city and the development team agreed that the project would be developed in three phases. These phases would be structured to prioritize the environmental remediation (which was required to make the site suitable for development) while distributing the costs of public infrastructure (principally roads and reticulation utilities and parking) over several years.

The development was to include the following:

- Office Space: Approx. 557,000 square meters (140,000 square meters built to date as of 2015)
- Residential Units: 3,600
- Retail and Entertainment: Approx. 140,000 square meters
- Hotel Room Keys: 101
- Public Park Space: Approx. 4.5 hectares
- Project Timeframe: 1998 to present
- Total Development Cost: approximately US$2 billion (to date as of 2015)

Why Was the TIF Created?

Once a redevelopment plan had been agreed to, the city and developer needed to negotiate which parties would be responsible for paying for the various types of infrastructure required at the site. It was agreed that the public sector would help pay for certain infrastructure improvements – including on-site roads, utilities, environmental remediation and capping, and a below-grade public parking structure. The private sector would finance vertical development and a right of way ($50m). The city agreed to provide the bulk of the local public sector contribution of $170m, while the state and federal governments contributed US$50 million toward the construction of a bridge that would provide a direct connection between Atlantic Station and nearby transportation and transit routes.

The city sought to raise the $170m it required through the use of tax increment financing (TIF), and with authorization from the Georgia Redevelopment Powers Act, the city of Atlanta established the Atlantic Station Brownfield Tax Allocation District (ASBTAD) to pave the way for the use of TIF bonds.

Once fully built out, the project was expected to cost US$2 billion in total development costs, including on-site infrastructure and remediation at US$270 million, as mentioned above. Private financing alone could not support all the project costs. Specifically, if the developer had to be responsible for paying for all the infrastructure and remediation costs, the project’s financial returns would be too low for the developers and investors, making the project infeasible. Considering the positive economic and social impact to be generated by the project, the developer approached the city for financing assistance. The city supported the project because it aligned with policy goals, and determined that the project would become Atlanta’s first project to implement TIF.

How Was the TIF Created?

The state of Georgia’s Redevelopment Powers Law authorizes TIF to be used within the state. To establish a “tax allocation district” (TAD), state law requires that all governments with tax authority within the district (including city, county, and school districts) must obtain approval to use all portions of property tax revenues. Invest Atlanta, formerly the Atlanta Development Authority, manages and administers TADs formed within the City of Atlanta.

By law, the city must have an established and credible redevelopment plan before the creation of a TAD. In 1998 the city developed a master plan to address the redevelopment needs of ASBTAD, and the developer commenced site remediation work. In 1999 the Atlanta City Council approved the creation of the TAD based on the master plan, following several public hearings held to gain public input. In 2001 the city formally established the Atlantic Station Brownfield Tax Allocation District (ABSTAD), and construction of Phase One of development commenced while the developer completed site remediation work.

How was the TIF structured?

The city established a TAD for a 25-year term from 2001 to 2026 which it would use to raise tax increment financing through a bond issuance. The city issued two series of TAD bonds totaling $243 million: $76.5 million in bonds were issued in 2001, and $166.5 million in 2006. In addition, $85.5 million was issued in 2007, which refunded the 2001 bonds.

Project Outcomes

The use of the TAD has allowed a blighted site to be redeveloped and brought back into active economic use, creating significant positive fiscal and economic impacts.
From a financial point of view, it should be possible to repay TIF bonds through the incremental taxes generated by the redevelopment funds. More successful projects generate incremental taxes which exceed the initial projections and are thus able to repay the bonds more quickly, or provide additional tax revenues (in excess of the TIF bond repayment amounts) into the public fiscus. Atlantic Station was one such project.

The project proved a reliable source of tax revenue for the city. Before the project began, the site generated $300,000 per year in property taxes paid to the local government; by 2013 the site generated more than $30 million in annual property taxes. In addition, by 2012, the retailers in Atlantic Station contributed between $10 and $20 million a year in local sales taxes.

The project created substantial new employment, but not to the extent anticipated. From an economic development perspective, Atlantic Station has generated several thousand new retail, office, hotel, and residential management jobs, although this appears to be less than the 20,000 new jobs anticipated by the development plan.

In addition, environmental benefits were achieved not only by remediating a contaminated site, but also by promoting transit-oriented development, and increasing the urban population using these transit facilities. The project won the EPA’s “Phoenix Award” in 2010 for Best Brownfield development.

Lessons Learned

A number of underlying factors contributed to the city’s success:

The involvement of a suitable developer. In Jacoby and AIG, the city had a developer which had the financial resources to undertake a longer-term and more participatory planning process, negotiating effectively between numerous stakeholders and thus reaping longer-term financial rewards. At the same time, they were anxious to get the project started, adding pressure to resolving the challenges.

There was also enthusiastic market demand for the development product. The real estate offerings that the developer had created were attractive to the market and were very well supported. The robust nature of the financial and market feasibilities played a large part in this; so too did the community engagements, which gave the developer a better idea of what the market would require.

Aligning project goals with community interests is critical to successfully redeveloping a district within an established community. Community consultation throughout the master-planning phase created both support for and resistance to the project. At a macro level, community members and stakeholders supported the project’s plan to enhance the city’s economic, environmental, and recreational opportunities. However, at the micro level, the scale of the proposed redevelopment displeased residents of some of the neighborhoods surrounding Atlantic Station, who were anxious about the amount of change coming to their established, 80-year-old community. Considerable public outreach and education efforts by the developer and the city were essential in overcoming perceived negative impacts and resistance to the project.

Some of the challenges encountered during the development generated valuable lessons for the project itself, and for future such projects. These are detailed here:

The challenges experienced with the neighbors of Atlantic Station showed that it is important to foster collaboration and partnerships between stakeholders early in the redevelopment process. If the city and developer had approached the surrounding community earlier in the process to understand their preferences and concerns, this may have led to a smoother planning process.

All parties have to demonstrate flexibility, given the complexity and long timeframe associated with a large-scale project. Implementing the project vision was a challenge because of the scale and scope of the redevelopment, and the developer’s plans changed in response to the goals and preferences of the various stakeholders.

