Land Value Capture & Urban Transport Financing

Who is this how-to guide for?
✓ Urban/transport planners
✓ City/local officials & national-level policymakers
✓ Real estate developers
✓ PPP/infrastructure finance experts

Overview & Background

Land value capture (LVC) is the process by which the public sector uses the increases in land value in a specific urban area to help finance public goods, usually new infrastructure and enhanced services. Usually, a city government or other public authority would create a new taxing district or mechanism that levies a tax or development charge on buildings in the specific area, effectively “capturing” the value of the land there. By using these LVC techniques in areas where infrastructure is being enhanced, the city can allow higher densities which in turn helps to finance this specific infrastructure improvement. Thus, you create a virtuous cycle of improved infrastructure, increased urban value, and enhanced quality of life.

Urban transport infrastructure – roads, rails, public transport, and non-motorized transport (NMT) – is an essential foundation for economic activity and quality of life. However, unlike inter-city expressways, tolls and traditional user fees are normally insufficient to finance the comprehensive mix of transport infrastructure needed for urban development, from pedestrian sidewalks to heavy-rail metro subways. Instead, the benefits of high-quality infrastructure accrue to land value of the city itself, with the highest value land usually in nodes of highest connectivity, next to well-used transit stations. Therefore, public authorities can capture that value to enhance/extend this infrastructure.

LVC can work in tandem with TOD to help finance the public infrastructure – transit, pedestrian/bicycle infrastructure, new streets and public spaces – that enables higher densities and more transit-oriented building design in the station area.

LVC Conditions for Success

For LVC to work, a city needs to have a few key characteristics:

✓ Relatively strong real estate demand, rising population
✓ Comprehensive property records and property taxation system in place
✓ Usually, fixed-guideway rapid transit infrastructure
✓ Available land around transit stations to develop / unused development potential
✓ Local government & public authorities with good governance structures

1 By John Good and Gerald Ollivier, TOD Community of Practice.
Steps to Implement LVC in New Transport Corridors

Land value capture is one part of a multi-stage process of planning and financing new urban transport infrastructure. For a given corridor, planners should think about whether LVC could feasibly be used to partially or fully finance the investment and related urban improvement. This should be raised early in the planning process because subsequent decisions on routing, station location, land parcellation may be adjusted to ensure high-value development opportunities in the future station areas. Working as a team, urban planners, transport planners, and city economic development officials should incorporate LVC as part of the process:

1. Demonstrate the usefulness of the transit corridor on its own merit
2. Inventory potential redevelopment sites, determine public/private ownership status, and assess potential economic growth areas
3. Finalize route and stations, and finalize cost estimates for transit infrastructure
4. Estimate financing gap and proposing potential LVC funding mechanisms
5. Refine station area plans with stakeholders and discuss high-potential redevelopment sites next to stations with real estate developers.
6. Confirm street infrastructure to be changed and additional civil infrastructure cost.
7. Discuss phasing of development and proper contributions by developers/landowners along that timeframe, to cover the cost of infrastructure.

Some Examples of Good Practice

- **Betterment levies**: Plaza Alfonso Lopez, Manizales, Colombia. Using charges on the end users who will benefit from the public investment, the city was able to invest in public space and transport infrastructure. They are usually not directly linked to the increases in the value of property.

- **Joint development**: the Rail+Property model, MTR, Hong Kong. In this joint development model, MTR can acquire the land at pre-metro construction prices and sell the properties they develop at after-metro construction prices, which allows them to finance new metro line construction as well as operations/maintenance.

- **Air rights / transfer of development rights**: In the Faria Lima district of Sao Paulo, two legal mechanisms were instituted to allow the city authorities to increase the floor area ratio (FAR) of the development sites along the corridor, calculate a price for different kinds of uses, and auction
these new development rights to private developers. The money raised is then able to be used to invest in public infrastructure.

**WB Projects / Resource Documents Related to LVC**

The World Bank has done significant work in land value capture (LVC) and TOD. A sampling of these resources is below:

1. **WB-WRI TOD Corridor Course** (LVC topics specifically in Modules 5 and 6)
   a. Description: This course offers a complete overview of TOD Corridor planning
      i. Module 5: [http://wricitieshub.org/sites/default/files/Module%205%20Financing%20TOD%20Final.slides%26notes.pdf](http://wricitieshub.org/sites/default/files/Module%205%20Financing%20TOD%20Final.slides%26notes.pdf)
      ii. Module 6: [http://wricitieshub.org/sites/default/files/Module%206%20Sequencing%20for%20Implementation%20Final.slides%26notes.pdf](http://wricitieshub.org/sites/default/files/Module%206%20Sequencing%20for%20Implementation%20Final.slides%26notes.pdf)

2. **Rio de Janeiro Workshop on TOD, Presentation on LVC** *(in Portuguese)*
   a. Description: This presentation was shown at a November 2016 workshop in Rio de Janeiro and covers a wide range of land value capture financial instruments.

3. **Case Study: Land Readjustment in Japan**, Tokyo Development Learning Centre (TDLC)
   a. Description: This report demonstrates the ways that public agencies and private landowners can adjust parcel boundaries and provide opportunities for redevelopment, generating funds for infrastructure and other public amenities.

4. **Mexico City Recommendations**, prepared by ITDP *(Spanish)*
   a. Description: This report has recommendations for implementing TOD-style development in the Mexico City area. Specific LVC and financing approaches are summarized on Page 15 in Table 3.

5. **India TOD Guidelines**, funded through SUTP
   a. Description: A national-level guideline prepared under the Sustainable Urban Transport Programme, this goes over the full implementation steps for TOD. Chapter 6 focuses specifically on LVC and financing arrangements (page 110).

6. **Lima-Callao Metro Line 2 TOD Study**
   a. Description: This comprehensive engagement looked at integrated planning along a new metro corridor, identified specific parcels for development, recommended urban design changes, and discussed financing arrangements.
7. Da Nang Urban Redevelopment Study
   a. Description: This ongoing study looks at TOD along a specific corridor to connect the existing city with a new intercity train station. See Slide 29 of the presentation for projected cash flow and development ("land fund") returns, a form of LVC.

8. Mumbai TOD Corridor Study
   a. This study covers a corridor-focused study where a consultant developed a phased approach to TOD development around a station surrounded by a slum including an assessment of revenue resources.

9. Addis Ababa TOD Implementation Program
   a. Description: This TOR looks at TOD implementation in a context with limited development control and property taxation. The consultant will be looking at implementation techniques within existing legal/land market structures.

Further Reading & Resources

For further information, please see the following resources:

- **Sustainable Urban Transport Financing from the Sidewalk to the Subway**
  o This 2016 report is a detailed look at 24 different types of urban transport financing, focusing on the principle of “who benefits pays”.

- **Financing Transit-Oriented Development with Land Values: Adapting Land Value Capture**
  o This comprehensive examination of LVC techniques by Hiroaki Suzuki covers examples of development-based land value capture, and how principles could be used in fast-growing developing cities to help finance needed investments.

- **Transforming the Urban Space through Transit-Oriented Development: The 3V Approach**
  o This comprehensive 2017 report sets forth a new framework for thinking about transit-oriented development and prioritizing the most favorable station areas with highest value. Chapter 3 specifically covers how value is created and how it can be captured.