Taller Cities for Sale:
Lessons from the Onerous Concessions of Building Rights in Latin America

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Figures

Abstract

The increase in high-rise buildings and onerous concessions for building rights (OCBR) beyond those required for single-unit land occupancy, is drawing attention from urban policymakers. This study examines public participation in land value increments from these concessions, documenting national and local legislation, policy tools, and examples. It reviews the evolution of urban policies and OCBR implementation across countries, highlighting lessons learned. Despite widespread dissemination, implementation has faced significant challenges due to tool incongruities, technical demands versus local capacities, and misunderstandings about the charges' impact on urban land markets. Addressing these issues is crucial for enhancing public investment capacity and promoting inclusive social housing.

Executive Summary

Evolving legislation over the last decade offers local jurisdictions, a formidable arsenal of tributary and especially non-tributary land based urban financing tools. They strengthen their investment capacity and promote greater intra-urban equity, achieving in the process a better (more efficient) functioning of the real estate market. In the past decade, a growing number of legislations have adopted or broadened the scope of onerous concession of building rights (OCBR). This expansion is observed not only at the national level but also at local levels, extending beyond major cities to encompass many smaller jurisdictions throughout the region.

Although many jurisdictions exhibit promising applications of some of these instruments (e.g. São Paulo and Bogota with substantive use of OCBR tools to fund urban redevelopment), most, if not all, such initiatives still falling short of their potential.

The reality is that resistance is strong and falls under the 5 categorical I's: ***Ideology*** (mostly in attitudes against public intervention in markets), ***Interests*** (notably land speculation opportunities) and, above all, ***Ignorance*** (fallacies in conventional wisdom on basic legal - e.g. impacts of instruments on real estate prices); besides administrative ***Inertia*** and technical ***Inoperativeness***. As a result, some initiatives were aborted and many lead to outright backdoor undermining of the tool's original purpose/intent. This has been found in the reengineering of some tools, often under improvements or pragmatism pretexts, to amass easy revenues with the violation of the legitimacy of master plans land use parameters. A new tool to sell (the future of) the city!

An argument, aside from manageable size and necessary depth, is initially presented to this work prime focus on charges to publicly conceded additional building rights. The focus is justified by two important trends: the fast verticalization, often associated with densification, endogenous to (et pour cause) high valued areas, and the replication of large-scale urban regeneration projects; with both trends no longer circumscribed to primate cities. Administrative acts include land use regulations such as zoning, setting FARs, and the like, that result in higher valuations, configuring enrichment without just cause, to the benefited landowners. It is demonstrated that such valuations are potentially significant, offering municipalities an opportunity to reinforce urban development financing tools.

This work brief evaluation of the state of the art of most countries in the region with the implementation of OCBR demonstrated the variability of their respective experiences but also highlighted certain critical factors affecting their performance. This was the case for the base line allowance of buildable floor areas, often referred to as the basic Floor Area Ratio (FAR) coefficient, considered to calculate the contributions and their respective standard (invariable) unit of measurement.

It also put in evidence incoherences with the transfer of building rights when higher than those limited by the basic coefficient; the nefarious nature of the 'sale' of use above the maximum coefficient; the harmful consequences of reversing the precedence of urban planning over the application of the charges on additional development rights; and finally, the non-necessary coincidence of interests between real estate developers and landowners and its implications in the 'politics of policies' of implementation of such instruments.

In so doing the review also exposes some recurrent issues in the public debate, especially the alleged transfer of the cost of development rights to final prices, the limits of acquired rights, double taxation and other common misunderstandings of the nature of such tools as in their inherent financialization of planning associated with gentrifications.

Given the often-frail position of local officials to implement new policies, especially when they involve redefinition of landownership stakes, recommendations include training programs for local technical staff and other public decision influencers (press, social movements, professional associations, etc.) to improve understanding of the legal, economic, and urbanistic aspects of charges for additional development rights and other land-based financing instruments. To gain necessary public support, involving civil society, it is recommended to increase visibility of the benefits generated by these instruments on investments in social housing and infrastructure coverage expansion, which should be of interest to the private real estate sector as they help expand the lowest-income formal market.

Chapter 1 - The Case for Charges to Building Rights

Cities are growing taller.

Results from a comprehensive study, covering over 1500 cities across all continents, indicate a shift from lateral urban expansion to more vertical urban development (Frokling et al., 2024) over the last three decades. This trend is notably significant in Asia, with China's growth responsible for 66% of worldwide skyscrapers (over 250 meters high) completed in 2017. Based on similar measurements, a recent study by Lablonovski and Evers (2024), which examined Brazilian cities from 1993 to 2020, concluded that population expansion was accommodated through horizontal expansion (45%) and vertical or stable expansion (55%). Nearly all medium and large urban areas exhibited growth rates of built volume exceeding their population growth rates. This trend affecting land prices may be anticipated to occur throughout Latin America.

Similar studies show an increase in the proportion of the urban population living in apartments, which are multifamily units associated with higher density. For example, an analysis of the 2022 Argentinean census by INDEC (2023) indicates that 73.7% of dwellings in Buenos Aires are apartments. Despite a low population growth (less than 2%) in São Paulo since 2010, reaching about 11.4 million inhabitants in 2024, the Brazilian census indicated an increase in the proportion of people living in apartments by more than 40% (from 1,009,636 to 1,435,984), representing 8.5% in 2010 and 12.5% in 2022. The phenomena are not restricted to larger cities as indicated below by the sample of Brazilian smaller cities with a large share of the population residing in taller buildings.

Figure 1 – TABLE - Brazilian cities with high share of the population living in apartment buildings

City (State)	Population	% living in Apt.
Viçosa (MG)	76 430	41,68%
São Caetano do Sul (SP)	165.655	50,77%
São José (SC)	270.299	41,05%
Niterói (RJ)	481.749	40,2%
Porto Alegre (RS)	1.332.845	42,36%

Source: IBGE Brazilian Census of 2022

In Colombia, Medellin's Municipal Planning (cited in La Lonja. 2016) reported that in 2016, the city had 6,384 buildings with over five stories, including 34 buildings with more than 30 stories. Overall, 57.2% of the population resided in apartments.

Figure 2 - 62-story skyscraper Gran Torre Costanera in Santiago, Chile

CAPTION: completed in 2013 after seven years of construction, is currently the tallest building in South America. (@Martim Smolka)

Since the 1970s, the right to build above a basic coefficient granted by administrative acts has been associated with significant increases in land value. This is due to the densification process, often involving vertical construction, which is common in cities, including smaller cities featuring skyscrapers facilitated by regulatory privileges. It is important to note that higher densities are feasible and supported by public actions such as investments in traffic systems, urban area regeneration, increased drainage system capacity, and security measures.

[begin text box]

BOX: Higher fiscal effort - to meet urban infrastructure investments.

Consider the evidence of the greater fiscal effort required in Latin American jurisdictions compared to that of developed countries regarding the financing of urban infrastructure. For instance, the cost difference for constructing infrastructure, such as 1 km of subway in a large city in Latin America, is relatively smaller than the disparity in per capita income when compared to developed countries. While the cost of materials like cement or iron varies by less than 1 to 2 times—similarly for large excavators—the prices per kilometer of subway range from

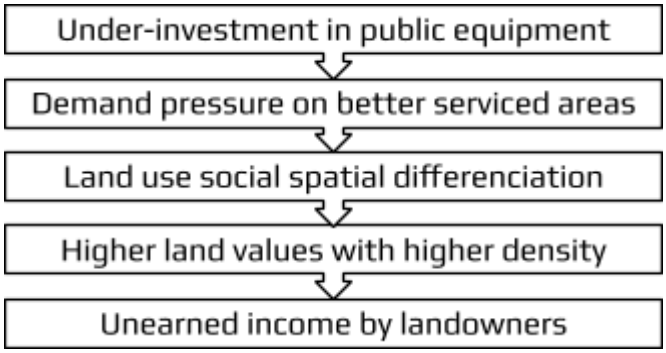
$100 to $250 million in both regions. Meanwhile, the income ratio between these regions, which affects the tax burden, is at least 1 to 5. This indicates a significantly greater tax effort is required in Latin American jurisdictions. This discrepancy highlights the structural inability of the market in these regions to provide sufficient urbanized land at an affordable price. Therefore, considering the challenges associated with further increasing taxes, it is prudent to explore alternative sources of funding for urban infrastructure and services. According to Brichetti et al. (2021) the accumulated deficit of infrastructure investments in LAC requires a fiscal effort above 3.12% of GDP/year through 2030.
[end text box]

Figure 3- Subway works (@Martim Smolka)

In effect conventional fiscal policies largely neglect the fact that the costs of providing urban infrastructure and services are public, but their benefits are private. Public investments not only benefit directly affected property owners but also support additional building and development rights. For instance, expansion of water and sewage systems provides the extra capacity that enables developers to build at higher densities.

Landowners, in turn — particularly in third-world countries — may thus reap huge increases in unearned income from a variety of public projects or the easing of zoning and other restrictions. The goal of value capture policies is to mobilize —through fiscal, regulatory, participatory, and other means — some or all this windfall income for the benefit of the community at large. (Smolka and Goytia 2017). The following figure illustrates one sequence of events typical of third-word cities.

Figure 4 – Diagram - From public action to higher land earnings through higher densities.



A comprehensive assessment by Ahlfeldt et al. (2019), which encompasses 347 estimates from 180 studies, illustrates the effects of increased density on various factors. The findings indicate that higher density contributes to the preservation of green areas, reduced energy consumption, decreased crime rates, and lower costs for providing local public services. Additionally, the studies reveal a direct correlation between density and higher rents, which subsequently impacts land prices and construction costs, among other factors.

While promoting higher density through more compact cities has been widely recommended by urban economists and planners as a strategy for improving efficiency and equity in infrastructure and service provision, the idea that landowners benefiting from resulting increased land values should help finance these public investments is still emerging. There is often resistance to this suggestion, as expressed in arguments their property taxes (high) burden should suffice to cover such investments let alone the land use (over) regulatory restrictions. These two allegations are the prime headlines in campaigns (outdoors, newspapers, website etc.) moved by real-estate agents against new fiscal or regulatory public interferences in the market.

Figure 5 - Campaign moved by real estate against the introduction of OCBR in Belo Horizonte, Brazil.

Caption: Cover of a 20-page booklet distributed calling for the signing of a manifesto against OCBR city-wide unitary basic FAR. “The Truth of the impacts of the new Master Plan of BH (Belo Horizonte) and the creation of the housing tax”. “ With more taxes all loose”. “More Tax – No!”

The phenomena of cities growing taller is contrasted in studies (Angel, 2011) showing that urban sprawl is outpacing population growth. These trends can coexist as central areas with high-rise office and apartment buildings, typically occupied by higher-income families who can afford maintenance costs (e.g. elevators). This can push lower-income families to the outskirts. For example, in the 80s, São Paulo replaced favelas with high-rises. The focus here is on building volume rather than population density. Biderman, Sandroni, and Smolka (2006) observed a decrease in population density despite increased built volume in Faria Lima's inner-city redevelopment.

As the distance from the city center increases, residential land size occupations generally tend to expand (although not necessarily in a strictly continuous manner). Consequently, the rate of geographical expansion can exceed the overall population growth of a city as identified by Angel (op. cit.). This phenomenon is compatible with an increasing proportion of the population residing in high-rise buildings (higher density areas), provided that these units are sufficiently smaller than single-family home plot sizes expanding area occupations.

For the rate of expansion of the city to exceed the population growth rate, with increasing verticalization all it takes is to at least half of the additional population to occupy the expanding area at higher than existing density.

Furthermore, considering the "central place" functions of the city core, such as hospitals and offices that serve the entire city and are housed in high-rise buildings, the core itself may experience a vertical growth rate exceeding the overall population growth rate.

Overall, regardless of whether cities are expanding vertically or horizontally, the revenue ($) that cities can generate from the (sale of, charges to) concessions for higher Floor Area Ratios (FARs) is increasing, which indicates a rise in their public assets.

A Primer on OCBR

OCBR introduces an urban parameter where building rights beyond a set threshold—that may be defined as the fundamental rights associated with land private ownership—are attributed to the public. The public may impose conditions for the concession of any additional rights of use. (Furtado, Rabello and Bacellar 2017).

This stems from the notion that conventional fiscal policies largely neglect the fact that the costs of providing urban infrastructure and services are public, but their benefits are private. Public investments not only benefit directly affected property owners but also support additional building and development rights. For instance, expansion of water and sewage systems provides the extra capacity that enables developers to build at higher densities. Landowners may thus reap huge increases in unearned income from the easing of zoning and other regulations affecting building rights (Smolka 2019).

Governments can rely on various land-based financing mechanisms to address public expenditures and equal treatment among citizens[1], contingent upon their institutional frameworks. One effective approach is to capture the increment in land value resulting from the concession of additional building rights especially in more privileged areas. This increment often arises due to externalities created directly or indirectly by public interventions.

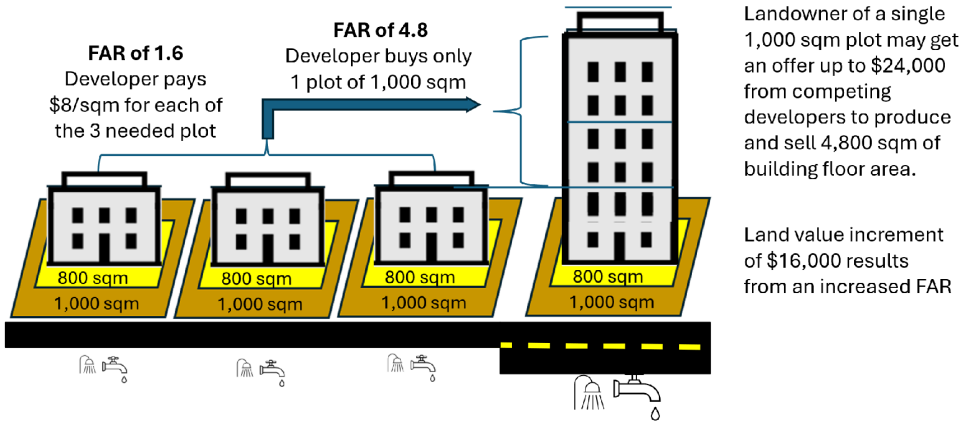
In its simplest formula for the benefit compensation (C) per square meter of conceded additional floor area, is obtained by formula $\mathbf{C = V/F_b}$ for V corresponding to the value of the sqm of the land and F_b expressing the multiple of building square meters the landowner can build for every sqm of the land owned. Thus, for US$8 per sqm of land and a F_b of 1.6, for each additional sqm floor area conceded the beneficiary pays $5.

The diagram below demonstrates the alternative of a developer willing to produce and sell 4,800 sqm of building floor area. With an Fb of 1.6, the developer must buy 3 plots each with

[1] As in landownership rights concerning access to public services, infrastructure, and other urban entitlements such as social inclusion, habitats, and geographical opportunities.

1,000 sqm. Now, with expanded supporting (investment costs and maintenance paid by taxpayers) services for higher buildings, the value of the land increases according to the maximum allowable FAR. Competing developers may be willing to pay up to $24,000 for the plot. With OCBR the payment of $16,000 may be recovered by the community, rather than by the passive landowner.

Figure 6 - Diagram - Alternatives for 4,800 sqm of building area provision



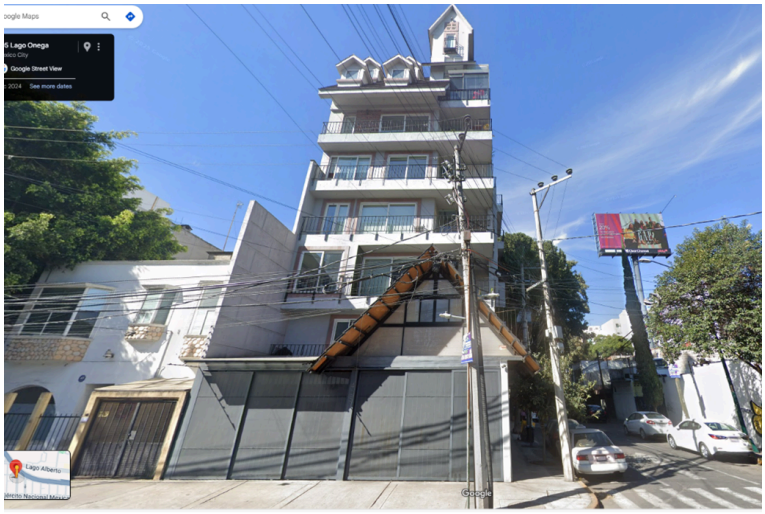


Figure 7 - Building showing as a stack of different houses.(Google map 405 Lago Onega Mexico City)

Note that when the land occupation coefficient is less than 1, which is commonly used to set building setbacks from neighbors and frontage, the height of the building will correspond to a multiple of the effectively authorized Floor Area Ratio (FAR). As illustrated in the diagram, for a FAR of 1.6, a two-story building, with each story occupying 800 square meters, is achievable

because a FAR of 1.6 applied to a 1,000 square meter plot results in 1,600 square meters of buildable area.

Given the basic FAR of 1.6 applied to the plot of 1,000 sqm the developer applying for a building with 4,800 sqm will have to buy an extra 3,200 sqm (= 4,800 – 1,000 x 1.6). As seen, for the price developer paid for the plot as $8 per sqm the price to consider for each sqm of additional floor area would be according to the above formula $5 = $8/1.6. With that the total due compensation (CT) would be $16,000. That is **$CT = V/F_0 \times S \times (F_x - F_0)$** or $16.000 = $8/1.6 x 1,000 x (4.8-1.6).
With S the surface of the plot, F_0 the basic FAR (i.e. the ratio of buildable area to the plot area the landowner has the right) and F_x the ratio of additional conceded buildable area to the plot area.

In practice, different factors adjust the formula based on land planning conditions, such as priority areas for higher density or incentives for social or green buildings. Proxies are often used when reliable data for plot value is unavailable, especially if land transactions values are influenced by area densification itself or if additional building rights are simplified to the number of stories. Other factors may include adjustments for mixed-use buildings.

Another technical consideration is that the price consumers pay per square meter for an apartment typically differs from that of a single-family home. Additionally, economies of scale affect the construction costs per unit. Consequently, the residual nature of land price determination indicates that land values associated with additional building rights rarely match those for basic Floor Area Ratio (FAR) occupation.

What do developers do?

Developers are responsible for converting land uses. Developers coordinate various agents, such as builders, marketers, sellers, architects, financial organizations, and even landowners when negotiating site arrangements. In addition to their management and risk-taking roles, developers are not classified as land rentiers. They can profit from the difference between the acquisition market value of the land at its known highest and best use (H&BU) and a higher project development use not anticipated by the market (redefining the area's H&BU). This can occur, for instance, when the conventional expectation is to build two-bedroom units aimed at middle-class households, but the developer targets a new market niche such as one-bedroom units adapted for Airbnb purposes, generating additional gains. If this higher use had been known by the market, competition among developers would have driven the gain to the residual value paid ultimately to the land.

Since the higher valued segment of the housing market has a higher propensity to pay for housing projects innovations, developers pursuing these extra gains would express a 'preferential option for the rich' segment of the market. Now, due to the limited number of newcomers to this market, often influenced by the steep income distribution common in Latin American countries, developers need to redirect effective demand from other areas by converting land uses to new, market unanticipated purposes. A similar process occurs in luxury

automobiles, where intense competition drives product innovation to attract affluent consumers, thus devaluing older vintage models of an otherwise durable commodity.

This often leads to an oversupply of high-end developments and a shortage of affordable housing for lower-income segments. Consequently, one would anticipate higher buildability not fully reflected in land prices, implying stronger resistance from developers to OCBR, especially when projects reflect existing H&BU, compared to the lower-income segments of the market, where typically whatever developers pay for these rights is subtracted from what they would offer to landowners.

Caveats

As noted, in Smolka (2013), numerous tools are available in most Latin American countries under the category of value capture. To ensure thorough discussion and maintain a manageable length, this report is limited to focusing exclusively on policies and tools of compensations for publicly conceded building rights, with occasional references to other tools when necessary. These tools take on various names - Onerous Concession; Participation; Obligation; Compensation; Contribution; Charge; etc. - according to their scope, legal nature and technical design in different countries. Since the term *Onerous Concession* (applied to additional building rights) is used as a fiscal but also generally as a 'burden' to the bearer of some obligation, it shall be used in the discussion to follow. Ultimately, all the terms refer substantively to …. tools to recover community generated additional land value!

Although the literal translation is 'gain' or 'surplus value,' these terms do not carry the same land-related meaning as the term 'plusvalías' in public documents concerning value capture in the region. Therefore, 'plusvalías' will be used when translating distinct tools of value capture referred hereafter. See Glossary for different tools referred to in this work.

