LAND-BASED FINANCE READER

LEVERAGING LAND: LAND-BASED FINANCE FOR LOCAL GOVERNMENTS
A READER

UN HABITAT
FOR A BETTER URBAN FUTURE

GLTN
GLOBAL LAND TOOL NETWORK

SECURING LAND AND PROPERTY RIGHTS FOR ALL

Leveraging Land: Land-based Finance for Local Governments **A Reader**

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ABBREVIATIONS

AFN = Afghan afghani (currency)
AUDA = Ahmedabad Urban Development Authority (India)
BCA = Moody's Baseline Credit Assessment
BID = Business improvement district
CAC = Community amenity contribution (Vancouver, Canada)
CAD = Canadian dollar
CDG = City District Government (Punjab, India)
CEM = Contribución Especial de Mejoras (Special Assessment Ecuador)
CEPAC = Certificate of additional construction potential (Brazil)
CLT = Community land trust
COOTAD = Organic Code for Territorial Organization, Autonomy and Decentralization (Ecuador)
COP = Colombian peso
DACD = Administrative Department for the District Cadastre (Bogotá)
DANE = National Administrative Department of Statistics (Colombia)
DP = Development plan (Ahmedabad, India)
EPM = Public utility company (Medellin, Colombia)
FAR = Floor area ratio
FSI = Floor space index, or the ratio to total building floor area to land area
GAPV = Government-announced present value (Taiwan)
GDP = Gross domestic product
GLTN = Global Land Tool Network
GLV = Gross land value (Hong Kong)
HKD = Hong Kong dollar
IGAC = National Geographic Institute Agustin (Colombia)
IPRO = Immovable Properties Registration Office (Albania)
LBF = Land-based finance / Land-based financing
LGO = Local Government Ordinance (Punjab, India)
LPR = Land pooling and readjustment
LPT = Land and property tax
LVIT = Land value increment tax (Taiwan)
MOI = Ministry of the Interior (Taiwan)
NAV = Net assessable value (Hong Kong)
NLVI = Natural land value increment (Taiwan)
NUCA = New Urban Communities Authority (Egypt)
OECD = Organization for Economic Cooperation and Development
OIC = Cadastral Real Estate Observatory (Colombia)
PILaR = Participatory and Inclusive Land Readjustment
POT = Land-use plan (Colombia)
PP = Microsoft PowerPoint
PRC = People's Republic of China
PKR = Pakistan rupee
SGD = Singapore dollar
SAR = Special administrative region (PRC)
TDR = Transferable (or tradable) development rights
TMA = Tehsil Municipal Administration (Punjab, India)
TZS = Tanzanian shilling
UIPT = Urban Immovable Property Tax (Punjab, India)
UO = Urban operation, or city sector (Brazil)
USD = United States dollar
USAID = United States Agency for International Development
VAT = Value added tax
ZHF = Physically homogenous zone (Colombia)
ZHG = Geo-economically homogenous zone (Colombia)

PREFACE

THE LBF TRAINING PACKAGE

This Reader is an integral component of the GLTN/UN-Habitat *Leveraging Land*: Land-Based Finance for Local Government training package. The package is a two-part tool consisting of

- *Leveraging Land: Land-based Finance for Local Governments.* A Reader (this volume); and
- *Leveraging Land: Land-based Finance for Local Governments. A Trainer's Guide*

The LBF training package has been developed over a number of years and the process has involved numerous UN-Habitat and GLTN partners and other experts, as recognized in the Acknowledgments. This has included research, an expert consultation meeting held in Barcelona in May 2015, and testing in two pilot training events. It is a flexible document made available electronically. The intention is to further improve and fine-tune it, by incorporating ideas and suggestions received during the consultations, and while the tool is being used.

The tool is intended for both participants and trainers/facilitators in the GLTN/UN-Habitat Land-Based Finance (LBF) training course, as well as others with an interest in land as a basis for generating revenue to provide urban services. LBF is a collective name given to a range of instruments by which local governments expand their revenue base and generate funds that will help them realize their service delivery, infrastructure development and maintenance goals. The broader contexts within which the LBF tool is being developed are local governance and sustainable urbanization. The LBF tool is premised on the fact that urban land is a key factor of production and an important source of financing for urban development, including infrastructure, social housing and basic services.

The first part of the LBF tool is this Reader in which a range of instruments are presented, described and demonstrated through cases and examples. The instruments included are the annual tax on immovable property, betterment charges, developer exactions, land value increment taxes, the sale of development rights, land sales and leases, and transfer taxes.

The second part of the LBF tool is a *Trainer's Guide* which provides methods whereby knowledge of both policy and practice regarding these instruments can be communicated. In the *Trainer's Guide,* the emphasis is on the practical dimensions of deploying and making the most out of land-based financing instruments. The training is designed to both broaden the understanding of participants regarding potential land-based revenue instruments and to help them think critically about what is required to implement or domesticate each instrument in their home environment.

This training package is intended as a flexible and frequently updated resource. It is distributed free of charge via www.gltn.net. Kindly use it in electronic format, printing only those pages or sections you need to hand out in hard copy during training. If you know of updated information on any of the cited cases, have a new case you would like to contribute, or if you have any other comments or suggestions for improvement, please contact us by email at gltn@unhabitat.org.

HOW TO USE THIS READER

The Reader provides an overview of the principal land-based financing instruments in use around the world. The Reader is intended to serve as a handbook to lead the reader to a deeper understanding of land-based financing instruments. Not all instruments are equally relevant for all contexts or at all times. In some cases, an instrument described in the Reader will offer an obvious and immediate path for improving local revenues. In other cases, the historical and

cultural context may make implementation of a given instrument nearly impossible at the present.

Given these realities, readers and participants in the LBF training will inevitably choose to study only some materials contained in the Reader. Those who are potentially interested in participating in LBF training should begin by reviewing the Executive Summary. The Executive Summary provides an overview of all the instruments and other materials included in the Reader. Reviewing the Executive Summary and the decision aids in Chapter 1 (Tables 1-3) will allow readers and participants to select those chapters and instruments that seem most relevant.

The chapters in the Reader are independent of each other, though the discussion presented may draw on general principles discussed in the "Introduction to Land-Based Finance" chapter. Each chapter

- Describes the instrument,
- Provides references to academic and practitioner literature discussing the tool in greater depth,
- Provides examples demonstrating the tool
- Summarizes the minimum requirements and key issues that will influence the selection and implementation of the instrument, and
- Discusses the financial, social, economic, and spatial impacts that could arise from the instrument's use.

Reading the discussion for a given instrument and perhaps consulting some of the references listed is only the beginning. Each local context has a unique history and culture. It is extremely unlikely that the implementation of an LBF instrument can simply be imported from some other context, no matter how successful the instrument may be in that other context. Instruments will need to be adapted to local conditions. It is possible that this adaptation can be done without the face-to-face training contemplated in this training package. However, many readers will find the discussion and collaboration provided in the training to be very helpful in both understanding what is required and charting an effective course for the future. Consequently, users of this *Reader* are encouraged to participate in a GLTN/UN-Habitat-sponsored training course that follows the Trainer's Guide.

WHY LAND-BASED FINANCE TRAINING?

One of the significant challenges facing urban authorities in developing countries is the availability of the financial resources necessary to support and sustain urban development. Many urban authorities are very under-resourced and hence are unable to meet the ever-growing demand for basic services and new infrastructure as well as the maintenance of existing infrastructure and services. The extent to which urban local government can deliver effective services to citizens, including land services that improve access to serviced urban land and ensure tenure security, is dependent on the resources available to them.

LBF is a flexible set of instruments that can be adapted to a variety of institutional and cultural contexts. LBF aims to enhance the availability of resources for local development. Improved local finances and the ability to improve local infrastructure and service provision can have far-reaching social and economic benefits. Additionally, LBF tends to have fewer negative impacts on private investment than do other types of revenue tools and can even have positive spatial and social impacts. This combination of potential financial, economic, spatial and social benefits is the reason LBF has become a hot topic internationally in recent years.

This training package seeks to provide urban decision makers, managers and other community leaders

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at both the local and national levels with a broader understanding of the range of land-based financing instruments that are available and in use around the world.

Why land-based finance (LBF)?

- Flexible and adaptable set of instruments
- Revenue generating potential
- Often better economic, spatial and social impactsthan other revenue tools

The training is delivered in a series of sessions covering (in most cases) a subset of the instruments included in the *Reader* as selected by training participants. It is possible to adjust the length[1] of the training by choosing those tools considered to be suitable to meet local needs. Each session seeks to provide an understanding of the instrument covered along with an awareness of where it has been applied and what the key implementation requirements are. The training package is intended to be user-friendly and anchored in real world examples (case studies).

The training sessions use small group work to explore topics in depth. To ensure that the groups organize quickly and work effectively, each group should include assigned participant roles. These roles should be rotated each session over the course of the training so that each participant has the opportunity to fill each role. Consequently, it matters little how the roles are initially assigned. The roles and responsibilities for each role are as follows:

- **Facilitator:** Animates and motivates the group; keeps the group on task; makes sure everyone is heard; asks for consensus; provides helpful and supportive feedback
- **Recorder:** Keeps notes of the group's work, either on easel paper or notebook paper
- **Reporter:** Shares the group's work and ideas with the larger group
- **Timekeeper:** Makes sure the group completes the task within the time provided
- **Observer:** Pays special attention to how the group is working together (i.e. Is everyone participating? Is anyone dominating the group?); after the activity, shares her/his observations with the group

BENEFITS OF LAND-BASED FINANCING

The instruments described in this *Reader* and provided through the training package are meant to assist national and local government officials, as well as other leaders in developing urban areas, by enabling them to explore tried and proved options for generating additional financial resources. It is often difficult for local governments to enforce land laws and policies without financial resources. They also find it challenging to increase the availability of serviced urban land and to prevent the proliferation of slums. Land-based financing is therefore one of the tools needed to achieve secure access to land and realize the goals of sustainable urban development.

It must also be acknowledged that implementing or improving land-based finance instruments can be politically challenging. It is essential therefore that early in the process high-level political officials engage in the discussion and become committed to effective change. Without the strong support and commitment from senior officials, it is unlikely that meaningful change can occur. Even with such support, change will not occur overnight. It will take time to secure the support of key stakeholders and the public. But land-based finance instruments can and should become mainstays in urban finance and expected by the public.

1 A four-day training can typically cover four to five instruments; a three-day training can cover two to three instruments.

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TARGET GROUPS

These materials are expected to be used by practitioners, experts in the field of land-based financing in developing countries and those engaged in developing the capacities of urban professionals (e.g. higher education). Also, civil society and inter-governmental development organizations (e.g. United Cities and Local Governments (UCLG), World Bank and regional development banks) with the competence to provide technical assistance to urban local governments will find the training package an important resource that will add value to the support they provide.

The intended target audience for these training materials is adults and professionals from developing countries working at the local and national levels of governments. This training is intended for officials who want to understand the practical requirements for effectively implementing the most common land-based financing instruments.

With regard to selecting participants for the training, several considerations are relevant:

- Who has the needed information that will be required to critically assess the relevance of and adapt an instrument to the local context?
- Who will be responsible for designing and implementing any changes that are determined to be desirable?
- What coalition of stakeholders will be most effective at promoting necessary changes in policy and practice?

The answers to these questions should suggest the groups that should participate in the training. Representatives from across agencies and organizations should attend the training together in order to promote communication and collaboration following the training.

COURSE OBJECTIVES

The objective of land-based financing to support urban growth and development is not to build monuments but to facilitate human flourishing. The objective of this training package is to provide urban decision makers, managers and other community leaders at both the local and national level with a broader understanding of the range of land-based financing instruments that are available and in use around the world. Both theory and applications are presented to expand the horizons of training participants. Each session will provide an understanding of the instrument covered along with an awareness of where it has been applied and what the key implementation requirements are.

