Urban Value Capture in São Paulo Using a Two-Part Approach: Created Land (*Solo Criado*) and Sale of Building Rights (*Outorga Onerosa do Direito de Construir*). An Analysis of the Impact of the Basic Coefficient of Land Use as a Tool of the 2002 Master Plan

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Abstract

The 2002 Strategic Master Plan for the City of São Paulo and the Land Use Law 13,885 of 2004, both based on the federal Urban Development Act approved in 2001, introduced the mechanism of development concessions for additional building rights across the entire municipal area, with the exception of areas designed for Joint Urban Operations. Basic and maximum coefficients of land use[a] were established with development concessions being charged to those wanting to build beyond the basic to the maximum coefficient. This new legislation established residential and non-residential building rights reserves in each District of the city, stipulating the maximum supply of building area. Among the main effects of these measures, the following stand out: collection of financial compensation from development concessions has been increasing since 2005, with about $420 million *Reais* collected as of November 2009. In some Districts the establishment of a basic FAR that was lower than the previous coefficient apparently did not reduce the cost of the affected land. The charge for development concessions also does not seem to have affected the profitability of real estate companies. However, setting a maximum building rights reserve seems to have caused an upward trend in land prices, especially in Districts where the supply was lower. In some Districts of the city developers proceeded to quickly deplete the supply of residential building rights, and this type of response will probably intensify in the future, putting pressure on the city government to raise the maximum coefficient. In this case, it is important to consider the risk that motivation to increase revenue collection may outweigh urban recommendations and the limitations of infrastructure, especially transportation and traffic.

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[a]/ The Portuguese term "*coeficiente de aproveitamento or CA*" is translated in this paper as floor to area ratio or FAR, as it is known in the United States.

Key Words: Sale of Building Rights; Right to Build and Property Rights; Urban Land Management; Setting the Maximum Stock of Buildable Land; Urban Planning; City of São Paulo, Brazil

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Paulo Sandroni has a decree in economics from the University of São Paulo. Before leaving Brazil in 1969, he held a junior professorship in economics at the Catholic University of São Paulo (PUC-SP). During the 1970s he taught economics at the University of Chile, in Santiago, and at the University of Los Andes in Bogotá, Colombia. Back to Brazil in 1980, he returned to PUC-SP as professor of economics and in 2006 he joined the faculty of the Getulio Vargas Foundation (FGV). From 1988 to 1994, after the electoral victory of the Workers Party (PT), he joined the administration of the city of São Paulo where he directed agencies dealing with urban development and public transportation. For a short period he served the federal government as Vice-Minister of Administration. He has published several articles and books on economics, including a dictionary considered a primary reference on economics in Brazil. Prof. Sandroni is currently a private consultant on urban development and transportation issues. He continues to teach at FGV and in programs sponsored by the Lincoln Institute of Land Policy.

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Background

As a city grows in size and building density, its growth process usually leads to improvements to the land supporting it. The demand for additional construction areas and the non-reproducible nature of physical land usually results in corresponding price increases.

In this context, the land market is characterized by a growing demand, is expanding, and is approaching a state of relatively short supply. This scarcity is caused by three primary factors: first, concentration of land ownership; second, difficult access to areas not yet occupied due to lack of infrastructure; and third, restrictions imposed by zoning (Smolka and Amborski, 2000).. Each of these factors has its own dynamics and they are not necessarily restrictions that are present at the same time. Such is the case for Brazilian cities and, in particular, São Paulo.

The restrictive factors do not always act in the same manner with regard to land price. The concentration of land in the hands of a few owners can cause price increases, while the lack of accessibility can result in lower prices. Very restrictive zoning may also prevent prices from rising.

However, the pressure of demand for buildable land generally results in urban added values if the existing infrastructure allows greater accessibility to these areas and the zoning regulations (or changes thereof) allow increased building density.

To examine these issues we must first consider the question of who finances the investment in infrastructure that provides or intensifies the means of access and use of land. Second, we must determine who benefits from this land improvement.