Note on sources and analytical procedures

Data sources for this study are, prima face, the current national (or sub-national) legislation prescribing the application of OCBR, and their associated relevant local evaluation applications. Due to the limited literature available on the more recent (5 years) OCBR implementation experiences and the lack of empirical evidence and analysis, the author conducted direct consultations and interviews with local first-hand experts and prominent authorities in the field. These experts were either local public officials, academics or private consultants directly involved in the conception and implementation of these tools.[2]

In practice data collection was initiated in most countries with questions posed to said experts for known experiences they deemed emblematic at the national or local level. Some like Panama was excluded for no pertinent case to report and other included for their proxies' experiences like Chile and Guatemala.

[2] They are all referred to in the Acknowledgements.

Figure 8 - Bella Vista e Marbella and landfill-park (Cinta Costera)

Caption: None of these building rights generated any compensation or contributed in any way to the seashore park to the city. (@ Alvaro Uribe)

Furthermore, the early stages of this process in numerous countries called for more inductive procedures when identifying telling cases, as opposed to the conventional deductive approach where cases are selected based on established criteria designed to test and validate given theoretical propositions. Therefore, this discussion does not aim to examine how various types of charges related to building rights are reflected in observed land market prices based on local institutional frameworks. Instead, it focuses on mapping the different adopted procedures and assessing their stress limits as a qualified OCBR.

Rather than providing a comprehensive historical and geographical account of OCBR experiences, the strategic approach highlights key implementation landmarks to offer valuable insights and lessons.

Question PFR attempts to respond:

Why, despite being a logical approach to promoting urban development, and being legal and technically supported in some jurisdictions, is it not more effectively and broadly implemented? What are the sources of constraints, limitations, and resistance? How can these challenges be overcome?

Chapter 2 – The multifaceted implementation of OCBR

This section does not intend to provide a detailed account of developments in relevant countries or jurisdictions.

This chapter discussion is organized into three sections. The first section addresses instances where canonical OCBR has been fully established in various local jurisdictions (Brazil, Colombia, Uruguay, Ecuador, Argentina), all supported by National or supra-municipal legislation. The second section includes examples of OCBR derivative applications such as TDR in Mexico City, externalities compensations in Chile, trade-ins of development rights for inclusionary priority housing in Guatemala City and charging for urban 'kindnesses' in San Salvador. The third section covers cases of legislations that are yet to be properly implemented (Peru, Venezuela, Cuba), are ineffective (Asunción), or were unsuccessful attempted (Costa Rica). The main objective is to scan the range of issues involved in the implementation of OCBR, rather than provide a comprehensive account of each country's experiences. To be sure TDRs are applied in many countries and other municipalities in Mexico, with some (e.g. Zapopan or Ciudad Juarez) also applying OCBR in its standard version.

The insights provided seek to impart valuable lessons of wide applicability by highlighting a range of often unforeseen possibilities and offering warnings against common mistakes.

SECTION 1

Brazil - A paradigmatic 'strong case'?

The Brazilian case is often cited in the international literature for the boldness of its legislation and promising/successful implementation, of the sale of building rights (especially in the city of São Paulo). The operationality of many of its components, albeit still incipient, provide valuable lessons.

The actual implementation in São Paulo starting in the mid 80's. Its long maturation process culminated with São Paulo's 2014 Mater Plan distinctively daring city-wide unitary (=1) basic FAR. Contrary to general skepticism this possibility supported by the City Statute (the national urban development law of 2001), was achieved with no major contestation by the courts. The explanation to be partially found, in the atomization of landownership in the city, whereby most of the plots subjected to higher FARs are represented by what Sandroni (2021) refers to as second-generation land: owner-occupied single homes in high demanded areas for land use conversions.

Figure 9 -

Figure 10 - @Martim Smolka

A second factor was the 12-year soft-landing implementation (i.e. rule of transition) coupled with a strategy in certain zones of raising the pre-existent maximum FAR concomitantly to the progressive reduction of the basic FAR finally to the unique and unitary coefficient. Since the market value of the additional FAR tends to be higher than what is charged for it (the base value of the plot), developers found it at first sight of interest. Landowner's perception of a value loss was partially hidden by their nominal gains from the upswing of the property price cycle in that period. Finally, notice the often-overlooked fact that in most cities – and São Paulo is no exception – effectively used FAR zoning is seldom above a unitary FAR for well over 80% of the city total area.

The current formula to calculate the payment for the charges to additional building rights (known in S Paulo as Onerous Concession of Building Right OODC)since 2014 (Decree 63.504):

C = (At/Ac) x V x Fp x Fs

Where:

- C: financial compensation relative to the OODC per square meter
- At: land area in square meter
- Ac: total computable built area intended in the project in square meter
- V: land value per square meter as given by the cadaster of Land Value for OODC purposes, according to the 2023 Strategic Master Plan (PDE) and its supervening updates
- Fs: social interest factor defined according to the PDE as in affordable or social housing
- Fp: planning factor as in priority areas of locational interests.

To calculate the total amount to be paid value C is multiplied by the additional building potential effectively acquired. Note from the formula that the developer now only pays for the full value

of the sqm of the land when it applies for the same amount of the plot itself. The higher the amount of additional building land the lower the compensation for each sqm added. It is meant to incentivize higher density substituting basic area coefficient in the original formula as in the PDE of 2002.

OODC revenues obtained from the over 3,200 projects from 2004 to 2024 averaged about US$130 million per year with an average of US$176 million in the last 4 years (2021 to 2024), accumulating just over US$2 billion since inception in 2003. According to the city's treasury secretary annual technical report, for the year 2023, OODC represented 8% of local investment capacity and 6.6% of total property tax collection. Small as it may look, the revenues from OODC amounted to 22.7% of the city's expense in public housing and 158.5% of its environmental investments in that year.

Figure 11 - OODC charged in building in São Paulo

Caption: Plot area of 61.055sqm, Additional building right area 104.167 sqm, compensation paid of US$ 31.3 million. (@ Paulo Sandroni)

The relevance of the tool can be further appreciated once consideration is taken of the non-computable area (garages, balconies, common areas, etc.) reaching typically from 30 to 50%, the referred social and planning factors that may represent about 25%, and the below market value of the 'virtual land' (the value of an hypothetical plot supporting a building with the maximum FAR) used as the numeraire (see glossary) , all of which implying in an OODC effective rate below 20% (Smolka and Maleronka 2018). This is reflected in the fact that according to Sandroni (2024) from 2000 to 2021, an effective 78.8 km² volume of residential units was built on 15.7 km² of vacant land indicating a FAR of 5.02 when the maximum FAR allowed by the legislation was only 4.0 and likely not all plots were built at this rate.

For the CEPACs, a variant of the OODC used in urban operation (large scale urban redevelopment projects) financing, the value calculation is done through public auction of certificates issued by the Municipality, which are convertible into square meters granted for use in each urban operation (Sandroni, 2010). This procedure determines the market value of additional building rights in areas under redevelopment through competitive bidding among interested promoters. There can be variations, such as when all certificates issued for the Porto Maravilha operation in Rio de Janeiro were entirely sold to the CEF (Caixa Economica Federal), a state-owned bank with a strong housing portfolio.

In two urban operations in São Paulo since their inception in 2004, more than US$3.2 billion has been raised through public auctions of building rights. Notably, in December 2019, the Faria Lima operation achieved a price of US$4,100 per square meter, generating approximately US$400 million for the 93,000 CEPACs that were offered.

The collected funds have been used for various infrastructure projects, such as São Paulo's cable-stayed bridge and the Gold Line of the Metro. Approximately half a billion dollars has also been invested in over 2,000 Social Interest Housing units, with another 3,000 currently under development as of December 2024; all these projects have been built in situ (Sandroni 2022). Although these housing units are best classified as lower middle class, their location is in one of the most highly valued zones of the city. By international standards, this pattern meets basic criteria for socio-spatially inclusive housing. While CEPACs have been focused on high-end areas, and most of the funds have not been directly applied to social infrastructure investments, it can be argued that they indirectly free up overall investment funds for more socially responsible applications. Maleronka and Hobbs (2017) highlight that São Paulo's approach represents a paradigm shift, showing that reserving investment for social housing can direct public housing programs to desirable areas where they are typically absent.

Figure 12 - Estevão Baião social interest housing development funded by CEPACs

Caption: Affordable inclusionary housing served by new subway line subsidized in high income Água Espraiada urban operation in São Paulo. (@ Martim Smolka)

Dissemination of OODC in Brazil

According to the 2021 Survey of Basic Municipal Information (Munic) conducted by the Brazilian Institute of Geography and Statistics (IBGE), out of the 5,580 municipalities, a total of 834 have incorporated OCBR into their master plans with specific legislation. This number has increased from the 992 municipalities that had introduced it in their master plans since the publication of the Statute of the City in 2001 through to 2011, and an additional 1,394 municipalities added it in the decade preceding the survey. Notably, the adoption rates increase with the size of the municipality: 98% of the 48 municipalities with over 500,000 inhabitants have such legislation in place, compared to 66.3% of the 743 municipalities with populations ranging from 20,000 to 50,000. (See Maleronka 2025). Azeredo (2024) found that while population size positively and significantly affects the likelihood of the existence of legislation for OODC, it cannot be considered a definitive predictor nor the sole explanatory factor.

While the OODC is mentioned in public documents and referenced in master plans by many municipalities, its effective implementation remains limited. There is currently no comprehensive diagnosis of the parameters that have guided its operationalization across the numerous municipalities that incorporate the instrument at various stages of the implementation process.

A recent study by Camila Maleronka (2023b) for the 26 state capitals municipalities reveals the diversity in how the instrument is regulated. It is either governed by specific law (in six of them) or by the master plan itself in 19 capitals, though often incompletely or inconsistently. Only 15

capitals nominally use the price of land (virtual land) as a basis for calculation, not necessarily reflecting updated market values. This parameter is applied uniformly with a unitary value in six capitals (São Paulo, Belo Horizonte, Florianopolis, J Pessoa, Natal, and Recife). In Teresina, the coefficient was set at 1.5, in Manaus at 2, and in Goiania, it is defined by a 7.5 meters height limit. Other municipalities, like Curitiba, have varying basic coefficients depending on the city zone. The calculation basis also varies, using other parameters such as the unitary construction cost index (CUB) in Niteroi or building height, as in Olinda.

The implementation process of Brazilian cities varies in several important aspects, as shown in the following table for two comparable state capitals.

Figure 13 - TABLE - Belo Horizonte vs. Recife

Belo Horizonte, located in the central region of Brazil, and Recife, situated in the Northeast, have both experienced no population growth despite being at the core of large, expanding metropolitan areas.

	Belo Horizonte	**Recife**
Population of the municipality	2.315.560	1.488.920
Population in Metro Area	5.127.694	3.726.974
City conference participation	243 Delegates IV CMPU 2014)	90 delegates CPD (2018)
Officialization into law	2019 (Lei 11.181/2019)	2022 (lei 18.900/2022)
Single and unitary basic FAR	Except environment protection areas	No exceptions
Maximum coefficient	FAR= 5 (regional centrality)	FAR= 5 (central zones & Transp. corridors)
% of the city with FAR max >1	63.66%	63.14% (Data from the Municipal Cartographic Base, March/2023)
Transition rule for the citywide basic FAR =1	3 years	First 5 years with a basic FAR =2 Followed by 3 years at =1.5
Contribution calculation	CT = (CAof x AT x V) x VL*	CT = (CAof x AT x V) x 0,3 x Fp x Fs**
V sqm of land value - source	Property transaction tax (ITBI)_	Property tax value map (IPTU)
Discounting factor	VL = .3 for areas of preferential occupation	Fp = (.5 to 1) according to planning factor zones Fs = (.3 to1) Social factor (e.g. Temples = .3)
Non-computable additional area	Common areas (parking, stairs, corridors etc.) up to 70% of the net building area	Common areas (stairs, corridors, parking lots) up to the limit of 50% of the FAR, as a transitory rule until revision of the Land Use and Occupation Law
Exemptions	●Religious institutions ●Health facilities ●Social Housing	●Public facilities: Health, Educational, Adm.) ●Social housing in lower bands (<2) ●Sports, culture, leisure for social service

Compliance alternatives	●Payment of the contribution itself ●Payment with TDRs ●Additional rights of special public interest ●If in a CEPACs zone	●Payment of the contribution itself ●Payment with TDRs
Payment Terms	30% out-front discount for full payments	Full payment before certificate of occupancy issued – with 10% to issue building license and remaining in 3 annual installments'
Destination	●Municipal Fund for Popular Housing ●Urban Development Fund of Centralities	●Over 70% for Social Housing ●Over 15% to promote urban active mobility
Payments with TDR	10% of OODC **must** be acquired through TDR	●Up to 20% **can** be paid with TDR ●5% from TDR when buying over 10,000 sqm
TDR Generating Properties	●Cultural interest ●Environmental interest ●Implementation of EUC ●Implementation of Priority Road Projects[3]	●Heritage preservation ●Green areas of preservation ●Properties for public equipment's' ●Properties for promotion of Social Housing ●Properties in large scale urban operations
Revenues generated since inception - up to 2024	US$14,4millions	US$1,028.963.88 (dados do portal da transparência) **
Number of generating projects	93	17

US$1 = R$ 5.5
(*) Codes:
CT = Total due payment/contribution
CAof = additional Building rights subject to onus
AT - total land site size area
V = per sqm land value used as metric
VL - locational discount factor like Fp
Fs = Social discount factor for the building use.

Evaluation: Prima facie the two cases are quite similar except for form of payments
** Fundo de Desenvolvimento Urbano_Assinado_38419bb172ad34461bff6018eaf11433.pdf (recife.pe.gov.br)

Similarities between these two cases include exemptions from payments for building rights of social housing projects and prioritizing such projects as destinations for funds generated by the OCBR—a redistributive characteristic present in legislation across nearly all jurisdictions reviewed in this chapter. This also holds for transitional rules in their implementation, albeit at

different rates, and similar locational discounting factors applied to the formula. Notable contrasts involve the varying stages of OCBR application, which significantly impact the per project collection, doubling over time due possibly to transitional rule incidence, and distinct payment terms. Additionally, the articulation with transfer of development rights (TDR - see glossary) is restricted in one case and mandatory in the other. This is an interesting proviso since it links the interest of higher density with historical building and environmental protection.

In addition to the municipalities of the capitals, there are several Brazilian municipalities with initiatives to implement the OODC, although not always in its entirety and consequently, without the desired success. The city of Garanhuns, (145.502 inhabitants in the country's northeastern region), with Law No. 4071/201, exemplifies the challenges faced in its implementation by establishing a basic unit coefficient for the entire city. This law uses land market value as a reference value (ref. Art. 14.), but in the absence of an updated generic value map for the city, properly updated sales tax information can be used in lieu. Once adjustment factors are applied (e.g., planning factors of 50%), the effective captured value from property valorization was typically reduced to 12.5% of the relevant added building area value. To further facilitate the transaction a 40% discount is offered for upfront payment; 20% if distributed in monthly installments; and up to 100% if paid in kind with the 'provision of goods and services'.

In contrast to the previous example, Joinville (population 654,888 in the south region) uses a base coefficient equal to the maximum current Floor Area Ratio (FAR) and charges an incidence on 50% to up to 100% additional depending on the zone. A 50% additional building right is granted for buildings where the two lowest floors are occupied by commercial or service activities. Valuing the CUB at 12% of its value (about $50/sqm) as the base to calculate the contribution for the additional building right, the construction of three apartment buildings with 30 floors each collected about US$1.3 million in OCDR when each apartment unit was valued up to US$1.4 million (Koehler, 2024).

The mentioned 12.5% recovery rate is comparable to the effective recovery rates observed in other cities where the OODC applies, including São Paulo, which does not exceed 20%. This comparison highlights the instrument's early stage of development. Regarding the 'burden' of the charge, it can be inferred that a typical 20% ratio of land corresponds to less than 3% of the final sale value of buildings, which is within the floating margin of operation. Considering the residual nature of the land value (that is, what is left after all other costs are fared against a exogenously given market price for the building) that tends to reduce what is paid to the landowner, an argument can be made about the concerns it raises for some developers. Since these funds are generally used to expand the low-income formal housing market—a market largely influenced by informal agents—one might expect support from developers' representative organizations.

The Reviver Rio program aims to use charges related to building rights to expand housing market segments that are typically overlooked by developers.

[begin text box]

BOX - Rio Reviver Centro

In most Latin-American cities, low-income housing policies have primarily focused on informal settlement regularizations, including tenure and urbanization upgrades (Fernandes, 2011; Goytia and Heikkila, 2025), or large-scale social housing provisions in the city's outskirts. Redevelopment of the downtown built environment has seldom been emphasized. Rio de Janeiro is no exception. According to DataRio, which relies on Brazilian Census data, the central region (Administrative Regions of Centro and Portuária) experienced a population decline of approximately 10.8% from 2010 to 2022, compared to only 1.7% for the rest of the city. It is noteworthy that less than 1.4% of the entire city's population resides in this area.

Since the 1980s, the regeneration of the inner city has been a key focus in urban planning, with numerous unsuccessful initiatives such as subsidies for medium-income housing. In 2021 an innovative and ambitious project named 'Reviver Centro' was launched. According to Fajardo (2023), the project included a housing development stimulus, allowing additional building rights in more desirable and limited areas of the city to be acquired, traded, or linked with new housing developments or refurbishments within Rio's central area.

Although Rio has not yet implemented a single, unitary basic FAR for the city, there were restrictions such as the 12-meter maximum height for buildings applied to areas where no other specific land use and occupation guidelines existed, such as the Ipanema and Copacabana neighborhoods. The new height regulations were limited by urban form design criteria of proportionality with adjacent buildings.

Figure 14 - Novotel Botafogo on building restrictions

Caption: Novotel in Botafogo Rio's neighborhood has been limited by pre-existing code of 12-meter height restrictions for new buildings. (@Washington Fajardo)

Additional heights with corresponding building area in the receiving areas can now be obtained at a matching ratio of 100sqm from new buildings in the Reviver Centro project area (should it be originated in social housing the conversion is made at 150sqm). The attractiveness of the pro quo scheme can be measured with housing sold in the center at about R$1,500/sqm while in the high end 'receiving' areas (e.g. Copacabana) it reaches well over $5,000/sqm.

The developers and builders' association (SINDUSCON, 2023) reported a 30% increase in prices over the past two years since the introduction of the first buildings. New units have been selling rapidly, exemplified by the Casa Mauá Residencial retrofit project, which sold 95% of its 223 units within six hours. In its first two years, the program approved over 2,000 new residential units in the central region. The Reviver Centro II initiative, launched in 2023, has produced 1,150 residential units, with 66% designated for families earning below ten minimum wages (approximately $2,500/month). Notably, only 19% of these new residents were originally from the Center, with the buyer composition comprising 40% investors and 60% owner-occupants from other municipalities in Rio's metropolitan area.

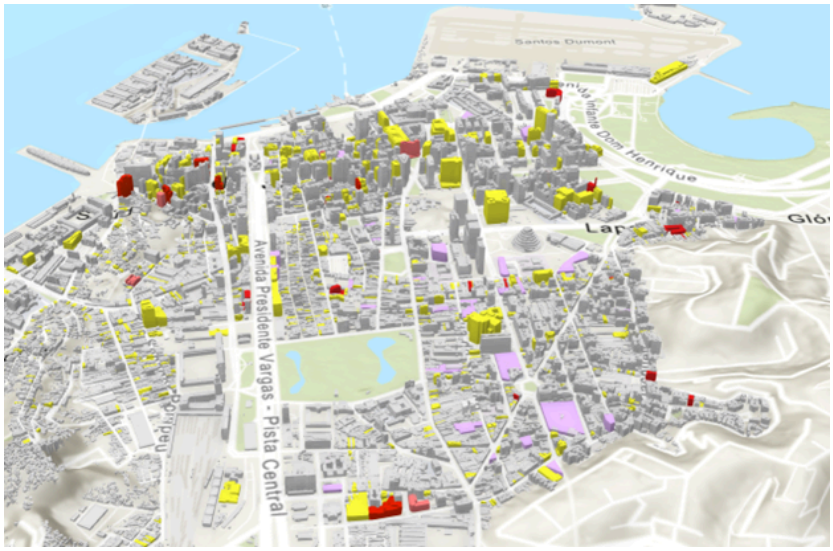


Figure 15 - Map of licenses for new buildings (including refurbishes) in Reviver Centro project

Caption: existing buildings (grey), single owner buildings (yellow), license issued (red), license requested (light red), potential buildability on vacant areas (pink). Source : https://pcrj.maps.arcgis.com/apps/instant/3dviewer/index.html?appid=7c7d88107ae64d9f985eb4f0a31773b0

A comprehensive evaluation of the project's potential sustainability, along with the city-wide redistributive impacts (including further gentrification of high-end areas) resulting from additional building rights within the inner-city development initiative, has yet to be conducted. It remains uncertain whether the apparent success of the Reviver Centro Project was limited to

studio-style low-cost apartments rather than benefiting lower-income residents. This may be attributed to the financial importance of the building rights transfer linkage scheme or its secondary effect of initiating a new 'urban convention' (Abramo 2007), thereby overcoming the investment stalemate typical of inner-city deterioration.

