

THE VALUE OF PUBLIC TRANSPORT

HOW TO IMPLEMENT LAND VALUE CAPTURE

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INTRODUCTION

People want to live in places that are well-connected to businesses, schools and other recreational facilities. In other words, the value of land is determined by the amount of public works and government development projects carried out in the area. In this respect, land and property prices increase with the delivery of transport infrastructures and services, hence the idea to have land users contribute to the funding of the system.

LVC is more than just a funding method; it is about creating a governance framework that integrates transport and land use, so that developments can be undertaken jointly for an optimised urban environment. To implement LVC, there is a need to rethink how we plan and deliver transport infrastructure and services in relation to the city. This includes reconsidering the way we value the benefits of public transport, at both the institutional and societal levels, and how we communicate these benefits to make LVC acceptable to the widest range of stakeholders, land users in particular.

This paper provides Public Transport Authorities (PTAs) with guiding principles on how to implement LVC.

THE LVC CHALLENGE

Public transport infrastructure and services typically rely on fares and public compensations. These funding channels are not always sufficient in ensuring the financial sustainability of the system, thus giving relevance to LVC.





There are a variety of mechanisms to capture land value that could be categorised under two distinct methods: tax-based and project-based (see table 1). Each mechanism might perform differently in terms of efficiency, equity, sustainability and feasibility. Yet, the choice of the appropriate mechanism will depend on the nature of the

project, as well as the ownership of the land, but more importantly on the social and political context where LVC is being implemented. It is often easier to apply LVC to greenfield projects (new projects or developments that are built from scratch). Furthermore the ownership of the land adds another layer of complexity because cities and their authorities have to persuade individual land owners to accept a readjustment of their land. In addition, allocating the land value to transport is not readily applicable because transport investments and the emergence of the land value do not occur at the same time. These barriers argue for the integration of land and transport developments within a single approach as a prerequisite for an effective LVC implementation. The case of Hong Kong illustrates such a condition well.

PROJECT-BASED MECHANISMS

Land Sale or Lease	Governments sell land or development rights where values have increased due to a public investment or policy change.
Joint Development	Well-coordinated development of transit station facilities and adjacent private properties.
Air Rights Sale	Governments sell development rights extended beyond the limits of specified land use regulations (e.g. Floor area ratio).
Land Readjustment	Landowners pool their land and contribute a portion for sale to raise funds and partially defray development costs.
Urban Redevelopment Scheme	Landowners and developers establish a cooperative entity to consolidate into a single site that is then developed.

TAX OR FEE-BASED MECHANISMS

Property and Land Tax	Tax levied on estimated value of land and/or buildings combined with revenues.
Betterment charges	Surtaxes imposed by government on estimated benefits created by public investments.
Tax Increment Financing	Surtax mechanism that uses taxes levied on property value increments that result from the availability of a new transportation infrastructure.