Generally the cost of access (roads, streets, avenues, tunnels, bridges, sewers, lighting, water supply etc.) has been paid for with public funds. However, in the past, once land was equipped with infrastructure, the improvement only benefited its owners, except in those rare cases where a betterment contribution[1] was levied (Jaramillo, 2001). In this case, the improvement or added

[1] Law 1193 of 9 March 1909 stated that in São Paulo new streets proposed by private citizens would only be approved by the City Council if the individuals paid half of the paving cost. Another example of the betterment contribution is the Paving Tax charged in São Paulo during the 1920s. As a legal instrument, the betterment contribution first appears in the 1934 Federal Constitution and was maintained in all subsequent Constitutions. In the 1988 Constitution, Article 145, paragraph III, upholds the principle of betterment contribution and allows collection

value to the land created by public investment in infrastructure is partially or totally recovered through the betterment contribution (Biava, 1986). In other words, the investment is recovered based on the improvement created and the respective payment made by the owners of the improved properties.

This principle of value capture has not always been widely applied in Brazil. In the case of São Paulo, we do not have more accurate and comprehensive information on this issue, but it is very likely that, to a great extent, the improvement resulting from public sector investments was assumed entirely, that is without compensation, by the owners of the improved property.

Improvement to property may also result from simple changes in the use of already accessible or relatively accessible land when, for example, property that was previously considered rural becomes urban. A simple decision like this can mean a significant increase in the value of the affected land. This is a case of creating added value without the immediate need for investment in infrastructure. However, the urban use of an area that was rural generally requires infrastructure investments before it can be effectively used for urban expansion.

Changes in the building potential on urban land that is already easily accessible, i.e., increased density due to new zoning regulations, can also create great benefits for the properties affected. Although in this case, as in the previous one, future pressure on the infrastructure will require substantial public investment.

In the past, owners of improved property appropriated the added value generated by both processes. This enrichment without owners contributing to improvements would be a typical case of unjust enrichment (Azevedo Neto, 1994). [2]

The idea that this property improvement should not be entirely appropriated by owners was gradually introduced in Brazil in debates during the '70s. In 1975 these principles took shape in the so called Embu Charter.[3] The concepts of buildable land, development concessions and social function of property paved the way for the adoption of articles 182 and 183 of the 1988

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to be made based on “cost” (i.e. cost of the work distributed among the benefitting) or "added value" (the benefit of the improvement—which may be higher or lower than the cost—can be charged proportionately to those benefitting).

[2] See Rabello, Sonia de Castro. 2006. O Conceito de Justa Indenização nas Expropriações Imobiliárias Urbanas: Justiça Social ou Enriquecimento sem Causa? Reprint from *Revista Forense*, Rio de Janeiro, Vol. 388.

[3] The Embu Charter was the document resulting from a seminar held in its namesake city in São Paulo in the mid 1970s where lawyers, planners, architects, sociologists and other professionals gathered to discuss the problem of urban issues in Brazil. They established a series of guidelines, among which we note the principle of constructible land and the concession of development rights, both converging in payment of compensation should the owner of the land benefit from additional construction rights, that is with rights in addition to the existing zoning measures.

Federal Constitution. These articles were subsequently regulated by Federal Law No. 10,257 of 2001 also known as the Urban Development Act.[4]

Certainly, without the inspiration of the Embu Charter, municipalities were already using measures based on the principles of buildable land, development concessions and the social function of property in Recife with the creation of Special Social Interest Areas and in São Paulo with the practice of the betterment levy and the Interrelated Operations.[5]

However, articles 182 and 183 of the Constitution included and, at the same time, consolidated certain principles that were already present in previous legislation; but gained new *status* by appearing in constitutional text. Urban development became a matter of federal law, and in practice, the principle of the social function of urban land ownership separated the right to own land from the right to build.

The existence of Interrelated Operations and Urban Operations in São Paulo, where buildable land and development concessions were practiced, that is, where tools for capturing added value were exercised and improved, contributed to regulation of the aforementioned constitutional articles 182 and 183. The city incorporated the constitutional principles into its Organic Law in early 1990s, not expecting that such principles would be adopted for the whole country.

Buildable Land and Development Concessions

Buildable Land

In general terms, buildable land means a concession to a landowner of the right to build beyond the area of his land. Specifically, it is an urban concept that consists of granting building rights to interested parties using guidelines that differ from those established by the Zoning Law or Use and Occupation Law in force. This is done in exchange for financial resources to build social housing or to improve road infrastructure, sewerage and other services in areas where these concessions are made. The difference between the general approach and the specific one is that the Zoning Law may establish, for example, FAR equivalent to 2 (right to build equivalent to two times the area of the land). But a change in this law can determine a FAR equivalent to 3 for

[4] The Urban Development Plan is the name given to Federal Law No. 10,257 of 2001, which aims to establish a series of mechanisms and tools that make Public Authority planning and intervention in urban measures more favorable to the public interest. Many of these measures had already been established by prior legislation, but the breakthrough of the Urban Development Plan was consolidating them into a single articulated unit and creating new tools. We should note the Urban Development Plan's establishment of the principle of social function of land ownership and the separation between the right to build and the right to own.