Increasing connectivity and accessibility to the site was more complicated than the developer envisaged. The site was physically isolated, with limited connectivity to surrounding neighborhoods. The original plan proposed the construction of a bridge providing a direct route to the city center as the primary transportation improvement. However, the EPA did not originally approve this improvement, because Atlanta was prohibited at the time from constructing new roads, freeways, or bridges, as they promoted automobile use and created new pollution sources. The plan needed to mitigate negative environmental impacts and reduce pollution rather than create new pollution sources.

As a result, the developer revised the master plan to make the development multimodal. In addition to the bridge, the revised plan included a network of local streets proposing a more fine-grained mix of uses, making the development more pedestrian-friendly. The new plan also included bike lanes. This resulted in a plan that promoted connectivity at both the regional and local scales. The new plan gained regulatory approval from the city of Atlanta, the State of Georgia, and the EPA, allowing the project to proceed.

While Atlantic Station has been labelled an economic and environmental success, there have been critics who have argued that the design of the road reticulation and access could have been improved upon.
LEVERAGING MUNICIPAL REAL ESTATE CASE STUDY

PUERTO MADERO, BUENOS AIRES, ARGENTINA
City Objectives

The Puerto Madero neighborhood, which covers 170 hectares adjacent to the southern coast of Buenos Aires, Argentina, was the site of the city’s first port. During the 1980s and 1990s, the dominant trend of the city’s growth was a shift of central business activities away from the downtown area toward the north and northwest axes of the city. This sprawl, together with the development of gated communities 30–50 kilometers away from the downtown area, was considered a threat to the economic sustainability of Buenos Aires’s urban core.

In 1981 the Buenos Aires Municipality prepared a plan for extending the city’s Central Business District (CBD) by redeveloping the port area southwest of the CBD – an area that had become underutilized and derelict. Puerto Madero was conceived as a catalytic project that would overcome years of disinvestment in the Buenos Aires CBD. Regenerating the port area for higher-value land use helped to change the public’s perception of the downtown area, and revitalize the central business district.

The local government had a vision and clear objectives for the revitalization of Puerto Madero, but it did not have the necessary funds for its development. Further, no private funding was available for a project that did not guarantee high returns. The government decided to adopt a self-financing scheme led by a public corporation that would manage the land to be developed.

The municipality did not rely on direct subsidies, an injection of public funds, direct private capital, or a joint venture to promote private sector participation. Instead, all of the project’s expenses, including administrative expenses and infrastructure, were financed through a strategically phased land sale and disposition process.

How was the Land Disposition Approved?

The Puerto Madero project began with the Administrative Emergency and Economic Emergency Laws enacted in 1989. The laws permitted the local government to quickly create an administrative entity with real proprietary rights over the land. The adoption of the Administrative Emergency Law, together with Presidential Decree 1279, established the Corporación Antiguo Puerto Madero Sociedad Anónima (CAPMSA). CAPMSA served as the lead public entity that would oversee the redevelopment of Puerto Madero.

CAPMSA was created as a Public Limited Society and was permitted to function almost as a private company. It was allowed to buy, sell, exchange, rent, and lease assets, and to create joint ventures with other companies to carry out any appropriate acts for the accomplishment of the corporation’s objectives.

CAPMSA developed a Master Plan as an instrument of negotiation with the developers. It was loosely based on previous planning efforts for Puerto Madero that had never reached implementation, and was used as more than a strict regulatory framework. It went through a series of iterations as the result of dialogue with new partners and advisors, including international consultants who had assisted with the development of Barcelona’s port, local professional associations, and organizations representing the users of the port. Since Puerto Madero’s area was not residential at the time, there was none of the typical community participation in the planning process.

Finalized in 1992, the Master Plan, called for more than three million square meters of development, including 28 hectares of public park space. In April 1994 the plan was formally approved through Ordinance 001/94.

How Was Public Land Sold and Disposed of for Redevelopment?

The implementation strategy for Puerto Madero involved a three-stage process:

First Stage (1989–1993): The first stage comprised the launch and anchoring of the project. This included the preparation of the land, entailing land acquisition, surveys, the development of a master plan, and the sale of 16 port warehouses on the west side of the docks.

At the time, 95 percent of Puerto Madero’s land was publicly owned by the General Administration of Ports (AGP), a federal agency under the Ministry of Public Works. Ordinance 001/94 authorized the transfer of AGP’s property to CAPMSA (for free) without the need for Congressional approval. This helped to facilitate and expedite the redevelopment process.

As part of the negotiations between CAPMSA and AGP for the transfer of the majority of the property, the parties agreed to preserve some of the land for AGP, for continued use as a container yard to serve the port. AGP agreed to pay rent to CAPMSA for use of a portion of one of the docks. This income represented some of the first funds received by the corporation.

Aside from AGP’s land, CAPMSA worked with two other property owners in Puerto Madero for the acquisition of the remaining land: Molinos Rio de la Plata, a private owner with rights over six lots, and the Colegio Nacional de Buenos Aires, part of the University of Buenos Aires, the largest public university in Argentina.
While the master plan was being finalized, CAPMSA started to sell off the land. CAPMSA did not have enough resources to invest in major public infrastructure upgrading for the entire site, and needed to generate income to pay for the necessary infrastructure improvements. The corporation and the local government worked together strategically to i. Rezone the western portion of the site on which the 16 warehouses were located to allow for mixed-use development; and ii. Sell off this land first. The western portion of the site had almost all of the necessary infrastructure in place. With this infrastructure and the rezoned land designation established, the land had significant value, on which CAPMSA could capitalize by selling off property.

Second Stage (1993–1997): This entailed the consolidation of the west side and the first sale on the east side. CAPMSA sold the western portion of the site to several buyers, accruing US$25 million in land proceeds. The Catholic University (Pontificia Universidad Católica Argentina [UCA]) played an anchoring role by purchasing four of the warehouse lots. UCA redeveloped the lots to house its Schools of Economics and Law, and for an art pavilion dedicated to cultural activities. The institutional presence of UCA gave the west side of Puerto Madero a sense of place. UCA had a long-term interest in the area and helped to anchor the community and foster sustainable growth.

