

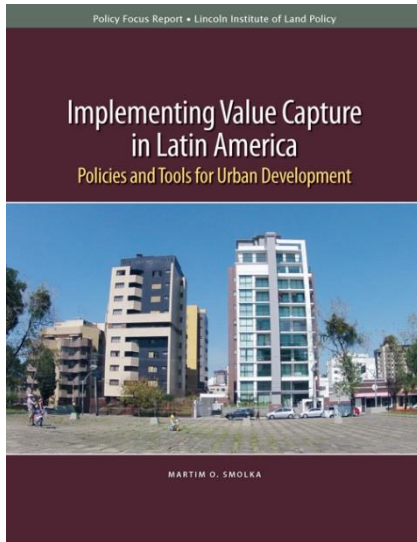
International Property Tax Institute &  
Centre for Urban Research and Land Development at Ryerson University

# Value Capture a Land Based Tool to Finance Urban Development

**Martim O. Smolka**

Toronto, February 2, 2015

# Value capture around the world! Some caveats!



Focus on the Latin American Experience

Admit ignorance on Canadian experience

- David to cover

Transportation applications?

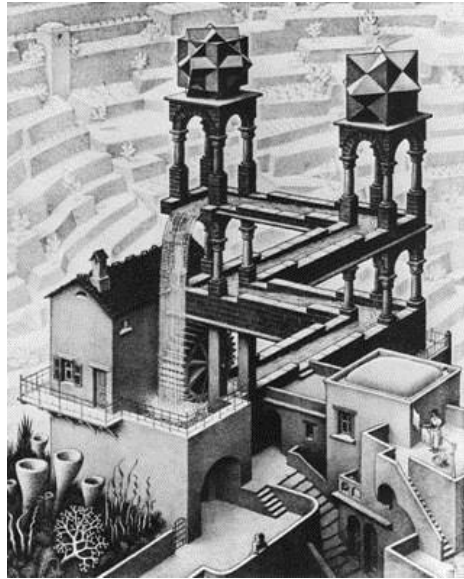
# Topics

## □ Antecedents

- Value capture not new and done in practically all countries/jurisdictions - often unnoticed;
- Justification/purpose - a no brainer?
- Recent popularization

## □ The menu of instruments: commentaries

## □ Some notable and effective experiences



# Definition of value capture

*Value capture refers to the recovery by the public of the land value increments (unearned income or plusvalías) generated by actions other than the landowner's direct investments.*

Increments resulting from the landowners efforts are rather the exception to the rule...



# Value capture

## longstanding presence

## in legal and planning agenda

### □ Not new - historical precedents

- Filipines & Manuelines Ordinances of 16<sup>th</sup> century
- 1791 Arch. [Mangin's proposal](#) - to reform Paris (then Haussmann)
- More recent in UK, Germany, France, Japan, Spain, US ... Canada?
- Precedents in Latin America
  - Bridge of the Commons Bogota 1809
  - 1909 Sao Paulo pavement fee (idem Chile 1927/1953)
  - Honduras since 1940, Guatemala 1956...
  - All countries some proviso
- UN-Habitat - [Vancouver declaration of 1976](#)



El Puente del Común, en Bogotá, Colombia, fue construido en 1809 utilizando una forma de contribución de mejoras.  
© kamilokardona/wikimedia commons

# Why Value Capture?

## Efficiency

- Marginal benefit to individual plots covering full marginal cost imposed to whole city.
- Thus broad acceptability incl. among economists

Nobel prized

## Equity

- Some landowners benefit more than others from public intervention
- Survey of landowners in LAC

## Sustainability

- Managing urban development with the resulting land value appreciation ...
- No brainer - ref Shoup

## Pragmatic

- Generate needed local revenues - high potential
- Relevance when gauged against local investment capacity

Not necessarily to raise revenues

# Urbanization generates strong windfalls (especially in third world countries)

Urban multiplier

- Typically over 400% when rural land is converted to urban uses (Mayo et alii 1996, Bouillon 2013)

Land development  
mark-up

- Fully serviced land
- Fully serviced land (Bouillon et alii 2012)

Valorization from  
public investment

- Ica Ucayali (Lima) investment of S/9.5KK => land value S/94.5 KK (2011/13) - source new ordinance project.

Value

- Developers bidding over US\$500/m<sup>2</sup> for additional FARs ref. OUFL in SP (Sandroni 2012)

Expectations on new  
urbanization project

- \$/M<sup>2</sup> > 8x from 5/1992 to 11/1993 - Ciudadela Desepaz (Cali, Co) by virtue of public announcements of to happen in the area. (Bonilla, 1997)

None of these increments accruing to landowners resulted from their efforts

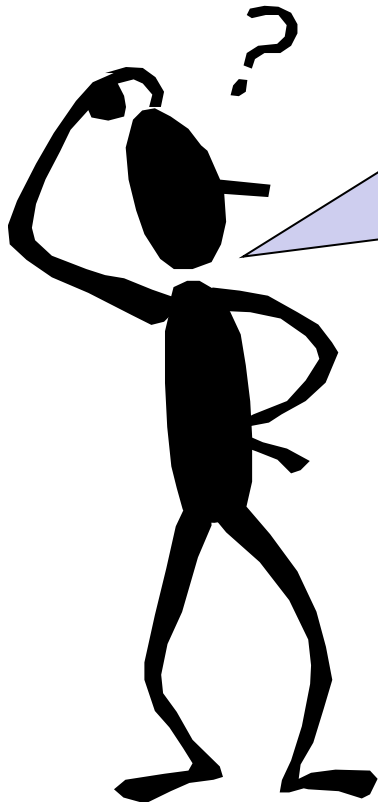
## Effects of Administrative Land Use Changes on Land Prices (Stylized Facts)

Type of Land Use Change	Price before Change (US\$/m <sup>2</sup> )	Increment (%)	Price after Change (US\$/m <sup>2</sup> )	Windfall on 5,000 m <sup>2</sup> (US\$)
Rural to Urban Conversion	2	400	10	40,000
Building Norms	100	80	180	400,000
Zoning Regulations	200	100	400	1,000,000

Source: Prepared by the author.