[5] Interrelated Operations are a measure created by law wherein private or public sector owners, in exchange for changes in rates and characteristics of use and occupation of land they own, donate a certain number of social housing units (HIS) to the São Paulo City Hall to support housing projects. During the period it was in force (1987/1998), this law granted about 150 operations in São Paulo and compensation reached about 120 million dollars with construction of about 13 thousand social housing Units. The first initiatives for the formulation of legislative provisions in 1986 came during the Jânio Quadros administration in the city of São Paulo.

the same land (right to build equivalent to three times the area of the land). This means the creation of additional land since this concession must be compensated by the beneficiary. That is, the improvement caused by the additional rights to build is compensated by a monetary payment.

Development Concession

The development concession means payment of monetary compensation by those who receive a building right (buildable land) from the government that they did not possess before (Antenor, 2009). The development concession provided by articles 28, 29, 30 and 31 of Federal Law 10,257 of 2001 (Urban Development Act) and defined in articles 209 to 216 of the 2002 Strategic Master Plan of the city of São Paulo, is one of the regulatory instruments to administer building rights in the city. Until the approval of this Master Plan, the development concession practice consisted of paying compensation for benefits that a property owner obtained, in general, by increasing the FAR, occupancy rate and/or change of use in Interrelated or Urban Operations. For example, if the FAR is equivalent to 2 in an Urban Operation and the project to be built needed to increase that coefficient to 4, this change could be authorized by the city administration for a fee, if the architectural design and the urban plan for the project had already been approved. Let's say the payment would be 50 percent of the resulting valorization. This would be a win-win situation since the land owner and/or developer would receive additional building rights for which he would only make a partial payment and the City would receive funds for the construction of infrastructure or social housing. The pie would grow and each agent, public and private, would get a piece of it.

When the Urban Development Plan was approved in 2001, the city of São Paulo introduced the development concession mechanism for additional building rights into its 2002 Strategic Master Plan and Law 13,885, 2004 for Land Use. In addition to setting a minimum FAR, the legislation set a basic and a maximum FAR, except for areas designated for Joint Urban Operation.

The basic FAR established was differentiated, that is, it was not a sole coefficient but varies between 1 and 2. The maximum coefficient could be 1, 2, 2.5 or 4 depending on the area.

This new approach reduced building rights by establishing a basic coefficient of 1 for land that had a FAR equivalent to 2 or more under prior legislation. At the same time, it used the development concession to extend the building potential up to 4 on land that previously could be developed only up to 1 or 2. This measure meant that in certain areas where the maximum FAR was 4, builders could submit projects as they did before with Interrelated Operations (Sandroni, 2000). The process was basically the same. This measure favored contractors but not land owners, who in some cases had the building potential of their land reduced and, for this reason, possibly contributed to its approval by the City Council.

At the same time, the 2002 Strategic Plan and Law 13,885 of 2004 established the basic and maximum coefficients they also limited the supply of residential and nonresidential building potential in each District of the city by establishing a total additional area of 9769 million m2. The total additional area was divided into 6919 million m2 for residential use and 2850 million for non-residential use, and distributed among the 91 Districts with the exception of environmentally protected areas of *Anhanguera, Grajaú Marsillac, Parelheiros* and *Raposa Tavares*. The definition of the potential building supply introduced a new element to the housing market: it became known that a maximum building area could be acquired by interested parties. In prior Master Plans the magnitude of the stock of potential building area was unknown. Now that the market was starting to recognize it, the perspective of scarcity for areas in those Districts where the supply was lower and the real estate dynamic was high prompted a price increase tendency on the one hand, and on the other, it caused pressures from the real estate market on the government to increase supply.