► Table 1: Land Value Capture mechanisms

THE RAIL + PROPERTY MODEL OF HONG KONG

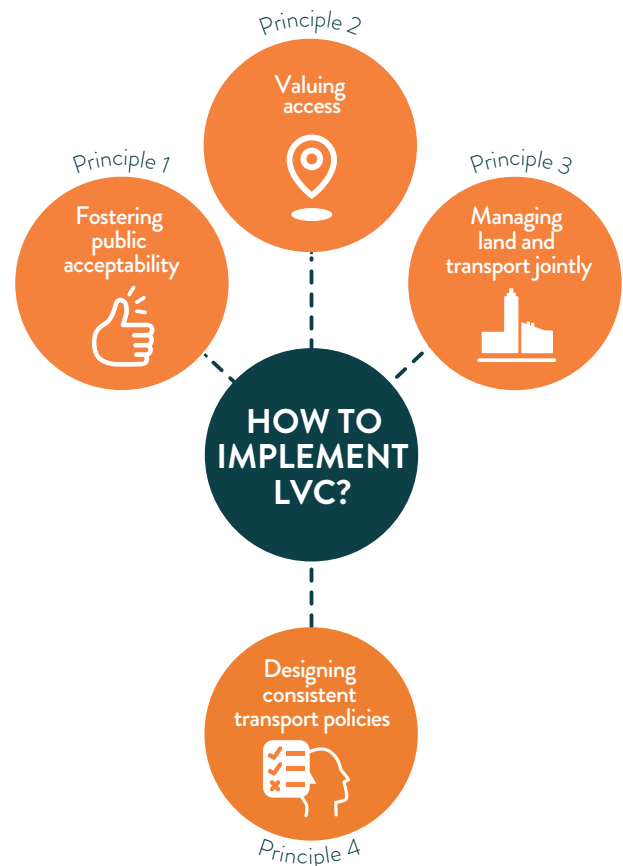
Hong Kong is today one of the few places where public transport makes a profit. This is achieved through a successful adoption of a Land Value Capture mechanism. In brief the logic of this distinctive case is as follows: the MTR Corporation obtains land from the government at pre-development prices, and sells or leases the land, later, at market price. The success of the mechanism is largely due to the Rail + Property programme which integrates mass transit investments with urban developments. LVC is used by MTR, the public transport operator, to cover railway construction, operation and maintenance. As a result, in 2013, MTR generated a net profit equal to 869 million US dollars from its transit operation and a fare box recovery ratio of 1.85 (MTR, 2013).

In the period of 2013-2015, property development and management provided a profit contribution of 44% to MTR. The Hong Kong land urban planning system and land administration was a main supporter for the property development-centred on railways. Given the land scarcity, situation planning standards and guidelines were created to ensure efficient land use and coherence with the Rail + Property model of development. These guidelines consider residential densities, retail facilities, community facilities, green spaces, environmental planning, recreational activities and transportation facilities. In places of high accessibility (typically, served by railways), highest densities are allowed up to FAR (Floor Area Ratio) 10.0.

It is worth noting that all land in Hong Kong is state property and the only land tenure is on leasehold basis, based on China's Basic Law approved in 1990. The usual leasing term for private developers is 50 years. During this period land should be used subject to town planning, civil engineering and urban development policies.

To cope with such a long-term lease, it is indispensable to develop a strategic view on urban development.

UITP argues that LVC is implementable even where it is not the same organisation that develops transport and land, but it requires a set of coordinated measures that integrate transport at the institutional level. This is not self-evident, as transport tends to be treated in isolation under a 'predict and provide' rationale that favours cars and road infrastructures, regardless of the adverse effects they imply on the urban environment. Subsequently there is a need to rethink the way we conceive transport in relation to the city. This paper adopts the same standpoint as the two last UITP Policy Briefs on health and urban regeneration, and considers that public transport and active modes shape urban spaces and enhance the quality of life for city goers. Such broader benefits should legitimise additional funding channels, such as LVC. Subsequently, PTAs must act across traditional administrative and sectoral boundaries to produce a conducive governance framework that accounts for both transport and land. The following offers four principles that will enable PTAs to create the positive conditions for LVC implementation: 1) fostering public acceptability, 2) valuing access, 3) managing land and transport jointly, 4) designing consistent transport policies.



► Principles for implementing Land Value Capture (LVC)

PRINCIPLE 1 FOSTERING PUBLIC ACCEPTABILITY



It is important to ensure the public embraces new government policies or practices like LVC. LVC implementation calls for an environment that makes LVC legitimate and acceptable to the widest range of stakeholders, otherwise they will act as a barrier and raise a political risk.

For example, the case of Istanbul is enlightening. In 2009 the **Great Metropolitan Municipality** of Istanbul was developing the mass transit system in a context of scarce budget. There was no contribution from the central government and only few projects attracted international loans. The Great Metropolitan Municipality owned land, thus, they had the idea to sell it and capture the land value to further fund the rail infrastructures.