The Reviver Centro experiment reverses traditional TDR schemes by offering incentives for development rather than compensating for non-development. This approach can be applied in other jurisdictions, where additional housing units constructed in high-priority areas, such as deteriorated inner cities, are used to obtain concessions for higher building rights in more desirable locations.
[end text box]

Figure 16 - 'A Noite' building refurbished under Reviver Centro

Caption: Inaugurated in 1929 'A Noite' Building was the first skyscraper in Latin America - as headquarters of A Noite newspaper and the National Radio among other business, now being refurbished for 447 residential units and stores at the ground level. (@Martim Smolka)

Although the OODC is already mentioned in public documents and master plans in many municipalities, its implementation remains limited. Currently, there is no comprehensive diagnosis available for the parameters guiding its operationalization across the numerous municipalities that are incorporating the instrument at various stages of the implementation process.

Brazil has an effective and timely mechanism for financing urban development through the OODC, which does not raise the tax burden. The adoption of a single (and ideally unitary) basic FAR coefficient supports its feasibility and relevance for consistent utilization of OCBR. Although

its usage remains below potential, the increasing dissemination of this tool indicates that public administrators are becoming more aware of the benefits of setting a basic coefficient below the maximum defined by zoning regulations.

Colombia - An evolving accommodation process

Through National Law 388 of 1997, Colombia implemented a tax instrument known as *Participación en Plusvalías* (PP). This law allows for the charging of 30 to 50% on increased land values resulting from changes in land use regulations, such as density and occupation. The price increase is calculated from the issuance of the regulation and is charged when the land is licensed, transferred, or sold, with the value adjusted by an inflation index applied from the regulation issuance period to the project's licensing. Funds obtained are allocated specifically for the development of public spaces, transport systems, social housing, and heritage and environmental protection.

Figure 17 - Bogota Macarena neighborhood with International Center Building in the back.

Caption: Overview of Bogota center area. (@Alvaro Uribe)

Participacion en Plusvalias has been critiqued for design flaws, particularly regarding the use of preexisting maximum zoning rights (which were sometimes already high) to calculate the base value. Although the regulation required the calculation of added value by homogeneous geoeconomic zones and contemplated the use of the residual technique, in practice it often resulted in a case-by-case evaluation. Appraisers prioritized the comparative evaluation method, which includes value expectations, thereby affecting the tool's effectiveness.

In several instances, the charge was applied before the complete realization of market sales of property development, which often led to legal disputes. These disputes arose from conceptual and practical issues affecting final appraisal valuations, such as optimistic calculations of the market value of the final product (building) by the appraiser and the time taken for changes in

urban planning to be assimilated by the market, both impacting the residual value attributed to land. Some developers appealed to courts for new appraisals, requesting judges to reduce or annul the amount to be paid. The issue ultimately involved rights allegedly acquired before the PP agreements, arguing that as a tribute it would violate its non-retroactivity principle. A unified sentence in 2020 resolved the matter with the understanding that higher uses are granted to the owners or possessors of the land through proper urbanistic action via the Master Plan or specific development tools.

This prompted many large and intermediate cities to replace PP with a new tool known as Urbanistic Charges or Obligations, which are applied likewise to conceded building rights as its generating factor. The calculation method of these charges eliminates the need for the ex-ante versus ex-post norm value assessment, case-by-case assessment, or calculation by an appraiser or Colombia's geo-mapping cadaster entity IGAC (IGAC Geographic Institute Agustín Codazzi).

Urban planning charges or obligations account for both basic and additional construction indices. Approval of additional indices requires a contribution that corresponds to the land needed for infrastructure such as roads, parks, or public facilities. This contribution can be converted into a monetary equivalent, calculated either from the cadastral value of the land in the respective area or by a commercial reference value established for its relevant homogeneous geoeconomic zones.

Figure 18 - Building paying urbanist obligation.

Caption: Constructed in an area with a previous maximum FAR of 3.5, the building compensated for the additional built area at 6, representing approximately 5% of its sale value. (@ Oscar Borrero)

Figure 19 - Prospective conversion of the house into a building

Caption: The narrow frontage of the house (green windows) situated between two developed areas restricts its FAR to the original 3, rather than the maximum FAR of 5 allowable for the area, which would incur additional charges. Note that under the new policy, a charge is applied even for the basic use at FAR 3. Since the owner is asking for a market value reflecting the max FAR of 5 in the area, the property is yet to find a buyer… (@ Oscar Borrero)

The system now utilizes the municipal reference value per square meter of land per zone, derived from the pre-existing standards. This value is then multiplied by the percentage of the new or additional buildable area.

As of now, the system is implemented in 16 cities across the country. Medellin was the first to adopt it in 2006, and Bogotá is the most recent city, having adopted it in 2021. It is generally well-received by landowners, developers, and builders. According to Oscar Borrero, an established assessor with extensive experience in Colombian cities, these charges, including Social Housing obligations, represent between 4% to 7% of a building's final sales value or between 30% to 60% of the original plot's value. While builders affiliated with CAMACOL (Colombian real estate guild) claim that the costs are transferred to the final buyers, statistical evidence on their impact on prices is yet to be determined.

Garza and Gonzales (2021) notwithstanding, found for Colombian 18 metro areas that during 2002- 2018 that value capture has been statically neutral, that is negatively affecting an index taken as proxy for residential land values, in the cities that implemented it. However, the authors also clarify that since they rely on an index and not the price proper, that only the sign of the effect is accurate.

By 2018, the City of Medellin collected more revenue with the new procedure compared to Bogota, despite Bogota being three times larger. In Medellin, the calculation is adjusted based on one of the six social strata the city is zoned into and the size of the plots. For instance, for a plot of one thousand square meters with a house built on it within a stratum of 5 or 6, a charge equivalent to 600 square meters (20%) is imposed if the project involves redeveloping it with a new building of 3,000 square meters. In contrast, Bogotá adopted this system in 2021 but does not adjust the percentage for social stratum. The funds collected are used to acquire land for public spaces, parks, roads, and to expand public services.

The full impact of Colombia's development rights charges can be best appreciated in the context of Partial Plans, which encompass large, medium, and small-scale urban development projects that often involve some form of land readjustment. Numerous Partial Plans incorporate self-funding mechanisms utilizing these tools. Examples include El Ensueno, La Felicidad, and La Palestina, all of which integrated obligatory or additional concessions and provisions for social and priority housing. These inclusions are directly or indirectly linked to increases in land value resulting from the respective projects. An illustrative case of this effect is discussed following Box (X), focusing on the North of Bogota Zonal Plan.

[begin text box]

BOX – The Zonal Plan of the North Bogota (City of Lagos de Torca)[3].

The project design commenced in 2004, covering an area of 1,800 hectares designated for urban use, excluding reserve and protection areas. It aims to provide space for 140,000 housing units, accommodating approximately 450,000 inhabitants. The plan includes a mix of uses such as offices, commerce, and residential areas, with a mandatory allocation of 20% for 'priority interest housing' (valued up to 90 minimum wages or US$30,000) and another 20% for social housing (valued at 150 minimum wages or US$49,000).

The project faced significant resistance from around 450 landowners and developers regarding urban planning obligations and charges intended to finance infrastructure, public spaces, and protected areas on a zonal scale. However, after extensive negotiations, a consensus was reached, and the project was approved by Decree 88 of 2018 by the Mayor's Office of Peñalosa. The formation of a developers' trust replaced the original plan to leave the management of expected land value increment to individual developers.

This zone plan is divided into 32 partial plans, utilizing most instruments included in the city Master Plan (POT). Notably, five partial plans are being undertaken by large construction companies, which are already in the pre-sale and construction stages. Below is a summary of the application of instruments in this extensive citadel:

Participación en plusvalías refers to the conversion of original rural land valued at US$10/sqm into urban use valued at US$75/sqm, with a base improvement coefficient of 0.2, representing 20% usage of each plot. By applying a 50% charge on the estimated increment in land value,

[3] Source - https://www.sdp.gov.co/micrositios/lagos-de-torca/como-se-hace

$65/sqm is to be paid by the developer (which may ultimately affect the landowner). Given that the 0.2 buildable area may not be profitable, the developer may consider purchasing additional building rights.

Acquiring Additional Building Rights with URAs (contribution recognition units) enables one to purchase rights for increased buildability, with their value adjusted by inflation. For instance, to extend a basic build right from 0.2 to 2.2, an additional 2.0 rights must be acquired using the corresponding number of URAs at the current valuation. In 2023, one URA was valued at $275. Norms in each partial plan and zone determine additional buildability between 2.2 and 2.75 per net area of land. To achieve a 2.2 build right, it is necessary to acquire 2.0 URAs, indicating that most buildability charges will be met through URAs. The number of square meters per URA ranges from 0.6 to 1.5 depending on the area and is inversely proportional to the building coefficient, purportedly to encourage higher densities.

The value of URAs is expected to cover all general costs, which were defined at 1.6 trillion pesos (US$550 million) in 2018, and currently may reach up to 2.5 trillion pesos (US $600 million). Experts have compared the URAs of the zonal plan in northern Bogotá with CEPACs in Sao Paulo, noting that while URAs are not sold on the stock exchange, they do have a private secondary market facilitated by fiduciary mechanisms. Any investor can acquire URAs and subsequently sell them to interested parties. Revenues from selling URAs, amounting to $600 million, have already surpassed the project's public costs, estimated at $550 million. The URAs are akin to Brazilian CEPACs, except for the selling method (fixed administratively versus determined by auction). Both circulate in the secondary fiduciary market, with URAs accruing 7% above inflation, thus attracting substantial investor interest.

Mandatory Inclusionary Housing: As previously mentioned, 20% of housing units must be allocated for social housing, and another 20% for priority housing. No additional licenses will be issued until these quotas are fulfilled.

Valorization Contribution: A portion of the main and local roads in the project is to be funded through this charge. However, to date, no direct beneficiaries have been subjected to this payment.

Payment for public space with URAs. Landowners of areas designated for parks in each partial plan, large metropolitan park main protection zones, and ecological areas are compensated with URAs, which they can sell to developers interested in higher buildability. URAs facilitate the otherwise complex transfer of development rights.

The experience of the POZ NORTE project in Bogotá has influenced cities like Cali and Pereira to adopt this approach in their Master Plans (POT) for similar large-scale developments in their expansion areas.

[end text box]

Figure 20 - Partial Plan Lagos de Torca - Overview of the project (@Maria Cristina Rojas)

Since the inception of Law 388, the implementation process has involved extensive dialogue between the national Housing Ministry and the private real estate sector, notably represented by Colombian Building Chamber (CAMACOL). Numerous negotiations have resulted in some limitations to the scope of the tools provided by the law. A key issue under debate has been whether the funding for structural works required in (re)development zones should come from the overall public budget or be shared by the developers involved in the project.

An example of this is Ciudad Verde, a private development in the municipality of Soacha, in the Bogotá Metropolitan area, designed to accommodate more than 60,000 homes and commercial buildings. This project was financed by both the state (nation and Bogotá) for infrastructures, and through self-investment of funds from *Participación en Plusvalías* for some additional social equipment. The Ministry of Housing, City, and Territory converted rural land into urban land, bypassing the municipal authorities' autonomous competence to regulate land use, which was subsequently declared unconstitutional. Consequently, the direct management of funds by the developer was replaced in 2011 by a similar law permitting ad hoc express modifications of the POTs, given the agreement of the respective municipal administration.

Over the years, the theme has evolved to include certain accommodations, as illustrated by the management of capturing value (voluntary and non-obligatory) by a private trust responsible for contracting all public works included in the master plan for the development of Plan Zonal Norte (see above Box). Clearly, this virtual privatization of value capture management may lead to the idea that developers were funding urban infrastructure; when in fact, they were merely returning a portion of the land value increment obtained from negotiated added building rights.

The ongoing development of instruments related to OCBR by a country with a longstanding history of implementing value capture in various forms offers significant insights for new adopters who face the binary decision of achieving perfection or opting out entirely. This evolution underscores the necessity of comprehending the constraints imposed by both technical and political feasibility. The transition from "Participacion en Plusvalias" to Urban Charges or Obligations illustrates how building rights can be assessed based on zone-specific land values and subsequently converted into contributions for public spaces and services, all while upholding the principles of property rights.

The Colombian OCBR implementation process *can be synthesized as an evolving tacit agreement on charges acceptance, provided they are not excessively high*. (Maria Mercedes Maldonado, former Bogotá's Secretary of Planning)

Uruguay - Locally adjusted metrics

Article 5 of Law No. 18,308 of 2008 on Territorial Planning and Sustainable Development (LOTDS) outlines the distribution of the costs and benefits of the urbanization process between public and private entities. Article 46 specifies the municipal right to engage in land conversion by taking a 5% share of the land value increment resulting from its buildability; and 15% when the higher land value results from areas subject to renovation, consolidation, or reorganization. Participation can be made in land to be added to the municipal land portfolio/bank or in monetary form.

Article 60 stipulates that conditions may be established under which the right to build can be exercised beyond the existing basic coefficient of use. Additionally, the same article acknowledges that properties subject to heritage, landscape, or environmental preservation regulations may exercise their building rights in other locations, with compensation of up to 50% of the resulting highest value. The application of this law varies across the country's 19 local administrations, with some interpreting the charge as mandatory and others as voluntary.

The country has three levels of government: National, Departmental, and Municipal. According to Article 14, territorial management is assigned to the departmental level, which differs from the municipal level delegation found in most countries. However, municipal permits are also considered. For example, in the department of Florida, charges are applied based on building heights with a basic coefficient set at 9 meters. There is a 50% charge for heights from 9 to 18 meters and a 100% charge from 18 meters to the height allowed by the municipality

Regarding Montevideo, in addition to the rates established by the national LOTDS law, a decree issued on October 8, 2020, outlines two parameters to determine the maximum buildable area: the square meters that can be developed within the volume defined by the maximum land occupation area and the height currently in force or authorized for the plot. The decree also imposes a regularization fine of 150% on any accrued valorization resulting from existing unlicensed added buildability, which is to be applied in addition to the 10% charge imposed when existing parameters are exceeded. However, Article 6 permits the Municipality to apply

lower ratios for projects subject to special strategic plans, projects of departmental interest, non-profit organizations, social housing, and innovative initiatives, among others.

Figure 21 - "Conversion overtime of buildings along Rambla Mahatma Gandhi in the shore Montevideo". (@Martim Smolka and Stella Zucollini)

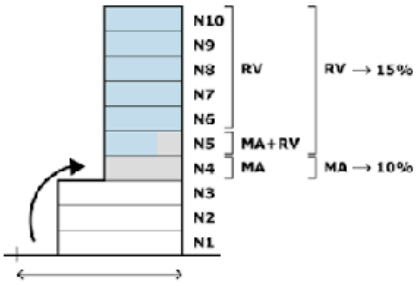
The decree effectively acknowledges the obligatory nature of a charge on building rights exceeding the established basic coefficient, while also recognizing circumstances under which this charge can be reduced. It acknowledges the existence of unauthorized additional buildability, for which fines are applied rather than mandating demolition. The case of Montevideo is unique in utilizing a fixed percentage of the full commercial value of the additional construction as a proxy for the corresponding 'created land'.

The following diagram illustrates the method by which the charges are applied.

Figure 22- Chart X - Application of charges in Montevideo

Source: Presented as Figure 1 in the Practical Guide for Determining Higher Use Valorization Return for the application of Decree 3767, dated June 25, 2021

PV	Compensation value
RV	Valorization return
MA*	Higher usability
ME**	Higher buildability
EMV	Current maximum buildability
ESPV	Buildability exceeding the existing parameter
N#	story level



*MA = Buildability in Sqm above the current parameter (ESPV) - ME
**ME = Total proposed buildability less current maximum buildability (EMV)

The compensation value is calculated using the formula.
PV = (Quantity of m² involved) x (marketing value m²*) x (% corresponding to RV or MA)
* Calculated by the Cadaster and Appraisal Service of the Municipality of Montevideo.

The grey sector corresponds to the maximum buildable area exceeding parameters - with a 10% charge, while the light blue sector the part above the maximum on which the 15% Return on Valuations rate applies. Thus, if the proposed building is below the maximum buildability ME would be zero and therefore only 10% applies to what is being built above the basic where no charge applies. If the proposed building is above ME besides the latter a 15 % is applied to the corresponding to the additional stores conceded.

In the department of Canelones, charges are imposed on added Floor Area Ratio (FAR) or heights and on valorizations from land use conversions. Basic coefficients for height are defined as three levels (8.50 or 9.00 meters) and the FAR is set at 120%. The contribution for additional building rights is calculated based on the number of meters to be constructed above the basic height divided by the basic FAR for those first three levels, with the resulting number multiplied by the value of the square meter of the building plot. A 50% discount applies if the building does not exceed the basic FAR (120%) in height. The market value of the land is used for relevant appraisals. The top effective contribution may not exceed 15% of the average sale price per square meter of the building, multiplied by the meters built above the basic height. Resources obtained are allocated to the renovation of urban equipment, existing public spaces, bike paths, roads, pedestrian shelters, a semi-Olympic public swimming pool, community centers, the Grape and Wine Museum, parks, and other facilities.

Figure 23 - Development in Canelones collecting charges for building rights (@ Martim Smolka)

The calculation for additional building rights in Maldonado involves a fixed construction cost per square meter, which is updated annually based on the National Construction Cost Index (ICC). This cost is applied to 20% of the additional building value. A factor of 0.8, 0.6, or even zero may be applied to this calculation to incentivize densification in specified areas (Brener 2015). Although this method does not explicitly consider land value, it reflects the impact of land value on the building's overall value.

In the department of Salto, a request for additional rights resulted in an increase of $180,000 [4]to the fiscal value of the building situated in the central area of the municipality with same name. The project was authorized upon the application of the 15% charge leading to approximately $31,000 in compensation, as publicized by the decree 7.460 of October 2022, fully detailing the justification and corresponding amounts.

The Uruguayan case is significant for its use of straightforward metrics and its ability to adapt flexibly to local conditions and needs. However, this flexibility has also allowed for the accommodation of questionable interests, such as using the instrument to regularize building areas that exceed the maximum Floor Area Ratio (FAR) granted, which can be seen as abusive or even delinquent.

[4] This value corresponds to the original 216.9021 UTIs the indexed units used on such public charges.

Ecuador – Revisiting unnecessary complexities

In November 2014, the ruling party presented a Territorial Planning, Use, and Management of Land project bill to the National Congress. This bill was prepared by officials from the Ministry of Urban Development in consultation with various sectors and incorporated the concept of value capture. In May 2015, the government announced a value capture bill along with another bill that proposed increasing the inheritance tax to 47%. The combination of these two initiatives caused confusion regarding their redistributive character and led to allegations of pure taxation motives. This opposition resulted in the temporary withdrawal of both projects on June 15, 2015. The government's initiative followed a speech made in May 2015 by then-President Correa, an economist influenced by Piketty's popular argument at the time for redistributive measures to curb the excessive accumulation of real estate wealth.

Two significant initiatives followed the government's value capture and inheritance retreat: the approval of the Organic Law on Territorial Planning, Land Use, and Management (LOOTUGS) in July 2016, and the enactment of a comprehensive 'surplus value' law in December 2016, which imposes a 75% rate on 'extraordinary' property gains of all kinds (see Box below). Both laws have a precedent in the Organic Code of Territorial Organization, Autonomy, and Decentralization (COOTAD) of 2010, particularly for taxing all value gains from property transfers at a rate of 10%.

[begin text box]

BOX - The Plusvalias Law attempt

Due to its emergency nature, the Ley de Plusvalias (Surplus-value Law) was enacted within the 30-day limit with a vote of 79 in favor and 29 against. As noted by Merizalde Aviles et al. (2020), the proposal referenced a 2013 study by the Center for Fiscal Studies of the Internal Revenue Service, which estimated that over 600 million dollars from public investments had become private windfalls in the nine main municipalities of the country. The law's primary objective was to address fiscal mismanagement by eliminating sub-optimal exemptions and deductions, regulating unjustified extraordinary gains, and reducing property tax evasion—issues that are critical and commonly recognized among Urbis Orbi policymakers, underscoring its initial importance.