# Value Capture a 'no brainer'?



*Why is it so hard to finance the public infrastructure that increases the value of serviced land by much more than the cost of the infrastructure itself?*

(Shoup 1994 p. 236 236)

*Underinvestment anomaly*



**Absolute increment in land price (US\$/m<sup>2</sup>)  
 due to access to infrastructure and distance to center<sup>1</sup>  
 vs. Urbanization Costs (US\$ per 1000 m<sup>2</sup> usable area)<sup>2</sup>**

Access to additional service	Distance to center, km			<u>Investment Cost</u>
	5-10	15-20	25-30	
<b>+ Water</b>	<b>11.1</b>	<b>5.1</b>	<b>3.2</b>	<b>1.02</b>
<b>+ Paving</b>	<b>9.1</b>	<b>4.8</b>	<b>3.4</b>	<b>2.58</b>
<b>+ Plumbing</b>	<b>8.5</b>	<b>1.8</b>	<b>0.3</b>	<b>3.03</b>

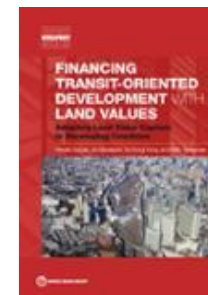
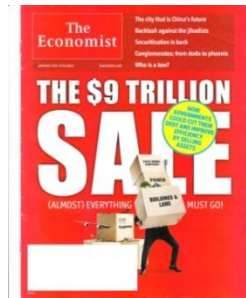
Source:

1 - M.V. Serra, D. Dowall e D.M. da Motta – Analise do Mercado de solo urbano em Metropoles do Brasil – a RM do Recife - Agosto de 2003 – pg 65, World Bank, Cities Alliance, IPEA, and FIDEM

2 - Avaliação de Glebas. REVISTA CONSTRUÇÃO (2001) em Fev de 2001 - 1US\$ = R\$1.987

# Growing popularization

- ❑ Explicit in new national urban development laws
  - Colombia (1997), Brazil (2001), => Ec, Uy, Arg etc.
  - **Unjustified enrichment with no cause**
  - § in most Constitutions
- ❑ Multilateral agencies
  - WB, IADB, UN-Habitat
- ❑ Media
  - Economist, Financial times etc.
- ❑ Recent books - Value capture to transport investments
  - E.g. Suzuki et alli, Mathur



# Value capture tools - like Pasta! an ample menu of possibilities



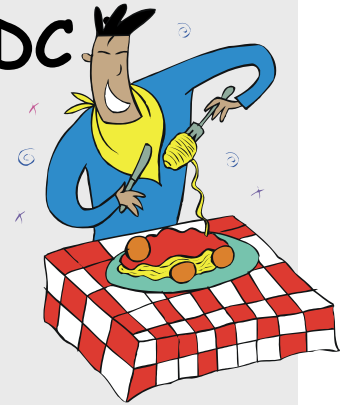
# Sample of alternative LAC instruments

Type	Instrument	Illustration	Commentary
Taxes	Land Value Tax	Mexicali, Mexico	Charge exclusively on land as opposed to buildings (thus incentivized)
	Temporary property tax rate increase	Buenos Aires subway, Argentina	Benefits to all citizens!
Fees	Betterment Contributions	Bogota over \$1 billion (since 1921)	Up top cost or share of lvi Virtually in all countries
	Linkage fees	Many cities in Brazil in the 90's	Charges to additional building rights - over and above existing maximums
Regulatory	Certificates of building potential rights (CEPACs)	Agua Espraiada & Faria Lima Ave in SP; Green Line, Curitiba; Porto Maravilha, RJ	Auctioning in the open market - anticipatory, Urban Operations
	Exactions	Impacto Vial in Guatemala	Charges sharing of land value increment resulting from administrative act
Partnerships	Land readjustment	Simesa project in Medellin Colombia	Recovery of urbanization costs through sales and redistribution of benefitted land
	Urban operations	Puerto Madero in Buenos Aires, Argentina	Partnerships, to supersede regulations in large scale redevelopment projects
Others	Transfer of Development Rights	<a href="#">3rd Perimetral Avenue in Porto Alegre, Br</a>	Building rights as currency to acquire land from frontage properties to new avenue
	Public land procurement	Nuevo USME Operation, Bogota Colombia	Public acquisition of land at prices before the announcement



# Value capture tools - Other regions

1. Land value increment tax - Korea, Taiwan
2. Impact and development charges and fees, US
3. Charges to building rights- PLD France (OODC
4. Urban Operations, ZACs etc
5. Land leasing (public) - Hong King, R'dam
6. Tax Increment Financing - TIF
7. Special districts - BIDs
8. Land Banks - Territorial reserves (Mex)
9. Expropriations
10. Preemption rights



## 'Common' among instruments

Generating fact: land value increment  
(current, past or future)

Associated to immediate urban  
benefit

Payment not always in money

Ad-hoc, not permanent

Objectives not necessarily to raise revenues

# Incidence of value capture

Incidence		Illustration	
		Instrument	Jurisdiction
Land uses	Existing	Progressive tax on idle land	Many cities in Brazil
	New ones	Participation in Plusvalias	Colombia, Co
Project/s or plot/s	Single	Charges on building rights (OODC)	Sao Paulo, Brazil
	Multiple	Office of the Historian revolving fund	Cuba
Payment	Voluntary	Publicly owned land	Puerto Madero, Ar
	Negotiated	Declaratory of Priority development	Bogota, Co



# Financing Alternatives

## One size DOES NOT fit all!

Infra structure	Land Use	
	Existing	New
Existing	Property Tax	OODC (charge on building rights)
New	Betterment Contribution	Land Readjustment

# Some notable experiences

- Betterment Contribution
  - Colombia
  - Ecuador (Cuenca)
- Charges on Building rights in Brazil
  - OODC
  - CEPACs

# Betterment Contribution in the municipality of Cuenca, Ecuador

## Regularity

- Last 10 years 1,800 public works projects

## Revenues

- US\$200 p/capita (> Bogotá's US\$150)
- ~ US\$106 M=> paving 270 km of roads.

## Performance

- 90% of households - paying < 4 years,
- 95% of projects collecting 60% in BC
- only 3% noncompliant contributors.

