Global practices to raise capital through LVC

Comprehensive Financial Solutions for City Resilience Conference

Domingos Pires
Case Study 1: São Paulo
P3urb
November 2017
Outline

1. São Paulo overview
2. Does it work?
3. Which value?
4. How to do it?
5. The key to do it
6. Who are the stakeholders?
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São Paulo

- Campinas
- Ribeirão Preto
- Belo Horizonte
- Brasília
- Rio de Janeiro
- Mato Grosso
- SP countryside
- Paraná
- SP countryside
- Curitiba
- MERCOSUL
If the city of São Paulo were a country, it would be...

- The 37th largest GDP in the world, larger than:
  - Finland
  - Malaysia
  - Singapore
  - Hong Kong
  - Chile
  - Peru
  - New Zealand
  - Kuwait

- The 74th most populated country in the world, larger than:
  - Cuba
  - Belgium
  - Bolivia
  - Sweden
  - Austria
  - United Arab Emirates
Statistics

- **São Paulo City**
  - Population: 11.2 mi
  - Density: 73 inhab/ha
  - Total GDP: US$ 262.5 bi
  - GDP per capita: US$ 23,325
  - 31 administrative districts and 96 sub districts
  - 74.2 km of subway + 125.0 km of railways
  - 170 km of bus corridors

- **SP Metropolitan Region**
  - Area: 7,947 km²
  - Population: 19.7 mi
  - Density: 25 inhab/ha
  - Total GDP: US$ 415.3 bi
  - GDP per capita: US$ 21,098
  - 39 Municipalities
  - 74.2 km of subway + 260.8 km of railways
Urban Sprawl Until 1929

São Paulo Municipality
Cities of Metropolitan Region
Water and rivers
Urbanized Area
Urban Sprawl Until 1930 - 1949

[Map showing urban sprawl in São Paulo Municipality, Cities of Metropolitan Region, Water and rivers, Urbanized Area]
Urban Sprawl Until 1950 - 1962
Land Value Capture: air rights

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The example of São Paulo

- 2 different instruments: U$ 4,304 MM since 1995
  - Urban Operations: U$ 3,267 MM
  - Air rights (OODC): U$ 1,037 MM

Proceeds used as investments, never current expenses
Revenues from air rights in São Paulo

US$ 4,304 MM

<table>
<thead>
<tr>
<th>Area</th>
<th>Revenue (US$ x 1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centro (1997-2017)</td>
<td>27,007</td>
</tr>
<tr>
<td>Faria Lima (1995-2017)</td>
<td>1,073,990</td>
</tr>
<tr>
<td>Água Espraiada (2004-2017)</td>
<td>1,770,574</td>
</tr>
<tr>
<td>Air rights - OODC (2004-2017)</td>
<td>1,036,992</td>
</tr>
</tbody>
</table>

Revenues from air rights as a % of the city’s investment budget
Current urban operations in São Paulo
Air rights (OODC) in São Paulo

Land Value Capture: air rights

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Land value: highest and best use

- FLOOR AREA RATIO: 2.0
Upzoning impact

- FLOOR AREA RATIO: 4.0
Upzoning impact

- **FLOOR AREA RATIO:** 4.0
Land Value Capture: air rights

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What are air rights?

$ paid by developer in exchange for building rights

Basic construction rights (basic FAR)

Air rights

Source: Furtado, Jorgensen, 2006
Urban Operation

Source: Furtado, Jorgensen, 2006
Rationale for Urban Operations

ADDITIONAL AIR RIGHTS

INVESTMENTS
Urban Operation

- Tool for implementation of large scale urban projects
- Municipal law that sets specific parameters and main interventions within a perimeter
- Funding is obtained through auction of CEPAC (Certificates of Additional Building Rights)

- Centro (1997)
  - First initiative in 1991 (Anhangabaú)

- Água Branca (1995)
  - Revision (2013)

- Faria Lima (2004)
  - First law from 1995

- Água Espraiada (2001)
  - June 14th 2012: last CEPAC auction
CEPAC: How does it work?