In 1993 CAPMSA sold a 20-hectare block located on the east portion of the site to developer Newside S.A. for US$9 million. According to the final Master Plan, this portion of the site was proposed for use as fairgrounds, an exhibition and convention center, a hotel, and other uses. However, the zoning for the east side had not yet been amended, and the land was still targeted for port operation uses. Although CAPMSA was able to begin selling parcels on the east side, redevelopment of the east side did not take place until proper zoning was in place and construction of necessary infrastructure improvements commenced.

Third Stage (1997–2012): The final stage entailed the consolidation of the east side and the commencement of infrastructure improvements. The Urban Planning Code was amended to allow for the new zoning of the east side in 1997. The east side was up-zoned to allow for residential, administrative, commercial, financial, and institutional facilities in the highest degree of density. With the zoning approved and financial resources obtained through the sale of property, the program for major infrastructure investments was publicly launched.

Construction of infrastructure took place in three phases. In 1998 CAPMSA announced a US$40 million infrastructure investment for the east side comprising potable water, sewage and storm water pipes, electricity, telephone, cable television, and data transmission systems. It also included the construction of 15 kilometers of new roads and street lighting. CAPMSA sold the remaining 50 percent of the land in Puerto Madero after the infrastructure improvements were made. In sum, CAPMSA generated US$300 million from the sale of land in Puerto Madero, and the total infrastructure cost was US$113 million.

The project progressed slowly during the corralito (bank freeze) crisis in late 2001, and the subsequent recession. The crisis led to a decrease in demand for commercial/office space and an increase in demand for housing. The third stage ended with the sale of most of the land and the transfer of ownership and maintenance of public road and parks to the city. The transfer was complete by the end of 2012.

Project Outcomes

The general consensus is that the Puerto Madero project was a success for the city. As with all projects though, there have been challenges, limitations and unintended consequences from which valuable lessons may be drawn.

The city was able to achieve enhanced revenue from the phased sale of land. In strategically selling off public land over time, it maximized land proceeds by modifying zoning regulations to allow for dense, mixed-use development, and used the proceeds to pay for the necessary infrastructure improvements associated with the urban regeneration project.

Success Factors and Lessons Learned

Several key factors contributed to the success of the project. These derived from the characteristics of the site, the regulatory environment in which the development took place, and some of the decisions taken by the developers and the city.

Puerto Madero’s project was founded on a set of simple principles and financial tools, and on an existing administrative framework that supported redevelopment. The site’s characteristics and the political and socioeconomic conditions that allowed for the successful implementation of the project are specific to the local context, and may prove challenging for other cities to replicate. They include the following:

- **Prime location:** Although the port area was characterized as underutilized and derelict industrial space, its location along the waterfront and adjacent to federal administrative buildings and the central business district were attractive to the market.
- **Historical significance:** The city capitalized on the site being Buenos Aires’s first port and on the existence of historic buildings on the property. The historic character of Puerto Madero was thus preserved. This
helped to create a sense of place and a brand for the redevelopment, making the project more marketable and viable.

**Land tenure was relatively simple.** With few landowners controlling the land in Puerto Madero, and no residential uses, land acquisition was relatively straightforward, and this helped expedite the redevelopment process. The speed of the process also meant that public consultation and the debates around the area were limited, facilitating quicker implementation. Similarly, decision-making was confined to a small number of stakeholders.

**The political and regulatory environment supported redevelopment of the area.** The project benefited from the rights under the Administrative Emergency and Economic Emergency Laws. This facilitated the creation of an administrative entity, CAPMSA, that would have real proprietary rights over the land and that permitted the sale of public property. The project also benefited from having local political support to put zoning regulations in place to support dense, mixed-use development. Intensified zoning increased land values for the municipality, which increased property tax revenues for the city. Mixed-use development near the CBD helped to revitalize and sustain Buenos Aires’s urban center amidst a trend of development moving away from downtown and sprawling to the north of the city.

**The decision-making process was centralized:** The government established CAPMSA as the lead public entity, creating a centralized decision-making authority. Having an entity whose sole focus was managing the redevelopment of Puerto Madero fostered the successful transformation of the site. Although the local administration changed over the years and new administrations brought new political priorities, CAPMSA was mostly immune from political changes. This helped simplify the long-term redevelopment process with minimal delays. CAPMSA was responsible for working with public and private stakeholders involved with the redevelopment and for making key decisions, leading to relatively quick project execution and rapid results. Without a single-purpose entity such as CAPMSA, the project may not have been completed as expeditiously or as successfully.

Some of the challenges encountered during the development generated valuable lessons for the project itself and for future such projects. These are detailed here:

**Better pacing of land sales could have realized even more revenue.** Some of the administrators involved now recognize profits would have been maximized for CAPMSA by land sales having been paced more strategically once all of the regulations were in place. Specifically, this would have entailed releasing less land between 1997 and 1999. Much of the profit ended up going to private developers. Yet, looking at the original project’s objectives – to revitalize the Buenos Aires CBD, catalyze investment in the surrounding areas, provide an economic stimulus, and generate employment – it did well. The Buenos Aires CBD is now buzzing with activity, and the Puerto Madero area itself has become a new destination for both local residents and tourists and is now one of the wealthiest neighborhoods in the city.

**The project limited the development of low cost housing in adjacent neighborhoods.** The regeneration of Puerto Madero also faced its share of challenges. Although Puerto Madero has become a wealthy and successful mixed-use development, it sits next to two of the city’s poorest communities, Rodrigo Bueno and Boca. No low-income housing was included in the master plan, as inclusion of low-income housing would have reduced the land value the city would have received for selling the land, or would have required a subsidy, which may have impacted the financing for public infrastructure. One city objective of maximizing market rate development partially had the simultaneous effect of limiting low income housing for the local population.