Consistent with the GLTN capacity development strategy, this training aims to increase the capacity of local leaders and officials by enhancing their understanding of and ability to implement land-based financing instruments. Participants will have a sound understanding of the tasks required to implement or improve each instrument in their local environment. They will also develop an action plan that prioritizes those tasks, establishes milestones and preliminary timelines, makes specific assignments and provides for regular follow through with other participants following the training.

EXPECTED OUTCOMES OF THE TRAINING

If successful, training participants will have a new knowledge base about LBF, including the following:

- A solid understanding of the instruments covered and access to resources to further enhance their understanding

- A good sense of the relevance of the instruments for their own context and setting
- An awareness of the technical and political challenges likely to be associated with efforts to expand or improve use of each instrument, and
- An understanding of the steps to implement LBF in their local jurisdiction
- This training will also set the stage for implementation of LBF through the following outcomes:
- Participants will develop an action plan for implementing or improving land-based financing in their home environment
- Participants will have a personal commitment to the successful implementation of that action plan
- The training will bring together a set of colleagues who share that commitment and with whom they can work closely in the future

HOW TO USE THE *TRAINER'S GUIDE*

The *Trainer's Guide* provides an overview of the structure and content of the training. Facilitators should review the session descriptions and the related sections of the *Reader* as they prepare for the training sessions. An attempt has been made to identify the necessary materials that will be used in each session, along with suggested schedules. However, circumstances and conditions will vary from training to training, and facilitators should feel free to adapt the materials as conditions warrant.

While on-site modifications are inevitable, it is strongly recommended that users of the *Trainer's Guide* bear in mind the ultimate objective of the training: to help participants understand what is required to implement each LBF instrument and to formulate an action plan targeted on a successful implementation or improvement strategy. The training should focus on building understanding, capacity and commitment in participants and not on demonstrating what the facilitator knows about the subject.

EXECUTIVE SUMMARY

This *Reader* is an integral component of the GLTN/ UN-Habitat Leveraging Land: Land Based Finance for Local Government training package. a two-part tool consisting of:

- *I. Leveraging Land: Land-based Finance for Local Governments. A Reader* and
- *II. Leveraging Land: Land-based Finance for Local Governments. A Trainer's Guide*

The Reader provides an overview of the principal land-based financing instruments in use around the world. The Reader is intended to serve as a handbook to lead the reader to a deeper understanding of land-based financing instruments.

As part of its development, the LBF training package was used to conduct two pilot training workshops in Cairo (Egypt) and in Manila (Philippines) in October, 2015 and December, 2015 respectively. Lessons learned from this piloting are reported in the Trainer's Guide.

INTRODUCTION TO LAND-BASED URBAN FINANCE

In virtually all developing countries, sub-national governments rely on a combination of central government transfers, user charges and local taxes. It is widely accepted that taxes and charges related to land are underused. However, even if they were more aggressively employed, land and property taxes are unlikely to provide sufficient revenue to finance major social expenditures such as education, health care and social assistance. Consequently, land-based taxes and charges can and should be greatly improved, but they will always constitute only part of the bundle of revenues local governments require in order to meet the burgeoning demand for services and infrastructure.

Land has a number of advantages for local leaders as a basis for raising a significant share of the revenues necessary to meet local needs.

- First and foremost, land has a fixed location, does not move and is visible.
- Administration of land-based revenues can be enhanced and revenues increased if local authorities play an active role in that administration.
- Land-based revenues are often progressive in nature as ownership is generally concentrated in upper-income groups.
- Land-based financing may enable subnational governments to become more independent by closing the gap between own-source revenues and expenditures.
- Land-based instruments tend to promote transparency and accountability in local government, and may act as a benefit tax (i.e. compensation for the broad set of benefits provided by the local government).
- Taxes based on land and property tend to have less of a dampening effect on private investments and economic activities than other common types of taxation.

Land-based revenue systems in developing nations also have drawbacks. These include:

- Administration—Land-based revenue systems require strong and effective local government administration, and collaboration between multiple levels of government
- Valuation—Methods for estimating the value of property are frequently designed to be based on some concept of a property market. While there are alternative simpler approaches to valuation, the judgments and administrator discretion

necessary in many valuation systems can be a challenge for local capacity.

- Taxpayer resistance—Many of these instruments are extremely visible compared to other taxes levied on or through businesses, and thus may provoke significant taxpayer resistance.

Overarching requirements

There are four overarching factors that must be carefully weighed in adapting land-based finance instruments to the local context: legal requirements, cultural context, the condition of land markets and the administrative capabilities of implementing agencies.

Any land-based revenue instrument must have a solid legal foundation. Each chapter reviews the requirements that should be considered and addressed in the enabling legislation.

The history and cultural norms associated with land vary dramatically around the world. Any adaptation of a land-based finance instrument to a local context must be sensitive to these variations. The chapter discusses the continuum of land rights and how law, attitudes and practices involving land evolve over time.

One of the key assumptions of many land-based financing instruments is that the value of land is socially determined and can be influenced by public actions. Just as value is socially determined, land markets are socially constructed and require certain conditions to exist and thrive. If the land-based financing instrument under consideration requires a reasonably well-functioning land market, actions might be needed to strengthen the land market. The elements of successful land markets are discussed in the introductory chapter.

Determining the best way forward in adopting, adapting and implementing a land-based finance instrument requires careful consideration of the level of administrative resources required and where those resources are located within the government. If the administrative resources do not currently exist, they must either be developed or acquired if the overall effort is to be successful.

Defining and classifying land-based financing instruments

Table 1 at the end of this chapter provides a summary description of each instrument; Table 2 classifies each instrument based on its relevance for common policy goals; Table 3 sets out the minimum requirements for using each instrument. These topics are elaborated on more fully in the chapters discussing each instrument. Each chapter

- Defines the instrument,
- Discusses its purpose,
- Describes how the instrument functions in practice,
- Sets out the minimum requirements for using the instrument,
- Assesses the likely effects associated with the instrument, and
- Summarizes the key points from the chapter.

INSTRUMENT 1: RECURRING TAXES ON LAND

One of the oldest land-based revenue sources is the recurring tax on land and, often, immovable structures on the land. Recurring means that the tax is assessed and is payable at regular repeating intervals, most commonly annually. The important aspects of the instrument can be grouped into policy issues and administrative issues.

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Policy issues

The policy issues surrounding recurring taxes on land address are articulated in law and formal policy statements. The enabling law should:

- Define what is taxable
- Identify who is responsible for paying the tax
- Determine the process for setting the land and property tax rate(s)
- Assign the required administrative functions to appropriate agencies
- Assign the tax revenue

The adopted policies should adhere to accepted principles, including:

- Defining the base should follow the fundamental principle of good tax policy: broaden the tax base and lower the rates
- Defining who pays the tax— the tax should be collected from property owners if they can be readily identified. Otherwise the tax should be collected from the occupants
- Exemptions should be kept to a minimum, should be thoughtfully justified, and should be reviewed regularly to assure that their public purpose is still valid
- Valuation of property can be based on capital market value, annual rental value, physical property characteristics or a hybrid approach, based on the maturity of real estate markets, and the administrative capacity of implementing tax agencies
- The number of property classes should be kept to a minimum
- Unless there is a compelling reason to differ, there should only be one tax rate for all property classes
- The range of acceptable rates can be set at the central level, but local officials should have the authority to determine the final rate within the approved range

Administrative issues

It is often the case that revenue from a recurring tax on land and property can be significantly increased if the administration of the tax is improved. Administration includes:

- Improving coverage (i.e. the proportion of legally taxable property included on the tax rolls)
- Improving the accuracy and timeliness of property valuation
- Improving billing and collection procedures, including taxpayer services for processing taxpayer inquiries and appeals

Strong administration of the recurring tax on land and property requires trained personnel and an adequate budget to fund all aspects of the administration. The required expertise need not reside in a single agency, and it is often most effective to share the responsibility for administration between agencies with specialized personnel. Central governments play an important role in providing training, administrative support in complex situations, and in oversight to assure efficiency, effectiveness and fairness.

INSTRUMENT 2: BETTERMENT CHARGES AND SPECIAL ASSESSMENTS

Betterment levies for cost-recovery are generally one-time charges assessed in connection with specific infrastructure improvements.

- To employ the instrument, cities must identify the specific improvements to be made, the land area that will benefit from the improvements, and the level of benefit in terms of increased land value that will be received by each land parcel.

- The cost of the improvements is then assigned to each land parcel based on the share of benefits received.
- Securing landowner cooperation and agreement in advance greatly enhances the likelihood of political support for betterment charges.
- Special assessments provide a mechanism for collecting betterment charges over a period of years and can make the burden on taxpayers much easier to bear.

INSTRUMENT 3: DEVELOPER EXACTIONS

These are one-time assessment charges for the approval of additional development or the issuance of building permissions. They are paid by the parties making the request.

- The tax base for developer exactions can be either the estimated market value or the size of the development.
- Exactions are generally intended to mitigate the impact of new development on existing city infrastructure, or to provide new infrastructure that is required in order to meet the needs of the people who will inhabit or use the new development.
- Fees can also be assessed to recover the cost of reviews and safety inspections by the city during the planning and construction of the development.
- In most instances, the exactions are set at a level that has a documented relationship to the actual costs incurred or likely to be incurred by the city.
- If the exaction level or purpose is not directly tied to actual infrastructure costs, it will likely still have to be earmarked for a specific social purpose and justified in terms of the cost of fulfilling that purpose.

INSTRUMENT 4: LAND VALUE INCREMENT TAXES

Land value increment taxes are intended to allow the community to capture part of the increased land value that often results when public infrastructure is improved, permission is granted to change land use or simply from changing market conditions.

They differ from developer exactions or betterment charges in that they go beyond recovering the cost of specific infrastructure or service improvements.

Immovable property is land and any attached buildings. They are considered immovable because such buildings cannot easily be transferred somewhere else.

- They differ from annual taxes on immovable property in that they are very often one-time assessments and generally apply only to the increase in value resulting from the public investment, a change in land use or changes in market conditions.
- Value sharing is often motivated by the argument that all land value increases that are not a direct result of private investment on the land are a result of social processes. The claim is that since such incremental value is socially created, it should be available to fund public purposes.
  - There are three general approaches to implementing land-value sharing taxes:
  - One-time taxes levied when approval for land use changes or increased density is granted
  - One-time taxes levied when land is transferred to another party
- The land portion of an annual split-rate tax on immovable property

INSTRUMENT 5: SALE OF DEVELOPMENT RIGHTS

In selling of development rights, cities separate land ownership from the right to further develop that land. Cities then sell the right to further development within a given area. Rights can be sold to existing landowners/leaseholders directly or auctioned in an open market.

- To be successful, there must be
  - Market demand for additional development in the designated area;
  - The legal framework allowing for the sale of development rights; and
  - A governing authority with the technical and administrative capacity to effectively initiate, monitor and regulate both the sale of development rights, any subsequent resale of the rights, and ultimate development.
- Development rights sales can be administrated in varying degrees depending on the capacity and resources of the issuing municipality.
- The sale of development rights can be used to manage and limit growth as well as encourage it.
- The sale of development rights through open auctions may prevent low- and moderate-income households from acquiring those rights and thereby limit their ability to invest in their land.

INSTRUMENT 6: LAND LEASES AND LAND SALES

In many instances, the government owns either all or substantial sections of land. When a government makes the determination to mobilize revenue using these land assets, they frequently consider either selling the land or leasing it.

Sale of public lands

The sale of public lands converts one type of public asset (land) into another (cash) through the sale of the land to the private sector.

- Requirements:
  - The government must have land that it considers to be no longer needed for public purposes. This is an important judgment with very long-term consequences. Caution in reaching such a judgment is required.
  - There must be a market for the land.
- The land should be sold through a transparent process, such as an auction, in order to ensure that full market value is obtained.
- If it is desirable for policy reasons to discount the land below full market value, the discounting should be transparent and fair.
- Care should be taken that all proceeds from the sale are appropriately accounted for.

This is a straightforward technique to generate one-time revenue for high-priority, long-term projects, but it should be used with great caution and only with full transparency and public consultation.

