

# LAND VALUE CAPTURE

## TOOLS TO FINANCE OUR URBAN FUTURE

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In an era of tight budgets and exploding need, cities around the world are funding infrastructure and other public improvements through “land value capture.” This policy approach offers an array of public finance instruments and initiatives that enable communities to recover and reinvest land value increases resulting from public investment and other government actions. Notably, as new subway lines, roads, and other public works raise the value of nearby land and real estate, developers and property owners share that publicly generated windfall to help local governments pay for new bridges, transit, parks, affordable housing, and other infrastructure upgrades.

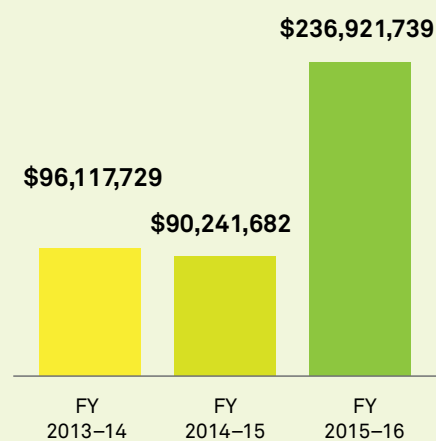
Land value capture is based on a simple core premise: public action should generate public benefit. As challenges mount from rapid urbanization, deteriorating infrastructure, climate change, and more, this funding source has never been more important to the future of municipalities.

**Land value capture enables communities to recover and reinvest land value increases resulting from public investment and other government actions.**

When used in conjunction with good governance and urban planning principles, land value capture can be an integral tool to help governments advance positive fiscal, social, and environmental outcomes. On every continent, communities are already improving quality of life for their residents through such instruments, which include: betterment contributions, charges for building rights, inclusionary housing and zoning, linkage or impact fees (figure 1), special assessments, transferable development rights, and even certain applications of the property tax (pages 2–3).

Figure 1

**Revenue from Development Impact Fees in San Francisco, California, 2013–2016**



For decades, the City of San Francisco, California, has levied development impact fees—monetary exactions charged to a developer as a condition of approval for a development project. Those revenues finance the cost of public infrastructure improvements necessitated by the new development, helping to manage growth as more residents utilize municipal transportation networks, parks, and other assets. The fees collected from fiscal year 2013 through 2016, for example, funded transit needs, bicycle infrastructure, pedestrian capital improvements, and more.

Source: City of San Francisco, FY2014–15 & FY2015–16 Biennial Development Impact Fee Report

# The Land Value Capture Toolbox

In practice, land value capture includes a range of mechanisms and policies, which various jurisdictions implement and practice differently. All of these tools share one common goal, however: returning land value to the public. Several examples follow.

TOOL	JURISDICTIONAL EXAMPLE
<p><b>Betterment Contributions and Special Assessments</b></p> <p>Owners of select properties pay the municipality a fee, which defrays the cost of a public improvement or service from which the owner specifically benefits.</p>	<p>Betterment levies from property owners in the city of <b>Manizales, Colombia</b>, have contributed to the city’s revenue base for urban infrastructure financing and funded road improvements, urban renewal, and the renovation of notable projects such as the Alfonso Lopez Plaza.<sup>1</sup></p>
<p><b>Charges for Building Rights</b></p> <p>Developers pay the municipality a fee for additional development rights, which funds infrastructure or other public improvements. In some jurisdictions, developers can bid to purchase building rights in the form of higher Floor Area Ratio (“FAR”) from the city at auction.<sup>2</sup></p>	<p>In Brazil, CEPACs (Certificados de Potencial Adicional de Construção in Portuguese) are a form of charges for building rights that are sold on a securities exchange. The <b>City of São Paulo</b> has generated nearly US\$2 billion from CEPACs to fund infrastructure and planning programs within a designated redevelopment area.<sup>3</sup></p>
<p><b>Exactions</b></p> <p>Developers pay the municipality (in cash, land, or other in-kind avenues) to obtain special approvals or permissions required to develop or build on a parcel, in order to defray the cost of additional public services required by new development.</p>	<p>The city of <b>Córdoba, Argentina</b>, relies on the mandate of Articles 180–188 of its provincial constitution to impose this charge on developers who seek changes in existing building norms.<sup>4</sup></p>
<p><b>Impact Fees (Linkage Fees)</b></p> <p>Developers pay the municipality a one-time charge designed to cover the costs associated with a development’s impact on certain public services and infrastructure, and the municipality invests this revenue in public services and infrastructure.</p>	<p>Impact fees in <b>Orange County, Florida</b>, generate funds for parks, fire stations, police cruisers, and other public-safety investments.<sup>5</sup></p>

## PROPERTY TAX AND TAX INCREMENT FINANCE (TIF)

Property taxes can be an important form of land value capture, as well-functioning property tax systems base obligations on the market value of real estate. But that link is not automatic. Rather, it depends on the enabling and administrative frameworks in place for the property tax. Land value increases in jurisdictions with well-functioning property tax systems should generate higher assessed values for properties near planned public investments—and such taxation does capture some value from private

entities for the public sector. However, limits on value assessments or increases can restrict the property tax’s ability to capture value.