**Lack of access can create negative socioeconomic impacts.** Although the waterfront location is prime, Puerto Madero is separated from the bustling CBD by the waterway; thus the development has been criticized for being poorly served by transit and for not being well integrated with the surrounding communities. The municipality’s primary goal for the redevelopment of Puerto Madero was not to integrate the site with the surrounding community but to create a financially successful district. However, this trade-off has created negative socioeconomic impacts that the city has to address.
City Objectives

In the early 1980’s, the Province of Ontario, Canada, sought to improve communities where development and intensification were taking place and to address, at least in part, the need for additional public services and infrastructure as a result of adding population in any particular area. To this end, Section 37 of the Planning Act was introduced, authorizing municipalities in the Province to grant increases in height and density of development in exchange for the provision of “facilities, services or matters” described in a community benefits agreement – signed between the city and the site developer.

In practice, the main rationale for the benefits agreement is to compensate neighboring residents for potential negative impacts of added density. The agreement is a mechanism through which the city gets developers to upgrade or expand the capacity of facilities to maintain acceptable levels of community services for existing and new populations. These “facilities, services, and matters” in the Act include improved open spaces, public and/or social needs (e.g., daycare, community centers, public art, improved streetscaping, affordable housing), and the preservation of historic buildings.

The program is aimed at:

i. assisting the City of Toronto to recover, to the extent possible, the cost of facilities and services which are needed as a result of intensified development;

ii. compelling the beneficiaries or developers of a new project to mitigate the impacts on the community resulting from new development; and

iii. improving quality of life by enhancing community amenities.

Section 5.1.1 of Toronto’s Official Plan provides a planning framework for the use of Section 37 in the city. The City Council also adopted detailed “Implementation Guidelines for Section 37 of the Planning Act” and a “Protocol for Negotiating Section 37 Community Benefits” in the fall of 2007.

How Does the Density Bonus Program Work?

In Toronto, density bonuses are negotiated between the city and the site developer on a case-by-case basis, as follows:

- A developer approaches the City Planning Department to petition to increase the density on a site to greater than that permitted by the zoning by law.

- The Planning Department deliberates on the petition. If the Department determines the development represents “good planning”, and zoning approval is granted, then Section 37 community benefit agreements are negotiated between the city and developer.

- The appraisals section of the city’s real estate services estimates the value of the additional density at that particular site. The value of the additional density is estimated based upon the difference between the value of the property under its current zoning, and what its value would be with the new zoning in place.

- The amount of value captured by the city as a result of the increase in height density is negotiated between the planning department and the developer. While the city has not established a desired value capture percentage, recent experience suggests that the city has been able to secure between 10 and 20 percent of the increase in land value for most developments.

- According to local legislation, the individual ward councillor of the development area provides input on how the negotiated amount of community benefits will be allocated. These amounts can be paid for in cash to the city, or as an in-kind contribution of the improved facility or community benefit.

- If the city collects cash from the developer, the funds could be transferred to a specific agency depending on the purpose of the funds. For example, if the Section 37 agreement calls for some of the funds to be used for affordable housing, then these funds go into the city’s capital revolving fund for affordable housing. This money can be used city-wide. For example, if some of the Section 37 funds are to be used for parks development, then these funds are transferred to the city’s Parks Department. The Parks Department would be responsible for utilizing the funds for the specific and local purpose identified in the Section 37 agreement.

Program Outcomes

The city’s objective for the Section 37 program – to use density to recover the cost of development impacts on community facilities – was achieved. Since 1998, the density program has raised over US$240 million for community benefit contributions. In addition to this, a significant amount of additional in-kind contributions (that likely exceed the cash contributions in total value) was created. Through this funding, the City of Toronto was effectively able to use a planning mechanism to increase densities in districts where there was demand to do so, but also leverage these densities to create new infrastructure or improve existing infrastructure. This reduced the pressure on city finances, while also allowing for densification to occur.

However, there has been considerable debate as to how successful Toronto’s density bonus program has been. Most of the debate relates to the lack of consistency and transparency, and the heavy involvement of the ward councillors in the process. This is discussed in further detail below.
Lessons Learned

A number of issues have emerged over the years regarding the use of Section 37 for community benefit contributions. Because of criticisms of the Section 37 program, the city commissioned an outside consultant (Gladki Planning Associates) to provide recommendations to improve the clarity and transparency of the Section 37 process for obtaining community benefit contributions from the city. The consultant conducted background research, individual interviews with councillors and staff, and ran a series of workshops. The city issued a report with the consultant’s recommendations in 2014. The concerns and recommendations are outlined below, and serve as some of the lessons learned during the course of the program.

There was a lack of clarity over benefits. There have been complaints that community benefits in the form of “facilities, services or matters” in the Planning Act are vague, resulting in various contradicting interpretations of what constitutes Section 37 benefits. A standardized, more codified approach would provide greater certainty for all participants. It would allow purchasers of land for development to factor in the additional cost of rezoning to increase height and density as a component of their land negotiation process.

Community benefits were poorly negotiated in some cases. Another complaint has been that the value of the contribution toward community benefits negotiated between the city and developers has not been consistent. The value of contributions that were received from developers for similar developments could vary. It was determined that this variation was caused by the differing skill levels of the city negotiators when striking deals with developers. Negotiations between the city and developers also consume a considerable amount of time and effort, with developers often not clear about what is expected of them.

The report recommended exploring options for establishing a standard per-square-meter charge for additional height and density based on appraised land values, and a percentage target for capturing the increase in land value that determines the amount of community benefit contributions for developments in different areas. It also recommended that a “reasonable planning relationship” as stated in the Planning Act should be clearly established between the additional height and density and the

Examples where density bonuses have been approved and community benefits have been negotiated include:

**Studio and Studio2 on Richmond:** The site is located in an emerging area of the city, adjacent to the city’s financial district, and designated in 1996 as a priority area for regeneration. The developer proposed the construction of two high-rise condominium towers with a total of 742 residential units and community space, retail, and restaurant uses on the ground floor. The project also includes a total of 536 parking spaces and 557 bicycle parking spaces.