Leases

Leasing publicly owned land through multi-year leasing agreements for either annual or one-time revenues, or both, creates a leasehold interest that allows private entities to develop the land and potentially sell the lease in a secondary market.

- The government entity must have available land and it must have the administrative capacity to administer and regulate a leasehold system.
- To develop a leasehold system, a government must
  - Identify public land appropriate for leasing and unlocking value,
  - Develop a specialized institution to manage a leasehold system,

- Earmark revenues for specific purposes, and
- Develop a compensation policy for current tenants of public land.

Governments without a strong administrative ability to manage such a system have not found success in generating meaningful revenue. Additionally, the more control the government relinquishes in leasehold agreements typically results in the prospect of more revenue. The most successful systems, in terms of revenue generation, are those that are modelled closely on freehold systems.

INSTRUMENT 7: TRANSFER TAXES AND STAMP DUTIES

Transfer taxes are assessed when the title to land rights is transferred to another party. Most commonly, the transfer tax is expressed as a percentage of the value of the real property being transferred.[2] It is levied in addition to any notary fees or other fixed charges collected at the time the transfer is registered.

Because the transfer tax is levied at the time the registered title to real property is transferred from one party to another, the minimum requirements for implementing a transfer tax are tied to the land registration system.

Transfer taxes should be used to fund the land registration system. Beyond that primary purpose, some jurisdictions attempt to use the transfer tax to restrain overheated real estate markets. While this approach seems to work in the short run, the long-term implications are much less certain and may undermine other important policy objectives.

ANNEXES

The *Reader* also includes two annexes. The first discusses *local government borrowing*. Some land-based finance instruments provide revenue over time, rather than a lump sum that can be used for a major project. However, if major projects are financed through borrowing, ongoing land-based revenues can provide the means to repay the loans. Borrowing in this sense is not considered a revenue source, but rather a cash flow management tool which can be used in conjunction with some land-based finance instruments.

The second annex discusses *land readjustment,* which has been used in a number of contexts to simultaneously provide land for public uses while increasing the inherent value of privately held plots. Land readjustment does not usually generate revenue, but rather helps public agencies defray the land-acquisition costs of improving the city.

Over half of the world's population today lives in urban areas. By 2050, this figure is expected to increase to two-thirds. Asia and Africa are urbanizing faster than other regions and will contribute a significant share of the additional 2.5 billion people that will live in urban areas by 2050. Urbanization extends far beyond the world's 28 mega-cities since about half of the world's urban dwellers live in urban areas of less than 500,000 inhabitants. However, not all cities in the world are growing; but as urbanization continues, sustainable development will continue to challenge urban leaders and managers. (United Nations, 2014)

2. This is not an increment tax because it is applied to the entire property value, not just the increase in value since purchase.

INTRODUCTION TO LAND-BASED URBAN FINANCE

One important pattern among highly urbanized countries is that they tend to rely more heavily on land-based taxes. A review of 64 countries shows a strong positive correlation between the urban population percentage and land-based taxes as a percentage of GDP.

The table presented in the adjacent box illustrates this point. While the average land-based tax revenue for these countries is about 0.75 per cent of GDP, the average among highly urbanized, high-income countries is over 1.5 per cent of GDP. The table suggests that as urbanization intensifies in a country, and especially if income levels increase, land becomes increasingly important in financing sustainable urban development.

The purpose of this *Reader* and the associated training materials is to identify, explain and illustrate the implementation requirements for the most common land-based financing instruments. As local and national leaders in developing countries consider designing, implementing and/or reforming land-based finance instruments, they will generally move through three stages.

- The first stage involves understanding and choosing from the policy options that must be considered if the instrument is to be appropriately adapted to the local cultural and legal environment.
- The second stage dives more deeply into questions of implementation design and requires leaders to identify the specific tasks and functions that must be accomplished if a given instrument is to be implemented.
- The third stage moves to actual implementation of the design. In most cases, this third stage will require the technical assistance of outside experts who can promptly respond to the questions that will inevitably arise during implementation.

Three stages to reform or use a land-based finance instrument:

1. Instrument and policy selection
2. **Instrument design ← Focus of this training**
3. Technical implementation

These training materials are intended to support national and local leaders at the second stage. Of necessity, some discussion of policy options is included, but the main focus is on implementation design. Given that actual implementation generally requires specialized technical assistance adapted to local needs, it is beyond the scope of a global product such as this to provide the kind of detailed

Box 1: Urbanization and reliance on land-based taxes (Recurrent taxes on immovable property as a percentage of GDP)

Urban population (% of total)	World Bank income level				Number of countries
	Low & Lower middle	Upper middle	High	Total	
Less than 60%	0.277	0.460	0.358	0.347	15
61% to 79%	0.415	0.430	0.653	0.531	28
80% or more		0.443	1.543	1.330	21
Total	0.327	0.439	1.063	0.751	64
Number of countries	11	19	34	64	

Source: Tax data taken from Norregaard (2013); urbanization data from World Bank (http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS)

information required in the third stage. The objective of these materials is to assist those who want to develop a strategy and action plan for implementing and improving land-based finance instruments.

This chapter provides greater context for the land-based finance material presented in later chapters. In the sections that follow, land-based finance instruments as a group are placed within the broader context of municipal finance. A justification for focusing on local governments and land is provided. The chapter then turns to a discussion of the overarching contextual factors that relate to land-based finance. The chapter next presents a set of specific potential criteria to be considered in selecting and designing land-based finance instruments.. Finally, the chapter concludes by defining and classifying the land-based finance instruments discussed in subsequent chapters.

FINANCING PUBLIC SERVICES

One of the significant challenges facing urban leaders is that of funding urban infrastructure and services as the world becomes increasingly urbanized. Writing in 2008, two well-respected economists with substantial experience in international public finance wrote the following:

> Many developing countries have strengthening subnational—local and regional—governments as one item on their development policy agenda. Students of public finance have studied the subject and practitioners in developing countries have installed many different versions of subnational government tax. Still, there is no general consensus about what works and what does not. (Bahl and Bird, 2008c, pp. 1-2)

It is beyond the scope of this *Reader* to review all of the literature on municipal finance in developing countries. Fortunately, excellent resources in this regard already exist. See, for example, Farvacque-Vitkovic and Kopanyi (2014) and Slack (2009). Several observations and conclusions from this literature are relevant here. First, in virtually all developing countries, sub-national governments, especially municipalities, rely on a combination of central government transfers, user charges and local taxes.

Second, it is widely accepted that taxes and charges related to land are generally underused in developing countries. However, even if they were more aggressively employed, land and property taxes are unlikely to provide sufficient revenue to fully finance major social expenditures such as education, health care and social assistance (Bahl and Bird, 2008c).

Consequently, land-based taxes and charges can and should be greatly improved, but they will always constitute only part of the bundle of revenues that local governments require in order to meet the burgeoning demand for services and infrastructure.

Nonetheless, a low-rate, uniform property tax has an important role to play in financing local governments, whether rural or urban. Moreover, other "land-based" subnational taxes—for example, betterment taxes and even transfer taxes to a limited extent—may be both feasible and, in moderation, desirable… (Bahl and Bird, 2008c, p. 17).

Bahl and Bird conclude that intergovernmental fiscal relations must be thought of as a system, with all the pieces working together. Local government revenue systems cannot be appropriately designed without first establishing clear and logical expenditure assignments to the different levels of government (Bahl and Bird, 2008c).

As indicated above, land is not the only potential revenue base available to municipal and urban leaders. For example, Bird (2003) has also provided an excellent discussion of the role of user charges in local government finance.[3]

This *Reader* includes a number of potential revenue sources tied to land. Early in the discussions presented by both of the above sources, the attributes of a good local tax as set forth by Richard Bird are cited (Bird 2001). While the discussion presented here goes beyond taxes to include other potential land-based revenues, Bird's principles are relevant for many of these other options as well. Box 3 summarizes Bird's recommendations. (See also World Bank 2013, Ingram and Hong 2010, Cornia 2013)

The attraction of land is obvious from Bird's first principle: land is immobile and taxes and fees tied to land cannot be avoided by relocating to another location. In addition, if properly designed and administered, land-based taxes and fees can meet the other criteria articulated by Bird. Before turning to a more detailed discussion of land in relation to these criteria, it is useful to ask why local governments should be the focus of the discussion and especially of LBF training.

Box 3: Characteristics of a good local tax

1. The tax base should be relatively immobile so that local governments can vary the tax rates without a significant portion of the tax base moving somewhere else.
2. The tax yield should be adequate to meet local needs, increase over time as expenditure needs increase, and be relatively stable and predictable.
3. The tax should not be one that is easy to export to non-residents.
4. The tax base should be visible to ensure accountability.
5. Taxpayers should perceive the tax to be reasonably fair.
5. The tax should be relatively easy to administer.

(Bird, 2001)

THE NEED FOR LAND-BASED FINANCE INSTRUMENTS FOR LOCAL GOVERNMENTS

Why local government?

Muwonge and Ebel (2014) note that two forces are shaping the world of development policy: globalization and localization or decentralization. Certainly, decentralization has its critics (for example, see Treisman 2007),and the pros and cons of decentralization are beyond the scope of this *Reader*. What is clear is that nearly all developed nations assign the responsibility for at least some land-based revenues and fees to local governments, including granting some degree of autonomy in setting tax rates. The process involves both valuing land and collecting fees, which can be divided among different levels of subnational governments (Bahl and Cyan, 2011b).

Central governments make the decision to allocate taxation to local governments for several reasons. A primary reason is that local government is simply in a superior position to administer local revenue collection, especially taxes and fees tied to land (McCluskey and Bell, 2008).

3 Slack (2009) and Freire and Garzón (2014) both provide excellent overviews of the range of revenue options available to fund urban governments.

INTRODUCTION TO LAND-BASED URBAN FINANCE

Multi-tiered governments work best when taxes are directly associated with the services they yield (Bahl and Bird, 2008a). Decentralization efforts can then be critical in improving efficiency and transparency (Mikesell 2000; Mikesell, 2007, 2013; McCluskey and Bell, 2008). There are, of course, several types of decentralization (World Bank, 2014b), but the focus of this discussion is on fiscal decentralization.

Governance moves closer to the people when decentralization efforts are successful. Fiscal decentralization can result in:

- Local economic development
- Revenue mobilization
- Innovation in public service delivery
- Increased accountability in elected officials
- Capacity deveopment at the local government level
- Grassroots participation in governance (Bahl and Bird, 2008a)

According to Bird's rules for deciding which level of government should collect which tax — between national, regional and local governments — local government is the only level of government that should participate in the taxation of land and property.

On the other hand, local governments should not participate in collecting taxes such as income, payroll, retail sales or excise (Bird, 2010a).

As more public services are administered through subnational governments, the subnational tax processes become critical to building an effective and sustainable intergovernmental revenue system (Bahl and Bird, 2008a), All land-based revenues have a potentially broad base that is both productive and stable throughout the business cycle. Additionally, there is a correspondence between the benefits received from the services financed by the tax and the *benefit tax* principle (Bahl and Cyan, 2011a).

Quality subnational taxes — primarily those derived from land and property — typically generate adequate revenue to create autonomous subnational governments and impose clear fiscal responsibility at the margin, at least in the largest municipalities (Bahl and Bird, 2008a).

Although it is generally agreed that land-based taxes should be the fundamental source of revenue for subnational governments, such taxes typically account for less than 1 per cent of GDP and less than 4 per cent of all tax revenues in developing countries.

Most reform efforts to alleviate this problem in developing nations have been unsuccessful due to approaches that are expensive to administer without generating sufficient revenue to justify the additional cost (Bahl and Wallace, 2008a).

Definition: A benefit tax is a tax that is roughly proportional to the cost of the public service benefits received by the taxpayer. It can be seen as compensation for the broad set of benefits provided by a local government.

The tax base should be visible to ensure accountability.

Taxpayers should perceive the tax to be reasonably fair.

The tax should be relatively easy to administer.