# Antecedents/landmarks for OODC

1976

- Solo Criado French - 'Plafond Legal de Densite'

1980's

- Linkage Operations

SP - \$150 million 1988/1998  
15,000 social housings

1990's

- Urban Operations

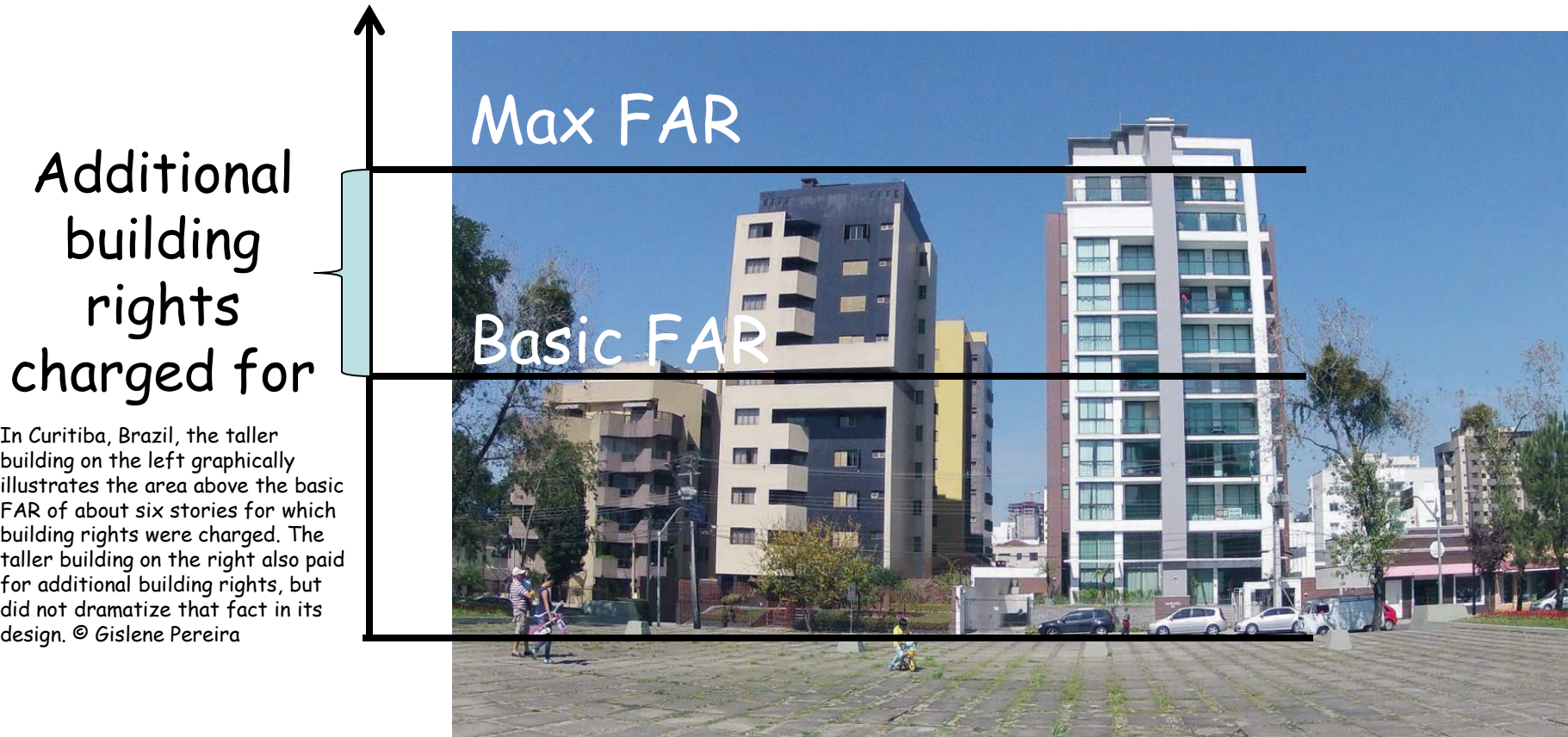
1988

- Brazilian New Constitution
- Articles 182 and 183

2001

- The 'City Statute' - land development act
- Selling of Building Rights - OODC

# Charge for building rights



In Curitiba, Brazil, the taller building on the left graphically illustrates the area above the basic FAR of about six stories for which building rights were charged. The taller building on the right also paid for additional building rights, but did not dramatize that fact in its design. © Gislene Pereira

Note:  
The City of São Paulo recently reduced all basic FAR to = 1!

City of São Paulo = About \$762 million, since 2004  
(US\$130 million in 2013)

# What are CEPACs?

Certificates of Additional Development Potential

A bond issued by the Municipality - yet not implying in public debt - ref. legal issues

Sold by electronic auction in the São Paulo Stock Exchange Market and controlled by CVM (=SEC)

Created in 1995, sanctioned by the 'City Statute' (Brazilian Land Development Act) of 2001

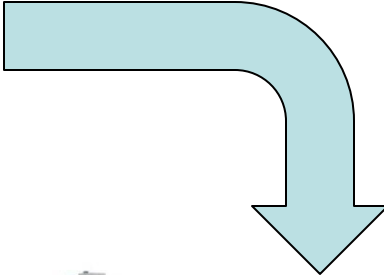
# CEPACs - overview

- ❑ Innovative instrument of Value Capture
- ❑ Applied in [Urban Operations \(UOs\)](#)
- ❑ CEPACs is a Bond used to acquire
  - Additional building rights
  - Changes in land uses
- ❑ In SP, 2004/12, in 2 major UOs
  - Faria Lima and Agua Espraiada
  - Over \$2,5 Billions of revenues
  - Ref: 22.5% of Property Taxes
- ❑ Other applications in [Rio](#), [Curitiba](#) etc.

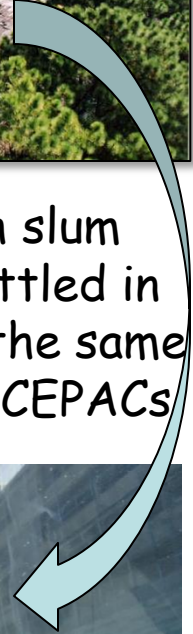
# Notable cases: CEPACs in S. Paulo



Additional FARs licensed  
against CEPACs auctioned  
in the market



Jardim Edith slum  
occupants resettled in  
new building in the same  
area funded by CEPACs



From : Paulo Sandroni "Certificados de Potencial Adicional de Construcción (CEPAC) en la financiación de grandes proyectos de desarrollo urbano: El caso de São Paulo" Presentación in the Forum on Notable tools of Urban Policy - Quito May 2013.