The total proposed density is 11.49 times the area of the lot. The east tower is proposed to be built to 31 stories, with a height of 94 meters, while the west tower is proposed to be built to 41 stories with a height of 131 meters. Zoning in the area permits a range of uses and a maximum building height of 30 meters.

To approve the increase in height from 30 meters to 90 and 131 meters, the developer agreed to a community benefits agreement that included a cash contribution of Can$1,000,000, of which 10 percent will be allocated to affordable housing in the ward. The remainder will be used for the provision of streetscape improvements, a historic preservation study for the King Spadina East Precinct, gallery space for use by the Ontario College of Art and Design, and a public art contribution. The streetscape improvements would be constructed by the developer and maintained by the city.

**21 Dundas Square:** The site is in the heart of downtown, located within the Downtown Yonge Street Regeneration area, which was designated by City Council in 1996. The developer proposed to restore two historic buildings but to retain their use as office and retail space, and to demolish a two-story historic building and replace it with a 39-story mixed-use building, 123 meters high, with five stories of commercial space, 238 residential units above, and six levels of underground parking. Zoning in the area permits a maximum building height of 61 meters.

To approve the increase in height, the developer agreed to a community benefits agreement that included a cash contribution of Can$1,000,000, consisting of $600,000 toward the restoration of one of the three historic buildings and $400,000 toward capital street improvements within the immediate area. The developer was also required to provide and maintain public art works on publicly accessible portions of the site to a value not less than 1 percent of the gross construction costs of all buildings and structures to be erected on the site.
community benefit. The planning relationship is usually interpreted as reflecting geographic proximity of the development project to the proposed community benefits, but this needs to be clarified.

**Money was left unspent.** The city has been criticized for not adequately and timeously spending the cash received from developers through the density bonus program. CBC News reported that of the US$137 million in cash benefits committed to the city from 2007 to 2011 by developers, only US$63 million has been received, and only US$11 million of that has been spent. Funds for specific community benefits are committed at the time of by-law approval, but are not actually paid until a building permit is issued.

In a number of instances, councillors have found that by the time the funds are available, the specific community benefits that were identified and embedded in site-specific zoning by-laws are no longer appropriate for a number of reasons and that more relevant, alternative priorities have emerged.

The consultant’s report recommends that funds intended for specific community benefits should be redirected if they remain unspent for a three-year period after receipt, without requiring an amendment to the site-specific by-law. The benefits toward which the funds are redirected should continue to represent a reasonable planning relationship to the original application. Additionally, there should be dedicated staff resources to address, on an ongoing basis, the timely implementation of community benefits and payments to the city as specified in Section 37 agreements.

**Power was concentrated in the hands of the ward councillors.** Another complaint is that the spending decisions of the ward councillors lack oversight by the Planning Department. The decisions of ward councillors are not governed by a defined process and are not linked to a policy that addresses larger planning goals. City staff have tried to standardize the community benefit decision-making process by creating a set of guidelines. The Ontario Municipal Board, which has ruled on a number of cases involving Section 37 issues in Toronto, determined that there must be a connection, or nexus, between the contributing development and the community benefits.

The problem, however, is that some councillors choose not to follow this. Ward councillors decide whether or not to take the advice of the Planning Department and whether to consult with the public after the benefits have been negotiated. No regulatory system is in place. This creates a situation where a councillor can establish personal priorities for amenities and insert them into negotiations. Although the development process within the city is fairly standardized, with clear regulations and transparency on the part of the city, the Section 37 process is characterized by a more ad hoc approach.

To ensure a consistent, meaningful use of Section 37, it has been proposed that all development decisions be approved by city-wide committees and, from there, at the council level. The consultant’s report also recommended that at the beginning of each council term, elected councillors should undertake an assessment to establish a set of potential community benefit contributions on a neighborhood-by-neighborhood basis, in consultation with communities and already existing departmental service plans.

**The public was not sufficiently involved.** Another lesson learned is that public information on Section 37 should be improved to gain the trust and support of the public. The report recommended that the city provide public education information explaining the city’s process for securing Section 37 community benefit contributions. It should also produce annual reports that summarize the previous year’s achievements regarding the benefit contributions.

While the council has accepted the report conducted by Gladki Planning Associates, it is unclear whether the precise recommendations have been adopted. Owing to the report, however, the City Planning Division is required to report annually to the council on the value of community benefits secured during the preceding financial year.
SALE OF DEVELOPMENT RIGHTS CASE STUDY
SÃO PAULO, BRAZIL
From the mid-1900s, Sao Paulo’s high population growth rates, combined with the weak implementation of a compact urban and spatial development framework, resulted in an unsustainable expansion of the urban periphery. Towards the end of the century, the city realized that it needed to stimulate more dense development within established urban precincts to avoid further sprawl. To support this intensified urban activity, however, costly municipal infrastructure – such as public transit, open spaces, water, and sewerage – would be needed.

Already burdened with high debt commitments, the city could not borrow to satisfy these urban infrastructure needs. In addition, Sao Paulo could not raise revenue by selling city-owned land because it owns very little developable land, unlike other cities with more of this valuable resource. This forced the city to investigate alternative ways to monetize the value of urban land. The sale of developable air rights was an appealing alternative.

The logic behind selling air rights is that owners contribute to infrastructure construction costs in proportion to the volume of their air rights use, with higher densities typically requiring additional infrastructure investments.

In Sao Paulo, the municipality offers Certificados de Potencial Adicional de Construção (CEPACs [Certificates of Additional Construction Potential]), that are sold by auction by Banco do Brasil, a federal bank, as a tradable financial security in urban districts authorized for higher-density development. In exchange, the bearer of CEPACs receives additional building rights (in a specific neighbourhood or ‘urban operation’) such as a larger FAR and possible land use changes (related to allowable buildings heights and street widths) to induce the type of private investment desired by local government.