The following example demonstrates its application. Consider the acquisition value of a property to be $100, with an additional $20 for improvements made by the owner, resulting in a total 'acquisition value' of $120. If the property is sold (transferred) after 15 years, this value is adjusted by the opportunity cost of capital, factoring in the interest rate of 6% over the period, calculated as (1+0.06)^15 = 2.39. Therefore, if the selling price is $300, the taxable value is determined to be $84.9.
$84.9 = $300 - 75% of $120 x 2.39.

The immediate impact was a significant slowdown in the building industry, with its contribution to the 2017 country GDP falling by over 8 points (ref. Criollo 2018). This decline deeply affected

employment and other macro-economic indicators. As a result, there was widespread opposition from builders and real-estate organizations. The law was further rejected by 63% of voters in a popular referendum after less than eighteen months of implementation. Criollo (2018) suggests that this swift retraction, even before a major evaluation period, was used to legitimize the new national government redistributive agenda while balancing the need to attract foreign investments and negotiate a free trade agreement with the USA.
[end text box]

Figure 24 - Popular manifestations rejecting of 'Plusvalias' Law

Caption: NO more taxes to maintain an obese State, NO to the heritance tax, NO to the surplus value ('plusvalias') tax, NO to more taxes! Photo published in https://es.globalvoices.org/2015/06/18/presidente-de-ecuador-cede-frente-a-manifestaciones-y-la-visita-del-papa-francisco Taken (from Gonzalo Mejia O @BananasFilms tweeter account).

LOOTUGS establishes that the public can grant use above basic buildability in an onerous manner (Article 26). Article 72 requires fair State participation in the economic benefits generated by these additional rights through an Onerous Concession of Rights (COD). Essentially, it mandates that the State demand a share of the economic benefit from private agents due to changes in land classification, use, or improvements.

Article 39 of the Ecuadorian case outlines the non-recognition of acquired rights that arise from regulations specifying the uses, occupation, and construction provided for in territorial planning and management instruments. As a result, a landowner cannot claim a base right at 8 stores when a new base right is established at 6 stores, even if the project is licensed for 24 stores. This reiterates that mere expectation does not constitute a right.

Recognizing the general lack of technical capacity and political will among most Ecuadorian municipalities, the LOOTUGS included language suggesting the non-mandatory application of the new tools. As a result, certain imprecisions or unresolved issues remain as challenges. This is particularly relevant for the two critical parameters in calculating additional building value: the unit of measure (numeraire) and the baseline and maximum zoning rights. The accepted higher building right to be compared with the given right is kept rather ambiguous, allowing for case-by-case arbitration of this maximum FAR.

The instrument initially known as 'Suelo Creado,' inspired by the Brazilian model, was introduced in 2011. It conditioned the authorization for additional floors in specific sectors of the city, which exceeded the limits set by the Land Use and Occupation Plan (PUOS), to payments through the established Special Betterment Contribution (CEM). This mechanism enabled the local government to capture approximately 30% of the land value increment resulting from public interventions (Celi and Mejia 2025).

Figure 25 - Overview of Quito (@Martim Smolka)

Caption: Variable heights of buildings characterize the landscape.

In 2017, the Eco-efficiency tool was established, incorporating sustainability criteria such as recycling water, low energy consumption, and others into the sale of building rights in exchange for twice the permitted buildable areas. This meant that the sale of buildable land could reach up to twice the buildable area, allowing the construction of high-rise buildings with up to 24 levels in highly valued areas. Due to concerns about skyline disruptions and speculative impacts, "Eco-efficiency" faced significant criticism and was discontinued in 2019. The introduction of COD retained the sustainability criteria applied in Quito, which remains the only city in the country to implement this tool.

The formula: COD = α x Vc x Fu x Ae x β, for:

- α = Share of land on total building value (adjusted according to macroeconomy) - set in 2024 as 20%
- Vc = Building value.
- Ae = Additional building area
- Fu = Use factor (residential, commerce, offices etc.)
- β = Municipal participation share (from 17 to 30%)

Overall, from 2019 through 2021, approximately US$2.7 million was collected, and between 2022 and 2023, about US$535 thousand was collected, an amount that did not cover the COD administrative costs. In 2024, US$1.5 million was collected (Celi and Mejia op.cit, 2025). According to Gabriela Segovia from the Urban Economic Unit of the Habitat and Territorial Planning Secretary for the Municipality of Quito, the low collection rate of the COD may be attributed to several factors: the unnecessary complexity of the formula affecting its understanding and applicability; underestimation resulting from outdated cadastral values used in the calculation; and distortions due to inefficient adjusting factors.

Figure 26 - Quito's tallest building in the left side of the photo

Quito's tallest building on the left (32 stories) and the other tall one in the middle (24 stories) on Shyris Avenue in the high-end hyper-center added 16 and 8 stories respectively before COD was introduced. Their height was determined by metro proximity and eco-efficient urban planning standards. (@Gabriela Segovia)

The average building heights across the city are generally no more than 2 stories, significantly below the referred calculating baseline (i.e., COD exemption) of 8 stories, with a maximum limit set at 32 stories for additional building areas. This indicates a misalignment between the parameters and the city's land use reality, as evidenced by the excessive demand in the

so-called 'hypercenter', which impedes the development of new centralities and the associated higher density intended by Quito's Master Plan for 2015-2025. This situation suggests that there is a higher demand for density more broadly distributed across the city, which is being concentrated in one center due to the low charges applied to substantial concessions of building rights.

The Ecuadorian case serves as a contrast to the Uruguayan example. It demonstrates strict adherence to fundamentalist principles (perfectionism) at the expense of operational efficiency (realism), resulting in unnecessary complexities that affect the effectiveness of OCBR implementation. Often, underperforming OCBR initiatives stem from good intentions. The positive aspect is that public authorities have acknowledged the need for simplified formulas and relevant metrics, which are forthcoming.

Argentina – Demonstration effects from bottom-up cases

Despite initial efforts by the Province of Mendoza with Law 8051 of 2009, which explicitly established (in Article 54) the right to capture value resulting from public actions, followed by a similar initiative in the Province of Tierra del Fuego in 2011, attempts at the national level in 2010 and 2011 to promote a national law for territorial planning were unsuccessful (Cuenya 2017). Law 14449 of 2012 on Access to Fair Habitat in the Province of Buenos Aires, in Section V, Article 46, mandates municipal participation in real estate valuations generated by urban actions. These include the incorporation of rural land, changes in land use or zoning, increased buildability through higher utilization coefficients, authorizations for large-scale real estate projects, public works (not financed by the improvement contribution), and "any other fact, work, action or administrative decision that facilitates an increase in the property's value, enabling its more profitable use or increasing the parcels' usage with greater volume or buildable area."

At the municipal level, initiatives preceding those of the provinces include the creation of a new instrument in the city of Rosario (1.011 million inhabitants) called the *Compensatory Contribution for Extraordinary Benefits in Urbanizations and Buildings* in 2004. By 2012, the charge generated approximately $80 million, with about two-thirds collected from Puerto Norte, a large-scale urban project (Baer et alli, 2016). Similar ordinances were later adopted in jurisdictions such as Moron, Tranque Lauquen, 3 de Febrero in the metropolitan area of Buenos Aires, and other locations like San Carlos de Bariloche, Malvinas Argentinas, Catamarca, Salta, La Rioja, Villa Gesell, Posadas, and more recently Villa La Angostura. These municipalities expressed their commitment to introducing charges for additional development/building rights.

Some notable aspects of these experiences include the progressive charges related to building heights (a proxy for density) in Posadas, which are set at 4%, 8%, and 12% for additional heights of 9 to 18 meters, 18 to 30 meters, and 30 to 60 meters, respectively. (Szeliga, 2022) This suggests a possible disincentive to higher densities, contrasting with the example of São Paulo. It is also of interest that the ordinance references 'Suelo Creado,' indicating the influence of Brazilian legislation, as mentioned in the case of Salta.

The tourist municipality of Villa Gesell has a population of approximately 45,000 inhabitants, which increases to 240,000 during the summer due to residents and tourists. Ordinance 2156/08 establishes the Urban Development Contribution Rate for municipal participation in real estate appreciation generated by higher land use, such as administrative acts allowing for incorporation of new areas, changes in uses, morphological alterations, and benefits from urban infrastructure and equipment provision. The valuation considered results from the difference in prices of the land on which a 10% rate is applied. The municipality delegates the task of taxing the referred valuations to the Court of Taxation of the Nation (TTN), ensuring access to expertise and technical support to avoid possible challenges of significant amounts. Since its inception, several projects have been charged this rate, with the first four projects agreeing to the payment and collecting altogether about US$400,000.

Figure 27 - Seashore of Gesell - (Source: Secretary of Planning)

The municipality of '3 de Febrero' in the Autonomous Metropolitan Area of Buenos Aires, with a population of 365,000 residents, has successfully implemented projects that benefit from higher usage than previously permitted by regulations. The contribution for additional buildability is based on the land value incidence in the area at a specific rate. Since 2020, this initiative has generated approximately US$7 million for the Fund for Urban Development and Sustainable Habitat, which has supported over 40 projects in low-income neighborhoods. This initiative is commendable for its universality and transparency, and it has reportedly garnered widespread approval from the electorate, resulting in the responsible mayor's reelection with 72% of the votes.

Figure 28 - The building was developed under the new OCBR normative (Source: Mayor's office of 3 de Febrero)

The city of Buenos Aires, through Law 6062 of 2018, established a complementary charging regime for additional developing rights arising from changes in norms. This refers to the difference between existing and potential development rights as outlined by an updated Urbanist Code. To participate in the valorization generated by public administrative acts, Certificates of Differential Building Capacity (CDBC) are included. This scheme aims to fund housing and infrastructure projects in specific degraded areas of Buenos Aires by monetizing approximately 160 million square meters of potential additional development rights obtained from matching building heights to adjacent buildings within the same block.

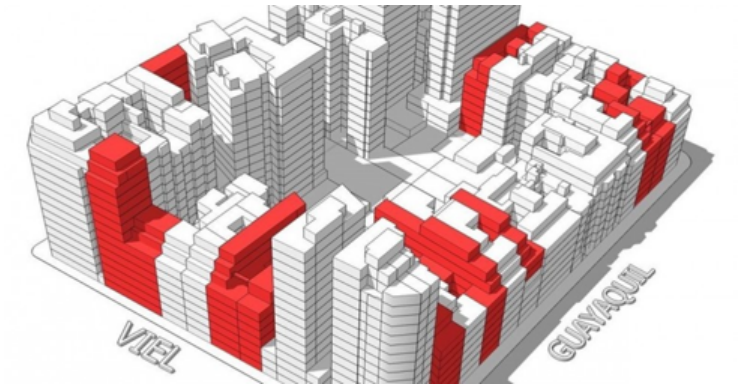


Figure 29 - Illustration drawing for BAS CDBC (Source: Cantarell 2019)

Figure 30 - Added new area in an existing building in high end Ricoleta neighborhood. (@Martim Smolka)

Caption – The additional building rights were granted before Law 6062 was enacted. It is noteworthy that part of the added area aligns with the left side of the building, while another section aligns with the right-side building. (@Martim Smolka)

To license a project the developer must buy these certificates corresponding to 80% of the additional sqms required (A) multiplied by a land incidence rate established for each city block converted to the licensing date through a price set in UVAS, an inflation annually adjusted monetary unit, (B), times a rate established as 10%, 15%, 25% or 35% according to quality categories of 4 city zones. (see illustration below for the formula to calculate the contribution). In a way it is like OODC though with a micro-defined indexed virtual land applied to a variable basic coefficient. Since the UVAs were adjusted annually, the closer the licensing to that date obtained the lower the contribution.

Figure 31 - Calculation of OCBR compensation in Buenos Aires.

Caption: (A) Additional building right, (B) Land value incidence; (Alquota) Differential zoning rate; (Pusvalia) Developers payment contribution. (Source: Cabillón 2024, pg 45)

In terms of performance, Lorenzo (2022) estimated that the 2,188,423 square meters of new building area licensed in 2021 in the City of Buenos Aires would potentially yield approximately $445 million recoverable through the given formula. Based on the recovery rate for each neighborhood, Lorenzo further estimated that less than US$ 95 million was actually captured by the instrument.

In its revision by Law 6766 of December 2024, the scheme was converted into a TDR whereby the execution of square meters above the existing building limits in the Receiving (higher demanded) areas is conditional on the execution of the work within the framework in the generating Priority area. Project(s) thus approved in the latter have their qualified sqm produced converted into Certificates of Additional Building Capacity (CCA in Spanish). These certificates are then used to pay for the additional building rights approved in the Receiving area according to conversion procedures on a project-by-project basis that considers individualized morphological and volumetry conditions. In a way this new scheme is like the one devised from the above-mentioned Rio's Reviver Centro project.

Argentina provides a rich collection of bottom-up applications of OCBR applications with municipalities anticipating national legislations with some by-the books initiatives of which many under obvious influence of the Brazilian experiences. These initiatives were in general adjusted by local conditions, often with creative add-ons, demonstrating the relevance of local spins to enhance the effectiveness of otherwise extraneous tools.

SECTION 2

Mexico – High benefits from shallow transfers of rights

Since the early decades of the last century legal provisions recognized the need to capture value from administrative acts let alone the implementation of betterment contributions (Perlo, 2001). The General Law of Human Settlements, Territorial Panning and Urban Development of 2017 - with its last reform on January 4, of 2024 – is silent though on any public prerogative regarding charges of any kind to development and or building rights. Intents also failed to include them in the new constitution for Mexico City 2016/17 (Azuela, 2019). In spite of that, other jurisdictions do apply it albeit with parsimonious socialization of their positive implementation, including the City of Mexico itself through a version of transfer of development rights 'a outrance'.

Figure 32 - Verticalization of La Reforma Avenue in center Mexico City (@ Alvaro Uribe)

Under the regulation of the System for the Transfer of Potentialities of Urban Development STPDU - a proviso in Mexico's Law of Urban Development of the Federal District (June, 15 of 2010) unused building potential in the city's historical center, set at 6 floors for all properties (monuments in the historical center), may be used to increase the Building Coverage Ratio, thereby adding the maximum building area of projects in defined receiving zones of the city.

To that end a Trust of Potentialities (known as F/54) has been established in 1989 (though modified many times since). Its private character prevents however the full transparency of its operation, in special the collected funds are allocated by the Technical Committee of the Trust to the rehabilitation, improvement and conservation of the urban cultural heritage and the conservation land. In accordance with the provisions of Articles 83 of the Urban Development Law of the Federal District, a percentage may also be applied for the promotion of the urban development of the city, especially of public space.

In practice operations of Transfer of Potentialities of Urban Development consist of increasing the Building Coverage Ratio using a percentage of the yard area defined by the existing zoning

for the receiving property. Thus, calculating the amount to be paid the requested additional building area is divided by the FAR to obtain the amount of land it would otherwise need. This amount of land is then multiplied by the recognized commercial value of the square meter of land in the area.

According to Gonzalez-Malagón (2023) between 2004 and 2018 the STPDU trust collected about US$9 million from altogether of 75,669 sqm of de facto sale of additional building rights, from 67 projects (an additional 32 projects also benefitted from 'transfers of additional rights' yet exempted of compensations given their destination to social housing). The additional sqm was sold on average at less than US$120 tough 10 of the projects paid around $4,000 per sqm of additional building rights; still a relative low value for their location in the highest valued areas of Mexico City!

Figure 33 - Table - Project in Calzada de Tlalpan # 855, Colonia Postal, Benito Juárez borough, illustrates how the calculation is made:

0	**Original**	Parameters	Area	Calculation
A	Lot area in m²	**9,083.79**		
B	Zoning code	HM 10/20/Z		
C	Yard area	**20%**	1,816.76	C*A
D	Building coverage ratio	**80%**	7,267.03	D*A
F	FAR	**8**		
G	Maximum Building area		72,670.32	F*A
H	Stores/Floors	**10**		
	After new added area			
I	Additional building area requested	**889.33**		
J	Yard area	10.21%	927.42	
K	Building coverage area	89.79%	8,156.37	
L	Additional footprint area		111.17	I/F
M	Commercial value per sqm in US$	1,722.74		
N	Total payment		**191,512.09**	L*M
O	new FAR		8.98	K*H/A
P	Total new building area		81,563.67	O*A
Q	Additional building area		8,893.35	P-G
R	Exchange rate M.N Pesos to US $	17.71		

Source: GACETA OFICIAL DE LA CIUDAD DE MÉXICO (GOCM)[5] 12 of February of 2024

The developer had to pay US$ 191,512.09 for the additional building area of 889.33 m² in exchange for the same amount of building area in the historical center. The project

[5] México City Official Gazette that publishes the public acts.

development is however on hold since a citizen petition for canceling it, has been considered though with no final resolution yet.

Once the operation is concluded the referred additional building area of 889.33 m² is drawn from the stock of potentials in the Public Reserve of Construction Intensities of the System for the Transfer of Potentialities of the Urban Development of the Federal District, implying the Reserve was left with 362,304,562 m² of available construction potential.

The CDMX case is notable because it involves the effective sale of additional building rights, though presented as a Transferable Development Rights (TDR) scheme. The 'emission zone' was initially intended to benefit from this arrangement but has seen minimal advantages to date, primarily serving to justify the sale instead. Additionally, the revenue collected from the charge applied to these additional building rights have been minimal, highlighting the limited implementation of the original instrument.

[begin text box]
BOX - Accumulative regulations leading to higher building rights[6]
In 2018, a mixed-use project was authorized on Mexico's longest avenue. This project exemplifies how additional building rights for a set of towers have been granted in an area benefiting from various tools within the country's capital. The Urban Development Program of the Álvaro Obregón delegation (a jurisdiction akin to a municipality) identifies "inter- and intra-delegation integrating roads" to enhance adjacent properties. This enhancement allows these properties to have higher building potential at no additional cost.

The suite of tools facilitating more flexible land use included: a) an action polygon that enabled the transfer of 1,697.72 m2 from one property to another; b) a Highway Ordinance for Insurgentes Avenue, permitting the increase of building stories from 2 to 15; c) a specific regulation to optimize urban potential, granting 6,117.03 m2 due to its special road designation; and d) the payment of development rights through the Development Potential Transfer System, which transferred 2,101.24 m2 from the "Public Reserve of Building Intensities". Of the four benefits listed, only the latter was granted in exchange for payment, amounting to $446,243, calculated by multiplying the commercial value per square meter ($2,546 US$) by a factor determined from the yard area required to support an FAR increase from 2 to 12 to accommodate the additional building rights requested. This resulted in a 27-story residential building with parking areas and some commercial spaces.

Considering the numerous generous concessions of development rights, the current administration of Mexico City (2024) is considering the deauthorization or possible elimination of these regulations.
Source: GOCM of 30 de Noviembre de 2021
[end text box]

[6] Source: GACETA OFICIAL DE LA CIUDAD DE MÉXICO 20 de Abril de 2018

Figure 34 - Building benefitted by transfer of building rights in Ave. Insurgentes Sur 1831 and 1857 (@Salvador Gómez Rocha)

Zapopan's (Guadalajara) municipality, with a population of 1.5 million inhabitants, established urban development and land use regulations in 2012. Item IV of Article 47 stipulates that land use at the maximum coefficient requires payment for the corresponding rights in accordance with the Municipal Revenue Law. Article 48 states that the total building volume requested may not exceed the existing maximum coefficient. This means land use must be up to, but not beyond, the maximum established by partial plans. From 2017 to 2022, approximately $28 million was generated from charges collected from the difference between the maximum FAR zoned at 8 and the base FAR at 2.4, resulting in an additional 5.6 to the FAR in priority development areas with the highest maximum FAR. As for the allocation of these funds, 50% must be invested in the same area where they were collected, while the other half must be used in areas with a higher urban infrastructure deficit. Gonzales (2023)

Figure 35 - Overview of Guadalajara (Martim Smolka)

The municipality of Juarez, which also has 1.5 million inhabitants and is located on the northern border of the country, adapted Zapopan's experience with its 2022 Revenue Law (Article 135). In the same year, from 14 projects, Juarez collected approximately $3.5 million from Transfer of Development Rights (TDR) and $11.6 million from charges for additional building rights benefiting 10 projects, Mora (2023. However, information on authorized projects and corresponding raised revenues from the application of this tool cannot be tracked from any official public reports. The lack of information makes it impossible to properly evaluate the performance of the instrument on a yearly basis.