Many communities use tax-increment finance (TIF) to promote economic development and community investment by earmarking property tax revenues from anticipated increases in assessed values within a designated district. TIFs can similarly direct a portion of funds captured by the property tax toward specific public purposes, but they are not in themselves an additional means of land value capture.

TOOL	JURISDICTIONAL EXAMPLE
<p><b>Inclusionary Housing or Inclusionary Zoning</b></p> <p>Developers provide the municipality with a certain amount of low- or moderate-income housing in exchange for the right to construct market-rate residential or commercial properties.</p>	<p>Via its 1998 Inclusionary Zoning Ordinance, the city of <b>Cambridge, Massachusetts</b>, created 1,000 units of affordable rental and ownership housing in new developments located throughout the city.<sup>6</sup></p>
<p><b>Land Readjustment</b></p> <p>Landowners collectively cooperate with a municipality or developer to pool their land to accomplish a redevelopment project. The investments in infrastructure and services undertaken on the pooled land are intended to increase the value of the properties in the redeveloped area; afterward, each landowner receives a smaller parcel of land that has greater value due to the improvements made.</p>	<p>In one of the most successful examples of large-scale redevelopment in the 20<sup>th</sup> century, <b>Japan's Greater Tokyo Railway Network</b> used land readjustment as a strategic component of its financing.<sup>7</sup></p>
<p><b>Rail Plus Property Co-Development (R+P)</b></p> <p>In the area where a new rail line will be built, the government transfers land development rights to a transit authority at the before-transit development price. The authority then partners with private developers to further develop properties near the new transit route, shares the profits, and uses the funds to reinvest in the rail system and other public improvements.<sup>8</sup></p>	<p>The <b>Hong Kong Mass Transit Railway (MTR) Corporation</b> has used the R+P model for three decades to build vibrant neighborhoods, conserve open space, and construct a railway system that covers 221 kilometers and serves more than five million people. The Corporation has at times raised US\$1.5 billion annually via the self-sustaining R+P model.<sup>9</sup></p>
<p><b>Transfer of Development Rights</b></p> <p>Landowners pay a government entity a fee to transfer the density potential (as established in the local zoning law or ordinance) of one tract of land to a noncontiguous parcel of land that is better suited to greater densities. The fee generates revenue for public investment, and the transfer of density can also further urban planning objectives.</p>	<p><b>Pennsylvania, United States</b>, uses the transfer of development rights to permanently protect farms and natural resources by redirecting development from such areas to parts of municipalities meant to better accommodate development. This furthers conservation objectives and produces revenues that municipalities can use for public investments.<sup>10</sup></p>

<sup>1</sup> Luis Schloeter, "Financing Urban Infrastructure in Emerging Cities: Betterment Levies," *Ciudades Sostenibles* (blog), Banco Interamericano de Desarrollo, January 8, 2016, <https://blogs.iadb.org/ciudadessostenibles/2016/01/08/betterment-levies/>.

<sup>2</sup> Martim O. Smolka, *Implementing Value Capture in Latin America: Policies and Tools for Urban Development* (Cambridge, MA: Lincoln Institute of Land Policy, 2013), 14.

<sup>3</sup> Gregory K. Ingram and Yu-Hung Hong, eds., *Municipal Revenues and Land Policies* (Cambridge, MA: Lincoln Institute of Land Policy, 2012), 218–219; Leão Serva, "How São Paulo Uses 'Value Capture' to Raise Billions for Infrastructure," *Citiscopes.org*, May 22, 2014, <http://archive.citiscopes.org/story/2014/how-sao-paulo-uses-value-capture-raise-billions-infrastructure>; CEPACs can also be purchased in a secondary market where developers can sell them among each other.

<sup>4</sup> Smolka, 34.

<sup>5</sup> Stephen Hudak and Martin E. Comas, "Orange, Seminole Counties Boost Impact Fees to Keep Up with Growth Demands," *Orlando*

*Sentinel*, January 10, 2018, [www.orlandosentinel.com/news/orange/os-orange-county-impact-fees-20180108-story.html](http://www.orlandosentinel.com/news/orange/os-orange-county-impact-fees-20180108-story.html).