In October 2010, the land supply for residential purposes had been exhausted or was very close to it in the following Districts: *Jaraguá, Limão, Vila Guilherme, Bela Vista, Cambucí, Liberdade Belém, Mooca, Jaguaré, Lapa, Murumbi, Vila Leopoldina, Ipiranga, Capão Redondo* and *Cursino*. In the case of nonresidential land, the supply had been or was almost exhausted in the Districts of *Jaçanã*, Vila Formosa, *Morumbi, Tremembé* and *Vila Guilherme*.

Calculation of Financial Compensation: the Planning and Social Interest Factors

The 2002 Strategic Master Plan and ancillary regulatory laws establish the following formula to calculate the financial compensation of the development concession:

$$Cf = Fp \times Fs \times B \text{ or } Cf = Fp \times Fs \times vt / CAb$$

where:
Cf = financial compensation for each square meter of additional building area;
Fp = planning factor ranging between 0.25 and 1.4;
Fs = social interest factor, between 0 and 1.0;
B = economic benefit allocated to the property, calculated using the equation vt / CAb, where:
vt = value per square meter of land determined in the Property Value Map and,
CAb = basic FAR.

The planning factor (Fp) is an instrument that seeks to encourage or discourage higher densities in certain areas of the city depending on the existing infrastructure, especially transportation and transit. Or it seeks to obtain greater financial compensation from the sale of building rights for businesses in improved areas of the city. The planning factor also varies according to land use. For **residential use**, the variation is between 0.6 and 1.2: the maximum (1.2) is achieved in the District of *Moema, Alto de Pinheiros* and *Perdizes*, among others, and the minimum (0.6) in *Brasilandia, Cachoeirinha* and *Mandaqui*.

In the case of **nonresidential use**, the variation is between 0.3 and 1.4, with 0.7 being predominant. In *Itaim Bibi* it reaches the maximum and minimum occurs in Districts located in the extreme east and north of the city.

The **social interest factor (Fs)** establishes exemptions or reductions depending on the type of activity that will be developed. Social housing, educational, health and cultural institutions, and sports and leisure activities are subject to the social interest factor incentive. The coefficient ranges from 0 (zero) to 1 (one).

For social housing the coefficient is 0 (zero), which means that developers of social housing do not pay compensations for development concessions. For housing intended for the popular market (up to 50 m2 and 70 m2) the coefficients are 0.5 and 0.9 depending of the size of the dwellings to be built. For housing measuring more than 70 m2 per unit, the coefficient is 1 (one). Hospitals, schools, health clinics and infant care, public culture, sports and leisure institutions and houses of worship (nonprofit) have a coefficient of 0 (zero). For hospitals and clinics, universities, schools, daycare centers, and cultural facilities with nonprofit sponsors the coefficient is 0.3. The coefficient is 0.7 for hospitals, universities, schools, and cultural facilities with other sponsors.

As we can see, the smaller Fp and Fs are, the smaller the compensations to be paid and the greater the incentive for projects to be developed in these areas. For example, in the District of *Arthur Alvim*, a region on the outskirts of São Paulo, the Fs coefficient is 0.30 for nonresidential use, and in *Itaim Bibi*, one of the most expensive areas in the city, the coefficient is 1.40 for the same purpose. For residential use, Fp is equal to 0.60 in *Arthur Alvim*, while in *Alto de Pinheiros* (also a high priced region) it is double that, or 1.20.

A Sample Financial Compensation Calculation

Let's see what would be the financial compensation for projects on land located in these different Districts:

Suppose there are two properties, one located in *Arthur Alvim* and another in *Itaim Bibi* for **non-residential** use, both measuring 400 m2. The m2 value (City Property Value Map) equals R$ 500 in *Arthur Alvin* and R$ 2000 in *Itaim Bibi* where the basic FAR is 1.0. The projects to be built on each of these two plots require CA 3. The situation that ensues is the following:

Arthur Alvim Cf = 0.30 x 1.0 x 500 / 1 = R$ 150.00 per additional m2. Since the contractor needs 1200 m2 (or CA 3) of area and not the 400 provided by CAb, he will have to pay the difference of 1200 m2 - 400 m2 = 800 m2 multiplied by R$ 150 per m2. The financial compensation payable to the government will be 800 x 150 = R$ 120,000.