(Bird, 2001)

Expensive administration costs come in two forms: the first cost is the large, one-time expenditures needed to develop basic systems; the second is in the operating costs associated with tax administration and maintenance (Mikesell 2000, 2007, 2013; Bahl and Wallace, 2008b). Given this general experience, it is reasonable to ask why land should be an essential element in local revenue systems.

The rationale for using land as a basis for raising revenues

Land has a number of advantages for local leaders as a basis for raising a significant share of the revenues necessary to meet local needs. First and foremost, as noted, land is immovable and visible. Immovable means that collecting a fee or tax tied to land will not alter its future location. This may seem like an obvious point, but it is critical for local leaders to understand and use the immobility and visibility of land. A local tax on income or retail sales may alter household decisions on where to live, work or shop, but a tax based on land or property will not change the location of that land or property. While the tax may influence who occupies the land or how the land is used, it has no effect on location. This immobility in the tax base makes land and property an attractive potential revenue base.

Administration of land-based revenues can be enhanced and revenues increased if local authorities play an active role in that administration. Local authorities are often more familiar with the local economy and are engaged in other regulatory and revenue generating activities that crossover with land-based revenue options. For example, regulating building permits, business licences and land-use plans gives local administrators greater familiarity with building and development activities in the city. For the potential of local administration to be realized, local governments must be assigned specific administrative functions and a significant portion of the revenue resulting from their efforts.

Definitions: A tax or fee is said to be progressive if the percentage of household income needed to pay the tax or fee increases as household income increases. For example, a household with moderate income may pay 10 per cent of their income in income taxes. If a high-income household pays more than 10 per cent of their income in income taxes, the income tax would be considered progressive. Alternatively, a tax that falls more heavily on lower income groups, as a percentage of their income, is referred to as regressive. A tax that affects all households the same, again as a percentage of household income, is said to be proportional.

Taxes and fees linked to land and property may act as a benefit tax (i.e. proportional compensation for the broad set of benefits provided by the local government). This means land that receives greater benefits from urban services tends to pay more taxes and fees because it is more valuable (Zodrow, 2006).

Some authors argue that land-based revenues can be progressive (see adjacent box) in nature as ownership is generally concentrated in upper income groups (Bahl and Cyan, 2011a). The impact of land-based revenues on households with different income levels should be carefully considered. Such considerations are often framed in terms of whether a tax is progressive, regressive or proportional. If a land-based tax is seen as a benefit tax, these terms do not apply since the tax or charge is simply the price paid for services received. That price may be a burden on low-income households. Consequently, many governments create processes to reduce or even eliminate land-based taxes for the poorest households, though such policies should be crafted with extreme care.

Some governments have deliberately sought to make their land-based taxes more progressive. In order to accomplish greater progressivity, a progressive rate structure is implemented in which higher-valued properties also face a higher tax rate. But there are features of a land-based tax based on market value that tend to make it progressive even if a single tax rate is implemented. As demonstrated in the example box, if property wealth is concentrated (as it often is), a single tax rate is likely to produce a progressive

Box 4: Property tax progressivity numerical example

This example considers two households of very different means. Household A has an annual income of 1,000 and owns 500 m2 of property. Household B has an annual income of only 100 and owns 50 m2 of property. So household A has ten times the income and owns ten times as much property as household B.

If both properties are assessed at the same value of 10 per m2 and a tax rate of 1 per cent is levied, then the tax obligations for each household would be:

Household	Income	Property (m2)	Value per m2	Tax	Tax as a per cent of income
A	1000	500	10	50	5.0%
B	100	50	10	5	5.0%

Under these conditions, the property tax would be a proportional tax, with each household paying the same percentage of their income in property taxes.

But it is unlikely that the property owned by household A would be of the same quality and value per m2 as that owned by household B. Wealthier households tend to live in better locations and in higher-quality buildings. If the property owned by household A is valued by the market at 50 per cent more per m2 than the property owned by household B, then the tax obligations for each household would be:

Household	Income	Property (m2)	Value per m2	Tax	Tax as a per cent of income
A	1000	500	15	75	7.5%
B	100	50	10	5	5.0%

Thus, even though the same tax rate is applied to both properties, household A would pay a higher percentage of its income in property tax both because of the larger land holdings and the higher valuation per m^2.

tax burden. Whether the property tax is progressive or not, and how progressive it is, will depend on the relative concentration of property wealth in a community. The point of the example is simply to make clear that a single tax rate does not necessarily result in a regressive property tax burden.

In many developing nations, the expenses necessary to adequately serve the municipality greatly exceed current revenue levels, making local governments critically reliant on intergovernmental transfers. Since land-based revenue instruments are often best administered by local governments, expanded use of land-based financing may enable subnational governments to become more independent by closing the gap between own-source revenues and expenditures (Borras and Franco, 2010; Bird, 2010b).

A further important point is that because land-based revenue instruments tend to be highly visible, they also promote transparency and accountability in local government (McCluskey, Cornia and Walters, 2013; UN-Habitat and GLTN, 2011).

Another consideration in focusing on land is the impact on economic development. Land revenue, when used appropriately, can stimulate economic development more effectively than can other methods. In studying the impact of taxes on economic growth, research shows that the tax structure of a country affects economic growth differently. These impact levels can even be ranked in their effectiveness of impact, with property taxes being the most growth-friendly taxes and corporate income taxes being the least growth-friendly. The ranking of most- to least-friendly, in terms of impact on GDP per capita, is:

- Property tax
- Consumption taxes
- Personal income tax
- Corporate income tax (Arnold, 2008)

At the same time, there is some evidence that where there are different property tax rates in a single urban or metropolitan area, developers may avoid the higher tax jurisdictions within the area. If developers have options, there may be a tendency to opt for the lower tax rate (Groves, 2007). This assumes that developers have options and that they see plots of land in different municipalities within the same metropolitan region as essentially interchangeable, both fairly strong assumptions.

To prevent such tax avoiding behaviour by developers, it is very useful to have a commonly applied set of taxes and development controls across an entire metropolitan region. Therefore, cooperation with neighbouring municipalities in the common use of land-based revenue instruments or policy setting by a higher level of government may be very useful.

CHALLENGES IN USING LAND-BASED FINANCE INSTRUMENTS

Land-based revenue systems in developing nations can be extremely useful and fundamental in building an adequate and stable revenue system, but they are not without challenges. Even with a sound legal foundation for land-based revenues (something not always present), three cross-cutting challenges are common in developing countries.

Administration — Land-based revenue systems require strong and effective local government administration and collaboration between multiple levels of government. Such administrative capacity is often lacking in local governments, especially in rapidly expanding small- and medium-sized urban areas.

The challenge is compounded because even well-administered systems are unlikely to yield enough revenue to finance all priority programmes (Bahl and Bird, 2008a). Even if a local government collected all the available value from land, the generated revenues would still fall short of the revenue necessary to fully fund all operations and needs. Many land-related revenue reforms in particular have been largely unsuccessful because the cost of making administrative improvements is higher than the potential yield from the investment at tax rates deemed politically acceptable (Bahl and Wallace, 2008a).

Valuation — A second common problem with instituting land-based revenue systems is the difference between market values and assessed or taxable values. In theory, many land-based revenues should be collected based on the fair market value of a property. In reality, discrepancies commonly exist both between and within classes of property since assessment is as much art as it is science, and is fraught with judgments and administrator discretion (Bahl and Bird, 2008a). It is common for valuations for tax purposes to fall below what a property would sell for in an open market, resulting in a loss of taxable value for the local government. In many instances, these shortfalls and the resulting revenue losses develop due to irregular and outdated

Political support is a key ingredient for LBF success.

- High-level political officials must be committed.
- Key stakeholders and the public must be informed and supportive.

Often the best way to generate public support for revenue collection is to spend the revenue on **needed and visible public services.**

valuations and inadequate valuation processes. If taxable value fails to keep pace with actual value, the ability of land-based taxes to recuperate and share the benefits of public investments is compromised. The variety of valuation techniques is discussed in the chapter discussing the recurring tax on property (Instrument 1).

Taxpayer resistance — A third problem with land-based revenue instruments lies in taxpayer resistance. Many of these instruments are extremely visible in nature compared to other taxes levied on or through businesses (Bahl and Bird, 2008a). It can be difficult for taxpayers to understand equity, resulting in opposition to a tax that is easy to pinpoint and compare in terms of money spent in lump sums (Bahl, Martinez-Vazquez and Youngman, 2008b), Because land-based revenue instruments are often unpopular in developing nations, they are rarely a priority for elected officials (Bahl and Cyan, 2011a).

OVERARCHING REQUIREMENTS

There are a number of potential land-based finance instruments and many variations on these as they are implemented around the world. It is essential to recognize that instruments that work effectively in one context may require substantial adaptation to be useful in another context. There are four overarching factors that must be carefully weighed in making such adaptations: legal requirements, cultural context, the condition of land markets and the administrative capabilities of implementing agencies.

Legal requirements for land-based financing

One of the key steps in implementing, updating or reforming any policy or practice related to land is a review of the relevant legal provisions at all levels of government. Dam (2006) notes that there is now substantial agreement among both academics and the research departments of international financial institutions that legal institutions play a vital role in enabling and promoting economic development. The core logic is that security of property rights and the integrity of property contracts underpin investment and trade. These, in turn, support economic growth and development (Haggard, MacIntyre and Tiede 2008; Haggard and Tiede, 2011). Informal institutions are important in many countries; however, formal legal institutions are especially important in relation to efforts by governments to levy taxes and fees related to land.

Implementing a tax or fee that is related to land requires that the enabling legal framework address several key factors, including:

- **What aspect of the land will be subject to the tax or fee?** Depending on the fee selected, the answer to this question could vary from simply the size and location of the land, to the transfer of a set of land-related rights from one party to another, to the publicly granted right to use or develop the land in a particular manner.
- **Which properties will be subject to the tax or fee?** In many contexts, policy makers seek to distinguish between different land uses or different types of landholders. Such distinctions should be kept to a minimum in order to minimize errors and abuse and to facilitate administration. But to the extent that not all properties are to be treated the same, the desired categories should be defined in law.
- **How will the taxable value be determined?** Value could be defined simply based on size. It could also reflect some concept of the monetary value of ownership or occupancy rights. Or the taxable value could be the increase in monetary value resulting from a public action, as determined by the land market. In all cases, the enabling law

should make clear what will be taxed and how the value of the tax base will be measured.

- **What tax rate or range of tax rates will be applied?** The rates will be applied to the tax base to arrive at the tax obligation. The law should set out the rate (or range of rates) that will be used. If multiple property categories or landholder categories are used, the law should define the rates that apply to each class of property or landholders.
- **At what point in time will the tax or fee obligation be incurred and when must the tax or fee be paid?** Depending on the instrument used, the tax could be determined on a specific date each year, or it could be in connection with a specific land-related event, such as the transfer of the property from one party to another. The amount of time that the taxpayer has to pay the tax and any consequences for late payment should be addressed in the law.
- **Which government entity or entities will be responsible for administering the tax?** Not all aspects of administration should be handled by the same entity. It is often the case that different agencies have different expertise and that collaboration between agencies leads to better administration. With an eye to efficient administration and low compliance costs, the law should set out which entities will be responsible for at least the following tasks:
  - Monitoring and tracking landholders, land plots and the connection between the two
  - Determining the taxable value
  - Assessing or calculating the amount of the tax or fee due
  - Preparing and delivering the tax or fee notification
  - Responding to taxpayer questions and processing appeals
  - Collecting the tax or fee
  - Executing enforcement proceedings against tax avoiders
- **Which level or levels of government will receive the revenue generated by the tax or fee?** Entities involved in administering any aspect of the tax should also receive sufficient funding to cover their costs. How the remaining proceeds should be divided between government entities will depend on
  - The extent of fiscal decentralization
  - The number and type of government services assigned to local governments
  - Any potential need for revenue sharing
  - Any way central government transfers are used to incentivize and respond to local tax collection efforts

To create appropriate incentives for all stakeholders, the law should be clear on how funds will be allocated.