An application for the social mobilization of additional development rights as a public resource was used to finance the reconstruction of buildings destroyed after the 2017 earthquake. According to data from the CDMX Reconstruction Portal, by the end of 2020 there were 135 buildings in need of complete rebuilding. Under the Additional Building Rights incentive, 98 affected owners were granted the regulatory benefit of increasing the building densities of their land by 35%. The sale at market value of the added building right could partially finance the reconstruction of homes and commercial premises. By November 2020, it was reported that 43 buildings were already under reconstruction, 9 were in the administrative process, and the rest were in the design phase of the architectural project. However, some authorities involved in the process faced allegations of corruption and embezzlement.

Providing the 'proper exchange rates' TDRs are likely one of the least un-favored OCBR tools by high-end developers, hence their increasing popularity in the region. Mexico City is a case in point. In spite of the relative meager revenues, if compared to the potential, the sophisticated structure for the tool in the city provides a strong case for its implementation. Clearly adjustments on the relevant parameters and most importantly on the other competing benefices available would most certainly generate far more resources for the city. Lastly, the

more OCBR consistent tour taken by other cities reinforces Antonio Azuela's suggestion that*: innovation in urban financing no longer "radiates" from Mexico City; it comes from initiatives in other cities (Guadalajara, Ciudad Juárez, etc.)*

Chile – Pursuing Compensations from Externalities

Except for a mandate on free transfer of land for public use (such as equipment, green areas, and circulation), applied exclusively to areas undergoing urban expansion, Chile had not imposed any charges on private developers to finance the associated publicly borne direct or indirect costs (Vicuña, et al, 2020). The national Law 20.958 of 2016 on Public Space Contributions (LAEP) establishes that densification projects must compensate in land or monetarily for their impacts (negative externalities) on urban mobility and public spaces, representing a first such requirement.

The focus is not solely on participating in valuations for higher uses, even at the margin, but rather on mitigating impacts confined to public space and mobility. Despite its universality, proportionality, and predictability, the contributions are determined based on the specific characteristics of the projects and their individual impact on roads (specifically in urban mobility) or by considering density and proportional allocation of available public space in the area. To avoid perceptions of it being a new tax due to its redistributive nature, the amount to be paid was deliberately kept limited (San Martin and El Campo, 2023).

Payments were limited to 44% of the appraised fiscal value of the land under development, based on a formula that incorporates proportionality between land area and population density. Instead of relying on strict urban parameters like the FAR used in most countries, this method considers the density of occupation measured in inhabitants per hectare. This is derived from an occupation ratio per surface, calculated by dividing the total building surface by the plot size, and including a parameter (15, 20, or 30) that accounts for the size of individual apartment units. Additionally, normalization factors are applied.

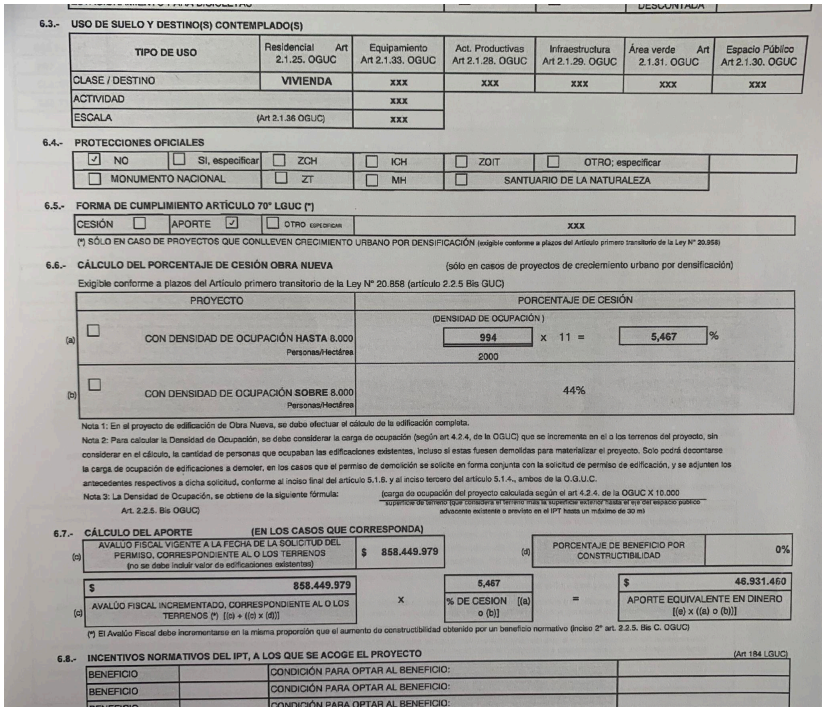
Figure 36 – Table: Summary of the factors composing the formula - from Vicuna et al. (2020, pg. 50).

Formula to obtain the percentage of the contribution	
% Contribution to public space (up to 44%)	%= Density of occupation x 11/2,000
Density of Occupation	Occupation level x 10,000/plot size
Occupation level	Total usable project surface/(15, 20 or 30)

In practice, however, only about US$2 million was collected nationwide from 2020 to 2021. This amounts to an average of only $7,000 per commune, with the highest amount reaching US$178,000. This Figure is equivalent to 80 square meters of land in the affluent municipality of Las Condes, representing less than 0.25% of their annual investments (San Martin and Del Campo 2023, p. 111).

The low collection rate is because the 44% rate applies only to densities above 8,000 inhab/ha, which is much higher than the average density of 2,057 inhab/ha. If the 44% rate applied to the average density, the total collection would have been four times higher.

In Ñuñoa Comune, contributions from the application of LAEP and its associated Investment Plan in Mobility Infrastructure and Public Space (PIIMEP) were significantly below 44%. For instance, a permit for a three-story residential building (4,322 m² and 36 units) contributed only 5.467% (approximately US$51,000) - see form below. A projection for 2025 indicated that the application of this tool would barely finance a 1 km bike path project and its execution. This is clearly insufficient to mitigate the construction impact over a year. [7]



6.3.- USO DE SUELO Y DESTINO(S) CONTEMPLADO(S)

TIPO DE USO	Residencial Art 2.1.25. OGUC	Equipamiento Art 2.1.33. OGUC	Act. Productivas Art 2.1.28. OGUC	Infraestructura Art 2.1.29. OGUC	Área verde Art 2.1.31. OGUC	Espacio Público Art 2.1.30. OGUC
CLASE / DESTINO	VIVIENDA	xxx	xxx	xxx	xxx	xxx
ACTIVIDAD		xxx				
ESCALA (Art 2.1.36 OGUC)		xxx				

6.4.- PROTECCIONES OFICIALES

☑ NO	☐ SI, especificar	☐ ZCH	☐ ICH	☐ ZOIT	☐ OTRO; especificar
☐ MONUMENTO NACIONAL		☐ ZT	☐ MH	☐ SANTUARIO DE LA NATURALEZA	

6.5.- FORMA DE CUMPLIMIENTO ARTÍCULO 70° LGUC (*)

CESIÓN ☐	APORTE ☑	☐ OTRO ESPECIFICAR	xxx	

(*) SÓLO EN CASO DE PROYECTOS QUE CONLLEVEN CRECIMIENTO URBANO POR DENSIFICACIÓN (exigible conforme a plazos del Artículo primero transitorio de la Ley N° 20.958)

6.6.- CÁLCULO DEL PORCENTAJE DE CESIÓN OBRA NUEVA (sólo en casos de proyectos de crecimiento urbano por densificación)

Exigible conforme a plazos del Artículo primero transitorio de la Ley N° 20.958 (artículo 2.2.5 Bis GUC)

	PROYECTO	PORCENTAJE DE CESIÓN
(a) ☐	CON DENSIDAD DE OCUPACIÓN HASTA 8.000 Personas/Hectárea	(DENSIDAD DE OCUPACIÓN) 994 / 2000 x 11 = 5,467 %
(b) ☐	CON DENSIDAD DE OCUPACIÓN SOBRE 8.000 Personas/Hectárea	44%

Nota 1: En el proyecto de edificación de Obra Nueva, se debe efectuar el cálculo de la edificación completa.

Nota 2: Para calcular la Densidad de Ocupación, se debe considerar la carga de ocupación (según art 4.2.4, de la OGUC) que se incrementa en el o los terrenos del proyecto, sin considerar en el cálculo, la cantidad de personas que ocupaban las edificaciones existentes, incluso si estas fuesen demolidas para materializar el proyecto. Solo podrá descontarse la carga de ocupación de edificaciones a demoler, en los casos que el permiso de demolición se solicite en forma conjunta con la solicitud de permiso de edificación, y se adjunten los antecedentes respectivos a dicha solicitud, conforme al inciso final del artículo 5.1.6. y al inciso tercero del artículo 5.1.4., ambos de la O.G.U.C.

Nota 3: La Densidad de Ocupación, se obtiene de la siguiente fórmula: (carga de ocupación del proyecto calculada según el art 4.2.4. de la OGUC X 10.000 / superficie de terreno (que considera el terreno más la superficie exterior hasta el eje del espacio público adyacente existente o previsto en el IPT hasta un máximo de 30 m)) Art. 2.2.5. Bis OGUC)

6.7.- CÁLCULO DEL APORTE (EN LOS CASOS QUE CORRESPONDA)

(c)	AVALÚO FISCAL VIGENTE A LA FECHA DE LA SOLICITUD DEL PERMISO, CORRESPONDIENTE AL O LOS TERRENOS (no se debe incluir valor de edificaciones existentes)	$ 858.449.979	(d)	PORCENTAJE DE BENEFICIO POR CONSTRUCTIBILIDAD	0%	
(c)	$ 858.449.979 AVALÚO FISCAL INCREMENTADO, CORRESPONDIENTE AL O LOS TERRENOS (*) [(c) x ((d))]	x	5,467 % DE CESION [(a) o (b)]	=	$ 46.931.460 APORTE EQUIVALENTE EN DINERO [(e) x ((a) o (b))]	

(*) El Avalúo Fiscal debe incrementarse en la misma proporción que el aumento de constructibilidad obtenido por un beneficio normativo (inciso 2° art. 2.2.5. Bis C. OGUC)

6.8.- INCENTIVOS NORMATIVOS DEL IPT, A LOS QUE SE ACOGE EL PROYECTO (Art 184 LGUC)

BENEFICIO		CONDICIÓN PARA OPTAR AL BENEFICIO:
BENEFICIO		CONDICIÓN PARA OPTAR AL BENEFICIO:
		CONDICIÓN PARA OPTAR AL BENEFICIO:

Figure 37 - Official form to collect compensation for LAEP in Nunoa

The low utilization of the instrument has raised concerns due to its perceived breach of "technical reasonableness," which refers to the expected correlation between the justification of the norm and the effectiveness of the tools required to achieve it (Vicuna et al., op cit.). However, Aguillera contends that, given many communes in Chile lack their own Territorial Planning Instruments (Communal Regulatory Plan) and the associated resources, defining a portfolio of projects as mandated by the PIIMEP represents progress.

[7] Information provided by Alejandra Aguillera, Head of the Planning Department of Santiago's Nunoa Comune.

It is notable that significant relevance is drawn from the indirect (externalities'!) effects of the law and its mechanisms. Essentially, this represents an initial effort to create a financing tool that integrates planning and investment. A key innovation of the law is the ability to isolate received resources and allocate them exclusively to the implementation of the Intercommunal Plan for Investments in Infrastructure and Public Space (PIIMEP), a planning instrument now mandatory for all municipalities under the LAEP regulations.

In summary, despite its low incidence and procedural biases, the instrument establishes an important precedent for a more consistent reevaluation of its design. High-density developments in lower-valued areas tend to impose higher burdens on public spaces and traffic, which are disproportionate to the resources raised with LAEP. However, the conception and implementation of the tool have provoked significant discussions on utilitarian market efficiency (negative externalities, etc.) versus deontological social redistributive principles, which guide urban public interventions.

Guatemala – Trading building rights for priority housing

While Guatemala has not yet enacted national or provincial legislation regarding the sale of additional building rights, the city of Guatemala is implementing a program to facilitate the exchange of these rights for priority housing units. Most of these units are 46 square meters and priced at approximately US$43,000 for the year 2024, making them accessible to families earning between 1.5 and 4 minimum wages. The program offers flexible regulations, including the trading of additional building rights, to attract new builders. These builders are encouraged to develop lower market segments in well-urbanized areas where land use norms have traditionally been restrictive.

Incentives for priority housing include: eliminating parking spaces (which can reduce costs by over 25%); increasing building area and/or height coefficients; reducing licensing and transit impact fees; removing the requirement for elevators in buildings fewer than 5 or 6 stories, depending on the case; and allowing the developer to apply incentives to other non-priority housing or land use projects located on the same property or another property owned by the same or a different owner, valid for 120 months.

Figure 38 - This project in Nunoa paid for the sidewalk public space improvements (Martim Smolka)

The incentives are adjusted according to the relevant zoning area, with priority housing requirements being 40% for land that is more expensive and scarcer; increasing to 50% and 60% respectively in central and other urban zones that may benefit from higher land use coefficients. These incentives may also apply to development zones designated as "Opportunity Districts". For each priority housing unit produced, 75 sqm is added and 3 parking slots are eliminated from the generating project buildability. By 2024, priority housing accounted for 52% (with 48% affordable) of the 34 projects (encompassing 4700 units) in different phases (50% in pre-licensing). Prior to this program, there was no supply for these priority social groups in Guatemala City.

Figure 39 - Inclusionary housing with higher buildability.

Caption: The project included 40% of priority housing units (46 m²), each generating an additional 75 m² of building rights beyond the basic index. Additionally, the project leveraged regulations permitting high-rise buildings to be developed on smaller lots, around 500 m², with reduced parking requirements. The location is conveniently situated near public transportation, specifically 200 meters from the BRT, and close to Guatemala City's historic center. (@Eva Campos)

The proportionality of these incentives, relative to the FAR to land prices, aligns this tool more closely with OCBR in other countries. This instrument is notable for its direct incentives towards priority housing constructed within well-urbanized areas or buildings that receive these benefits. Notably, 100% of the projects are required to be located within a maximum of 560 meters from authorized transport networks, with 81% being situated closer than 300 meters. Since the program began in 2020, 4,500 apartment units have been developed, with 53% designated as priority housing. Of these units, 15 are occupied, 9 have been authorized, and 7 are under analysis. Additionally, similar incentives have been extended to other buildings that provide lower-priced units accessible to lower-income buyers in high-end zones.

El Salvador – Selling rights beyond the norm

El Salvador does not have a property tax, but there are fees for certain real estate-related services. In 2017, the San Salvador Metropolitan Area Planning Office (OPAMSS) introduced the Urban Compensation System (UCS), which charges for additional building or height rights beyond existing zoning regulations. This system was readjusted in 2018 and is similar to practices in other parts of Latin America.

Art.III.19.4.1. of the Regulations to the Law on Development and Territorial Planning of the Metropolitan Area of San Salvador and the Surrounding Municipalities (updated in May of 2023) sets the formula to calculate the compensation (C) as C= EA x VC x P2, for

- EA: the exceeding buildability rate or height.
- VC: commercial value of the square meter of land.
- P2: compensation ratio of 5% or 8% according to the location of the project

When the project involves additional buildability and height, the term (EE x VC x P3) is included in the due compensation. EE refers to the surplus from the overlapping factor, and the P3 variable is valued at either 10% or 16% depending on the location. Single-family homes up to 50 square meters above the base buildable area are exempt from this contribution.

According to Bichara (2020) in 2020, approximately US$700 thousand was invested with funds generated from projects in four municipalities. These funds supported public projects in five municipalities, primarily in the form of parks, such as the Alpes Suizos Ecopark in the metropolitan region.

Upon reviewing OPAMSS, recent reports and other public documents, it is noticeable that there is no mention of the collection of funds from the compensation system and their application, nor any reference to the tool. This could be due to the insignificance of the funds and/or regulations intended to incentivize densification. Additionally, the Legislative Assembly (Asamblea Legislativa, 2024) approved an income tax exemption for 15 years for investors in buildings with over 35 stories, indicating a case where a local ordinance, the UCS, is overridden by national law.

Figure 40 - Legislative assembly commission taking a critical OCBR vote (source: Transparence Portal of El Salvador's Legislative Assembly, Sept 20, 2024)

SECTION 3

Peru – Incomplete regulatory process

The Sustainable Urban Development Law (Law 31313, of 2021), commonly known as LDUS, addresses (in articles 52 and 55) the public's right to participate in the increase of land value. This increase is understood as additional commercial value derived from positive externalities created by projects, urban development works, urban renewal or regeneration, public investment in infrastructure, expansion of public service networks, and state-run roads. The higher use considered occurs due to its reclassification (e.g., from rural to urban) or requalification (e.g., change of zoning, coefficient of use, etc.). Since 2006, zoning instruments have transitioned from using coefficients to relying on building heights (verticalization) and yard open areas as relevant parameters. Recent Supreme Court rulings established existing zoning as an 'acquired right,' regardless of current use.

Article 50 on the Announcement of Public Projects includes a proviso in the LDUS that establishes the baseline land value for expropriations and any charges on properties benefiting from the project. This was deemed crucial to eliminate uncertainties regarding alleged acquired rights, irrespective of public participation in projects that ultimately enhance the land's value.

Figure 41 - Lima's historical center in perspective (@ Alvaro Uribe)

Although LDUS was enacted in 2022, it has yet to be fully regularized or implemented due to technical and governance issues. Amendments such as Legislative Decree 1674 (September 2024) and Constitutional Court decisions (2023 and 2025) highlight ambiguities that have led to legal challenges by entities like the Lawyers Collegiate of Lima South over the tributary nature of the OCBR tool and public administrative competences. For example, inclusionary zoning requirements on higher density, changed from a minimum of 10% of the area, changed to up to a maximum of 10% of the project's useful area. Additionally, political instability—including the

replacement of three presidents, five housing ministers, and six economy ministers—has played a role to these delays

The perceived indifference of local authorities, coupled with the influence of stakeholders such as developers and landowners, can be linked to the provisions found in Article 64 of the same LDUS. This article grants municipalities the right to offer bonuses in response to public interest. In Peru, building rights limits are determined based on plot dimensions rather than a Floor Area Ratio (FAR). Consequently, developers who meet public interest criteria by, say, constructing environmentally responsible buildings may be granted additional building rights, even if there is no proportional relationship between the associated costs and benefits. This criterion generally favors lower-density areas over more consolidated ones.

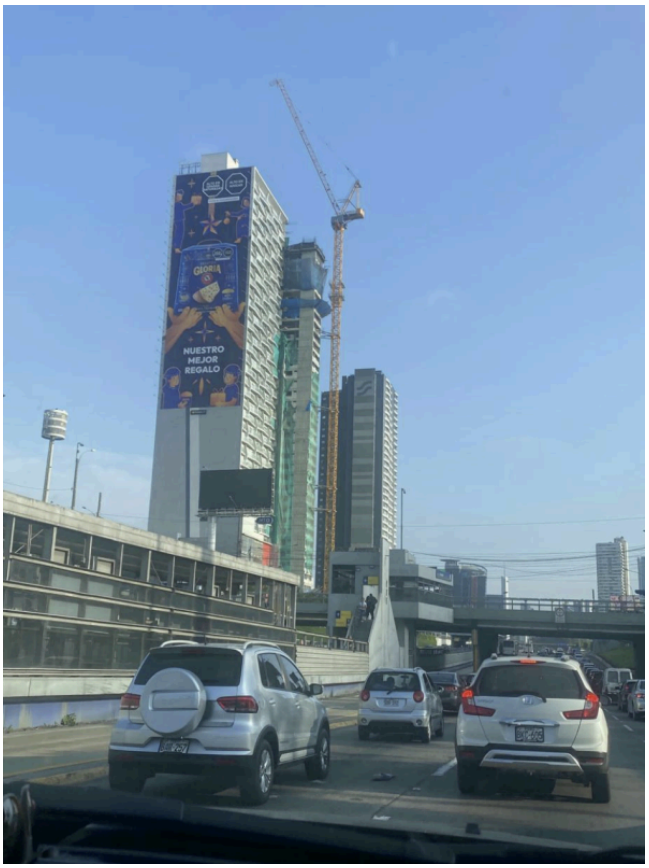


Figure 42 - Added building rights obtained in exchange for social housing.

Caption: One of the few high-rise buildings (38 stories) that negotiated density bonus with a municipality; not without manifested discontentment by residents in up-scale San Isidro, Lima neighborhood opposing higher density regardless the social housing 'public interest'. (@ Gustavo Riofrio)

An important precedent has been established concerning public participation in land value increment resulting from government actions. However, fundamental inconsistencies in the approved legislation may challenge its implementation process. The lack of coordination among stakeholders—pundits and thought leaders during conception, private consultants during design, limited parliamentary support during approval, and local executive authorities engaging in alternative practices—has created a difficult starting point for implementing OCBR. Although recent clarifications by higher courts may offer some assistance, the involvement of civil society could be crucial for the successful implementation of OCBR.