# Lessons from LAC experience

## Revenues

- Still short of potential - yet relevant if compared to enhancement of local investment capacity;

## Successes

- Associated to spin given to address local needs (rather than direct emulation)

## Resistance

- The 4 I's (Ideology, Interest, Inertia and ... Ignorance)



Martim Oscar Smolka

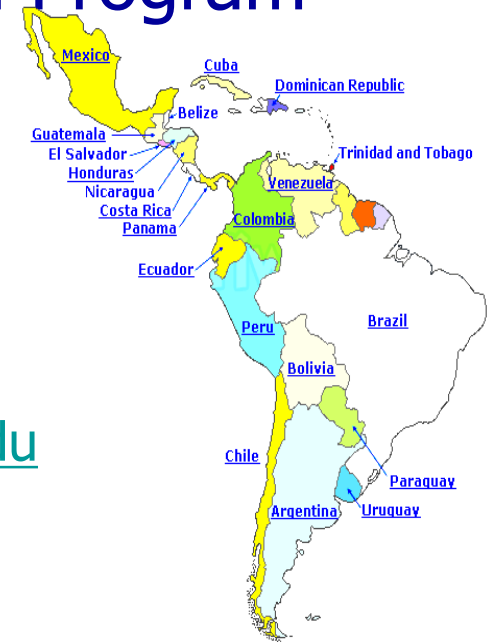


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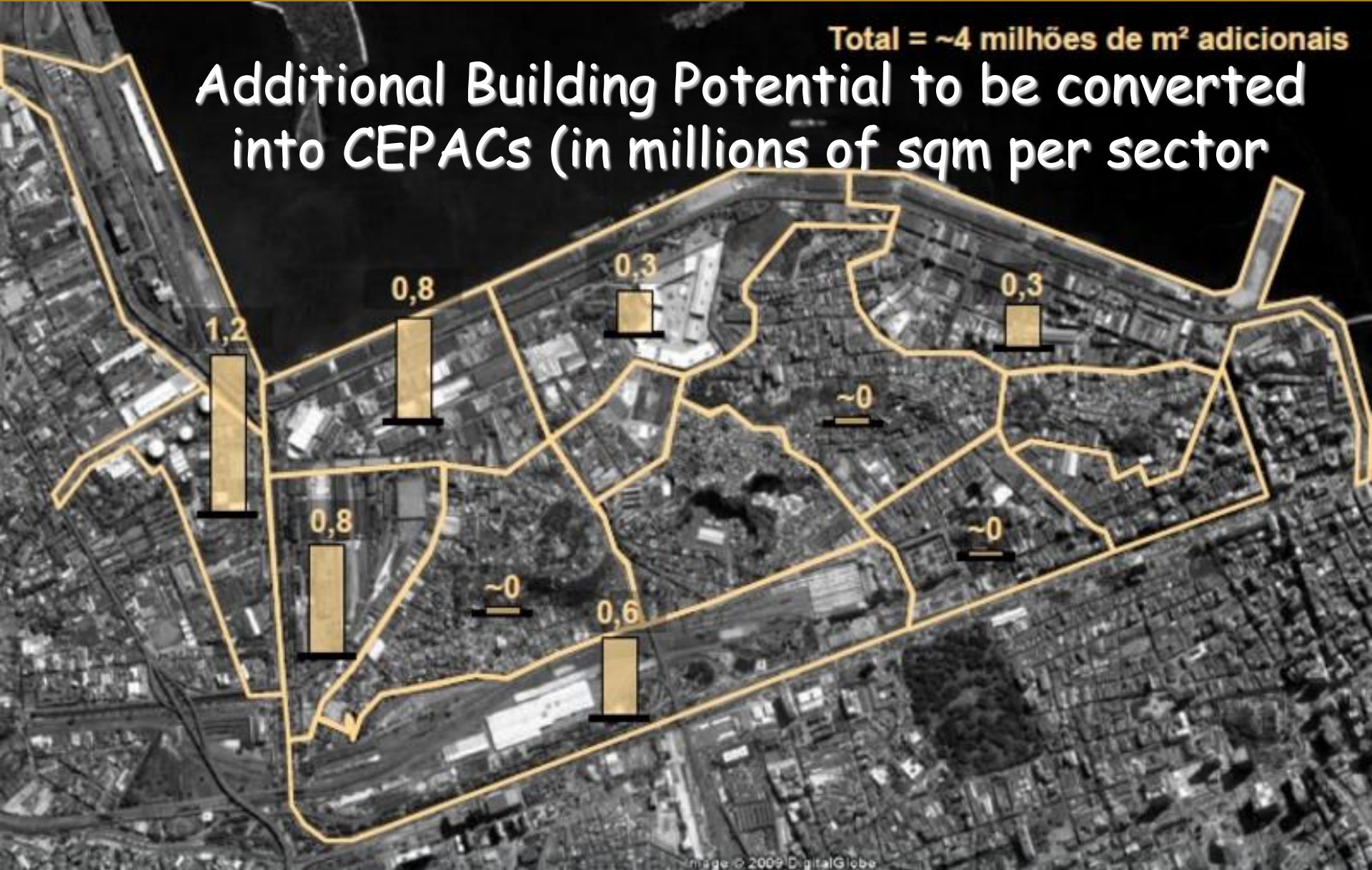
Tool	Incidence	Context	Process for Capturing Value	Advantages	Cautions	Pre-Existing Capacity
Procurement	ESC	Land needed for new public projects, such as low-income housing	Confiscation of changes in land value from prior use	Public investments made prior to development	Arbitrary decisions from unprepared courts	Legitimate public utilities to participate in the process
Property or Land Value Tax	EMC	Properties benefiting from citywide improvements	Rate imposed on land value component	Universality and regularity	Land vs. building component of property value	Continuous updating of value maps and cadastres
Exactions	NSV	Public concessions on new developments	In-kind or monetary compensation	Flexibility allowing for unanticipated developments	Manipulation or stakeholder influence	Access to information about private gains and public impacts
Betterment Contribution	EMC	Provision of local public works	Cost recovery or sharing	Beneficiaries invest in the project	Accurate assessment of potential benefits	Capacity of beneficiaries to participate and pay
Transfer of Development Rights	ESC	Public interest in designated property	Compensation with rights given in other properties	Building rights used as currency to fund public projects	Accuracy of conversion rates for development rights	Availability of building rights in the transfer areas
Land Readjustment	NMV	Urbanization of a new area or reconfiguring of existing parcels	of shares in the redeveloped land	Funding of new urban infrastructure	Obstructions from unwilling landowners	Power to negotiate with all affected participants
Charges for Building Rights	NSC	Single building license	Land assessment techniques	Compensation to the public for existing infrastructure	Allegations of acquired rights	Land monitoring and cadastral systems
CEPACs	NMC	New or redeveloped projects with broader urban impacts	Public auction	Transparency and accuracy in transactions and assessments	Market volatility; gentrification	Public credibility and capacity for financial management