Among the initiatives was the ‘Dubai tower’ project that consisted of building two 300-metre high towers for commercial and office purposes in the vicinity of the Taksim 4. Levent metro station. Yet, the project was highly controversial and its legitimacy was under severe pressure. Which points to the fact that LVC cannot be applied with a ‘top-down’ approach only and needs to be co-constructed from the bottom-up with the citizens. LVC should be embedded in a participative process that infuses a climate of trust. Here, stakeholders’ engagement becomes crucial, land users in particular, because LVC depends on their ability to pay a new tax or fee to further fund transport infrastructure and services. A mechanism that consists in imposing a fee on a previously free service such as public transport is likely to encounter public opposition.

As land users are the primary beneficiaries of transport and land development projects, it is therefore essential to engage with them, seeking their active participation and support. To this purpose, decision-makers need to ensure that land users understand the value of transport.

The first step is to make sure that their contribution is in line with the benefits they receive. The second is to account for equity concerns (the difference in ability to pay among the population). Thus, it is necessary to provide evidence of the value of public transport, while acknowledging the access that transport provides in order to integrate the subsequent benefits at the societal and institutional level. This leads to a second principle: valuing access.

PRINCIPLE 2 VALUING ACCESS

Access refers to the range of opportunities that are presented to people through public transport, such as jobs, education, leisure as well as the possibility to attend social gatherings and events. Access to opportunities is unequally spread among the population according to where they live. PTAs need to assess these differences and deliver transport infrastructures and services accordingly.

Adopting an accessibility perspective differs from the traditional way institutions value transport; namely, focused on time saving.

Valuing time focuses on mobility and the ‘ease of moving’ but downplays the relationship between transport and urban space. Yet, this relationship

between transport and space is necessary to consider in the process of integrating transport and land development projects. In addition, evaluating differences in access better accounts for equity concerns, helping us understand how different social groups are served by the transport system. It brings together diverse sectors – business, leisure, education, and health care—and in a joint effort to communicate the benefits of transport projects to different stakeholders under a common language, enlightening priorities among communities.

Finally, an accessibility approach comprises visualisation tools and techniques capable to picture the access benefits of transport and convey information in a very clear way to support the decision-making process and engage with land users. This is an approach that Tokyo adopted a long time ago to enable LVC in an already built area. Based on access gain, Tokyo uses a land readjustment mechanism that consists of convincing landowners to pool their land together to sell a part of it to fund the public transport project. In a word, valuing and communicating access at the institutional level is crucial to couple the development of land and transport, the third principle is therefore managing land and transport jointly.

PRINCIPLE 3

MANAGING LAND AND TRANSPORT JOINTLY

As providing access becomes the ultimate objective of transport infrastructure and services delivery, PTAs must plan them accordingly, optimising the value for land users. Yet, as mentioned earlier, transport projects are often conceived in isolation without any form of coordination with housing and land use. The challenge is therefore to create the conditions for collaboration between these two domains.

In this respect Transit Oriented Development (TOD) constitutes a good practice. The idea to catalyse development around stations in order to drive growth is a positive step towards the implementation of LVC. But planning capacities are key. In this respect, Metrolinx, the regional transport agency for greater Toronto and Hamilton area in Canada prioritises densification in strategic growth area as it transforms the commuter rail system into a frequent, two-way, all-day electrified network with a quadrupling of the number of daily train trips. This includes the process for identifying new stations to ensure that more people will live within a walking distance of frequent rapid transit and that more jobs are accessible in one-hour transit trips, as well as more walking and cycling. To this purpose, Metrolinx coordinates with municipal land use plans and aligns with the policy objectives of all governments.

Concurrently, Montreal's PTA, ARTM, undertook substantial reforms. ARTM decided to refocus its competencies on the strategic and tactical level of decisions, leaving operational concerns to operators. Instead, it received new responsibilities related to planning and funding. The Metropolitan Plan of Development (PMAD) proposes the integration of urban and transport planning at the regional scale. The zoning of the territory must conform to the PMAD to make sure that 40% of household growth will occur in the proximity of access points of the main regional public transport network. Going further, this new rationale comprises LVC mechanisms: a development charge on new real estate that should support and fund transport projects. In both cases, Metrolinx and ARTM developed a process to place public transport as access provider, as a prerequisite for LVC implementation. LVC should be further eased with consistent transport policies, hence the fourth principle, designing consistent transport policies.