"Everyone knows about value capture, but no one dares to implement it (From a high-level planning official in Lima).

Venezuela – Adverse Effects of Land Use Politicization

The instrument of Special Contribution over 'Plusvalía' resulting from changes or higher uses of land is one of the municipal ordinary incomes as per the national 'Ley Orgánica del Poder Público Municipal' (Organic Law of Municipal Public Authority) of April 10, 2006. Article 183 limits the application of this tool to properties experiencing an increase of at least 25% before the change in land use or its intensity; a charge not exceeding 15% may be applied to this value increase. Payments made in up to 5-year installments are adjusted by the current interest rate applied by the Central Bank to general social charges. These payments can be deducted from taxes on urban properties.

In the municipalities of Baruta, Chacao and Sucre, regulations were approved to implement this value capture charge following the approval of their new urban development plans. This initiative aimed at transforming the city significantly by incorporating a land-based finance scheme as part of the winning proposal from a public competition, which included a clear value capture proposal for the affected area.

Figure 43 - The phased-out airport and surrounding area. (@ Zulma Bolivar)

The Metropolitan Park La Carlota project, which aimed to develop a deactivated airport site, was discontinued in 2017. The Ministry of Defense asserted that the area should remain a

national security zone due to its strategic location. Consequently, the project to convert the old airport into a green park and its surroundings into residential developments stalled following the abolition of the Metropolitan Mayor's Office. This project was to be financed through captured value from middle-class developments advocating for changes in land use and development intensity. The new power structure governing the territory operates under the laws of People's Power, with the commune serving as the unit of action instead of the municipality. However, these actions required approval from central administration entities, including the ministries of transport, environment, and defense.

The Venezuelan case highlights how land use regulatory schemes typically managed by local authorities can be influenced by higher levels of government interests. It provides insight into the complexities of overlapping authorities over urban land uses and associated building rights.

Cuba - Opportunity Myopia Due to Deference to Higher Authority

The 1976 Cuban Constitution only recognized state property, agricultural cooperative property, and personal property. However, this changed with the new Cuban Constitution approved in 2019, which extended the endorsement of private property to certain means of production by Cuban or foreign natural and legal persons, thereby granting them a complementary role in the economy. Land that is not privately or cooperatively owned is considered Socialist Property, meaning it is owned by the people. For example, in Havana, approximately 75% of the land falls into this category. Additionally, privately owned land cannot be rented, used for partnerships, or mortgaged in loans to private entities.

In June 2022, a new Law on Territorial and Urban Planning and Land Management established an urban land regime with its management tools. This law provides guidance for determining the cadastral value of urban real estate, which includes the value of both the land surface and any constructions on it. To obtain the cadastral value, the Minister of Finance and Prices follows a nationwide uniform procedure, considering factors such as the built and unbuilt areas, the building materials used, the age of the building, its maintenance condition, available services, and the type of use.

To realize the benefits from urban land operations, the ministry is expected to propose appropriate fiscal, economic, and legal incentives. Leasing and other bidding practices of public properties are permitted according to a resolution by the Ministry of Domestic Commerce. Property transactions between public entities involving land and buildings are common; and state enterprises (e.g., Inmobiliaria Cimex, Empresa Palco, and Inmobiliaria Caribe) can rent building space to private firms (notably foreign) as well as to self-employed individuals. Recently, over the past five years, certain public spaces like sidewalks and parks have also become subjects of private rental contracts by state entities. Although not legally recognized, market transactions of private properties have expanded with the support of social media networks like Zafiro Inmobiliaria, Portal Inmobiliario Cubano, and La Isla, advancing informal property permutations practices to a more developed stage.

Figure 44 - Incipience housing market through permutation announcements in a Havana public park. (@ Ricardo Nunes)

A Territorial Contribution for Development, which entails a 1% charge on revenues of both public and private entities, has been established as a proto fiscal tool in the absence of a property tax. Although this contribution does not directly fall on land valorization, it is indirectly influenced by related factors such as changes in land use, higher density authorizations, alterations in occupancy buildability rates, new zoning regulations, and investments in urban infrastructure. Its precedents can be traced back to a similar contribution that has been applied since the early 2000s through a revolving fund managed by the 'Oficina del Historiador,' the autonomous entity responsible for the renovation of Havana's Historical Center (see Pleyan and Nunez Fernandes 2001).

Figure 45 - Building Restauration in old Havana (@Martim Smolka)

A European investor made a proposal to change the use of a property in the historical center to hotel or office spaces, thereby increasing revenue and potentially qualifying for a value capture application based on development rights. The investor proposed paying a 10-year rental contract in advance, with part of the payment directed towards the production of social housing in the peripheral zone of Havana. However, despite this innovative funding approach, higher authorities did not authorize the initiative.

Paraguay – High cost of irresolution from immature institutional support

Municipalities in Paraguay, like many in Latin America, rely heavily on transfers from the National Government, which account for over 60% of their budgets. Their fiscal health is impacted by the lack of digitalization in most cadasters, resulting in inadequate land use information and fiscal values, which lead to poor property tax collection and limited access to alternative financing tools. Consequently, municipalities lack proper collateral for loans. Additionally, public-private partnerships are exclusively managed by the national government.

According to Asunción's Urban Regulatory Plan, Ordinance No. 163/18 allows for additional building rights, such as increased Floor Area Ratio (FAR) and maximum height, beyond the established limits. The value of the acquired land must be deposited into a Municipal Fund for Programs of Urban Interest. The value is calculated based on the updated cost per square meter of land as determined by the market in the relevant project area, with a rate of 75% charged for residential buildings and 100% for commercial buildings.

Although the instrument exists, it has not been utilized because the Municipal Fund mentioned has yet to be established, and the necessary information for the designated zones is outdated. This incongruence is notably evident in the failure of the Metrobus project. The first BRT line, designed to traverse the central area of Asuncion and 18.5% completed, was not only cancelled but also dismantled, resulting in the loss of millions of dollars, as reported by La Nacion newspaper on March 9, 2025. Besides an alleged irresponsible decision driven by political revanchism, the project's abrupt termination was due to the lack of domain strip release, delayed municipal permits, and the contractor's slow progress.

Figure 46 - Partially built BRT in Asuncion that has been destroyed as the project was aborted.

Caption: Central corridor Metrobus works - source: Archive of the Ministry of Public works and constructions - MOPC, 2018)

Costa Rica – A ‘train too far’

The electrification of a cargo train into a passenger line crossing the 15 municipalities in the metropolitan area of S. Jose was an initiative coordinated by the Office of the First Lady, who is an urban planner by education. The project aimed to change the mobility paradigm in the area and had objectives such as decarbonizing S. Jose, densifying the CBD, and containing urban sprawl. The project was to be funded by a foreign loan, complemented by a transit-oriented development (TOD) land-based tool. It was a complex endeavor since it crossed many jurisdictions with their respective land use plans and ordinances, considering the significant impacts of the improved transit system on land use and price changes. Besides the existence of the betterment contribution, no national legislation existed regarding the social mobilization of land value increments resulting from administrative acts or charges to development rights.
Given its significance, numerous meetings and discussions took place among high-level policy decision makers, including, the Ministers of Housing, Environment, and Planning, Parliamentarians, members of judicial High Courts, several Mayors of the metropolitan area of

S. Jose (AMSJ), top executives of public companies such as Costa Rica's Institute of Trainlines (INCOFER), private developers, and leaders from informal settlements communities.

Although studies indicated that sufficient land value increase could be generated to fund the project Perez y Roman 2021), it was prematurely terminated. This decision halted prospects for national urban development legislation, including public mandates on private unearned benefits. The situation can be attributed to a lack of political will, exacerbated by national fiscal stress under the new president, who openly opposed the project. Additionally, complex negotiations among affected mayors, vested interests of developers, and resistance within legislative and judicial bodies to amend the law to meet urban development challenges also played significant roles.

Figure 47 - Train line crossing an inner-city street in S. Jose City (@ Marcela Roman)

Overall, the Costa Rican case highlights the challenges faced by otherwise promising initiatives due to insufficient autonomy in decision-making, resulting in numerous overlapping factors that hinder their implementation. The solution space becomes indeterminate in an optimization program burdened with excessive constraints. However, a positive outcome may be found in the public debates it sparked, which could potentially lead to viable new initiatives.

Chapter 3 - Takeaways from country highlights

Dissemination and cross pollination

Although legislation was proposed and implemented in Brazil since the late 1970s and in Colombia in the 1990s (see Smolka 2013), it was only after 2008, as seen above, that a wider dissemination occurred throughout the region, largely influenced by the experiences of these two countries. The table below provides an overview of the situation in Latin America and the Caribbean regarding the instruments that affect administrative acts applied across cities.

Figure 48 – Table - Charging for administrative acts – Legislation vs. Implementation and respective dates of formal approval.

		Implemented	
		Yes	**No**
Existing National Legislation	**Yes**	o Brazil – 2001 (*) o Colombia - 1997 o Uruguay - 2008 o Ecuador - 2016	<u>Incipient implementation</u> o Venezuela - 2006 o Chile – 2016 o Cuba - 2021 o Peru – 2021
	No	<u>Sub-National legislation</u> o Argentina - 2012 o México - 2017 <u>Single City Legislation</u> o El Salvador - 2017 o Guatemala - 2022	<u>Failed attempts</u> o Costa Rica - 2015 o Paraguay - incomplete 2018

Source: authors'
(*) In São Paulo first implementations of OCBR can be traced back to the 80's
Note: For other LAC countries legislation are yet to be considered (e.g. Panama) or non-reported.

The dissemination of OCBR in national and local legislations, in the last decade also indicates signs of cross-pollination. Experts from Colombia and Brazil contributed significantly to task groups or discussions leading up to the official adoption of OCBR in many other countries in the region. There are also various instances of local advocates influenced by value capture training programs in the region[8].

[8] In the past two decades, over 2,000 senior public officials in the region have undergone training on policies and tools related to OCBR. This conservative estimate is supported by the direct involvement of the author.

Public officials trained in land-based financing have played significant roles in implementing OCBR within their jurisdictions and have provided much of the information upon which this report is based. Additional evidence of this cross-pollination is observable in the adoption of specific terminology such as 'solo criado' (created land), initially used in Brazil to refer to the sale of building rights. This term now appears in official ordinances in Ecuador's legislative process, Asuncion's ordinance, and in secondary cities like Salta and Posadas in Argentina.

The mention of the State's rights and obligations to participate in the benefits generated directly or indirectly by its interventions is found in various legislations, resembling the Colombian legislation. This concept is also reflected by prohibitions on private appropriation of such benefits, sometimes supported by suggestions against enrichment without just cause (Rabello 2012). However, in many cases, there is a gap between this rhetoric and the actual implementation of the concept, as well as the limited revenues generated by this tool. Revenues from individual projects (not associated with larger urban operations like some Partial Plans in Colombia) varied widely, from São Paulo's top 15% of the corresponding land value implied by the additional building right to values barely covering the management cost of the tool as seen in Ecuador.

From rhetoric to practice

Regardless of the theoretical foundations and the careful drafting of the OCBR in legislation and regulations, practical implementation required significant adjustments to metrics, baselines, or adjusting factors.

Beyond the rhetoric and limited captured resources, the established precedent of officially widespread assimilation of building rights as an object of public participation or partial ownership by the public is noteworthy. It shifts the policy discussion to focus on governance to enforce ethical, equity (redistributive), and efficiency standards. The issue now centers on how implementation can be achieved rather than why it should be considered. While there have been some opposing reactions from stakeholders, particularly in Central American countries such as Guatemala where legislative initiatives such as the October 2015 bill 4995, referred to as a *Framework Law of Territorial Planning*, were blocked as 'socialism at its finest' by the plenary, most countries, including the latter, have concrete experiences that suggest further use of this tool is possible. Likewise, in Mexico City, despite an unsuccessful effort to include this concept more explicitly in its new statehood constitution, building rights were mobilized to compensate and incentivize post-earthquake reconstruction in 2017.

While official justifications typically emphasize the mandate to promote a more equitable redistribution of the costs and benefits associated with urbanization, the implementation often addresses pragmatic motivations. These include generating new revenue streams or acting as a diversion for other interests and objectives, such as enhancements in property tax systems.

Incongruent ordinances affecting implementation

In 2013, the Municipality of the Miraflores District in metropolitan Lima issued ordinances (387 and 401) to implement the Transference of Development Rights (TDR) to protect properties of

monumental value. However, buyers of building rights with increased heights soon discovered they could not find suitable investment opportunities. This was because the rights only applied to existing metropolitan routes crossing the district, which were under the authority of metropolitan Lima. A similar effort to apply the TDR for financing the conservation of buildings in the historical center proved ineffective. There were no defined receiving areas, meaning no charges existed to reach the existing maximum zoning rights. Developers could negotiate additional rights within any other zone of the city through alternative means.

Figure 49 - Lima's historical center (@ Alvaro Uribe)

Figure 50 - A street in Lima's historic center (@ Martim Smolka)

The case of Lima, Peru, demonstrates the significant relationship between OCBR and TDR. Following extensive discussions and deliberations, an ordinance was approved in Lima to utilize TDR for the restoration of its historical heritage city center buildings. Since the maximum FAR throughout the city was subject to case-by-case negotiations with developers, no designated receiving area was properly defined.

In addition to the notable interference at higher levels observed in cases such as La Carlota in Venezuela or the Oficina del Historiador in Cuba, there are numerous instances where higher or different governance entities have intervened in local initiatives. These range from Colombia's housing ministry allowing private developers to manage local land value increments through partial plans; to Ecuador's Plusvalías law which has discouraged the use of a local urban tool, Mexico City's saturated regulatory environment, and outdated fiscal value parameters in Asuncion. Such circumstances have clearly hindered the implementation of OCBR in their respective jurisdictions.

A more comprehensive understanding of the legal distinctions between public and private property rights is essential to address discrepancies that affect the prospects for the OCBR implementation. Notably, in countries such as Argentina, Brazil, Colombia, and Chile, there are ongoing negotiations to clarify these property rights issues. The debate centers around whether OCBR should be defined strictly under deontological or utilitarian principles. Should they be implemented based on an ethical framework that views the privatization of land value increments as unjustified gains (unearned income), or a pragmatic approach aimed at redistributing the overall benefits and costs of urbanization? This raises important questions about the legitimacy of public revenues derived from added development rights when these rights are negotiated over and above the existing planning norms — or even to regularize their violation as anticipated in some legislations (e.g. Uruguay) or most notably in Rio's Mais Valera program - or and their use in compensating the costs imposed by the project itself.

Curitiba is internationally recognized for its urban planning innovations. In the 1970s, the city introduced TDR, followed by the 'Solo Criado' OCBR in the early 80s, which was later redefined as OODC. In 1993, a new tool called the Building Potential Quota (CPC) was introduced, competing with existing TDR and OODC. These three tools were designed as funding schemes for specific public projects, such as social housing programs, environmental preservation and public spaces, as well as private projects of public interest (Silva 2019).

Figure 51 - Curitiba provided OCBR as collateral for Atletico Paranaense's loan to refurbish Stadium to meet FIFA Standards (@Diego Borille)

[Box initial]
An example of the latter is the project to adapt the Arena da Baixada stadium to meet FIFA's criteria stipulated for the 2014 World Cup. To secure US$62 million needed, under the city Law 13.620/2010 decree 985, the soccer team owning the stadium received quotas of building rights they could sell to any buyer or developer in the city at a fixed price per quota. Clube Atlético Paranaense could then use their stock of quotas as collateral for loans to fund their investment. These 'CPCs' closely resemble locally created currency, albeit with weak ballast as the building rights are not connected to any special plot as with the OODC (Triveno and Smolka, 2017)
[Box end]

Over time, CPC gained preference over OODC, although it was not entirely phased out. The argument for CPC was its operational agility and greater appeal to the private sector. Quotas under CPC, adjusted by a local 'conversion index', were more flexible compared to those of OODC. A municipal agency annually arbitrates a fixed specific quota value based on land value. CPC's pragmatic and sensitive approach to funding the city's priorities necessitated realignment with other tools to prevent predatory competition among instruments.

In 2018, it was necessary to introduce additional adjustment factors to the contribution calculating formula due to the competing tools (TDR, OODC, and CPC) in Curitiba interfering with each other.

The key takeaway is that besides implementation impracticality, overlapping inconsistencies among different OCBR tools often create opportunities for legal arbitration to be used by those facing building rights charges. Shifting from fundamental ethical reasons for these charges to pluralist utilitarian justifications may ultimately be ineffective.

Inaptness of Selling Building Rights Beyond Established Limits

The inconsistency mentioned above also applies to situations where transfers or direct payments for building rights exceed the established maximum FAR coefficient. The legitimacy of a maximum coefficient is based on careful consideration of the carrying capacity of existing infrastructure, environmental balance, or local aesthetics. Therefore, any violation of this maximum limit would undermine the principles of urban planning and zoning.

Figure 52 Table - Legitimate vs distorted sequences of OCBR associated events

Official (legitimate) sequence	Unofficial (distorted) sequence
Management of Land use	Enhance of public revenue
Government Investments	Pricing of 'created land'
Setting maximum densities	Definitions of building rights
Definitions of building rights	Setting maximum densities
Pricing of 'created land'	Government Investments
Enhance of public revenue	Management of land use

The disqualification becomes even more serious when local authorities, in search of easy resources, 'sell the city' by granting an arbitrary increase – even if urbanistically harmful bad urban project – of the maximum limit of use in an area with the sole purpose of taking advantage of the willingness to pay of some real estate developer.

[begin text box]

Box - Rio's Most Will Be Worth ('Mais Valerá') program

The case of Rio's 'Mais Valerá' program is illustrative. Under this initiative, developers negotiate with the city for additional building rights beyond the existing maximum. This expands upon a pre-existing program established by municipal complementary law LC 192/2018, known colloquially as the 'Little Stretch Law' (lei dos puxadinhos). This law allows property owners to regularize unlicensed building area additions by making a payment rather than being required to demolish them. The payment is proportional to an assessed value of the said irregular addition. This program is primarily utilized in high-end buildings, typically involving the addition of a penthouse on the roof of the top apartment in a building. It highlights that informal occupations are not exclusive to low-income areas.

Figure 53 - Rio Mais Valia Mark

This program has been enhanced by city hall LC 274/2024, taking the regularization to the next stage: it now allows for the authorization (regularization) to occur for building projects licensing or still under construction! In the law exposition motive, it was mentioned that about US$100 million was expected to be generated for the city in that year. The approval of the law was met by fierce opposition. *The proposal is absurd. Allowing the 'most will be worth' is throwing away any urban planning strategy in the name of money making. 'Mais Valerá indicates that with money anything goes in the city* – says the vice-president of the Council of Architecture and Urbanism (CAU), Carlos Augusto Abreu. (O Globo 12/06/2024).
[end text box]

Em vermelho, os grandes prédios que podem ser erguidos no bairro. Foto: Reprodução

Figure 54 - Negotiated over the established maximum FAR in the highly demanded neighborhood of Ipanema, in Rio de Janeiro

Caption The replacement of existing high-rises in the high-value Ipanema neighborhood marks the beginning of its third densification cycle.

The implicit rationale is that increasing the maximum coefficient can promote a desirable higher density. This can be achieved through deregulation, provided that rights exceeding the basic coefficient are appropriately compensated to the public. The purported benefit stems from regulation that aligns with market demand, simultaneously generating funds for public investments to address the externalities from the increased density. Ling (2017) proposes that the price for building rights could be established similarly to the carbon credits market. The city would determine the total potential building rights made available to the market and employ a bidding process to set a city-wide value. This approach aims to expedite development by pricing new buildings more competitively in prime high-value, high-density areas while mitigating the impact of organized groups on specific zones.

The proposal may be reckless due to its impact on residential segregation and potential for corruption. Poor people typically do not live in tall buildings with high maintenance costs, meaning the construction would target the middle and upper classes, which are already well-served. Additionally, negotiating higher CA on a case-by-case basis lacks guarantees of transparency and traceability. ***Even if you pay, it may not be Okey***.

Figure 55 - Limits to additional building area limits may be physical… Buenos Aires Vila 31

In a more subtle and less radical version the practice is embedded in many versions of TDRs - like in the referred to Mexico DF, Buenos Aires and Rio' Reviver Centro cases where in the receiving projects are allowed over and above the existing maximum building rights. Ultimately, these implied abuses of the OCBR convert them into effective 'value giving'.