The revenues are used to finance predetermined urban infrastructure approved under the law establishing an “urban operation.” An urban operation (Operação Urbana [UO]) is defined by the City Statute as a tool to promote the restructuring of a designated area of the city that has the potential to attract private real estate investments and benefit the city as a whole. Sao Paulo has four designated urban operations, and these are located in Centro, Faria Lima, Agua Espraiada, and Agua Branca. Within the four UOs, the municipality is authorized to capture incremental land value increases, which have resulted from land use and zoning changes, through the sale of air rights. The proceeds from the sale of CEPACs are earmarked to finance predetermined urban infrastructure within the perimeter of the UO area.

**How Did the Sale of Development Rights Begin in Sao Paulo?**

Several laws and city-wide master plans guide Sao Paulo’s urban development and transit investments. While CEPACs were first established in 1995, concerns over the tool’s legality stalled their use until the City Statute authorized it throughout Brazil in 2001. At the federal level, under Brazil’s civil law system, the City Statute defines the legislative principles to guide local governmental actions for controlling the processes of urban land development and management, in concert with municipal by-laws. In accordance with the City Statute, municipal governments in Brazil ensure the public interest of city-owned property through land development approvals as well as through approval of air right sales. This provides the legal authority for air rights sales by Brazilian municipal governments, such as Sao Paulo.

To create higher demand for air rights, Sao Paulo initially reduced the basic (free) FAR of the entire city area from 2.0 to 1.0. Under the new FAR scheme, current owners who want to rebuild their old buildings beyond the basic FAR have to pay for exceeding the free FAR limit.

**How Does the Tool Work?**

The municipality determines the total number of CEPACs to sell, based on the additional square meters that the present and future urban infrastructure in the designated area can support, and then that amount is capped by law. CEPACs can be used only in UOs that the city government has targeted for public investments. CEPACs are auctioned on the Brazilian stock exchange, so they are regulated not only by the City Statute but also by Brazil’s Securities and Exchange Commission.

![Figure 12 Sale of Development Rights in Sao Paulo: Price Valuation of CEPAC Based on Virtual Land Method](source: Suzuki et al. 2015: 215)
CEPAC auctions start at a minimum price set by the municipal government; market forces determine the price of undeveloped air rights. The CEPAC price in São Paulo can be estimated as the residual land value between the values of the actual plot with the full benefits of additional air rights (“virtual plot”) and the plot without any additional air rights (“real plot”) – see Figure 12. The final sale price is determined at auction. Revenues from CEPAC auctions are deposited in a special escrow account, to finance predetermined public works projects established within the UO where the air rights are sold.

Program Outcomes

The sale of air rights has generally resulted in an increase in land values. One area where CEPACs were sold in São Paulo is the Faria Lima business district UO, targeted for growth with the extension of Faria Lima Avenue and other public investments. CEPAC revenues were authorized to fund investments necessary to purchase land and install infrastructure to extend Faria Lima Avenue. Land values in the area reportedly rose from US$300 per square meter, before public investment, to US$7,000 per square meter after investment.66 In 2004 the municipality began auctioning CEPAC units to construct an additional 1.3 million square meters of floor space within the 650-hectare development area. The minimum price was set at R$1,100 (US$630) per square meter of allowable floor space. There have been many auctions, and CEPAC units have been sold above the minimum price.

Another area where CEPACs have been sold is in the Agua Espraiada UO, which is adjacent to Faria Lima. In a 2008 auction of 186,740 CEPAC units, the auction opened with the minimum price of US$230. Each unit sold for US$555. The auction resulted in revenues of US$104 million. Public works projects that have been financed by CEPAC revenue from Agua Espraiada include social housing units, high-amenity public open spaces, construction of viaducts, and a bridge over the Pinheiros River.66

In April 2015 the city calculated that CEPAC revenue from Faria Lima and Agua Espraiada has totaled more than US$1 billion.67 This represents a substantial amount of capital that for Faria Lima and Agua Espraiada.

The CEPAC program has not been universally successful. In two of the UO districts – Agua Branca and Centro – the sale of development rights has not been as actively pursued by the private sector. The demand and pricing of the development rights was not met with demand as keen as that for Faria Lima and Agua Espraiada.

Except for a few minor investments, the sale of air rights is a tool that has been used to generate funds for various types of public infrastructure in Sao Paulo. There are also some major exceptions: CEPAC revenues have not been used to finance major transit or transit-oriented development, due, in part, to different political parties controlling the state government and the city government.68

The city has transferred some CEPAC revenue from Faria Lima and Agua Espraiada to the state metro agency for transit investments.69 But for CEPAC revenues to play a major role in promoting transit investments and transit-oriented development within the UOs, improved institutional coordination, along with strong political will, is needed.

Lessons Learned

Three critical factors underpin the success of CEPACs in Sao Paolo:

- **São Paulo had strong real estate demand.** This demand had resulted from a combination of scarcity of land to build, a rising population, and unmet housing demand.
- **Brazil has a robust financial market.** The presence of sophisticated owners and investors further boosted demand for the rights.
- **São Paulo has a well-developed legal and institutional and administrative framework.** This allows development rights to be sold separately from the sale of land. Specifically, the promulgation of the City Statute in 2001 provided the city with the regulatory framework to implement the CEPACS – a sophisticated financial tool.

Some of the challenges associated with the project provided also provide valuable lessons for this and future such developments, notably:

Significant expertise is required on the part of the public servants in the management of this new financial instrument. In particular as a strong administrative capacity to implement the rights allocations to specific sites is required.

The quantity of CEPAC units and the minimum sales price at each auction need to be carefully calculated and the macroeconomic and real estate markets clearly understood. The scarcity of developable space determines
the price that the market will pay for that space. If too much space is released onto the market, the value of that space could decrease. If too little is released, and the units become too expensive, developments may become infeasible.

Once the municipality begun auctioning CEPACS, it realized the importance of strategically capping the number of CEPAC units auctioned at any single time, so that the limited supply made the units an attractive asset for potential purchasers. Also of importance was the setting of the minimum price at which CEPACS could be sold. The pricing of CEPAC units needed to be high enough to reflect the value of units in limited supply, but low enough so as not to overinflate the value of the units and discourage potential purchasers from bidding in the auction.