Itaim Bibi Cf = 1.4 x 1.0 x 2000 / 1 = R$ 2800 per additional m2. The contractor needs to build 1,200 m2, or CA 3. Therefore, he will have to purchase the difference between CA3 and CAb which, as in the previous case, is 1,200 m2 - 400 m2 = 800 m2. Since the compensation per m2 is 2800, the total financial compensation payable to the government will be equal to 800 x 2800 = R$ 2,240,000**.**

Let us now consider the calculation of financial compensation for **residential use.**

Suppose the case of multi-family residential projects with an area greater than 70 m2 per dwelling unit and the same price difference as in the previous case but replacing *Itaim Bibi* with *Alto de Pinheiros*. We would have the following:

Arthur Alvim Cf = 0.60 x 1.0 x 500 / 1 = R$ 300 per additional m2.

If the contractor needs 1200 m2, he will have to pay the difference between 1200 (CA3) and 400 (CAb) = 800 m2. Since compensation per m2 = 300, the financial compensation payable to the government will be R$ 240,000.

Alto de Pinheiros Cf = 1.2 x 1.0 x 2000 / 1 = R$ 2,400 per additional m2. If the contractor needs an additional 800 m2 as in the previous case, he will have to pay the government a financial compensation of 800 x 2400 = R$ 1,920,000.

Revenues obtained from financial compensation for development concessions were first recorded in the city of São Paulo in 2005. The delay in revenue influx between the approval of the Master Plan in 2002 and the first payments from the development concessions had two causes. The adoption of new zoning laws was not approved until 2004 and real estate developers had stockpiled building permits approved under the previous rules that exempted them from the development concession payment. Moreover, the real estate cycle only began to recover in São Paulo in early 2005. This also may have contributed to the low collection from development concessions between 2004 and 2006.

Income from development concessions between 2005 and 2010 is shown in the table below:

Development concessions for additional building rights: revenues for the city of São Paulo between 2005 and 2010 (in R$ 1,000)

	Estimated	Actual
2005	-	41,070
2006	104,154	64,725
2007	160,000	99,937
2008	250,000	118,127
2009	300,000	115,928
2010	162,000	210,390
Total		650,177

Average exchange rate: 1 US$ = 2 R$
Source: Secretaria de Finanças, Prefeitura Municipal de São Paulo.

Note that revenues increase until 2008 and stabilize in 2009. This is probably due to the crisis of 2009 when the GDP in Brazil declined 0.2 percent. But in 2010 the economic recovery resulted in an increase in revenues of almost 100 per cent, and exceeded the estimated revenue.

The Allocation and Use of Funds Derived from Financial Compensation for Development Concessions

Funds obtained from financial compensations for development concessions are deposited into the Urban Development Fund (FUNDURB) which was created to implement urban and environmental plans and projects or Strategic Master Plan projects managed according to priorities set by its Management Council.[6] The Management Council is composed of the Municipal Planning Secretary (chairman) and the municipal secretaries of Finance, Green and the Environment, Housing, Urban Infrastructure and Municipal Government Works, Coordination of Sub prefectures, Culture, Transportation and three representatives of the Municipal Urban Policy Council, the CMPU.

By September 2008 construction projects were approved for 15 linear parks with a value of R$42.5 million; sidewalk and street improvements valued at R$21.2 million; drainage and sanitation worth F$108 million; Urban community facilities worth R$21.2 million; regularization of subdivisions in the amount of R$50 million; and cultural heritage restoration (Artists Plaza and *Itororó Vila*) valued at R$37 million.

[6] FUNDURB resources are established by budgetary appropriations, loans or internal and external finance transactions, contributions and donations from international organizations, building rights development concessions and income obtained from application of the fund's own resources.

Advances in the Institution of Basic and Maximum Coefficients and the Reduction of Building Rights

The 2002 Strategic Master Plan established basic and maximum coefficients and development concessions for use of the building potential within these limits. In practice it withdrew the rights from land owners that they had held under previous legislation. That is, the 2002 Strategic Master Plan denied the existence of vested rights for those land owners with a higher FAR than those established as basic. The 2002 Master Plan made possible to put in practice the concept of social function of land ownership which transforms the right to build into a government allocation, not something inherent to the right of private ownership of urban land.[7] Since the right to build is a government allocation, building rights can be reduced or increased for private owners depending on the public interest related to the dynamics of urban development.