Porto Maravilha, Rio de Janeiro - *Illustrative image old harbour : US\$ 4 billions project*



Total = ~4 milhões de m<sup>2</sup> adicionais

# Additional Building Potential to be converted into CEPACs (in millions of sqm per sector)



# Rio de Janeiro Porto

## Maravilha revitalization project

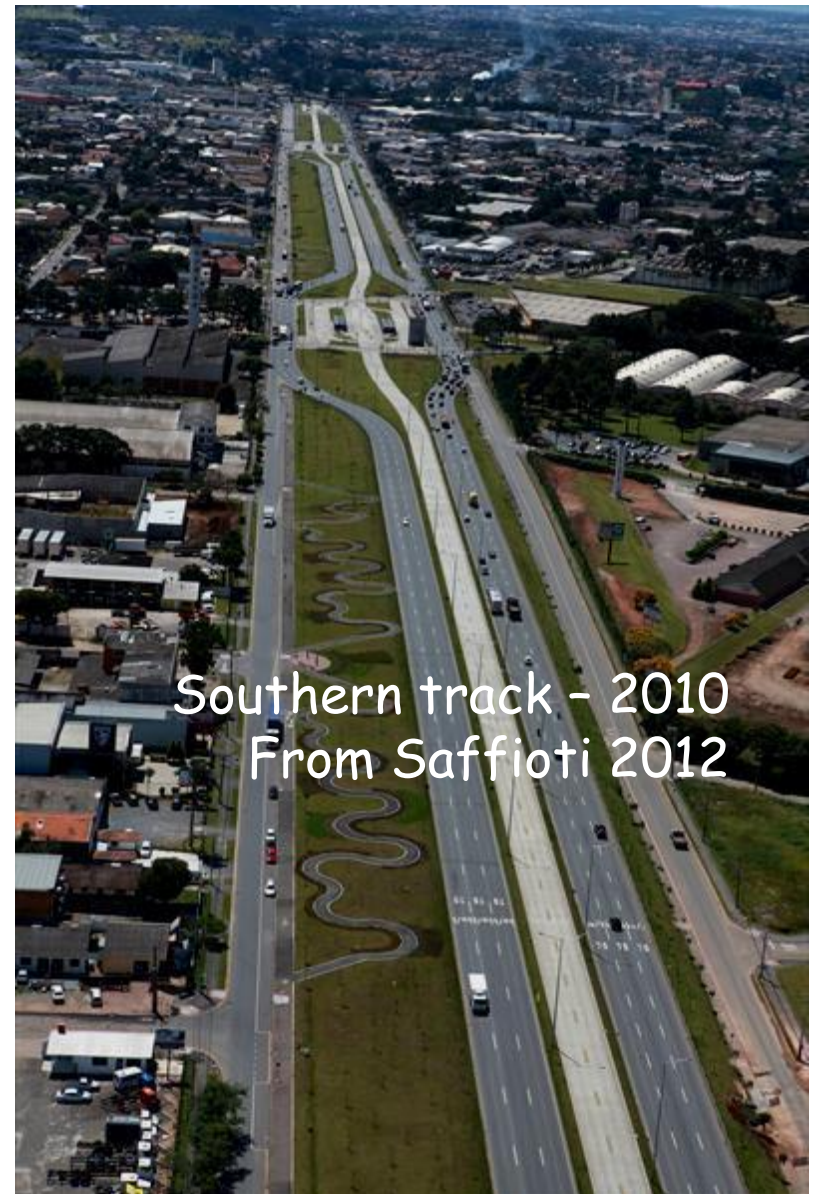
- ❑ Single buyer/bidder in 6/13/2011
  - the Real Estate Development Fund Porto Maravilha) created by CEF - pension funds (FGTS).
- ❑ 6,436,722 CEPACs for 4,089,502 sqm of additional building rights
- ❑ Paid \$1.75 Billion to the Mayor's office of Rio.
  - US\$271 per CEPACs
- ❑ In 10/22/2012 CEF offered 100.000 CEPACs
  - Revenues of US\$15 million from sale of 26.086, at min price of US\$ 575 each
- ❑ Appretiation of 112%



# Curitiba Linha Verde

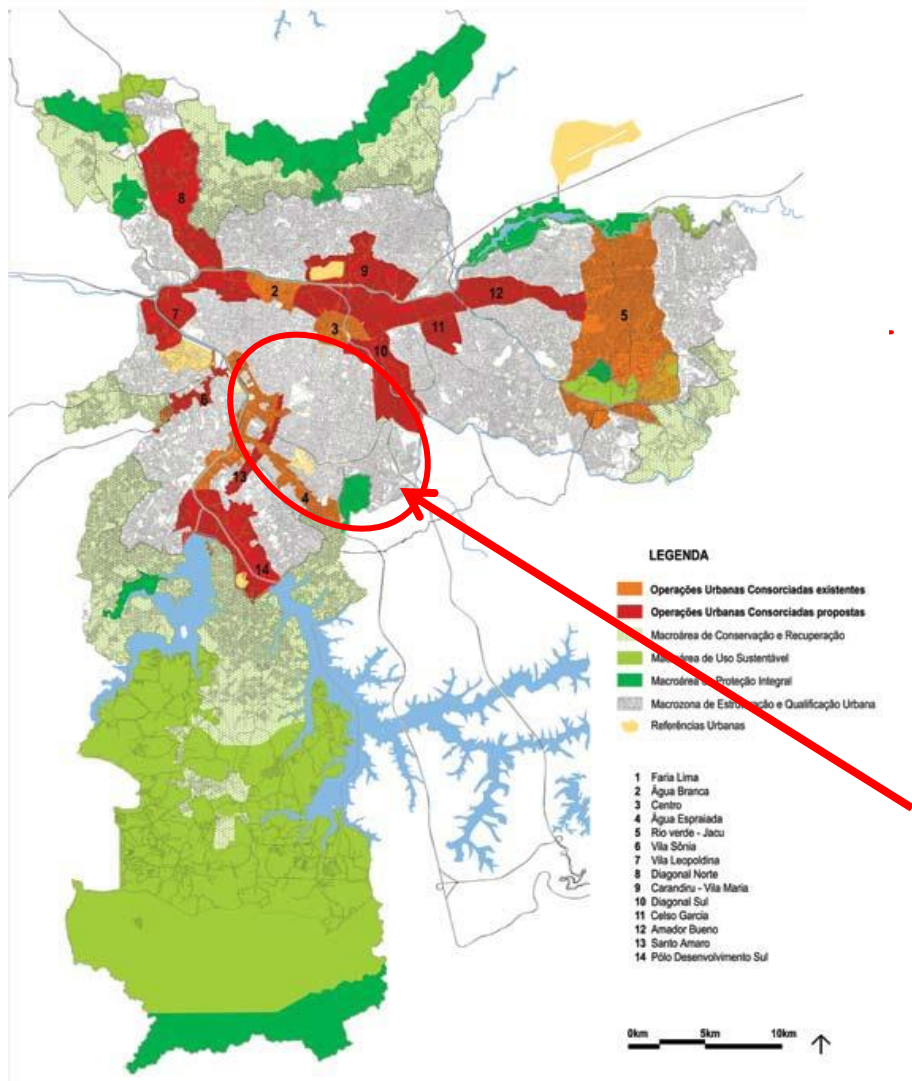
- Linha Verde = conversion Highway BR116 into an urban avenue
  - City expansion and cutting across 22 neighborhoods of the city.
  - The project includes the extension of a BRT line, opening green areas and higher density land uses.
- \$600 million investment
- 4,830,000 CEPACs at initial price of \$100,-
  - Municipal - Decree 134 of 26/01/2012
- June 2012 first auction in SP Bovespa
  - 18 bidders to 141.588 bonds in offer.
  - A group of 3 bidders - ref shopping center acquired 70% of the CEPACs
  - Expected \$30 million, but only \$14.2 million - CEPACs at \$100! minimum legal
  - \$100 = estimated market value by a private consultant - feasibility study