**Reduction of basic FAR has created social costs.** Although the city reduced the basic FAR to create higher demand for the purchase of air rights, critics argue that this may discourage current owners from rebuilding older properties built under the previously higher FAR allowance. Under the former FAR allowance, owners of buildings that were below the basic FAR could rebuild their properties to the higher FAR allowance without having to pay for air rights. They had an opportunity to increase the value of their property by paying only for the demolition and construction costs. With the reduced FAR allowance, this has created an additional cost for a landowner to redevelop the site at a higher density.

**Developers paying full market price for additional air rights will build to satisfy the demand that maximizes development profits.** Those developers seeking a high return on investment and intending to build high-rise developments via CEPAC generally focus on high-end properties such as offices, shopping malls, and luxury residential buildings in the city center. This has resulted in a limited supply of affordable housing in close proximity to where most jobs are located, in spite of the municipal government’s efforts to construct social housing using CEPAC revenue. This lack of supply of affordable housing in the urban center creates a social cost for low- and lower-middle-income households – the majority of the city’s population – who must deal with high transport costs and long commutes.

A proposed solution to address the shortage of affordable housing, which has been established in both Faria Lima and Água Espraiada, is the designation of areas within the UO as “special zones of social interest” (Zonas Especiais de Interesse Social [ZEISS]), where lots can be used only for low-income social housing. This changes the areas’ highest and best use and thus reduces land value. This instrument may mitigate gentrification by reserving land to build low-income housing.

*São Paulo’s FAR increase was insufficiently high:* In three of the four UOs, the maximum FAR that can be bought through CEPACs is limited to 4.0. Other megacities allocate much higher FARs. For example, in Tokyo, the maximum FAR is 20; in Hong Kong, China, the maximum is 12; and in Seoul, Korea, the maximum is 10. In São Paulo, this lower maximum FAR does not sufficiently incentivize compact, dense development. The only UO where the maximum FAR is higher than 4.0 is in Centro, where the maximum FAR for new developments is 12; to rebuild existing buildings, the maximum FAR can be 20.0 or more.
Shinagawa Station illustrates how even after real estate asset values in “post-bubble” Japan collapsed in 1991, a private corporation was able to devise a land readjustment scheme with multiple developers, property owners, and local government to redevelop a decommissioned rail yard into a dense, mixed-use transit-oriented development.

In 1987 the national government passed a law to privatize the nation’s rail system, then run by Japanese National Railways (JNR). JNR transferred approximately 10 hectares of the Shinagawa rail yard to the Japanese National Railway Settlement Corporation (JNRSC), a temporary holding company created to distribute the assets of JNR after its privatization. As the urban development plan of Tokyo evolved, JNR determined that having the rail yard situated in the city center was no longer necessary and, via JNRSC, gradually relocated the yard’s function to another site in Tokyo. At the same time, it was proposed that a new high-speed rail line include a stop at the existing Shinagawa Station, which would make the station a major transportation hub in the city. With the 10 hectares of land no longer needed as a rail yard and with a prime location adjacent to a major transportation station, JNRSC endeavored to increase the value of its land by promoting comprehensive area planning and development around the station.

The transformation of the Shinagawa Station area could not have been implemented by JNRSC alone. Shinagawa Station has become a major commercial hub in the central Tokyo as a result of a land readjustment scheme run as a joint venture between JNRSC, JR East, and JR Central (the private rail companies operating at Shinagawa Station), the local government, and private landowners. The local government had a vision and a strategy for the former rail yard situated in the city center was no longer necessary to keep the city globally competitive. Currently, six rail lines stop at Shinagawa Station, and the station is planned to become the end terminal of an additional proposed rail line between Tokyo and Osaka.

How Was the Land Readjustment Scheme Created?

With the national Urban Regeneration Special Act of 2001, eight districts and 2,514 hectares were designated in the central area of Tokyo for large redevelopment projects. These special districts consisted of publicly owned land and former rail yards, including Shinagawa. Japanese City Planning Law permitted exceptionally relaxed land use guidelines, FARs, and building heights to support redevelopment that would impact local infrastructure and services, the built environment, and social activities. Such land deregulation made it possible for transit agencies and private developers to propose case by case design parameters and promoted local governments to encourage development around key railway stations.

The land deregulations promoted the creation of a land readjustment scheme in which Shinagawa could capitalize on the valuable, underutilized land and foster dense urban development around the new rail stop. JNRSC brought together JR East, the Tokyo metropolitan government, private developers, and surrounding property owners to jointly draw up a plan to redevelop the area around Shinagawa Station and to discuss a land readjustment scheme to implement the plan.

The metropolitan government negotiated a land readjustment scheme with developers and surrounding property owners to achieve the following:

- comprehensively plan and develop a new commercial district in the underutilized area around the existing station, which was adding lines and becoming a major transportation hub;
- acquire land in the surrounding area to build infrastructure necessary for a new master-planned district without having to pay for the land; and
- sell excess air rights to encourage dense development.

Because the area was in the urban center but consisted primarily of a decommissioned rail yard, it lacked infrastructure necessary for a new master-planned district. The value of the land was lower than it would have been if infrastructure were in place. The local property owners stood to profit by participating in the land readjustment scheme through contributing their property for redevelopment, and having the infrastructure and amenities built, the property owners’ land value would increase.

How Did the Land Readjustment Scheme Work?

Together, the stakeholders designated a land readjustment district that encompassed approximately 13.7 hectares and included the 10-hectare yard site and surrounding public-private blocks. For the land readjustment scheme to be approved and implemented, national and local planning laws required the development of a master plan, financing plan, and implementation plan. JNRSC, in association with the Tokyo metropolitan government and two ward governments, led the land readjustment process and developed the infrastructure for the redevelopment project.

With the inclusion of the blocks surrounding the rail yard, the expanded project area offered improved road access to the station and a better-connected pedestrian network without much financial assistance from the local or national government. The joint venture resulted in the conversion of the former rail yard into a mixed-use commercial and residential district, consisting of six large block parcels.
In exchange for the contribution of their land for the readjustment scheme, the local government provided substantial FAR bonuses to the private landowners through the Urban Regeneration Special Act. The Act authorized density bonuses in exchange for residential development and the provision of public amenities. For example, the government provided a density bonus of 2.5 FAR in part of the district zoned as commercial, in exchange for 35,433 square meters of residential development, a bonus FAR of 0.6 for the provision of public open and green spaces, and a bonus FAR of 1.9 for a pedestrian skyway network.