The argument for a metropolitan or region-wide legal framework

While property is immobile, development is not. Therefore, it is very helpful to have a tax and land use control system that extends beyond the boundaries of a local municipality.

If development just outside the municipal boundary can access the benefits of the urban economy while avoiding taxes applied by the municipality, new taxes may push development to the urban edge.

The enabling law must be adopted by the same legal authority that authorizes other taxes. Government structures vary widely around the world and therefore the placement of the land-based finance instruments within that structure will vary as well. In some countries, municipal governments have no independent revenue collecting authority. In others, they are granted substantial autonomy.

Some countries have one or more levels of government between the national government and

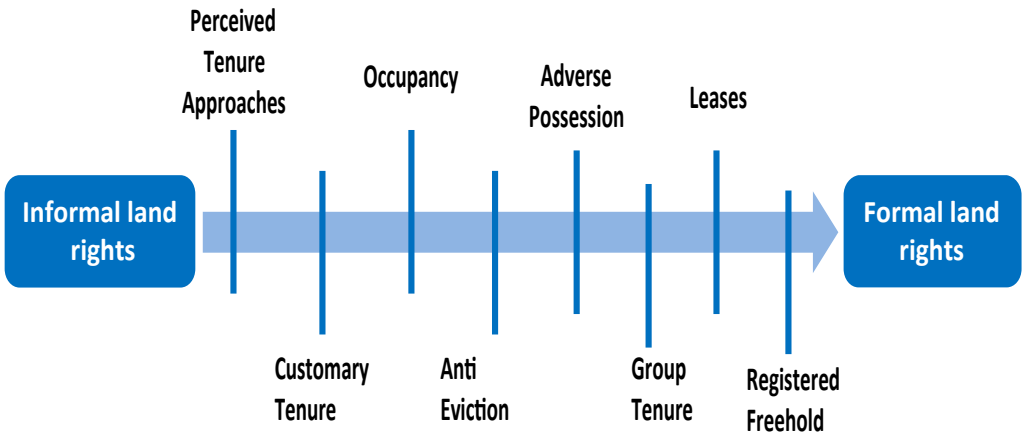
municipal governments. Such systems that divide governmental authority between the national government and constituent political units are often referred to as federal systems. These political sub-units are known by different names, including states, provinces, districts and parishes. The key point is that municipal, town and village governments will tend to be governed directly by laws and policies established at this intermediate level of government.

For example, India is subdivided into 29 states and the national government has granted each state substantial autonomy over land-based financing within that state. States on the other hand vary in the amount of autonomy they have granted local municipalities with the result is that there is wide variance in the implementation of land-based financing instruments across India.

Whether or not there is a meaningful intermediary government between the national government and the local government, it is often the case that the central authority must adopt enabling legislation creating the legal framework for the land-based financing instrument. The local government must then adopt a local ordinance actually implementing the instrument and setting out the details for its administration within the local context. In general, law at the central level establishes a legal framework that permits the use of an instrument and defines its general parameters. The specific parameters and implementing strategies are set out in local law.

Careful attention to both the enabling legislation and implementing local ordinances is essential to assure that the instrument selected is accepted by the public and the courts, and that it can be effectively, efficiently and fairly administered.

Figure 1: A continuum of land rights (UN-Habitat, 2008b)



Cultural and contextual adaptation

The history and cultural norms and systems associated with land vary dramatically around the world. Any adaptation of a land-based finance instrument to a local context must be sensitive to these variations. It should also be recognized that law, attitudes and practices involving land evolve over time. For example, GLTN and UN-Habitat have developed the concept of a continuum of land rights, depicted in Figure 1. In terms of this approach, security of land tenure is not limited to individually held private property. A continuum of tenure types, including informal and

customary, should be recognized and supported in order to promote security of tenure for all (UN-Habitat, 2008b, pp. 8-11; UN-Habitat and GLTN, 2012, p. 12). In addition, the nature of land rights in a particular country may change over time, as in the case of Mexico, described in Box 5 below.

One of the key factors to consider is whether land is owned privately, by the government in trust for the people, held in a communal system such as customary tenure, or held in any other locally applicable and legitimate tenure form. In many parts of sub-Saharan Africa for example, the majority of land holdings are based on customary forms of tenure. The terms "traditional", "communal", "tribal" and "indigenous" are sometimes used interchangeably to describe all indigenous tenure systems. It is very important to develop an accurate understanding of locally applicable and recognised tenure, in context (Royston and Du Plessis, 2014).

Box 5: Mexico's ejido tenure system (Barnes and DiGiano, 2014)

- Nearly half (47 per cent) of Mexico's land area is in ejidos, which are land areas held in common
- Following the Mexican revolution (1910-1917), the ejidos system was legislated into existence
- The state created or legitimized existing customary tenure regimes. It also mandated certain obligations, including restrictions on rights to subdivide or sell ejido land to outsiders
- In the ejido system, ejidatarios (landholders) are granted rights to occupy and benefit from land and may pass these rights on to their heirs
- Ejidos consist of individual urban plots, individual agricultural parcels, shared common areas and shared forestland
- The "usufruct"* rights held by ejidatarios prohibited sales, mortgages or land rentals
- The number of ejidos has continued to grow, even after legal reforms of 1992 allowed ejidos to be privatized
- Other reforms in 1992 made it possible to change the tenure regime to private property based on a vote of the ejidatarios
- After 1992 reforms, a nationwide land registration and certification programme was launched. Participation was voluntary. Documents issued certified usufruct rights, not private ownership. By August 2012, about 94 per cent of rural communities and 90 per cent of land area covered by ejidos had been certified

Barnes and DiGiano suggest that land tenure in Mexico has moved through a number of stages:

- Indigenous forms of tenure in the pre-Hispanic period
- Destruction of indigenous tenure during the colonial era
- Consolidation of land into large holdings during the post-colonial era
- Creation of the ejidos following the revolution (1917-1992)
- Formal registration and permitted conversion to private ownership since 1992

* **Usufruct** is the right of temporary possession, use or enjoyment of the advantages of property belonging to another, as long as the use does not cause damage or harm to the property. (Oxford English Dictionary)

Customary tenure refers to systems used by communities to express and order ownership, possession and access, and to regulate use and transfer of land. Landholders' rights depend on agreements that are embedded in local communities and that derive from their social relations with families, clans, lineages and communities. The mechanisms for obtaining, using, distributing and disseminating these rights are based on the customs and traditions of a group. Within the group, not all members have equal access to the land. Some rights may be vested exclusively with particular individuals. Others may be vested in families or households. Still others may be shared equally between group members (Akrofi and Arko-Adjei, 2014).

Beyond the issue of how land rights are defined, an important issue relates to how such rights are recorded and defended by the society. Advocates of individual tenure and privatized land ownership argue

that land becomes an economic asset allowing the owner to use the land for investments or collateral. Landowners will no longer have to protect their land from seizure by others when it is legally recognized as their property.

Titling was successful in Peru, as "receipt of titles allowed former squatters, especially women, to join formal labor markets instead of staying at home to guard their land, thereby increasing their income and reducing child labor." (Ali, Deininger, and Goldstein 2014b, 4). By joining the workforce the Peruvians are better able to financially support themselves and leverage their land if necessary, thus helping reduce poverty.

Latin America beyond Mexico has moved towards recognition of the land rights of Indigenous Peoples based on the International Labour Organization's Convention on Indigenous and Tribal Peoples, commonly referred to as ILO 169 (ILO, 1989).

Formalizing tenure has also led to greater protection for married women who typically would have been displaced after their husband died. Having a formal title allows a woman to claim the property and stay in the home. Previously in countries like Rwanda, women only had access to land through their husband (Ali, Deininger and Goldstein 2014a). Titling gives women and other vulnerable groups a legal claim to keep their land.

Definitions

- The term property as used here will generally include both land and permanent immovable improvements on the land. For example, "property tax" will generally imply a tax on land, buildings and other significant, permanent improvements. Some authors refer to property in this sense as either "real property" or "real estate".
- Land includes site improvements such as street access, utilities to the property line, etc.
- Tax base refers to the value or amount that is subject to a tax or the quantity on which the tax obligation is calculated. The tax base for land-based financing instruments can be defined in a variety of ways, including land area, property value, etc. as will be discussed throughout these materials..

Those who oppose privatization argue that while private ownership has the potential to increase economic development, it also has a very real potential to compromise the security and livelihood of the poor (Anaafo, 2013). The fear is that poorly constructed land reform plans will damage livelihoods of the poor, increase dominant patriarchal relations, and intensify violence against women (Manji, 2006).

Titling land does not necessarily ensure protection for the poor from outside forces. In fact, it can be argued that protecting land rights is particularly important in settings where increasing land values may create an incentive for authorities to acquire land for themselves and become landlords (Ali, Deininger and Goldstein, 2014a, p. 3).

Similarly, in areas with individual land rights where land values are increasing, private sector actors may purchase land from existing residents in predatory ways, making a quick profit by offering residents much less than the true market value. While residents may profit in the short term from the sale of their land, the resulting displacement to other less valuable areas can have long-term negative impacts on their livelihoods and quality of life. Customary ownership can protect people against this predatory private-sector behaviour.[4]

4 In cases where land tenure is newly formalized (and becomes individually owned), poor households should be protected from predatory land purchases through community empowerment, educational and other programmes.

Thus, a careful assessment of the history, context and current thinking about land ownership, land registration and the practical status of land rights have to inform any effort to adapt land-based finance instruments to the local culture and context.

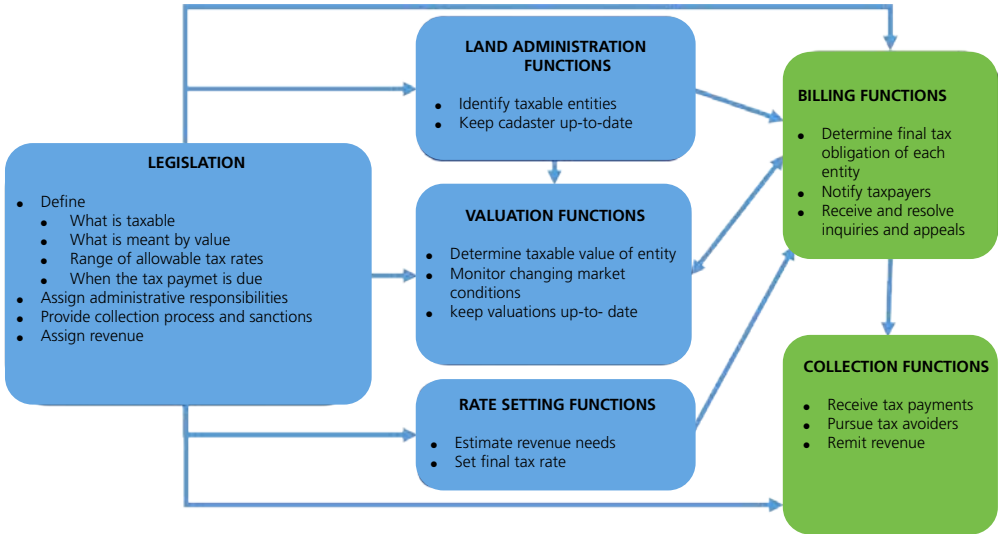
DYNAMICS OF URBAN LAND MARKETS AND LAND VALUES

One of the key assumptions of many land-based financing instruments is that the value of land is socially determined and can be influenced by public actions. Additionally, land markets are socially constructed and require certain conditions to exist and thrive. These conditions do not always hold in practice. In targeting any land-based financing instrument for implementation or improvement, it is important to consider two points:

- Does effective use of the instrument require a functioning land market?
- What preliminary actions might be needed to strengthen the land market?