In the Master Plan proposal presented to the São Paulo City Council in 1991 (De Ambrosis, 1999), the principle of the single coefficient of use (equivalent to 1) was introduced, but the proposal was not approved by the City Council. About ten years later, while the Master Plan proposal adopted in 2002 was being discussed, there was also resistance from various sectors related to the real estate market; but the interesting thing is that different financial areas within the municipal government itself had exercised considerable resistance.

The belief was that with a widespread reduction in the coefficient of use for land, the land market value would drop and property tax revenues would decrease. This devaluation would occur for the entire stock of undeveloped land and only once. And also for developed land because the property tax is the sum of the rate applied to the value of the area built and to the land value Therefore, the loss would not be offset by funds from financial compensations paid for each approved project and higher land use coefficients (above the basic coefficients) would be needed.

The compensations would be paid gradually, as new projects were launched in the real estate market. In other words, the devaluation of land and subsequent drop in property tax revenues would affect the total urban land supply in the city, while revenue increases would occur as a flow as project concessions were being approved. This could represent a loss of tax revenue for the city and the city government financial sector did not see this possibility favorably.

In reality the loss of tax revenue does not seem to have occurred. Although the market price may have suffered a slight decrease, this has not affect tax revenues because the property tax is

[7] Private ownership of land is a means of allocating the gains caused by production that enhances land value; is paid to the owner for its use. Production requires a "locus" where the work can be done. In turn, this requires a time or duration. In the case of the construction industry, land use occurs in absolute form. It is absolute not just because its occupation is necessary during the work process itself, but also because the work product remains on the land indefinitely. The nature of private ownership is that the payment to the owner of the created value is a necessity for maintaining the wealth accumulated by productive capital. Note that the 1947 Town and Country Planning Act in the U.K. also transferred development rights from private owners to the government.

calculated based on the Property Value Map, which is generally lower and sometimes much lower than the market price, especially when the housing market is hot. Thus, there is a margin that allows market prices to go down without affecting property tax revenues. In fact, land prices suffer considerable variations depending on the cycles of the real estate market. So price differences caused by reducing the coefficient of land use do not seem to have been noticed either by landowners or real estate developers, judging from some exploratory interviews with developers.

Interviews with Real Estate Developers

We conducted six exploratory interviews with real estate developers regarding the issues related to development concessions. Developers were very concerned about not divulging information to their competitors that would reveal their market strategy and/or expertise in developing real estate products. These interviews helped strengthen the perception that:

a) Prior to approval of the 2002 Strategic Master Plan companies exercised what they call "right of protocol." This means that they registered projects benefiting from prior FAR by obtaining a license from SEHAB, the Municipal Housing Secretary, before the coefficients were reduced. The work permit is valid for three years and projects can be modified within this time period if occupancy rates and coefficients of use are not changed. Developers had an inventory of projects with permits until 2005, the year that revenues from development concessions began to be recorded.

b) Land prices do not seem to have fallen as a result of the existence of development concessions. When the argument of development concessions was brought to the bargaining table, on the rare occasions when it was used between developers and landowners, it did not affect the final negotiated outcome. In other words, the seller never decreased the price demanded during negotiations because of the land use coefficient. Among those interviewed, there was no record of lower land prices due to a reduction of the coefficient of use. Moreover, it seems that the payment of development concessions did not affect the profitability of real estate firms. According to one businessman interviewed, "It does not compromise profitability; product error yes, it compromises that."

Since there is no over-the-counter price for land because each case is unique, the price of land will depend largely on the dynamics of demand and the climate of negotiation between parties. Since demand depends on what phase the real estate cycle is in at the time, an expansion phase in the cycle will determine a trend of rising prices. This may negate any price trend downward due to collection of development concessions. Another clear difficulty is the effect of development concession collections on the fall of land prices. In a large number of transactions between landowners and developers, the former not only would sell land but also sell the buildings constructed on it. It is difficult to determine what one or the other is worth. For the real estate

developers, the land counts and the existing building is another cost – that of demolition. For the owner, the house has a value that must be compensated in the final transaction price. In practice, this situation certainly casts a shadow that prevents more precise measurement of the effect the development concession has on land prices.

The Supply of Additional Building Area

The city of São Paulo Strategic Master Plan has established a maximum building area for both residential and nonresidential uses. For residential use, the Strategic Master Plan allows a total of nearly 7 million m2 (6,914, million m2) of additional construction area. By January 2010, 2,566,000 m2 had already been used, representing about 37 percent of the total stock. In the case of nonresidential areas, the Plan allows a total of 2,849 million additional m2. Of these, 363,000 m2 had been used by January 2010, or around 13 percent of the total. The building potential for both residential and nonresidential uses does not compute building potential under guidelines for the 13 Joint Urban Operations, but there is no doubt that the city is heading quickly toward depletion of building potential for residential purposes.