PRINCIPLE 4

DESIGNING CONSISTENT TRANSPORT POLICIES

Designing consistent policies and measures in the transport domain would further contribute to legitimising LVC and managing the expectations of land users. Cities that regulate car use with measures such as congestion charges and parking policies enhance the competitiveness of more sustainable alternatives: public transport, but also active modes.

In Stockholm, the Cordon Road pricing and the subsequent reduction of traffic led to increased accessibility, as well as an enhanced urban environment that benefited real estate within the Cordon. Public transport ridership improved, a growth that was supported by a small extension of services made simultaneously with the introduction of the road pricing scheme.

Stockholm constitutes a positive context for LVC implementation. Again, LVC is the most achieved form of transport integration. There is no single one measure; LVC calls for a coordinated approach which means a set of consistent policies and measures that will reinforce each other to change land users' perceptions of transport infrastructure and services delivery. The challenge is to ensure that all components of the transport system are integrated within a single implementation package that optimises the land value.

The challenge is therefore to create the conditions for collaboration.

CONCLUSION

This paper puts forth four institutional principles to guide the implementation of LVC. Again, LVC is more than a funding channel. It is about creating the governance framework that integrates transport and land use. LVC implementation is both an art and a science as it requires managing stakeholders' expectations while optimising the land value. Finally, this leads us to formulate a set of nine recommendations.

RECOMMENDATIONS

► Managing Stakeholders

The technical project management is as important as the trust between investment stakeholders. Fostering acceptability among the population, land users in particular, is fundamental. People need to understand why, and how LVC is done, as well as the degree of fairness encompassed in the pricing structure of all elements of this complex project.

► Vision and long-term planning as the starting point

A long-term vision infuses a climate of confidence for investors (transparency and stability) and facilitates the identification of quality places and potential projects. Planning will ensure that projects meet population needs.

► Land use strategic planning as a key factor

Strategic planning enables an early negotiation with potential investors, which in turn supports the articulation of a long-term vision in tactical terms (master plans). It relates value capture to value creation at an early stage.

► Integrating Land Use and Transport Decision

Land and transport planning should be elaborated at the same decision level, as well as ensuring coherence between local and central plans. This will define the performance of the transport system as the capacity to respond to access needs.

► Consistent national and local planning

Consistency between national and local planning will prevent systematic bias for large transport

projects and it will favour a balanced management of the transport network. It would also help promote a mixed use of land.

► Regulating Land

Land regulation deals with density and zoning in key stations to attract private investment and comprehensive development. It allows investors to pay a premium for public transport access. Especially if it is combined with restricted automobile use.

► Promoting conditions for investment

It depends on the maturity of the governance framework that is its capacity to influence choice in a beneficial direction. It will enable LVC even where the land is not publicly owned, landowners will accept land readjustment mechanisms, for example.

► Ring fencing captured values

Ensuring that the funds collected will only be allocated to transport and support stakeholders' engagement in order to help people understand the value of access and transport. It establishes a clear link between value creation and value capture.

► Managing the value capture balance

It encourages the application of different LVC mechanisms at different stages of the project to ensure that the premium paid for access is proportionate to the value created.

► Controlling risks through all stages of the project

Managing risk requires transversal and multifunctional decisions between land and transport authorities. It requires new competencies and tools such as land management.

This is an official Policy Brief of UITP, the International Association of Public Transport. UITP has more than 1,700 member companies in 100 countries throughout the world and represents the interests of key players in this sector. Its membership includes transport authorities, operators, both private and public, in all modes of collective passenger transport, and the industry. UITP addresses the economic, technical, organisation and management aspects of passenger transport, as well as the development of policy for mobility and public transport worldwide.

This Policy Brief was prepared by the Organising Authority committee.

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