Project Outcomes

The Land Readjustment enabled substantial development on the site. The redevelopment project around Shinagawa Station took place between 1992 and 2006. At the project’s completion, the total cost of the redevelopment, including the cost of the yard relocation, land readjustment, infrastructure, and private development was more than US$4 billion, according to the Japan Railway Construction, Transport and Technology Agency.74

Land values increased significantly. In addition to new real estate development, the land readjustment scheme resulted in the provision of infrastructure and improved accessibility to Shinagawa Station that was planned and approved by the joint venture partners. The amenities attracted businesses to the area and increased property values. Land values increased by more than 70 percent. In 1996 the price per square meter was ¥1.9 million (US$17,000). In 2007 the price per square meter was ¥3.3 million (US$30,000). In 2013 the area around Shinagawa and Osaki stations – another area in Tokyo where many office buildings and high-rise condominiums are located – had the highest rate of rising land prices out of the 23 wards in the city.75

Lessons Learned

The success of the land readjustment scheme for Shinagawa Station was in large part due to three factors:

- **There was existing pent up demand for development rights in the downtown area.** By understanding this economic value, the Tokyo government was able to use this value to leverage public infrastructure benefits.

- **Public transit investment catalyzed transit-oriented development.** The new high-speed rail line stop at Shinagawa Station was the impetus for the creation of a joint venture to redevelop the underutilized area. It catalyzed the exploration of the location by the local government as a strategic site for dense urban redevelopment, infrastructure improvements, and the opportunity to increase property values, creating greater profit for local property owners.

- **A master plan with high design quality paying attention to walkability and the provision of public amenities.** Without a focus on accessibility and the provision of a park and other public open spaces, the redevelopment of the Shinagawa Station area may not have been as successful, in attracting businesses and residents to the area.

Other lessons included:

**Land associated with underutilized railway yards and depots has significant economic value.** Tokyo is a well-developed municipality where developable land is scarce; by finding a more suitable location for the rail yard – outside of the downtown area – and redeveloping the site into a transit-oriented development, the city was able to capitalize on scarce land resources.

**The provision of higher FAR by the local government allowed both public and private stakeholders to achieve social, economic, and financial objectives.** The Urban Regeneration Special Act, specifically with the provision of higher FAR, benefited both the local governments and real estate developers. The increase in FAR promoted the city’s goal of creating a dense, transit-oriented development, increasing the economic activity in the area, and creating increased financial revenues for the city. With density bonuses, the city achieved its social goals of creating a pedestrian-friendly mixed-use development. For developers and landowners, the zoning changes increased land values and incentivized owners to build high-density improvements to capture the value created by the higher FAR allowances.
References


1 The term “land-based financing” is sometimes used interchangeably with “land value capture” by practitioners. There are pedagogical and conceptual differences between these two terms, and arguably different mechanisms could fall under different definitions depending on how they are applied. This report adopts the “land-based financing” terminology because the term encapsulates the intent for which these government interventions should be used in this context – using the increase in land values to finance and/or subsidize the provision of urban infrastructure. The concept of “capturing” or recouping value is, however, still conceptually relevant, and that terminology is used here where appropriate.


4 Fiscal transfers made to South African municipalities by the National Government are made up of unconditional (formula-based) and conditional (project and need-based) grants. The formula-based grant (known as the equitable share) is derived using a multitude of variables including municipal population, growth and number of poor households.

5 Census 2011, Statistics South Africa


7 Smolka and Amborski (2000).


10 Suzuki et al. (2015).

11 Smolka (2013).

12 Savage (2009).

13 League of Minnesota Cities (2012: 2).


15 Ibid.

16 For a SAD, a city may determine the estimated cost of the improvements. However, SADs have also been created whereby a developer has negotiated with the city regarding scope and costs to be covered by a SAD-backed bond issuance.


21 While SADs are limited to finance projects or services of localized benefit, in the United States, several states have adopted legislation to create “hybrid” forms, whereby an identical financing mechanism can be used to fund improvements on a city-wide or regional basis. For example, in Texas, the legislature expanded the use of SADs to roadways by authorizing “municipal utility districts” to finance transportation projects in addition to strictly local types of infrastructure improvements.


23 A municipality may choose to expand the geographic area of a TIF district to include areas beyond the defined
development project area to capture future tax revenues of additional properties to help pay off the TIF bond repayment obligation.

24 The cash generated by the TIF district is therefore 1.5 times the amount required to pay the debt-servicing costs.


29 Hickey-Tshangana (2012).


32 “Improving Access to the City through Value Capture: An Overview of Capturing and Allocating Value through the Development of Transport Infrastructure in South Africa,” p. 29.


34 Ibid., p. 6.


39 Ibid., p. 4.

40 Ibid., p. 1.


43 The Dulles Toll Road is owned by the Metropolitan Washington Airports Authority, the same authority that owns Dulles International Airport – a beneficiary of the construction of the new subway.


46 De Sousa and D’Souza (2013: 2).

47 The development partners included Jacoby Development Inc. and AIG Global Real Estate (JDI-AIG).

48 Ibid., p. 6.

49 Ibid., p. 9.

50 While the bulk of the site has been developed and occupied, some portions remain unoccupied – see Figure 12 below.


However, it was not published in the official bulletin until July 1997 when another ordinance amended the existing zoning.


Gladki Planning Associates 2014: 6


(Gladki Planning Associates 2014: 9)

Ibid.

While CEPACs were created in 1995, they only started operating in 2004, following the approval of the City Statute in 2001 (reference: Lincoln Institute)

(Suzuki et al. 2015: 218)

(Suzuki et al. 2015: 216)

(ibid.: 215)

(Mathur 2014: 47)


Suzuki et al. (2015: 14).