- Securities sold in auctions are convertible into additional building area (m²) limited to the total additional square meters that the future urban infrastructure can support.

600 a 1300 ha (homogenous sectors)
CEPAC: the flow

Social housing infrastructure

City → CEPACs

Auction

Auction → Developer

Developer → Land

Land → CEPACs

City

Auction

Developer

Land

$\$\$

$\$

air rights

$\$

$\$

City Resilience Program
CEPAC: infrastructure finance – SP model

Source: Maleronka, 2015.
CEPAC: infrastructure finance – Rio model

Source: Maleronka, 2015.
The developer’s cycle

Duration: 48 months
IRR: 25%

$$ air rights
Urban Operation Faria Lima
Faria Lima OUC: Real Estate Developments and Revenues

Bar chart showing the number of developments from 2004 to 2016:
- 2004: 5
- 2005: 9
- 2006: 7
- 2007: 10
- 2008: 20
- 2009: 14
- 2010: 19
- 2011: 8
- 2012: 4
- 2013: 3
- 2014: 9
- 2015: 9
- 2016: 5

Line graph showing the total revenues and revenues per year from 2004 to 2016:
- Total revenues peaking around R$ 3.5 Bi in 2016.
- Revenues per year starting around R$ 0.5 Bi in 2004 and increasing to R$ 3 Bi in 2016.
Urban Operation Água Espraiada
Água Espraiada CUO: Real Estate Developments and Revenues
Where did the money go?

Public transport

Social housing

Drainage

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Externalities
The economic cost of lack of planning
City budget vs GDP

Budget: 6% of GDP
Investment: 1% of GDP

Source: SEADE, 2014.
The story as told by the private sector

- Credibility
- Advocacy
- Spatial integration
- Engagement
- Stability

The Role of Urban Planning

**Urban Planning**
defines development guidelines: densification, flows and centralities

**Urban Design**
qualifies and organizes transformation areas, defines distribution and intensity of uses, main routes and public spaces

**Architectural Typology**
defines urban morphology, sets up the relationship between open and built spaces

Spatial distribution of activities and people

Synergy between public and private

value creation
Urban development policy: Creating Value

**GENERATION**
Directing and fostering private investments
- Urban Plans
- Urban Projects

**CAPTURE**
Urban and legal instruments
- Urban Operations
- Air rights
- Urban concessions
- PPP
- Taxes

**RECYCLING**
Public Investment
- Catalytic investments
- Public works
- Social infrastructure
- Services

Virtuous circle
Urban planning in urban operations

- target density
- population
- jobs
- residential m²
- non residential m²

Support capacity

Infrastructure investments

vocation / activities

Transformation areas

Urban design

Urban planning (land-use zoning)

CEPAC
Água Branca: Land Value Gradient

| 1000 até 4000 | 500 até 1000 | 450 até 500 | 400 até 450 | 350 até 400 | 300 até 350 | 250 até 300 | 200 até 250 | 150 até 200 | 100 até 150 | 50 até 100 | 0 até 50 R$/m² |
Água Branca CUO
Água Branca
SP master plan 2014: high density and public transport
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Economies of agglomeration

Diseconomies of dysfunctional urbanization
The Resilient city

Economic: efficient city

Social: inclusive city

Fiscal: city budget x public investments
The players

- **Land owners**
  - Opposition (value sharing)

- **Developers**
  - Aligned by profits

- **Investors**
  - See the future

- **Population**
  - Understand the effects

- **Government**
  - Develop capabilities
The challenge

- Developer’s cycle: 3-5 years
- Urban transformation maturity: decades
- Public works maturity: 5-10 years
- Political time: every election
The rules of the game

- Reliable, functional public sector
- Stable institutional environment
- Incentives vs constraints
- Catalytic investments to attract private capital
- Structural vs private transformation
- City and land market database
Value capture workbook

Promote sustainable density
An efficient and inclusive city

Make it viable
Understand the economic drivers and attract the private sector

Go beyond urban design
Planning comprises economics, environmental and social

Anchor in the social
Social infrastructure, social housing and urban design working together

Engage the city
Project must be good for the city and not just the region
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