# Linha Verde

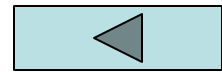




# Urban Operations (UOs) in São paulo



- 13 on-going UOs in São Paulo
  - 4 from 1990 to 2002
  - 5 currently functioning (103 Km<sup>2</sup>)
  - 8 proposed Master Plan of 2002 yet to be approved (200 Km<sup>2</sup>)
- .20% of city area (300/1,500Km<sup>2</sup>) or 30% of urbanized area
- CEPACs used in 2 of them
  - Faria Lima and
  - Água Espraiada



Most recent (new): Água Branca UO

Source: "Land Readjustment and Joint Urban Operations", Montandon, Daniel T. and De Sousa, Felipe F. Romano Guerra Editora, São Paulo, 2007

# III Perimetral Ave in Porto Alegre



132,000 m<sup>2</sup> acquired  
w/TDR as currency



Funding	Mun + IDB
Execution cost	U\$ 53.0 millions
Land acquisition	U\$20.0 millions
Consensual public acquisition	US\$ 3.2 millions
Contested acquisition	US\$ 4.0 millions
Acquired w/TDRs (65% of the total)	US\$ 9.8 millions

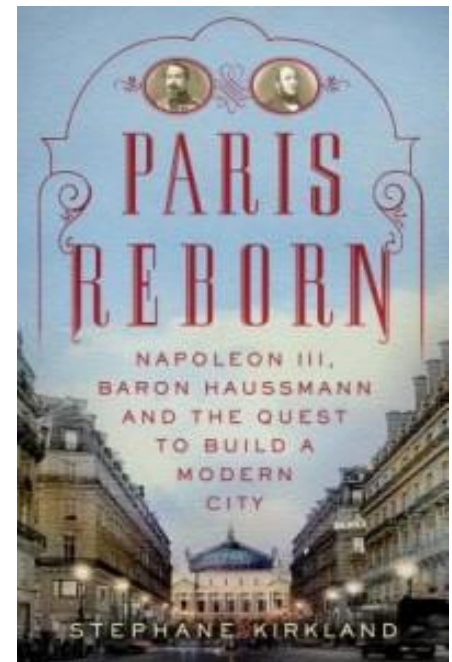
Source: UZON, Néia. *Uso de la transferencia del potencial constructivo para la adquisición de inmuebles: la experiencia de Porto Alegre.*



# The Haussmann System

- ❑ Sell back the land expropriated at the value warranted for lots along newly created avenues
- ❑ Financial benefits were limited by high expropriation costs - determined by a jury of property owners - at skyrocket prices
- ❑ How did you make your fortune? ... I was expropriated
- ❑ => only 20% total costs were offset

Source: Kirkland, Stephane, "*Paris Reborn: Napoléon III, Baron Haussmann, and the Quest to Build a Modern City*" St. Martin's Press, NY 2013, pg 138



# 1791, Architect Charles Mangin's

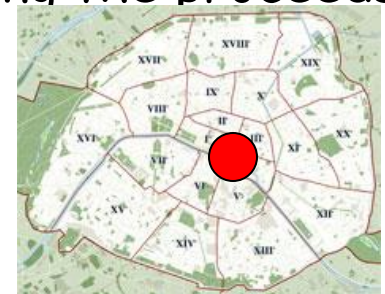
Proposal submitted to the Nat'l Assembly to reform Paris:

*The acquisition and resale of houses and land would yield a continuous profit that could be gathered in a fund for the improvement of Paris and used to pay for the squares and public monuments in the proposed plan.*



**Hausmann strongly influenced by Mangin.**

Build a new square where the place du Chatelet stands today and then publically redevelop all of central Paris piece by piece, using the proceeds from previous development.



Source: Charles Mangin, "Expose et analyse du plan et projet présenté à l'Assemblée nationale avec les moyens d'en opérer l'exécution" Paris 1791, pp10- 11 . Cited in Kirkland, Stephane, "*Paris Reborn: Napoléon III, Baron Haussmann, and the Quest to Build a Modern City*" St. Martin's Press, NY 2013, pg 138





Financial Times - January 23, 2015 2:45 pm

## **Why Britain's 'broken' planning system means local people miss out**

By Anna Minton

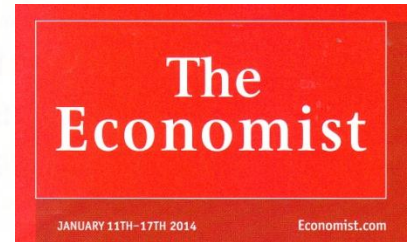
Why speculators are benefiting from rising land values instead of local communities as was originally intended

<http://www.ft.com/intl/cms/s/2/0f72b534-9ccb-11e4-971b-00144feabdc0.html#axzz3PkTldas>