Wallace and Williamson (2006) identify five stages in the evolution of land markets. These range from the complex, meaningful and often spiritual association

Figure 2: The Land-based finance assessment and collection process



with land exhibited in indigenous land claims through the recognition and registration of individualized land rights, to the emergence of a complex property market with layers of tradable land rights and the legal and financial institutions to support such trades and sales. The authors acknowledge that there is little empirical evidence of a causal relationship between the development of property rights and affluence in the West. They note however that "countries with land markets undeniably enjoy improved capacity to generate wealth out of their land…" (Wallace and Williamson, 2006, p. 133).

Accessing this wealth for public purposes is the central issue in land-based financing for urban development. The instruments discussed in the chapters that follow are intended to provide such access. Before moving on to those discussions, it is worth noting that the actions of government can directly influence the total land-based wealth in a community. While these tools

constitute important aspects of creating land value, they are discussed extensively elsewhere and are therefore not included here. These tools include:

- Appropriate and low-cost land registration and recording systems (Enemark *et al*., 2014; Deininger and Feder 2009; Miceli *et al*., 2002; Miceli, Sirmans and Turnball, 2000; Zevenbergen *et al*., 2013)
- Infrastructure investments and service improvements to enhance the urban environment and urban land values (for example UN-Habitat, 2011; Efthymiou and Antoniou, 2013)
- Land readjustment, with particular attention to the use of Participatory and Inclusive Land Readjustment (PILaR) (See Annex 1 and UN-Habitat and GLTN, 2016)
- Increasing land values by promoting higher densities and mixed land uses (UN-Habitat, 2012)
- Public-private partnerships (Araújo and Silvestre, 2014; Banerjee, Oetzel and Ranganathan; 2006; Brinkerhoff and Brinkerhoff, 2011; Byoun and Xu, 2014; Sengupta, 2006)

Administrative requirements

To understand the administrative requirements related to land-based finance, it is helpful first to understand the process of defining, assessing and collecting land-based revenue. Figure 2 provides an overview of the process for assessing and collecting any land-based tax, fee or charge. The process begins with the enabling legislation, requirements for which were described more fully above.

Land administration functions — Regardless of the specific land-based finance instrument, administrators must identify the taxable entity. To adapt a phrase borrowed from the public finance literature, land does not pay taxes. Only people pay taxes. A key role for land administration, therefore, is to associate real people with each plot of land or each taxable portion of a building. This identification and association may be straightforward if the landholder is seeking approval from the city to develop his or her property. It can be much more complex if the property is held under customary tenure or ownership of the land has never been formally registered. Thus, the requirements faced in carrying out the land administration functions will vary by country, culture and the specific land-based finance instrument.

Valuation functions — The amount of tax due is a function of the value of taxable base and the applicable tax rate. Unlike most other taxes and fees, determining the value of the taxable base for land-based taxes and fees can be technically challenging. Land is unlike other goods that are sold for clearly identified prices. Determining the value of a plot of land and attached buildings is much less clear, especially if the land and buildings have not sold in the market for decades or ever. Even if there is a reported transaction, verifying that the reported transaction price is reasonable requires data and expertise. While there are simpler valuation methods based on the characteristics or size of land and buildings, valuation functions still require adequate staff time and knowledge.

Rate setting functions — Setting the final tax rate is generally a political balancing process constrained by legal limitations and public acceptance on the one hand and revenue needs on the other. The challenges associated with raising sufficient revenue in a manner that is transparent and publicly acceptable can be daunting.

Billing functions — Once the base for a land-based instrument is estimated and the rate set, it is necessary to calculate the final tax or fee, notify the affected parties and resolve any questions or appeals that emerge. The process of calculating the

amount due and notifying the affected parties can be straightforward for some types of instruments.

For example, if a developer seeks approval to change the land use for a given plot of land, the developer will contact the appropriate city staff. The staff can then calculate any exaction due and promptly notify the developer. If on the other hand, the finance instrument is an annual tax on land and property value, the process can be more difficult in some contexts. Generating and delivering the tax notices may require door-to-door visits by city staff or contractors. The resources required will again vary by country and instrument.

Collection functions — All of the political and administrative work in designing a land-based revenue system is worth little if efforts to actually collect the revenue fall short. Collection functions involve first a reliable and secure process for receiving and accounting for funds. In addition, the collection functions include pursuing those who avoid paying their obligation when due. Such pursuits require access to both administrative sanctions and penalties and well as to effective and timely support from the courts. Even with adequate legal grounds for applying sanctions, lack of support from senior political leaders and the courts can limit the effectiveness of collection efforts.

In sum, determining the way forward in adopting, adapting and implementing a land-based finance instrument requires careful consideration of the level of administrative resources required, and where those resources are located within the government. If the administrative resources do not currently exist, they must either be developed or acquired if the overall effort is to be successful.

CRITERIA FOR EVALUATING LAND-BASED FINANCING OPTIONS

General tax evaluation criteria

When evaluating revenue alternatives, it is important to consider multiple criteria to ensure taxes are assessed and collected in the most efficient and equitable manner possible. Common tax evaluation criteria considered in relation to any tax include the following (Cornia, 2013; Slack, 2013; Rosengard, 2013; Fisher, 2007):

- Independent and autonomous revenues: In order for a government to be able to reliably budget, the government needs control over its revenues and flexibility in adjusting revenues to meet community needs. While other levels of government may determine the legal environment and range of acceptable rates, governments need to be able to raise or lower revenues at least at the margin in response to local needs.
- Adequate and stable revenue: In order to facilitate effective budgeting, own-source revenues should be sufficient to meet basic expenditure needs and should be largely reliable.
- Immobility of base: Locally imposed taxes should be on a tax base that cannot be easily relocated to avoid the tax.
- Benefit principle: The taxes paid by a given taxpayer should correlate with the benefits received from government by that taxpayer.
- Ability to pay: The taxes paid by a given taxpayer should reflect that taxpayer's income capacity and ability to pay.
- Compliance costs: The costs borne by taxpayers to understand the tax, calculate their tax obligation and pay the tax should be kept to a minimum.
- Ease and cost of administration: The costs incurred by government to administer the tax, including assessment, notification and enforcement, should be kept to a minimum.

- Transparency: Tax policy should be clear to both administrators and taxpayers, including the method used to calculate the tax obligation, the amount of tax due, along with all payment and enforcement provisions.
- Political acceptability: Tax compliance is in direct proportion to the public's understanding and willingness to pay the tax. Political support from community leaders and the public is essential.
- Horizontal equity: Similarly situated taxpayers should pay a similar tax.
- Minimal economic distortions: There should be relatively few changes in consumption or investment decisions made by taxpayers in response to tax policy. Any changes that occur should be minimal.
- Criteria applied to land-based revenue instruments
- Many of the criteria can be made more specific when applied to land-based revenue alternatives for local governments. The criteria must also take into consideration the role of other levels of government both in funding services and in administration. While considering whether to implement or improve any tax or fee in a subnational government context, it is important to consider six tax rules that function as criteria to evaluate effectiveness and value.

1. The revenue potential from the tax or fee should cover at least a portion of the local expenditures on services assigned to the local government.
2. The correct mix between own-source revenue and grants or transfers will depend on the extent to which the subnational government is assigned responsibilitiy for functions by regional or national governments that have a low tax capacity.
3. If service benefits can be priced they should be financed by user charges, otherwise they should be financed by taxes whose burden is borne by those who benefit from the specific service. Any exporting of tax burdens to non-beneficiaries should be kept to an absolute minimum.
4. The local government should be able to administer the tax at reasonable cost.
5. Exemptions and preferential treatments should be minimized.
6. No tax is politically acceptable to everyone, and almost all tax rates are perceived by taxpayers as being too high. Political acceptability often is an enemy of good tax policy, but subnational governments should generally avoid taxes and tax rates that might have a significant effect on tax compliance (Bahl and Cyan, 2011a).

➤ If taxpayers can see the tangible benefits they receive in improved public services and enhanced infrastructure, they will be much more willing to pay the tax. ◄

While land-based taxes and fees may not meet all these criteria, there are no taxes in practice that strictly adhere to all six rules (Bahl and Cyan, 2011a). Some trade-offs exist in all tax policy making and perceptions of taxpayers differ dramatically depending on circumstances and attitude. Key to the political acceptance of land-based taxes and fees is the public's clear understanding of the benefits received through compliance. If taxpayers can see the tangible benefits they receive in improved public services and enhanced infrastructure, they will be much more willing to pay the tax.

When developing or improving a land-based revenue system, it is important to bear in mind four observations gleaned from a variety of international experiences:

1. While in the process of improving the system, the correct strategy may involve second-best approaches as stepping stones towards a complete and adequate system. This could take

the form of using market-assisted valuation information, for example, in place of actual sales data until such data becomes available.

2. It is essential to develop or use well-managed institutions to administer land revenue, including maintaining records in one agency, using the right collection machinery and gathering reliable sales transaction data.
3. Accurate and current land valuation is critical to a successful land-based revenue system.
4. The land-based revenue instruments play a key role in strengthening subnational finance, promoting rural development and ensuring an equitable tax burden (Bahl, Martinez-Vazquez and Youngman, 2008b).

Additional objectives

In addition to the economic and political criteria discussed above, the local government may have additional goals it seeks to achieve through land-based revenues. Such goals can often be supported and even funded in whole or in part through land-based revenue instruments.

- **Broaden the current tax base:** The current tax regime may place too heavy a burden on too small a segment of the population, and local leaders may seek to improve fairness and lighten the individual burden by increasing the number of taxpayers.
- **Recover the cost of providing public goods:** When the cost of public services cannot be recouped through user charges, they must be paid for via taxes. Often a local government has specific services it seeks to provide and seeks a method to cover the costs of these services.
- **Recover the cost of providing public investments in infrastructure:** Public investments in infrastructure are essential for improving urban conditions and often result in substantial increases in private wealth through land values. Local governments need a method for recovering the costs of such public investments.
- **Encourage efficient land use:** In a rapidly urbanizing world, communities need to encourage the efficient use of land, and well-designed land-based instruments can help to do this (Hack et al. 2009).
- **Improve equity:** In many instances, vulnerable populations in urban areas lack adequate access to land. Well-designed and administered land-based revenue instruments can help to expand the availability of land and housing while providing funding for improving equitable access to services.

Provide public compensation for the private use of public land: In many countries, the public is either the sole owner of land or at least a major landholder. Granting private access and use of public lands is common, but should be priced appropriately to reflect both the right of exclusive use and the cost of public services.

Value sharing: Public action often results in substantial increases in private wealth. Whether it is through public investment in infrastructure, granting permission for land use, or simply increased demand from an increase in population, the public should be able to share in the increased wealth.

Recover the cost of required supervision of private construction: Private development must be publicly supervized in order to assure that such development is consistent with public goals and health and safety standards. Local governments need the ability to recover the specific costs incurred in reviewing development plans and overseeing their implementation.

Fund the land registration system: Land registration systems are key components of the management and tenure security system of local land and must have adequate funding to stay current.

DEFINING AND CLASSIFYING LAND-BASED FINANCING INSTRUMENTS

Definitions

The land-based finance instruments discussed in these materials are called by different names in different countries and settings. No attempt is made here to provide a comprehensive list of synonymous names or to cover local variations on the instruments. Rather, the basic features of the instruments are set out in this section and the reader is simply cautioned to be aware that ambiguity in names exist. Table 1 summarizes the land-based finance instruments discussed in this *Reader* and the associated training materials. For each instrument, the table provides

- A very brief description of what the instrument is
- The "timing" of the instrument, meaning when the tax or fee is assessed and with what frequency
- The initial **incidence** of the tax or fee, meaning who is required to actually pay the obligation

The issue of incidence, or who pays the tax or fee, requires more explanation. Public finance economists draw a distinction between statutory incidence and economic incidence (Gruber, 2011). **Statutory incidence** refers to who must pay the tax or fee to the government. **Economic incidence** refers to who must ultimately bear the economic burden of the tax.

