Land Value Capture and Urban Transport Financing

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Transit Backlog: Large, Dense Cities, Little Rail

Infrastructure investment needs in developing Asia 2016-2030: $22.6 trillion; spending gap for 25 Asian countries is $459bn/year ($195bn/year for 8 countries in South Asia)
Land Value Capture: Definition

LVC is a 3-pronged public financing and urban planning tool. Governments:
1. Make *regulatory decisions* and/or *infrastructure investments* that trigger an increase in land values;
2. Institute a process to share the additional land value by capturing all or part of the change in value; and
3. Use captured proceeds to finance infrastructure investments, offset negative impacts, and implement public policies to promote equity.
The Virtuous Cycle of Value Capture

1. Invest in a new rail project
2. Accessibility change
3. Keep investing – network grows
4. Value uplift
5. Retain a portion
What creates value?

User Benefits:
- Travel time savings
- Reliability and frequency
- Seat availability/reduction in crowding
- Safety
- Quality of information/customer service
- Station amenities
- New journeys and/or mode shift

Non-User Benefits:
- Reduced road congestion
- Environmental, social and health benefits
- Increased ticket sales/revenue
Prices rise with public investment

Real Estate Values, Bangkok Metropolitan Region

Source: Anantsuksomsri, Srisamran and Tontisirin for ADB, forthcoming

Average land price (1000 baht/square wa)

Log of distances to any nearest mass transit station (km)
Prices rise with public investment

**Metro Manila prices and MRT-3 project timeline**

Aggregate increase in land value 1km around stations: $3.4 billion (5x MRT-3 construction cost)

Source: Abiad and Adona for ADB, forthcoming
Urban investment needs are large

Investment Requirement 2012-31
≈ 540 Billion USD

Source: High Powered Expert Committee (2011)
Report on Indian Urban Infrastructure and Services
5 ways to implement LVC

1. **Mainstream Taxation:** Work within existing tax system to identify tax revenue increases from property-related tax

2. **Special Fees and Levies:** Charge specific beneficiaries in a catchment area for improvements related to public investment

3. **Auction of Development Rights:** Sell development opportunity from new transit facility via open auction

4. **TOD and Urban Renewal Agency:** Create an authority with powers to remit and appropriate, re-zone, deliver transit and public housing

5. **Rail + Property (“East Asian Model”):** Select a transit operator to directly manage property
Constraints to LVC Implementation

- Valuation of land and property – recorded transaction values may not be true market values
- Difficulties of attributing land value increases to public investment (e.g., infrastructure)
- Reluctance of landowners to pay tax on LVI
- Payment often occurs only at the time of development and/or transaction
- Revenue accrues over time and is uncertain
- Separation of tax collection agency and infrastructure development agency – problems of revenue sharing or earmarking
- Inconsistent legislative/policy framework
- Conflicting goals of revenue generation and urban planning/TOD
It’s not all about FAR...

Indiranagar Metro Case Study, Bengaluru

LEGEND

- **Floor Area Ratio (FAR)**
  - Red: Less than / Equal to 0
  - Orange: 0 - 1
  - Green: 1 - 2
  - Light Green: 2 - 3
  - Pale Green: 3 - 4
- **Plot Boundary**
- **Metro Line**
- **Study Area Boundary**
- **150M radius from metro station**
- **Indiranagar Metro Station**
- **Public Parks / Grounds**

**CURRENT MARKET APPETITE (2018)** - Unused FAR as per RMP 2015

Source: WRI India for ADB, forthcoming
It’s not all about FAR...

FAR underutilized near transit station due to lack of plot amalgamation

Source: WRI India for ADB, forthcoming
Land Pooling: Basics and Benefits

• Individual- or group-owned land parcels are consolidated by a government agency for development of urban infrastructure
• Remaining land is re-configured and returned to the owners
• Generally used for greenfield development in new or small, growing cities
• More inclusive and less costly alternative to land acquisition (82% project delays in India are due to land procurement delays)
Before & After Land Pooling

Local Area Plan in Thimphu, Bhutan

Before

After
Before & After Land Pooling

Village Plan in Gujarat, India

Before

After

Before & After Land Pooling
Amaravati, largest LP project in the world

Before
After

Source: Government of Andhra Pradesh, 2018
Useful LVC Definitions

• **Incremental Value Tax:** a surtax on properties in an area to be redeveloped by public investment. After identifying the development area, assessment values of all parcels and structures are frozen. Any future change in the assessed tax base is subject to an extra tax on top of the existing property tax. IVT revenues are earmarked for repaying the municipal bonds that financed development.
Useful LVC Definitions

• **Development Charges**: fees collected from developers at the time of issuing a building permit. These fees help pay for the cost of infrastructure required to provide municipal services to new development, such as roads, transit, water and sewer infrastructure, community centers and fire and police facilities.

• **Betterment Levy**: a fee levied on owners of land that has gained in value due to public infrastructure investments.
Thank you.