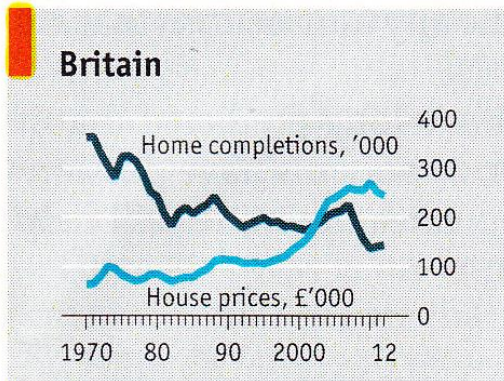


Britain's planning laws

# An Englishman's home

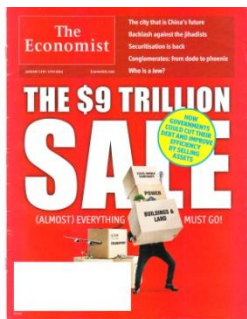


The shortage of housing is a gathering national crisis. Rev up the bulldozers



NOW that the economy is at current coalitio  
last growing again, the local democra

Local governments, which are short of cash these days, could be allowed to charge developers much more. But the ideal solution would be a tax on the value of land. This would be low or zero for agricultural land and would jump as soon as permission to build is granted. It would prod builders to get to work quickly. It would also help to capture the gains in house prices that result from investment in transport or schools.



The Economist, January 11<sup>th</sup> 2014, pg 12



## Vancouver Declaration (UN-Habitat 1976) Recommendation D3.b:

*The unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision, or due to general growth of the community must be subject to appropriate recapture by public bodies (the community), unless the situation calls for other additional measures such as new patterns of ownership, the general acquisition of land by public bodies.*



The Report of Habitat:  
United Nations Conference on Human Settlements,  
Vancouver, Canada, May 31-June 11, 1976;  
Declaration of Principles, in its section II, Item 10.

# Recent books

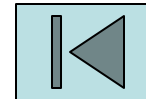
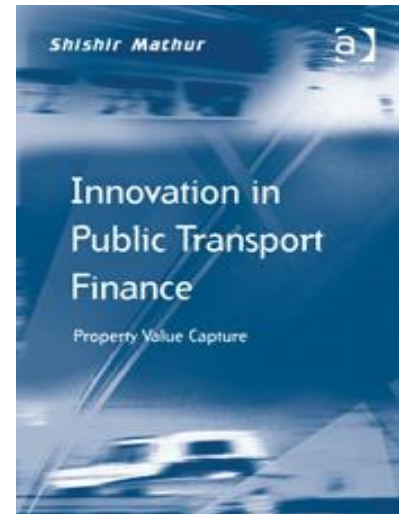


"Suzuki, Hiroaki; Murakami, Jin; Hong, Yu-Hung; Tamayose, Beth. 2015. **Financing Transit-Oriented Development with Land Values : Adapting Land Value Capture in Developing Countries**. Washington, DC: World Bank. © World Bank.

<https://openknowledge.worldbank.org/handle/10986/21286>  
License: CC BY 3.0 IGO."

Mathur, Shishir, 2014-5 **Innovation in Public Transport Finance: Property Value Capture**, Ashgate Publishing Limited, United Kingdom, 228 p

<http://www.ashgate.com/isbn/9781409462606>





# Taxing land value

## Consensus among Nobel prized economists!

Paul Samuelson  
(1970)

- *Pure land rent is in the nature of a 'surplus' which can be taxed heavily without distorting production incentives or efficiency.*

James Tobin  
(1981)

- *I think in principle it's a good idea to tax unimproved land, and particularly capital gains (windfalls) on it*

Franco Modigliani  
(1985)

- *It is important that the rent of land be retained as a source of government revenue.*

James Buchanan  
(1986)

- *The landowner who withdraws land from productive use to a purely private use should be required to pay higher, not lower, taxes.*

Robert Solow  
(1987)

- *For efficiency, for adequate revenue and for justice, every user of land should be required to make an annual payment to the local government equal to the current rental value of the land ...*

William Vickrey  
(1996)

- *Applying a tax to land values also means removing other taxes. This would so improve the efficiency of a city that land values would go up more than the increase in taxes on land."*

Joseph Stiglitz,  
(2001)

- *... using land rents as the basis of taxation is an argument that I think makes an awful lot of sense because it is a non-distortionary source of income and wealth*





# Alejo Carpentier

(1904-1980)

***Two mechanisms move the world: sex and 'plusvalías'***

↳ Surplus-value

Cuban novelist, essayist and musicologist - with heavy in the development of Latin-American literature – one of the most important writers of the XX century

Winner of the Cervantes Prize in 1977



# Agua Branca - Urban Operation

- ❑ 1989 - 1.2 million of m<sup>2</sup> of (cautionary) additional building area proposed - later (optimist) increase to 1.8 million m<sup>2</sup>
- ❑ 2015 - 2.190.000 CEPACs divided as
  - 1.605.000 - residential w/ initial price at ~\$600/CEPAC
  - 585.000 non residential w/ initial price at ~\$700/CEPAC
- ❑ Potentially over \$1,4 Billion! revenues depending on bids
- ❑ Area under deep transformations
- ❑ Property market declining with economic recession - Negative GDP for 2015!



# OPERATION

# The 'mechanics' of CEPACs – 1

- ❑ Total amount of CEPACs in an UO is predetermined
  - According to what present and future infrastructure can support
- ❑ Possible uses of CEPACs
  - Mainly additional FAR
  - But also to change land uses, footprint, etc
  - To pay contractors if they accept
- ❑ Variations of m<sup>2</sup> per CEPAC in different areas compensate for land value differences
  - e.g. from .8m<sup>2</sup> to 2.8m<sup>2</sup> in OUFL - [see map](#)
- ❑ Once the stock of buildable m<sup>2</sup> in a sector is exhausted undeveloped lot in the area can no longer use CEPACs
  - Developer better link ones CEPACS immediately to the lot

# The 'mechanics' of CEPACs – 2

- ❑ Private and public auctions
  - Public - to acquire development rights
  - Private - as a 'currency' to pay contractors
- ❑ Face value
  - Realized value from previous auction
  - (Note: exception for outlier in 2008!)
- ❑ Revenues in excess can be invested in financial market
  - Up to 2013 => financial revenues of \$300,000,000
- ❑ Specific uses for revenues