Since the statutory incidence does not describe who really bears the burden of the tax, from a policy perspective, the economic incidence is the more important concept. Consider the following example. Suppose that a developer purchases additional residential development rights from the city. The statutory incidence of the cost of those rights falls on the developer. But if the developer simply increases the price charged for finished residential flats by the amount paid for the development rights, it is the final purchaser of the flat who bears the economic incidence. In terms of assessing equity and social impacts, the economic incidence is thus of greater interest than the statutory incidence.

Unfortunately, determining the economic incidence of land-based finance instruments is not always straightforward. A prime case in point is the annual tax on land and buildings. Some economists argue that the owners of land pay the land and property tax in terms of lower land prices when they sell their land. Others argue that the tax is a pure benefit tax and simply reflects the cost of public services. As such, it does not affect the price of land. While this discussion has been going on for years, it has yet to be resolved (Zodrow, 2006). Table 1 reports the statutory incidence. In the discussion of each instrument that appears in subsequent chapters, the economic incidence and social impacts of the instruments are discussed in greater detail.

Table 1: Land-based finance instruments

Instrument	Description	Timing	Initial incidence
• Recurring land value tax	• Recurring tax based on an estimate of the value of land or on land attributes	• Assessed annually • Can be collected in instalments	• Either the landowner or the occupant
• Recurring building value tax	• Recurring tax based on the value of immovable improvements or on the attributes of the improvements	• Assessed annually • Can be collected in instalments	• Either the landowner or the occupant
• Betterment levies	• Charges assessed in connection with specific infrastructure improvements • Limited to recovery of actual costs incurred	• Assessed and collected as a one-time charge	• Existing landholders whose land benefits from the improvements
• Special assessments	• Charges assessed in connection with specific infrastructure improvements • Limited to recovery of actual costs incurred	• Assessed once • Collected over a period of time, often as a temporary addition to the recurring property tax	• Existing landholders whose land benefits from the improvements
• Developer exactions	• Charges assessed in connection with development approval • Can be paid in cash, in land or in kind	• Assessed once • Collected as project is approved and completed	• Land developers seeking city approval
• Land value increment tax	• Tax assessed as a percentage of the increase in land value due to public actions or general market trends	• Can be assessed when land title transfers or when specific public actions result in increased land values • Collected when land title transfers or by special billing	• Either the original title holder, the new title holder or both if tied to title transfer • Existing landholders if by special billing
• Sale of development rights	• Payments received in exchange for permission to develop or redevelop land at higher density or changed land use • Rights can either be sold at auction or at fixed price • Rights may be transferable to other locations or resold	• Collected once	• Purchaser of the development right
• Sale of public land	• Payment received in exchange for freehold title to public land	• Collected once	• Purchaser of the land
• Lease premiums	• Payment received in exchange for right to occupy and benefit from public land • Permitted land use is specified • Terms vary from 2 to 99 years	• Assessed and collected once	• Purchaser of the leasehold
• Recurring lease payments	• Payment received in exchange for right to occupy and benefit from public land • Permitted land use is specified • Terms vary from 2 to 99 years	• Recurring payments • Payment amount reviewed and updated periodically	• Purchaser of the leasehold
• Transfer taxes and stamp duties	• Charge assessed for recording the transfer of a land title from one private party to another • Can be either a fixed fee or a percentage of the value of the property being transferred	• Assessed and collected once	• Either the original title holder, the new title holder or both

Classifying LBF instruments

It is also helpful to consider the relevance of each instrument for the land-related policy goals described above. Table 2 provides one such summary. In the table, five potential land-related policy goals are listed, along with the 11 instruments. Table cells in green indicate that the instrument listed at the head of that column is potentially relevant for the goal listed on that row of the table. For example, if the goal is to recover the cost of public infrastructure investments, the appropriate land-based finance instruments to consider include

- Recurring taxes on land value
- Recurring taxes on building value
- Betterment levies
- Special assessments
- Sale of development rights
- Sale of public land
- Lease premiums

The other four instruments are better targeted on other goals.

Further, the text in some of the cells indicates any special issues that should be considered in pursuing the instrument in that column with the goal in mind listed on the row.

Some of the Table 2 entries also suggest that some instruments are more appropriate than others for some settings. For example, if the goal is to collect a use charge for private use of public land (last row in the table), it makes a difference whether the land occupancy is formal or informal. If the land use is authorized, it makes more sense to use recurring lease payments built into the agreement that grants the right to use the land. On the other hand, if it is an informal settlement on public land, a formal lease agreement is not practical. However, some cities have been successful in levying a land value tax, especially if paying the tax is linked to eventual regularization of tenure.

Many of the entries in Table 2 make assumptions about the level of the tax rate, the administrative capacity of the agencies involved, etc. Table 3 provides a more detailed statement of the minimum requirements for each instrument.

Two requirements are common to all land-based finance instruments. First, there must be strong political support from senior political leaders. Second, there must be a solid enabling legal framework, as described previously. Beyond that, the requirements for each vary somewhat. All require strong administration, but the administrative tasks vary depending on the instrument. In the chapters that follow, the features of each instrument are spelled out more completely, along with the requirements for their use and the likely impacts on the community.

Table 2: Land-based finance instruments and land-related policy goals

Land-related goal	Land-based finance instrument										
	Recurring land value tax	Recurring building value tax	Betterment levies	Special assessments	Developer exactions	Land value increment tax	Sale of development rights	Sale of public land	Lease premiums	Recurring lease payments	Transfer taxes and stamp duties
Recover the cost of public infrastructure investment	May need to be paired with local borrowing			Requires landholder approval					If priced appropriately		
Claim a portion of increased private land value created by public action	If the tax rate is high enough				If law permits exactions beyond those that benefit the site	If local government administers and retains the revenue					If tax is high, see land value increment tax
Collect a fee for public services proportional to the benefits provided to landholders										Can be combined with land use charge	If tax is modest
Avoid direct expenditures for new infrastructure							If the sale takes place before new infrastructure is installed				
Collect a "use charge" for private use of public land	Informal settlements									Formal occupancy	

Table 3: Minimum requirements for each instrument

Instrument	Minimum requirements for implementation
Recurring land value tax and Recurring building value tax	• Appropriate enabling legal framework • Fiscal cadastre (land registry) that includes all taxable land plots • Appropriate estimate of taxable value • Administrative ability to calculate tax due, deliver bills and collect tax
Betterment levies	• Appropriate enabling legal framework • Identification of all land plots whose value is affected by the improvements • Estimated impact of the improvements on the land value of each affected plot • Accurate estimate of the cost of the improvements • Method for allocating the improvement costs to individual plots based on the share of benefit received • Adequate one-time billing and collection system
Special assessments	• Same as for betterment levies, plus • Adequate instalment billing and collection system • Agreement of a majority of landowners
Developer exactions	• Appropriate enabling legal framework • Estimate of the impact of the proposed development on existing infrastructure • Administrative coordination with city planning functions • Method for calculating the amount of exaction due • Adequate billing, collection and project monitoring system
Land value increment tax	• Appropriate enabling legal framework • Estimate of the "before" and "after" land values • Administrative capacity to identify when the tax is due • Adequate billing and collection system
Sale of development rights	• Appropriate enabling legal framework • Effective control of existing development rights • Demand for additional development rights • Administrative and planning capacity to determine acceptable amount of additional development • Capacity to manage the process of selling additional development rights • Capacity to monitor use and any resale of rights sold

Sale of public land	• Appropriate enabling legal framework • Administrative and planning capacity to determine which lands should be privately developed • Capacity to manage a transparent and fair sales process • Capacity to allocate and manage sales proceeds
Lease premiums and recurring lease payments	• Appropriate enabling legal framework • Administrative and planning capacity to determine which lands are available for lease • Appropriate estimate of market value of land to be leased • Administrative ability to solicit and negotiate leases • Administrative ability to monitor leases for the duration of the lease • Administrative capacity to allocate and manage lease proceeds
Transfer taxes and stamp duties	• Appropriate enabling legal framework • Effective land registration system • Administrative capacity to identify when the tax is due • Capacity to estimate taxable value • Adequate billing and collection system

INSTRUMENT 1:

RECURRING TAXES ON LAND AND BUILDINGS

INSTRUMENT 1: RECURRING TAXES ON LAND AND BUILDINGS

Much of the policy material contained in this chapter is presented in richer detail in the GLTN/UN-Habitat publication Land and Property Tax: A Policy Guide (2011).

Instrument	Description	Timing	Initial incidence
Recurring land value tax	• Recurring tax based on an estimate of the value of land or on land attributes	• Assessed annually • Can be collected in instalments	Either the landowner or the occupant
Recurring building value tax	• Recurring tax based on the value of immovable improvements or on the attributes of the improvements	• Assessed annually • Can be collected in instalments	Either the landowner or the occupant

DEFINITION

One of the oldest land-based revenue sources is the recurring tax on land and, often, immovable improvements on the land. Recurring means that the tax is assessed and is payable at regular repeating intervals, most commonly annually. In some instances, the tax obligation is levied annually, but can be paid in instalments throughout the year.

There are many variations of this annually recurring tax. One key variation is the definition of what is actually being taxed, or the tax base. Three variations can be found in use around the world:

- A tax on land only
- A tax on buildings and other improvements that are permanently attached to the land
- A tax on both land and permanent improvements

In many countries, this annually recurring tax is referred to as the property tax, and includes both land and improvements. In other cultures, the tax is referred to as "rates". In some instances, there are two different taxes: one tax on land and a different tax on improvements on the land (usually buildings). As a convenience, this recurring tax will often be referred to as the property tax in these materials, but the variations that exist both in terminology and practice should not be forgotten.[5]

Improvements refer to buildings and other permanent structures on land.

5 The property tax in some countries is extended to include personal property, meaning property that is not fixed in location and / or not considered permanently attached to a plot of land. Such property would include shelving, office furniture, computers and other equipment owned by individuals or businesses. It would also include planes, railway carriages, boats and, in some cases, cars. A discussion of such a tax on personal property is beyond the scope of this Reader. The focus in this chapter is on land and improvements that would normally be considered permanently attached to the land.

PURPOSE

Of course, one purpose of any land-based finance instrument is to raise revenue to fund local services and infrastructure investments. In the case of recurring taxes on land (and buildings), the key characteristic is that the revenues raised are collected each tax cycle. Rather than a single, large influx of revenue from a one-time tax, a recurring tax generates a stable annual flow of revenue.

Property tax can refer to a tax on land, improvements (buildings), or both.

A second important purpose of the recurring tax on land (and buildings) is related to the benefit principle in public finance. Not all government functions can be funded by charging those who receive the benefits directly. For example, governments can charge users directly for electricity or clean water. It is much more difficult to charge a fee

for public safety. Governments often provide services that benefit the community as a whole. Annually recurring taxes on land and/or buildings provide a mechanism for charging residents and businesses for these benefits.

A third purpose of the recurring tax specifically relates to taxes applied to land values; this purpose is land value sharing. If the tax on land is appropriately designed and effectively administered, the annual tax on land can provide communities with one mechanism for sharing in the increased private land values that result from public decisions and city growth over time. Taxes applied to land values are of particular interest as a revenue tool. This is because when applied correctly, they have better impacts than most other types of taxes, correcting instead of intensifying market distortions. This is explained in more depth in the section of this chapter on impacts.

Four foundational principles

For centuries, governments around the globe have attempted to tax land and property of all types. Even a cursory review of the literature on such attempts yields a large array of approaches and levels of effectiveness. Therefore, it is helpful to approach a discussion of the policy and administrative issues related to recurring taxes on land and buildings with four foundational principles in mind.