<sup>6</sup> "Inclusionary Housing Program for Developers," Community Development Department, City of Cambridge, accessed June 5, 2018, [www.cambridgema.gov/CDD/housing/fordevelopersandpropmanagers/inclusionarydevelopers](http://www.cambridgema.gov/CDD/housing/fordevelopersandpropmanagers/inclusionarydevelopers).

<sup>7</sup> Gregory K. Ingram and Yu-Hung Hong, eds., *Value Capture and Land Policies* (Cambridge, MA: Lincoln Institute of Land Policy, 2012), 290–291.

<sup>8</sup> Lincoln Leong, "The 'Rail plus Property' Model: Hong Kong's Successful Self-Financing Formula," McKinsey & Company, June 2016, <https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/the-rail-plus-property-model>.

<sup>9</sup> Leong.

<sup>10</sup> "Transfer of Development Rights," ConservationTools.org, Pennsylvania Land Trust Association, accessed June 5, 2018, <https://conservationtools.org/guides/12-transfer-of-development-rights>.

## Land Value Capture Policies and Practices

Government officials have long recognized the need to capture land value for sustainable urban development, but the ability to mobilize land value capture instruments often depends on factors including legal enabling authority, political will, fiscal frameworks, and the capacity of public officials. A few representative examples of land value capture policies and the instruments they enable are below.

### NATIONAL-LEVEL EXAMPLE

Enacted in the National Constitution of 1988, Brazil's Federal Law 10,257/2001 codified municipal charges on building rights and the use of CEPACs to help municipalities capture rising land values.<sup>11</sup> It also allows the government to charge private developers for the right to develop land above a defined "floor-area ratio" (FAR). These instruments encourage fair distribution of the costs and benefits of urbanization by allowing municipalities to leverage them according to local needs and contexts.

### LOCAL-LEVEL EXAMPLE

Building density in Mumbai, India, is limited by the "floor space index" (FSI)—the ratio of allowable floor space to the plot area. The city can then redirect development intensity by allowing property owners to sell or trade the rights to their unused FSI.<sup>12</sup> Mumbai also enables the sale of development rights, allowing developers to purchase up to a specific amount of additional FSI from the government, to generate public revenues to fund urban infrastructure.

### PUBLIC AUTHORITIES EXAMPLE

The Hudson Yards Infrastructure Corporation ("HYIC"), created in 2005 by the City of New York under the statewide Not-For-Profit Corporation Law, promotes economic development and growth on the western side of midtown Manhattan.<sup>13</sup> To finance the extension of the Number 7 subway line and development within the general vicinity of that extension, HYIC issued municipal bonds to raise the capital to finance the project up front. It then deployed an array of land value capture instruments to repay the bonds. For example, HYIC leveraged transferable development rights and a "District Improvement Bonus" (DIB) to charge developers for the right to create additional density in certain project sites.

Some developers were further required to combine the DIB with the provision of inclusionary housing. HYIC also leveraged the City's property tax for the financing. Once the bonds are paid, money generated from the various mechanisms will be used to support future infrastructure investment needs in the Hudson Yards project area.<sup>14</sup>

## Conclusion

A city's built environment is the result of cumulative land-use decisions and investments. Infrastructure and buildings shape a city's character and urban form for generations, and land value capture can significantly improve that process. In practice, successful implementation demands management of many complex factors and diverse stakeholders; proper understanding of land market conditions; comprehensive property-monitoring systems; fluid communication among fiscal, planning, and judicial entities; and political resolve to realize the full potential of land value capture.

Our challenge now is to better understand the intersection of policies arising under different levels of government, within public authorities, or through special entities—any of which can create a foundation for the implementation of land value capture.

Looking ahead, practitioners seeking strong urban outcomes should plan to learn from varied global experiences with the implementation of land value capture policies and tools. We should also work to increase knowledge of the complex nature of various approaches, and to promote greater understanding among public officials and citizens about how these tools can benefit their communities—and our shared urban future. □

<sup>11</sup> For a history of Outorga Onerosa do Direito de Construir, which was established by Federal Law 10,257/2001, see Fernanda Furtado and Isabela Bacellar, "Public Charge and Private Transfer of Building Rights in Brazil: The Need for Coherence in Regulation and Implementation" (paper, IV World Planning Schools Congress, Rio de Janeiro, July 3–8, 2016).

<sup>12</sup> Marco Kamiya and Le-Yin Zhang, eds., *Finance for City Leaders*, 2nd ed. (Nairobi: UN-Habitat, 2017), 202.

<sup>13</sup> Hudson Yards Infrastructure Corporation (HYIC), *Annual Report 2017*, <https://www1.nyc.gov/assets/hyic/downloads/hyic-annual-report-17.pdf>.

<sup>14</sup> HYIC.