The issue at hand brings to light a common deformed view of planning to generate resources from OCBR, neglecting the original motivation for the instrument to correct the undeserved windfalls some landowners earn from planning acts like zoning with higher FARs conceded to landowners benefiting from the supporting investments paid by the collectivity. *In other words, planning precedes the application of OCBR; the latter should not orient urban planning.*

The base line or basic coefficient

With few exceptions, most notably in Brazil, Ecuador, and specific instances in Colombia, the allocation of additional building rights to be compensated is determined by the discrepancy between the former regulations and the current (amended) ones. The latter situations can be more accurately described as exactions, like other instances of levies imposed on projects that strain existing local services or generate negative externalities, including environmental impacts. These charges are frequently applied to legitimate land uses that were not anticipated, and sometimes even contravene existing codes.

All that exposes the critical role of a properly set baseline (basic FAR coefficient and development rights) for the charge and the metrics to be used. This often-overlooked issue is critical since it ultimately defines what is to be charged. According to Furtado and Maleronka (2023, p. 63), the basic coefficient lacks appropriate urban content and should not be associated with planning intentions for urban transformations, such as the provision of infrastructure and services in specific areas. Instead, it should be viewed as reflecting the inherent rights of property ownership rather than serving as a regulatory device for land use.

A more detailed analysis of most applications, be they through TDR, negotiable (or not) DO and the like, may raise efficiency questions regarding the impacts of conceded additional building rights above the maximum set originally by the supporting capacity of existing infrastructure and services. Reference (awareness?) for this kind of matching assessment is rare to find. The consequences of such concessions are obfuscated by loose justifications of funds thus generated (e.g. CPC in Curitiba); and their assumed application to other items or areas of the city, often veiling the true intention of high-end giveaway developments … When negative externalities are to be compensated, the building rights charges has been found short of need as well - e.g. Chile's case.

If the compensation for new development rights is used to fund public investments to support the (negative externalities of the) same very project generating the funds - the whole process will likely be gentrifying (e.g. Zapopan's 50% designation to the same generating area). The latter overall consequences could be mitigated if said funds relieve the city budget to more redistributive uses like social housing or provision of urban infrastructure and services in lower income areas. The Colombian Urbanistic Charges or Obligations tool illustrates the former while Buenos Aires Certificates of Differential Building Capacity the latter case; the mixed situation of in situ social housing are exemplified by Guatemala's inclusionary housing scheme (and Venezuela's La Carlota aborted project). The implied more comprehensive assessments of the indirect city-wide effects of the generation-appropriation-utilization nexus associated with OCBR implementation is yet to be made.

Figure 56 - Table – Comparative base line metrics

Base line	Advantage	Inconvenience	Illustration
Pre-existing Max FAR vis new plan Max	Simplicity	Paucity of captured value	Uruguay, Perú, Argentina

Pre-existing Max FAR vis negotiated new Max	Acceptability by developers	Delegitimating of planning	Mexico City , San Salvador
Fixed below maximum FAR	Clear limits of property rights	Need for costly transition rules	Brazilian cities,
Variable below Max FAR per planning zones	Accommodation to planning objectives	Overlap with other tools	Bogota, Buenos Aires, Curitiba
Current effectively used FAR	Practicality	Judicialized acquired rights	Quito, Zapopan (Mex)
All negotiated: base and max FAR	Flexibility	Abusive prone	Guatemala, Cuba
Other than FAR proxy metrics	Integration of Planning/investment	Underestimate of real impacts	Chile
None existing	Planning latitude	Uncertainty	Costa Rica, Paraguay

The Ecuadorian 'Plusvalias' Law radical attempt to embrace more broadly the values that should duly be captured resulted in fierce opposition by private real estate interests. Issues from cultural ones related to individual inheritances rights and property transmissions to questions regarding legitimate developers' profits versus land windfalls, through fiscal overlapping value bases, contributed to its short living.

Clearly, a more consistent application of the OCBR requires a thorough understanding of its socioeconomic and political context, as well as an acknowledgement of the ethical (deontological vs. utilitarian) disjunction. Deontological principles in OCBR's legal frameworks are often adapted to serve specific, and at times questionable interests. The implied entropic process waters the efficacy of the tool when the baseline for acquired rights is set to previous unutilized or to an already overestimated maximum FAR or poorly defined externalities. All that may compromise longer run city-wide projects as argued by the Urban Policy Commission of the Rio's branch of Brazilian Architects Association (IAB) . Questionable if not nefarious city-wide outcomes may also result as in Rio's 'Mais Valera' or Mexico city's TDR schemes.

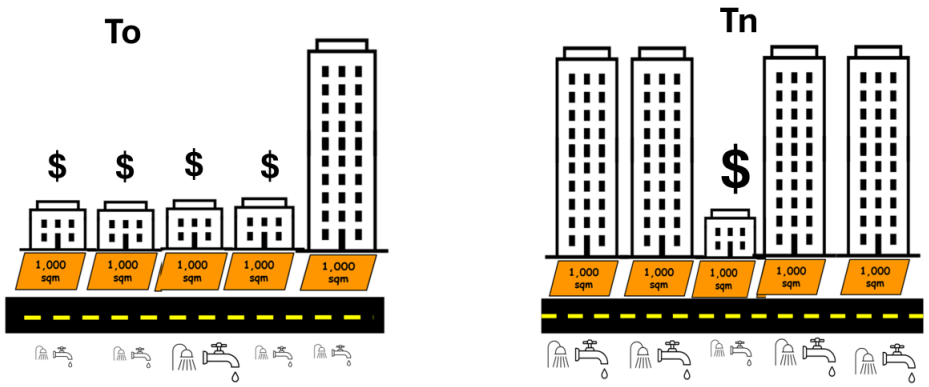
The numeraire challenge

As seen, in chapter 2, jurisdictions rely on different metrics when calculating the compensation to be given for the building rights conceded. Technically they are intended to be valued as the difference between the market price the developer would have to pay in absence of the 'charge' to the price he would pay for a plot where only a 'basic' building would be permitted. This parameter is typically set in the same metric for the basic FAR and for additional one being conceded, that is in sqm. To obtain the value of the 'benefit' (charge, participation, contribution etc.) the additional sqm is multiplied by a reference (or numeraire) per sqm price - all of which adjusted by some policy priority factors (e.g. type of building).

Now, to be (theoretically) consistent, this numeraire must be invariant to the land occupational process from which the reference price is obtained! One can immediately see for a higher FAR

rezoned area that the price per sqm of the land after for 10% of occupation, would likely not be the same as if 90% of all plots were occupied. Slacks in the calculation may result in hidden incentives to concentrating on new developments in higher valued areas, as found in Quito. In effect Sandroni (2024 op. cit.) has been arguing that slacks originated from underestimated numeraires (virtual land values) to be advantageous to developers rather than an extra burden as often argued by developers against the charge to building rights (OODC). The argument relies though on the lag of the capitalization of this referred advantage on the new equilibrium price paid to the landowner.

Figure 57 - Changing value over time (To to Tn) of a single home plot of land in a densifying zone



This latter information is hard to obtain since it is often affected by direct negotiations between landowners and developers involving payments in the form of units of the new building, valued prima facie from feasibility study on the plot's highest and best uses done by the developer. As eloquently demonstrated complications run by the implementation of Participacion en Plusvalias in Colombia, the administrative cost (time, reliance, accuracy check etc.) of obtaining individual project information could be inefficacious. Even with the bypass of an area base representative value, it would require hard to delimit homogeneous zones that, as seen above, may also not be sufficiently path dependent stable over time.

Clearly there's no silver bullet to resolve the invariance requirement for a consistent numeraire. The alternative of resorting to the apparent independent values like building height, volume, fixed percentage of total value of the building are all inherently biased with respect to land values at different locations, types of use and timing. Local officials must rely on a second-best variable after considering public acceptability, information discovery cost, land value relevance and neutrality with respect to land use objectives dictated by the primacy of urban planning over resource hunting.

Under the province of Buenos Aires Ley 14449 on the 'Fair Access to the Habitat' (Acceso Justo al Hábitat), the predominant numeraire to calculate the benefit has been the building cost of added surface bestowed by changed norms. This numeraire is considered regressive due to the greater variability in land prices compared to construction costs, implying that lower land priced

building areas being overcharged. The base cost parameter provided by the building Chamber, or INDETEC or entities like professional collegiates, according to Molinatti (2020) is the case for 28 municipalities. The same author found that 12 municipalities relied on market-value property general valuation indicators and 8 to the difference of fiscal valuations.

The alternative resort to short-cut the discovery of the due contribution through auctioning, illustrated by CEPACs, the demand on capital markets proficiency is of no relent for the majority of the region's jurisdictions (especially the smaller ones). In effect, as demonstrated by De Cesare (2025) despite significant improvements, many jurisdictions are still incapable of properly collecting property tax. Fiscal and otherwise regulatory capacity tend to be mutually reinforcing as best performers with the property tax are likely to more successfully to implement value capture policies. (Smolka, De Cesare 2013). CEPACs and similar sophisticated market driven financial instruments require technical capacity to issuing and monitoring securities, to assert guarantees and the predictability of public investments needed to sustain higher land uses as collaterals to said securities, etc.

Bottom line, the search for the perfect numeraire may be hopeless - something that most thoughtful officials are fast to discover. The issue as seen is circumvented with proxies' numeraires as synthesized in the table below.

Figure 58 - Table - Alternative numeraires pros and cons

Numeraire		Advantage	Inconvenience	Illustration
Metric	**Value**			
Virtual land: plot in the zone with basic FAR	One sqm value	Consistency	Path dependance unstable	OODC SP
Basic building cost:	Average value per sqm	Stability, acceptance by builders	Ratio to land value	Niteroi, Brazil Maldonado Uy
Auction Bidding:	Amount paid for building right bonus	Market Fit	Financially sophisticated	CEPACs, Brazil DDP, Colombia
Fixed % of added area	Sales price of the building	Transparency	Land shares not constancy	Montevideo 15%
Building height:	Per store administrative value	Practicality	Variability with respect to land price	Olinda, Brazil Quito, Ecuador
Added plot area coverage ratio	Original price per sqm land	Add building area keeping height	Reliance on ex-ante sqm plot value	México DF - TDR

Comparative building plot	Residual value	Share of overall building value added	Comparative value discovery certification	PPV Colombia
planning adjusted land quota	Sqm land value	Celerity, simplicity	Predatory intermingling with other tools	Curitiba*

(*) the case of Curitiba refers to the Building Potential Quota that as mentioned in section X is also an OCBR.

Clearly there's no silver bullet to resolve the invariance requirement for a consistent numeraire. The alternative of resorting to the apparent independent values like building height, volume, fixed percentage of the total value of the building are all inherently biased with respect to land values at different locations, types of use and timing. Local officials must rely on the second-best variable after considering public acceptability, information discovery cost, land value relevance and neutrality with respect to land use objectives, all of which respecting the primacy of urban planning over resource hunting.

Discounting factors: not all necessarily justified

In nearly all formulas for calculating compensation for granted building rights, various discounts are applied. These include non-computable area adjustments, incentive factors to desirable uses such as density, environmental considerations, and social housing, sharing rates, payment alternatives, transition rules discounts, etc.

1. Non-computable areas generally include garages, balconies, foyers, common areas such as floor corridors, elevators, and service areas. In some cases, like in São Paulo, these areas can account for over 50% of the total building area.
2. Density factor –Typically set as .8 or .6 according to building heights (in FAR or stories) to incentivize higher density though it can imply in a full exemption of compensation (factor of 0%) when building in specific areas (re: Uruguay). To exemplify more indirect factors São Paulo's formula now includes in the denominator (divisor) the total intended computable built area in the development in square meter.
3. Environmentally friendly buildings could benefit from doubling the maximum FAR as in the short-lived Quito's Eco-efficiency proviso, or some below 1 discounting factor applied to green building and their like in most places.
4. Social housing – is generally incentivized with up to full exemption of the OCBR or by explicit trading of higher FARs to inclusionary housing (e.g. Guatemala)
5. Sharing rates on the net value, after all above discounts accounted for, ranges from as low as 5% as in San Salvador Urban Compensation System to full (100%) as nominally with the Brazilian application of the OODC.
6. Payment alternatives – while in Belo Horizonte partial payments in TDRs is mandatory in others, they are incentivized with implicit discounting factors in the conversion rates applied in generating vs receiving buildings.
7. Transition rules discounts - include those applied during transition in the case of São Paulo involved a 12-year soft-landing implementation coupled with a strategy in certain zones of raising the pre-existent maximum FAR concomitantly to the reduction of the basic FAR

coefficient to 1 (one). In other cases, with an instantaneous universal basic coefficient was imposed a transition involving 10 years as in Campinas with decaying annual discounts of 10%. A law amendment in Belo Horizonte retroactively reduced the unit price of OCBR to its 2019 value, applying it to all projects up to 2023, that is the transition period. The estimated discount exceeded $6 million. Since most projects were already priced at post-OCBR prices, consumers did not notice the benefit, nor did it affect housing supply. On November 6, 2024, a public manifesto criticizing the law amendment was signed by 17 experts.

Although the OCBR is technically neutral regarding land use, it may ironically support planning objectives. While justified by urban policies, broadly applied discounting factors significantly reduce the instrument's revenue potential. Considering the challenges posed by the assimilation and implementation process of OCBR, these factors indicate that it can address objectives beyond revenue collection. For more details, see chapter 4 below.

Despite the merits of incentives implicit in some of the above discounts, they can in effect be innocuous. If for example the higher density is already anticipated by the market (that is, already implicit in the highest and best use parameter), whatever developers pay for the land would tend to capitalize negatively on land values, meaning the incentive ultimately falling into the landowner's pocket. Similarly, if a green building is deemed valuable in the market, it reflects its highest and best use on the site, owing to consumers' willingness to pay for such properties. As a corollary, such incentives would be effective if, and only if, associated with ad hoc concessions of additional building rights over and above the maximum existing FAR, thereby favoring uses not anticipated by the market. But then, the original formula would not apply.

The 5 I's of persisting resistance

The growing popularity and presence of OCBR in the urban policy agenda – from new supporting legislations to effective management practices in many places – has been met by strong resistance, setbacks (a new law waiting to be regulated as in Peru) and even reversals in some originally thought of as promising jurisdictions as in the case of São Paulo inclusion in the formula's denominator the proposed new FAR as an incentive to higher densities. In other words, despite notable achievements in some jurisdictions, there's yet no easy pass for the tool in LAC!

Although many jurisdictions in the region show promise with OCBR initiatives, strong resistance still hampers their effectiveness. Factors such as a preference for specific areas (e.g., Quito's hypercenter), green buildings that increase value, or regulatory inaction like in Peru, contribute to this resistance. Derivative forms of OCBR are seen in Mexico City, Guatemala, Chile, while Costa Rica has witnessed the abandonment of such initiatives. The situation can be summarized by the following 5 I's:

<u>Ideology</u>

In the political domain, both progressives and conservatives have paradoxically expressed negative reactions. From the 'right,' the criticism centers on the belief that OCBR represents another unwelcome State intervention in markets. This perspective, which has historical roots,

is typified by the stance of Bogota's real estate association (Lonjas de Propiedad Raiz de Bogota). The counterargument rests on the principles of public policy, emphasizing the necessity to mitigate market imperfections. Specifically, OCBR can function as a neutralizing mechanism for externalities and land speculation, both of which significantly contribute to market dysfunctions.

Progressive views often see OCBRs as contributing to the financialization (see glossary) of land use, leading to increased housing costs and gentrification. The common argument is that government officials aiming to generate revenue from additional building rights typically favor high-valued areas with public investments that support new developments. While the OCBR was originally intended to balance the costs and benefits of urban planning, critics like Rolnik (2019) believe this relationship has reversed with planning following building rights.

As previously noted, the reversal of the OCBR-planning nexus constitutes a deviation in the tool's application rather than its fundamental nature. Furthermore, it has yet to be conclusively demonstrated that resources collected from OCBR are contributing to an increased rate of gentrification beyond what could be expected without the tool. Evidence from SP (Maleronka, 2023) indicates that funds from OODC have been allocated to projects in lower-income areas, thereby exhibiting a redistributive effect. The argument's misleading origin is illustrated by the leftist Moreno party's opposition to the tool in debates on Mexico City's statehood constitution, citing that OCBRR doesn't penalize developers.

Interest

Developers, who act as agents responsible for land use conversion, are temporary owners; their land portfolios are intended as a cushion for land market volatility. Increasing capital immobilization in land compromises their development strategy objectives, hence the common practice of negotiating the exchange of land for apartment units constructed on it. While developers benefit from developing the land, landowners primarily gain from owning the land. Therefore, transition rules are necessary to protect developers when distinguishing basic rights from additional buildability rights. The latter, as previously mentioned, do not require protection prior to being acquired by the owners.

The large circumstantial land portfolios, more than the charge per se, has been the main argument for accommodating rules of transition to lower basic FAR regimes. In Campinas (Brazil) it was set for 10 years with 10% increases each year! Public officials are often extorted by developers announcing their move to neighboring municipalities with lower or no such charges. Al least for the stronger case of the city of São Paulo these threats so far have not been concretized in its metropolitan area (Smolka and Maleronka, 2024).

Overall, generous transition rules and other concessions aimed at reducing the actual costs in the land liabilities, may often be opportunistic stratagems by real estate developers to increase the margin of arbitrage in their quest for incentives.

Ignorance

Fallacies in conventional wisdom on basic topics underline the following main contentious issues in the public debate.

- OCBR are inflationary - transfer to prices.

Consumers tend to be indifferent between two comparable buildings, with their price difference compensating for distinct locational attributes. Since OCBR does not affect these attributes, transferring the charge to the final price would imply the higher-priced building losing competitiveness compared to cheaper buildings with lower attributes, which consumers originally considered equivalent. With demand shifting to relatively lower-valued buildings, land prices would need to adjust in higher-valued areas or remain idle. To reintroduce the land to the market, the landowner would have to absorb the charge by accepting a lower bid from the developer. Due to the significance of the issue, a detailed explanation with empirical evidence from academic analysis and other sources is provided in the Annex.

- Acquired rights.

As explicitly stated in Ecuadorian national urban legislation, expectations alone do not create 'new rights'. Therefore, if an individual acquires an urban plot and leaves it undeveloped in anticipation of its appreciation through public interventions (such as investments or administrative acts), the landowner does not lose any property rights due to new regulations. The existing rights of use at the time of acquisition are not indefinite, as the public interest takes precedence over individual interests.

- Double taxation

OCBR is fiscally treated differently across jurisdictions but is not considered a tax. It may be seen as a tribute, like Colombia's Participación en Plusvalías though distinct from a property tax or special assessments. When regarded as an urban obligation, it compensates for specific project impacts or benefits provided by the public to the project. The Brazilian Supreme Court ruled that OCBR does not fit any tax category and thus cannot be legally disciplined as such (RE 387047/SC). According to Supreme Court member Eros Grau, OCBR involves acquiring a right voluntarily, making its remuneration contractual rather than legal, and therefore not a tax. (Grau 1983, pg. 82)

Inertia

Public officials often cite "lack of political will" for why OCBR remains a proposal. The voter opposition to charges, especially property tax, is frequently mentioned as a reason to avoid fiscal changes. Another concern raised by treasury officials, particularly those from São Paulo, is that OCBR may lead to lower observed land market prices, potentially resulting in a decrease in overall revenue. The fear, though, was unwarranted because property tax value maps are rarely updated to reflect market changes. Other reasons for inaction include cumbersome procedures required for its implementation. Additionally, some skeptics argue that the expected revenues may not justify the effort, especially when the charge barely covers administrative costs, as initially observed in Quito.

Incompetence/inoperancy

An admirable effort to identify the factors influencing the adoption of OCBR legislation in Brazil, Azeredo (op. cit.) considered a list of variables associated with state capacities, including

technical, administrative, institutional, and political factors. The study provided compelling evidence that the adoption of other similar planning policies is the best predictor of OODC policy adoption (p.77). The application of OCBR may involve supporting factors from property (land) market monitoring to preemptive sanctioning capacities to land occupation delinquencies. The latter leads to the distorted extension of the charge to the regularization of unlicensed added built areas as seen in Montevideo, Curitiba and many other cases.

Chapter 4 - Charges to building rights – a ‘no brainer’

OCBR offers many attractions for urban development, such as:

Reinforcement of investment funding

Revenues in the US$ billions raised with the selling of building rights in São Paulo has, notwithstanding no parallel in the region (including other jurisdictions in Brazil); though redevelopments through partial plans notably in Bogota, Colombia also exhibit the formidable share of the project’s costs that was directly or indirectly covered by the mobilization of charges to development rights.