# Auctions of CEPACs

- ❑ CEPACs issued by EMURB (the urban development agency) for the Municipality
  - EMURB also responsible for management and information on investment program for the UO
- ❑ Fiscalizations by CEF (a social federal bank)
- ❑ Each auction linked to defined investments
  - Infrastructure, social housing etc
- ❑ CVM (Brazilian equivalent to SEC)
  - Authorizes auctions in the Stock Market
  - Registers UO to which CEPACs are linked
  - Is informed of any initiative to change the Master Plan

# Auctions highlights

- Offered values per CEPACs ranged:
  - In Faria Lima UO - US\$550- in 2004 up to US\$2,100- in 2010
  - In Agua Espraiada UO - from US\$172.- in 2004 up to US\$636.- last one in 2012
- Ratio of # of CEPACs offered and effectively sold
  - In 8 out of the 15 auctions total amount of CEPACs offered were entirely sold
- Premiums in 9/15 auctions



## Public and Private Auctions of CEPACs in Faria Lima UO, São Paulo, 2004–2010

	Year and Type	# CEPACs Offered	# CEPACs Sold	Price (US\$)	Income (US\$)
2004	Public	90,000	9,091	550	5,000,050
	Private	na	24,991	550	13,745,050
2005	Public	0			
	Private	na	9,778	550	5,377,900
2006	Public	10,000	2,729	550	1,500,950
	Private	na	6,241	550	3,432,550
2007	Public	156,730	156,730	620	97,172,600
	Private	na	72,942	620	45,224,040
2008	Public	83,788	83,788	769	64,432,972
	Private	na	2,500	863	2,156,250
2009	Public	100,000	55,612	850	47,270,200
	Public	30,000	1,521	858	1,304,258
	Public	120,000	120,000	2,100	252,000,000
2010	Public	92,151	92,151	2,000	184,302,000
	<b>Total</b>	<b>682,669</b>	<b>638,074</b>		<b>722,918,820</b>

Source: Sandroni (2012).

## CEPACs Authorized for the Agua Espraiada UO, São Paulo, (through January 31, 2013)

Authorized distributions by CVM	CEPACs	US\$	US\$ per CEPAC (average)
14/7/2004	299,368	51,404,360	172
10/1/2007	317,781	65,304,996	206
23/12/2008	186,740	103,640,520	555
5/9/2008	1,099,880	386,461,945	351
9/2/2012	1,360,338	865,676,658	636
<b>Total</b>	<b>3,263,907</b>	<b>1,447,488,659</b>	<b>443</b>
Private Offers	127,092	25,664,266	202
<b>Grand Total</b>	<b>3,390,999</b>	<b>1,473,152,925</b>	<b>434</b>
Used for a License / Completed Projects	-2,333,897		
Remaining in Circulation	1,057,102		
<b>Total CEPACs</b>	<b>3,750,000</b>		
Balance	359,001		

Source: Municipality of São Paulo,  
Secretariat of Urban Development

# Auctions: explaining volatility

(variable results over the 20 auctions)

- ❑ Pre-existing building/development rights charges
  - CEPACs implied in >350% raise of \$/m<sup>2</sup>
- ❑ Real estate business cycle
  - e.g. 2004 and economic crisis in late 2008
- ❑ Ratio of stock of CEPACs in private hands to actual use
- ❑ Political instability - changes in public administrations
  - Uncertainty w.r.to continuity of tool
- ❑ Irrational(?) speculative behavior by private agents
  - Developer paid 140% overprice only to observe price dropping 50% in a subsequent auction!

# EVALUATION

# Risks with CEPACs – 1

- ❑ Prices may float as with any other bond
  - Real estate market
  - Systemic - financial market
- ❑ Public transferring development rights to the buyer
  - No financial claims against the public administration
  - No public liability (due compensations to private) with fall in land prices or exhaustion of buildable m<sup>2</sup> in a given sector
- ❑ Legal injunctions affecting the UO
  - E.g. non-removal of slums - (Jardim Edith ZEIS)

## Risks with CEPACs – 2

- ❑ Changes in supra municipality conditions
  - E.g. new environmental restrictions affecting the UO
  - In Rio no land use plan approved by City Council!
- ❑ Timing of auctions at public adm. Discretion
  - Eager developers may depend on secondary market
- ❑ No guarantee of public expenditures in items auction linked to
  - If given auction does not generate sufficient revenues

# Advantages of CEPACs

- ❑ Auction overcomes need for calculation of land value increment
- ❑ Anticipation of funds for public administration to invest - economies with urban infrastructure and services
- ❑ Selling by 'tranches' - allows monitoring and fine calibration of the market
- ❑ Earmarked - confidence of developers

# Benefits

- City benefitting from investments in UOs
  - E.g. Stayed Bridge and access to Imigrantes highway
  - Social inclusion
    - ZEIS in Jardim Edith
    - In neighborhood relocation of slums dwellers
- Establishing a culture of value capture
  - Citizen pedagogy regarding unearned LVI
- New revenues
  - Release of public revenues for other uses



# Problems with existing instruments

- ❑ Minimum of 50%
  - Negotiations above
- ❑ Calculation of the benefit
  - The actual value of the additional building rights - (otherwise land value increment)
- ❑ Form of payment
  - in works (infra) or social housing elsewhere
- ❑ Timing
  - Infrastructure tied to developers projects

# Criticisms

- ❑ Support from a relative sophisticated capital market
  - credibility of the bonds - access and disposal.
  - limited use in less developed areas;
- ❑ Two cases FL and AE: cherry of the cake
  - Other UOs not so attractive to investors
- ❑ In UO FL revenues in excess with no major investment pending
  - May generate wasteful/superfluous expenditures
  - Ref Ponte Estaiada (needed ...but, could be cheaper)

# Criticisms

- ❑ Its 'preferential option' for high-end projects.
  - In low-income housing and areas .
    - lower payment capacity on the one side and
    - perceived negative externalities on the other may draw building rights bids below the public investment threshold costs.
    - need to add a subsidy for the low-income housing => noises in the auction process;
- ❑ gentrifying UO likely to be more successfully
  - intra-urban differentiation and with that social segregation.
  - The acid test: UO precedes CEPACs or opportunity to use CEPACs define UO

# Conclusion

- CEPACs - an evolving, ingenious and effective tool
  - Learning by doing
  - Overcome problems with previous tools
  - Growing effectiveness
  - Generate non-trivial revenues
- Not the silver bullet - relevance to well-defined and specific situations
  - Requires sophisticated financial and planning institutions
- Handle with care when attempting replication