Concluding Remarks

The approval of a basic and a maximum land use coefficient in the 2002 Strategic Master Plan in São Paulo seems to have had a negative impact on prices for land that had lost building rights. By setting a maximum potential building supply, the municipality offered to real estate developers a quantitative estimate of supply depletion which seems to have caused an upward trend in land prices. This is due to accelerated demand in the process of "buy now before the supply runs out." In fact as we have noted, in January 2010 the supply of building potential for residential use had already been exhausted in 15 of the 93 Districts of the city of São Paulo. For nonresidential use it was exhausted in 5 Districts.

From 2005 to November 2009, the influx of financial compensation has increased with the collection of about R$420 million.

After the city of São Paulo approved the 2002 Strategic Master Plan, the principle of development concessions and buildable land was applied throughout its territory. If a real estate project exceeds the basic FAR and the developer wants to build up to a maximum of 4, it must pay financial compensation to the government.

Unlike property tax revenues that will continue to exist, in time the financial compensation from development concessions will fade when the additional building potential stipulated in the city of São Paulo Strategic Master Plan is exhausted. The flow of these financial resources will not be continuous. Moreover, as previously shown, in some sectors of the city the supply has already been depleted. In those areas the city has achieved its definitive profile in terms of building density. However, future changes in the Master Plan may provide greater building potential for

these areas. It all depends on technical recommendations and on the political conditions for the change to take place. In this case, the danger is that motivation to increase revenue collections may outweigh urban recommendations and infrastructure limitations, especially those of transportation and traffic.

The 2002 Strategic Master Plan also showed that through the principle of social function of property, urban legislation can clearly separate the right of ownership from the right to build. In this case the theory of all-encompassing acquired rights is not sustained. Private property rights cannot override the public interest or take precedence over the social function of property. Therefore, existing building rights can be reduced without landowners being entitled to monetary compensation simply because their hopes have been dashed.

References

Antenor, Nilza Maria Toledo. 2009. A Aplicação da Outorga Onerosa do Direito de Construir em São Paulo. Apresentação ppt. Porto Velho, Setembro.

Azevedo Neto, Domingos Theodoro de. 1994. *O jogo das interligadas. Uma política pública em avaliação: a Lei 10.109/86 do Município de São Paulo*. São Paulo: Dissertação de mestrado em Administração Pública apresentada à FGV/Escola de Administração de Empresas de São Paulo.

Biava, Adriano. 1986. *Contribuição de Melhoria (necessidade de inovação fiscal)*. São Paulo: IPE/USP.

De Ambrosis, Clementina. 1999. Recuperação da valorização imobiliária decorrente da urbanização. In: *O município no século XXI: cenários e perspectivas*. São Paulo: Fundação Prefeito Faria Lima – CEPAM
.

Jaramillo, Samuel. 2001. La Experiencia Colombiana en la Recuperación Estatal de los Incrementos del Precio del Suelo. La Contribución de Valorización y la Participación en Plusvalías. In Smolka, Martim and Fernanda Furtado (eds.) Recuperación de Plusvalías en América Latina: alternativas para el Desarrollo Urbano. Santiago, Lon Editores.

Rabello, Sonia de Castro. 2006. The concept of just compensation in urban real estate expropriations: social justice or unjust enrichment? Separata, *Revista Forense*. Rio de Janeiro. Vol. 388.

Sandroni, Paulo. 2000. La Operación Interligada West-Plaza: un Caso de Apropiación de Renta en la Ciudad de São Paulo. In, Iracheta, Alfonso Cenecorta, A.X. and Martim Smolka (Eds.), *Los Pobres de la Ciudad y la Tierra*, Mexico: El Colegio Mexiquense y Lincoln Institute of Land Policy, pp. 99 - 114.

São Paulo (Cidade). 2002. Plano Diretor Estratégico, Secretaria Municipal do Planejamento. São Paulo
.

Smolka, Martim and David Amborski. 2000. "*Captura de Plusvalias para el desarrollo urbano: una comparación interamericana*". Mimeo.