In smaller jurisdictions like 3 de Febrero in Argentina, the first four years of its application the "Right to Urban Development and Sustainable Habitat" contributed approximately 1% of total income, or around 7 million dollars. Regarding total capital expenditure, its significance is somewhat higher. Between 2021 and 2023, revenues from the law accounted for between 5% and 6.5% of capital expenditure. Comparing these revenues with exclusive investment in habitat and socio-urban integration projects, the relevance of the implementation of this value capture instrument is considerably greater. (Goythia and Sanguinetti 2025)

The cost-effectiveness use of collected funds from OCBR are nevertheless questioned considering the yet often symbolic revenues collected with OCBR - more so when administrative costs may may barely cover them as seen in the case of Quito Ecuador.

If the mobilized meager resources from the tool are clearly way below their potential, confronted with the prosaic indigence of local investment capacity, a more positive perspective can be drawn when the whole picture is considered. The fact that in most jurisdictions they go to independent trust funds is pointed out as a reason to insist on perfectioning the tool. More so in the jurisdictions where it has been conceived as a non-tributary tool - Brazil, Ecuador, Chile, Mexico etc. In this sense Rio is an outlier with only 5% of revenue going to the Municipal Fund for Urban Development, and no integration of OCBR to other management instruments.

Promotion of ‘land justice’

Urban land rent is the payment made to landowners for the use of land, reflecting its value based on location, buildability, and housing demand. Since these three attributes are external to the land[9] the payment results from a market transaction of non-equivalents. It follows that the promotion of equalization of building rights contributes to a better distribution of the social and individual costs and benefits of urbanization, an objective pursued by elementary economic principles of efficiency and equity in land use.

Law 388 of 1997, Colombian, in article 73, justifies such instruments to "equitably distribute of costs of urban development", the Peruvian LDUS in article 54.3 that public participation is based

[9] Location a position relative to other uses in the city; buildability according to the supporting public urban infrastructure and services, housing demand depending on consumers income and demand for other goods and services all of which not produced by the landowner

on the "obligation derived from the principle of exclusion of unjust enrichment" and the Ecuadorian LOOTUGS in its article 72 refers to the "participation of society in the economic benefits produced by urban planning and urban development in general".

The mayor of the city of Maldonado in Uruguay explained that “(T)he recovery of additional value (value capture) is not the objective in itself, but it is an instrument that allows us to redistribute the higher value the city gave to a piece of land." (cited in Brener 2015, pg 76).

'Created land' as a public Patrimony

If the public has the authority to set a basic land use coefficient as an urban parameter, there is a question regarding the nature of the 'virtual land' that exceeds this base, sold according to market supply and demand. Because the creation of this 'virtual land' results from public actions, it can be understood as property owned by the local public administration—a public patrimony as understood for example in the case of São Paulo.

The latter since 2002, through OCBR incorporated over 25 square kilometers of additional building potential as ‘salable public land’ (Sandroni 2025). Consequently, the value obtained from granting the corresponding building rights should not be considered a tax but rather the revenue from a market transaction involving publicly owned assets.

Reduction of land speculation

Land speculation is often associated with urban issues such as housing unaffordability, land, and housing vacancy, over and underbuilding, and informal land occupations. Both passive and active speculation (linked to influence peddling, collusion, and other non-transparent practices in public administration) contribute to asymmetrical information, lack of transparency, and transaction friction, which collectively affect the functionality of the land market. The dehydration of land values, promoted by OCBR, reduces incentives for land speculation. By revealing gains and losses resulting from public actions, OCBR improves the legitimacy of urban policies. According to Borrero (2018), higher charges in Colombian cities are impacting wealth accumulation from the retention of large estates of family-inherited land in urban peripheries. This land retention was found to be less attractive to developers, builders, bankers, and large investors compared to previous decades.

Mitigation of barriers to residential socio-spatial inclusion

As recognized by the OECD (2020), “… increasing land costs, particularly in urban areas, pose a significant challenge to the construction of new social housing”. Official documents such as the New Urban Agenda (United Nations, 2017) and academic papers, including Ball, Shepherd, and Wyatt (2022), consistently highlight the importance of implementing affirmative policies to mitigate the impact of land prices on inclusionary social housing.

The use of direct or indirect OCBR tools to reduce payments to landowners (dehydration of value) may be crucial for the feasibility of spatially inclusive social housing policies. In the absence of these measures, the only alternatives are the provision of public land at below-market prices or direct public subsidies.

OCBR promotes social housing in two ways. One way involves designating a significant share of the revenues generated by OCBR to social housing, as specified in most jurisdictions' legislation. As demonstrated with CEPACs in Chapter 2, this has also been implemented for affordable housing within the same predominantly high-end generating area. The other method includes applying a discount factor in the compensation formula, if not providing full exemption, for low-income buildings.

In an area zoned for high Floor Area Ratios (FARs), a developer pays the landowner less than they would if no OCBR was charged at its highest and best use (H&BU). The remaining portion of the residual land value is paid to the government. The financial impact on the developer for the project remains unchanged. For more details, see the annex.

However, if a developer decides to build the same volumetry on the plot but as social inclusionary housing units (i.e., below current H&BU for the plot), taking advantage of the above-mentioned incentives, the outcome is that the OCBR effectively facilitates spatial inclusion for social housing. This scenario is exemplified by the production of lower-than-H&BU housing in the Faria Lima and Agua Espraiada urban operations in São Paulo. In the rare instance where the H&BU for the area is already designated for social housing, land prices would already reflect this use, rendering any further adjustment unnecessary, and the same rules would apply as in other market segments. Essentially, it is the developer's decision regarding use, rather than the landowners, that elicited the outcome.

Variations of the scheme within the realms of OCBR include social housing negotiated for additional building rights as seen in Guatemala, Colombian urbanistic obligations, or a mandate requiring a certain share of the housing units in new buildings, typically 20%, as now imposed for certain projects in many jurisdictions in the region. Another method to obtain land for social housing at below-market prices has been attempted with instruments such as the Colombian Declaratory of Priority Development (see glossary), whereby land prices are defrayed by auctioning private or public land exclusively to social housing bidders.

All in all, in addition to its potential as a municipal bargaining chip to strengthen the financing capacity of urban development, the OCBR also represents a substantial instrument to address other urban policy objectives, such as the preservation of historical and environmental heritage, mitigation of opportunities for passive but also active speculation, and leveling the field for negotiation of private and public real estate interests, all that contributing to a better functioning of urban land market and to social justice.

Chapter 5 - Recommendations

Figure 59 - Table - Dos and Don'ts

Do's	Don'ts
Primacy of planning over fiscal objectives (revenue generation))	Consider OCBR in addition to the existing maximum FAR
Design the basic coefficient that equalizes property rights throughout the city.	Transferring rights above the basic FAR of the generation zone and/or above the maximum FAR in the receiving zone
Consider the OCBR, in addition to income generation, as something essential to mitigate dysfunctions in the land market.	Include in transition rules criteria that recognize the interests of developers as identical to those of landowners.

Resetting the hegemony of planning over OCBR

Significant changes in land use regulations aimed at increasing revenues have been observed in various jurisdictions. This trend has raised concerns about the potential de-legitimization of planning, as seen in programs like 'Mais Valera' in Rio and TDR in Mexico. Potential negative consequences of this process include aesthetic issues, corruption opportunities, and the erosion of planning's social responsibilities.

It is crucial to establish the original focus of OCBR policies and tools in land use management and planning. Planners in the region often overlook these aspects. Therefore, there is a need to promote training programs that cover both fiscal and extra-fiscal dimensions of OCBR in land-based policies to enhance equity, efficiency, and sustainable urban development.

Distinguish developers from landowners

Over generous rules of transition and base lines suggest that public officials frequently conflate the interests of developers with those of landowners, which can have detrimental consequences for the implementation of OCBR. It is evident that both parties should not be included at the same negotiating table for urban policy issues. Whereas developers (changing to higher uses) benefit THE land, landowners benefit FROM (externalities from third parties uses) the land. Since developers are better organized or even institutionalized in their interests, they are often the main group confronting OCBR legislations and policies. This was evident from most of the cases discussed in Chapter 2 on the OCBR implementation process and adjustments.

As a rule, one could note that developers should be more receptive to OCBR in situations that leaves room for unanticipated uses that would generate gains not reflecting on the price they pay for the land and related calculations for OCBR. Additionally, the use of resources generated by OCBR for social housing and infrastructure enhances effective housing demand in the formal housing market, enabling competition in the lower segments otherwise dominated by the informal market. This flow of funds should be given more visibility to developers.

Need to build capacity for operative issues

Undoubtedly, the level of (mis)understanding of the impact of OCBR policies and tools on the 'dynamics' of the real estate market, especially on land uses and prices, has been one of the biggest obstacles to its implementation. Insufficient local officials' technical capacity has been mentioned to be a strong constraint and partially responsible to the built-in latitude found in the existing legislations with respect to base line metrics (e.g. Ecuador) and numeraire settings, as evident (e.g. Brazil, Uruguay) in how they have applied by otherwise similar jurisdictions within the same country.

The operationalization of OCBR in the emblematic cases of Belo Horizonte and Recife exposed their multiple and variate moving parts. They involve adjusting factors to the formulas, transition rules, forms of payment, exceptionalities and other technicalities. Each of them with their own complexity. Country descriptions and other isolated illustrations in the above text, presented many instances when parameters (and even their entailed legislation or regulations) were changed out of lessons from doing.

Here's clearly a strong need for more comprehensive training programs covering the specifics of these parameters. Organizations like the Lincoln Institute and other running capacity building programs may want to shift their attention from the broad aspects of OCBR to their operational aspects.

Enabling the transfer of the right to build

Establishing a basic FAR (floor area ratio) and a maximum coefficient is indispensable for a consistent transfer of development rights (TDR) for the designated areas or projects. In their absence transferable buildability would depend on loosely arbitrated volumetrics over and above the current, in the respective generating (e.g. preservation of historical or environmental heritage), and receiving projects (e.g. new constructions). Rights transferred to be used in the latter above maximum coefficient would ipso facto disqualify the criterion and legitimate used to define it as land use coefficient. A basic coefficient thus is also needed for the receiving project. Since a basic right criterion, cannot be applied exclusively to a single project or area, same or different coefficient values must be for other zones or at limit individual projects of the city … including the generating ones. As shown in the case of Lima Peru failing to define such parameters impeded the implementation of TDR.

Training in urban economics fundamentals

In addition to the more specific topics mentioned above, it is recommended to consider training programs, addressing the obvious weaknesses of local planning officials, understanding some of the fundamentals of urban economics that are indispensable to the design, public negotiation and implementation of CBBR, such as:

- The nature of land appreciation/rent (why does it constitute unearned rent?)
- The capitalization of the charges on land values (read incidence on landowners)
- The impact of densification and other land use norms on real estate prices (local vs. general effects RE: fallacy of composition)

- Comparison between OCBR to other existing ground-based financing instruments.

Promoting public visibility and civil society support

Though the mobilization of civil society has proved to be decisive in some instances, for example the implementation of the tool in Belo Horizonte (Ref. Caldas 2022), as a rule policy issues around OCBR have been mostly circumscribed to the official-technical universe. A survey in Quito for instance revealed that 74% of the people consulted ignored entirely the existence of the COD (onerous concession of rights). The relationship of executed projects to the application of funds thereby generated has been mostly opaque if not absent from the broader media. Not much public complicity to the relevance and legitimacy of extraordinary resources and its utilization has so far been obtained from initiatives promoted by said policies and tools.

Public information campaigns therefore are recommended by exposing good practices in municipalities benefitting from the implementation of the OCBR, notably in the expansion of financing to social housing and lower income areas provision of infrastructures and services. The business community in turn may be reminded that such allocation of funds expands the formal housing demand to lower segment and the serviced land to support them.

Paraphrasing a known Churchill's * adage:
The best way to confront the imperfections of democracy (land value capture) is not its elimination but to demand more of it.

(*) Churchill, Winston S. From a Speech Delivered at King's Theatre- *The Mother of all Monopolies*) in Edinburgh on 17 July 1909

Appendix – The contentious issue that charges to building rights are inflationary

The assertion that developers should include the payment of OCBR in the final real estate prices poses a significant challenge for local officials. This concern is heightened by warnings that high prices may reduce market size, potentially impacting jobs, incomes, taxes, and overall social well-being.

The allegation lacks substantial support, as widely validated in the literature (e.g., Oates and Swab 2009), indicating that charges on land value tend to be capitalized back into land prices. For clarity: consumers are indifferent between two comparable buildings, with their price difference compensating for distinct locational attributes. Since OCBR does not affect these attributes, transferring the charge to the final price would imply the higher-priced building losing competitiveness compared to cheaper buildings with lower attributes, which consumers originally considered equivalent. As demand shifts to relatively lower-valued buildings, land prices would need to adjust in higher-valued areas or remain idle. To reintroduce the land to the market, the landowner would have to absorb the charge by accepting a lower bid from the developer. The table below illustrates the case when a 100% charge to land are not absorbed by the landowner but passed on (through developers) to the final buyers.

Figure 60 - Table: Annex 1 – No indifference of final buyer when charges to land are NOT absorbed by the landowner

	Before OCBR		After OCBR	
	Building A	Building B	Building A	Building B
Structure	$70	$70	$70	$70
Locational attributes (*)	$10	$15	$10	$15
Land	$20	$15	$40	$30
Final price	$100	$100	$120	$115

(*) e.g. transportation costs

Indifference No Indifference

Developers in fact do understand this process as can be inferred from developer's requests for a moratorium to the introduction of a basic FAR below the pre-existing one proposed in the Rio's newly approved 2023 Master Plan. *This fee will influence land acquisitions. In order not to transfer the cost to the future buyer, the prices offered by the areas will drop from one day to the next. The ideal is to have a moratorium, as much as possible, for the market – says the president of the Civil Construction Union (Sinduscon), Claudio Hermolin.*

Another indication of developers recognizing the capitalization of charges to land values is the common practice of pre-dated land negotiations with conditionalities related to the value of the CEPACs they manage to acquire. If the needed CEPACs for the intended project are traded at a higher than anticipated value the amount to be paid for the land is adjusted, according to a predefined ratio to share the difference.

The empirical validation of the proposition of full capitalization on land prices or transference to final prices is not an easy task, given the difficulty of establishing the necessary counterfactuals in a context, ultimately, of singular lots.

Aside from the already mentioned in the Chapter 2 Colombian section - Garza and Gonzales (2021) reliance on land price indexes; similar data (inherent?) original inaccuracy controls, underlying empirical studies carried out for the case of S. Paulo by Igliori et alli (2022). Results obtained tended to confirm likewise a certain virtuous neutrality of the instrument as asserted by theory.

Results from Lorenzo (2023) analysis of the impact of Buenos Aires Law 6022 with its urban code of 2018, indicate a negative effect of the incorporation of the charge in prices as of 2021. Moreover, he found that developers move towards rather than avoiding higher valued areas (with the top charge rate of 35%), contradicting the tool's alleged contracting impact to the market.

On the other hand, the argument that the charge is transferred to final prices can more typically be found in personal or developers organizations manifestations than on academic or otherwise rigorous research. The results obtained by Oliveira (2021), suggest notwithstanding that for bigger residential developments resulting from the adoption of the charges resulted in an increase in the final properties prices - due possibly to their higher proportion of amenities.

Now in practice, there're indeed circumstances where final prices may be pressed by OCBR, like:

a. Numeraire over estimation - If the numeraire for the additional FAR is overestimated, developers would be overcharged. Since landowners are also compensated for the basic FAR with the same numeraire (that is technically used to establish it in the first place) developers will need to try pass it on to consumers, absorb it in lower profits or simply … forsake the project.
b. Second generation land market - In scenarios where land procurement primarily involves second generation transition development zones, such as areas with single-family homes, existing homeowners may have higher expectations regarding the price of their properties. If the perceived value of continuing to live in the house exceeds the amount that the developer is willing and able to offer (such as common compensation in apartment units in the new development), the transaction may be declined, reducing the supply of land in the entire zone and consequently influencing the prices developers might need to pay.
c. Endogeneity - In cases like CEPACs and certain Partial Plans where the proceeds from the OCBR are used in the same area where they are generated, the resulting improvements may influence prices, leading to a perception that the compensations paid for the OCBR were the direct cause, while they result from the area's improvements. A related fallacy is that gentrification was encouraged by OCBR rather than an inherent outcome the project's design.

d. Regime transition market adjustment – in the short run landowners may not accept the lower prices (residual after accounting for the OCBR) implying in a supply retraction forcing developers to absorb it.

Overall, these exceptions do not justify rejecting the rule that OCBR should not impose extra burdens on developers needing to transfer them to home buyers.

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Glossary

Project Announcement (PA) - in accordance with paragraph 1 of Article 61 of Law 388 of 1997, this tool allows the public authority to deduct from the commercial acquisition the increment in land value resulting from the project's disclosure. This typically stems from expectations generated by the project.

Betterment contributions (BC) *BC* refers to charges or fees levied on property owners to defray the expenses of public improvements or services that directly enhance the value of their property. In the United States, these charges are referred to as special assessments.

Declaratory of Development or Construction Priorities (DDCP) public auction of idle land whose owner has not urbanized or built in 3 years from the date on which the public authority notifies the declaration. It goes to a first auction for 70% of the commercial value and if there is no offer it goes to a second auction for 70% of the cadastral value. The municipal authority may also establish the use of social housing as compulsory use. These mechanisms seek to avoid the retention of land and reduce its prices and thus make the construction of housing for low-income households viable. https://repository.javeriana.edu.co

Development Obligations (DO) *are contributions of property developers and landowners made in exchange for public bodies making decisions on land-use regulations that increase the economic value of their land and buildings... (*Munoz and van der Kraben 2023 pg. 18). A concern arises when the developer's contribution fails to offset the expenses incurred on existing urban infrastructure or other community services. Certain types of Development Obligations solely benefit the developer or purchasers of the constructed units, such as the mandate for gated communities to provide sidewalks.

Exactions, perhaps the most common type of value capture tool, are cash or in-kind contributions and other types of charges for extraordinary building rights. Compensation by developers is negotiated directly with municipal authorities and may include contributions toward public infrastructure projects in exchange for the easing of land use regulations that increase the economic value of their land.

Financialization refers to the dominance of financial interests in pursuing property development gains over urban planning objectives such as landscaping, esthetic or social well-being. It turns real-estate attributes into securities such as stocks, bonds, and derivatives (options and futures) traded in financial markets. Increased investor demand in a market where response tends to be slow (due to factors like the building cycle, licensing timing, and land use regulations) can lead to higher prices and rents. As noted by Whitehead et al. (2023), this trend disrupts the traditional relationship between housing costs and local incomes, as investors tend to target more desirable urban areas, thereby displacing lower-income residents to less serviced regions.

Land Readjustment (LR) A regime where a trustee or trust temporarily acquires rights from various landowners to (re)urbanize an area, increasing its value. After the project, owners receive less land but with higher total value. The entity uses part of the land for public infrastructure and sells the rest to cover costs. Participation can be compulsory or voluntary, and owners may assume the risk that urbanization increases their land's value enough to offset reductions. Notable projects include the Phoenicia Triangle in Bogotá, led by Universidad de los Andes, involving nine blocks and 504 properties over nine hectares, and the Simesa project in Medellín, transforming 30 hectares into a residential complex with 37% reserved for parks, green areas, and streets.

Partial Plan (PP) is an intermediate planning instrument through which the provisions of land use plans are complemented and developed. (Law 388 of 1997, art. 19). The partial plan establishes the use of private spaces, with the assignment of their specific uses, intensities of use and buildability, as well as the obligations of transfer and construction and provision of public facilities, spaces and services, which will allow the associated execution of the specific urbanization and construction projects of the land included in its planning scope. (Art 2.2.1.1 Decree 1077 de 2015). https://www.minvivienda.gov.co/espacio-urbano-y-territorial/planes-parciales-1

Tax Increment Financing (TIF) is a tool now being pushed by institutions like the World Bank (2020) to cities like Medellin and others in Colombia, to subsidize redevelopment in lower-valued areas using expected increased property tax revenues. As adverted by Merriman (2019): *Because TIF diverts revenue from real estate appreciation that may in part be due to public investment, some observers may erroneously believe that TIF is a land value capture tool separate from the property tax. In fact, it is more properly a device that "transfers" value to, rather than "captures" value from, the private sector*. While some argue that indirect benefits justify this use of additional taxes, it remains a development subsidy tool, funded by taxpayers.

Transfers of development rights (TDRs) TDRs are in-kind compensation provided by the municipality to landowners for limitations imposed on building rights, such as historic preservation or environmental conservation, or when landowners relinquish part of their land for public projects, including road widening, park creation, or favela rehabilitation. These rights may be sold to third parties or used directly in designated project areas. The city of Porto Alegre utilized these rights to compensate owners who surrendered part or all their properties to facilitate the construction of a new avenue that traverses the city.

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