Minimum requirements

Instrument	Minimum requirements for implementation
Recurring land value tax and Recurring building value tax	• Appropriate enabling legal framework • Fiscal cadastre (land registry) that includes all taxable land plots • Appropriate estimate of taxable value • Administrative ability to calculate tax due, deliver bills and collect tax

1. **The property tax system should reflect and be sensitive to the local institutions and traditions related to land and property rights.** If land is seen as an economic commodity in the local culture, and individual private ownership is accepted, then the incidence of the property tax should fall on landowners. On the other hand, if land is viewed by the local culture as fundamental to achieving basic human rights, or if private ownership is foreign to the culture, then it will likely be more practical to make the occupants of land responsible for paying the tax. The distinction also influences the options for enforcement.
2. **Implementing the property tax requires a fiscal cadastre to link properties to taxpayers. The property tax system must reflect the realities of the current formal and informal land right holdings.** If land rights are publicly recorded and actively enforced by the judiciary, then the fiscal cadastre can be built around the formal legal cadastre or land book. But if many properties are not formally registered, then the fiscal cadastre should be used as an intermediate step that landholders can use to document that tenure claims. The fiscal cadastre will not help much with resolving boundary issues or in resolving competing claims to ownership. Rather its purpose is to document the link between taxpayers and parcels of land. In this, the interests of tax administrators and taxpayers are closely aligned.
3. **There are multiple options to determine the taxable value of properties. The option selected should depend on the extent and**

maturity of real estate markets. It is critical that careful attention is paid to market conditions in different locations and for different types of property. For areas and properties where real estate markets are active and information on market transactions can be obtained, valuation approaches based on capital market value, annual rental value or an approach tied closely to market transactions should be used to establish the value of the tax base. If real property markets exist but information is not readily available or if staff capacity is limited, a banding or cadastral value approach (explained below) should be used. And if markets are limited, an approach based on the physical characteristics of the land and buildings should be used.

A **cadastre** is a registry of properties and their boundaries. A fiscal cadastre is used for tax purposes.

4. **The administrative capacity of local governments must be carefully considered in designing the property tax and the administrative processes for its implementation.** The best strategy is often to divide responsibilities for administering the tax between multiple levels of government. Such a strategy can both take advantage of the strengths of different government entities and increase the accuracy of the system by having more actors cross-checking results. Cooperation between government agencies that have information that is critical for the efficient and effective administration of the property tax is essential. If local resources are limited, then the design of the property tax must be as simple as possible and some compromises on the exactness of valuation will be needed. For example, if real estate markets are active but local administrators either do not have access to quality market data or do not have the expertise to process the data appropriately, it is not wise to plan a market-based property tax system. It is far better to start with a simpler system based on knowable property attributes that can be administered effectively and then build the system and the local administrative capacity over time.

Box 1: The structure of government

Government structures vary widely around the world and therefore the placement of the property tax within that structure will vary as well. In some countries, municipal governments have no independent revenue collecting authority. In others, they are granted substantial autonomy.

Federal systems—Some countries have one or more levels of government between the national government and municipal governments. Such systems that divide governmental authority between the national government and constituent political units are often referred to as federal systems. These political sub-units are known by different names including states, provinces, districts and parishes.

Unitary systems— In a more unitary government there are few or no intermediate levels of government between municipalities and the national government.

Central authority – As used in these materials, references to a central authority mean the level of government which establishes the legal requirements for municipal government actions and which carries out certain administrative and oversight functions in relation to municipalities.

In a wide variety of legal and cultural settings, it is possible to design an effective recurring tax on land and buildings. But the design will differ substantially based on how these four dimensions interact in each setting.

Establishing the legal framework for the annual tax on property

The enabling law for the property tax must be adopted by the same legal authority that authorizes other taxes. For purposes of the property tax, the key

point is that municipal, town and village governments are often governed directly by laws and policies established at an intermediate level of government.

For example, India is subdivided into 29 states. The national government has granted each state substantial autonomy over property taxes within that state. On the other hand, states vary in the amount of autonomy they have granted local municipalities. The result is that there is wide variance in the implementation of property taxes across India.

Additionally, many countries either do not have this type of federal system or they have not chosen to extend this degree of autonomy to subnational governments. In such cases, the property tax may be a national tax. In others, the property tax may be administered by the national government with funds partially earmarked for local governments. The diversity in how property taxes are structured and administered between countries can make the discussions confusing.

Property taxes work best when there is a division of administrative responsibility between multiple levels of government. Tax administration can be done by an agency with specialized expertise, while a higher level of government can provide training, oversight and technical assistance with specialized tasks. This division improves both the efficiency and fairness of tax administration. What this division should be in any given country will depend in part on how the national and sub-national governments are structured. In the case of a federal system, the national government may need to adopt an overarching law to authorize the property tax, but the majority of the legal and administrative framework will be established at the state, province or equivalent level. In such an environment, when these materials refer to a central authority it means the state, province, etc., unless explicitly stated otherwise.

The relationship between governmental entities and the definition of their roles should be described in the enabling law. Drafting the law will undoubtedly require legal assistance; however, the essential components of the enabling law can be identified without the technical experts (Youngman, 1996; Zodrow, 2006; Bland, 2005; Plimmer, 2013).

- *Define what is taxable* — The law authorizing the property tax should embody and reflect the cultural understanding of property rights. The law must
  - Articulate precisely what is taxable and what is exempt. Will only land be taxed, or will the tax cover land and immovable improvements, or just the improvements? What are the requirements for exemption from the property tax?
  - State whether the land and improvements are to be taxed as separate objects or in combination as a single unit.
- Define what constitutes an improvement, if such improvements are subject to the property tax. For example, are trees and other long-lived plants to be considered improvements? Or are improvements limited to immovable, man-made structures?
- *Define what is meant by taxable value* — The law should also define in general terms how the value of taxable property will be defined. Common approaches in defining value include capital market value, annual rental value or the surface area of the land (and buildings). Good practice suggests that the definition adopted should depend on the maturity of real estate markets and the administrative capacity of those agencies charged with determining taxable value.

- *Identify who is responsible for paying the tax* — Will the tax obligation fall on the owner, the occupant of the property, or on both?
- *Determine the process for setting the property tax rate* — Any property classifications should be spelled out and the process for determining the final tax rate should be specified. Good practice suggests that a central government should set the range of allowable rates, but local governments should be given the autonomy to set the final rate within that range.[6]
- *Assign the administrative functions to appropriate agencies* — These functions include
  - Maintenance of the fiscal cadastre
  - Determination of taxable values (this task can be divided between agencies based on the nature of the property being valued)[7]
  - Generation and delivery of tax bills
  - Collection of tax payments
  - Responding to taxpayer questions and concerns
  - Processing valuation appeals
  - Follow up on delinquent tax payments
  - Tax payment enforcement

6 Extreme differences in local property tax rates could impact the locational decisions of tax payers and cause authorities to compete by lowering tax rates. A centrally determined range of rates reduces this possibility.

7 For example, residential properties may be valued by local agencies while specialized industrial properties may be valued by a central valuation authority.

Box 2: The Revenue Equation

Revenue collected is a function of two policy variables:

- The value of property tax base as legally defined (base)
- The property tax rate as set by law and policy (rate)

And three administrative factors:

- The proportion of all land that should legally appear on the tax rolls that actually is included in the fiscal cadastre (coverage)
- The proportion of taxable value that is identified by the valuation process (valuation)
- The proportion of the tax levied that is actually collected (collection)

The total revenue collected will be the product of all these factors:
Revenue = Base * Rate * Coverage * Valuation * Collection
For example, suppose that the base is defined as market value and the legal tax rate is 1 per cent. But

- Only 70 per cent of the property that should be on the tax rolls has actually been registered
- The valuations are out of date and reflect only 80 per cent of actual market value
- Only 80 per cent of the tax billed is actually collected

Under these conditions, the revenue actually collected will be less than 45 per cent of what should be collected (0.7 x 0.8 x 0.8 = 0.448).

- *Assign the tax revenue* — The law should be clear on which governmental entities will receive the collected revenues.

Administration and the revenue equation

An effective method to approach the policy and administrative issues related to recurring property taxes is through the lens of the revenue equation (see the text box). The revenue equation consists of five elements: the tax base, the tax rate, the coverage ratio, the valuation ratio, and the collection ratio (Kelly, 2014). The eventual revenue received by the government is the product of these five elements. It is consequently important to consider the policy and administrative options for each component. The first two terms, the tax base and the tax rate, constitute policy issues, while the last three are administrative.

DESCRIPTION

Current status of property tax revenue in developing and industrialized nations

Determining which governmental entity will receive the revenue from each tax source is referred to as "tax assignment". There are varying levels of tax assignment throughout the world. Geographically

large nations such as India, Brazil and Mexico have federal systems and employ decentralization strategies. Smaller countries and many developing nations have often been reluctant to share tax responsibilities with sub-national governments as a part of their overall decentralization strategy. This difference in tax and decentralization strategy can be attributed to tax administration strategy, the historical context of centralization, and macroeconomic policy concerns (Borras and Franco, 2010; Bahl and Cyan, 2011b).

The subnational tax share of all taxes in developing nations is 10 per cent, compared to 20 per cent in industrialized nations (Bahl and Bird, 2008a). In developing nations, central governments have been reluctant to relinquish taxing authority to subnational governments. These numbers have remained consistent in the last 30 years, with the result that the vast majority of subnational spending is a product of intergovernmental transfers (Bahl and Bird, 2008b).

Tax assignments to subnational governments are five times greater in industrialized nations, even when adjusting for differences in income level (Bahl and Cyan, 2011b). This results in a reality where centralized governments are administering almost all taxes in nearly all developing nations. Although property tax is often seen as the most appropriate revenue source for local governments, it is vastly underused in developing nations, accounting for only 0.6 per cent of GDP on average compared to more than 2 per cent of GDP in industrialized nations (Bahl and Bird, 2008b; Bahl and Cyan, 2011b).

The cost to increase property tax revenues lies in survey fees, valuation, record keeping and enforcement. Some of these are functions arguably better performed by local governments which have better knowledge of the local landscape. On the other hand, local governments have no incentive to upgrade property tax policies and strengthen enforcement if revenues are collected and kept by the central government (Bahl and Bird, 2008b). Collection rates of 50 per cent or less are common in developing nations (Bahl and Wallace, 2008a).

The administrative cost of property taxes commonly ranges between 2 and 5 per cent of revenues in developed Western nations and represents an achievable target for developing nations to aim for as well. In reality, ratios where tax administration exceeds 10 per cent of revenues are common in developing nations and should be considered as being troublesome (Bahl and Wallace, 2008a).

A description of the recurring tax on land and property must consider each of the elements in the revenue equation (see adjacent box). These elements include

- How the tax base can be defined, along with who must pay the tax
- How tax rates are determined
- How the fiscal cadastre is created and maintained
- The alternative ways that the taxable value of land and property can be determined
- The components of successful tax collection administration
- This discussion stresses the fact that it is often the case that revenue from a recurring tax on property can be significantly increased if the administration of the tax is improved. Administration includes:
- Improving coverage - the proportion of legally taxable property included on the tax rolls
- Improving the accuracy and timeliness of property valuation

- Improving billing, collection and enforcement procedures, including taxpayer services for processing taxpayer inquiries and appeals

Strong administration of the recurring tax on property requires trained personnel and an adequate budget to fund all aspects of the administration. The required expertise need not reside in a single agency. It is often most effective to share the responsibility for administration between agencies with specialized personnel. Central governments play an important role in providing training, administrative support in complex situations, and in oversight to assure efficiency, effectiveness and fairness.

The same four guiding principles described above should strongly influence local practices:

- The local institutions and traditions related to property rights
- The extent to which property rights are publicly recorded and actively enforced by the judiciary
- The extent to which property rights are actively sold in reasonably efficient markets
- The administrative capacity of government entities, including the ability to make business processes transparent and accountable

Often it will be the interplay between two or more of these dimensions that will determine the best local answer to the administrative (and policy) questions. For example, determining who will be obligated to pay the tax will depend on the quality of the land registry that publicly records ownership and/or possession, and the administrative capacity of the local tax authority. Landholders must be identified if they are to be taxed.

Likewise, the local institutions, traditions and prevailing market conditions should guide policies that define what should be regarded as taxable property rights. Levying a tax based on capital market value in a community where an active market for real estate does not exist or where private ownership of land is not consistent with local culture is likely to lead to frustrated tax administrators and very low compliance by taxpayers. In such a circumstances, it is better to determine the taxable value based on the physical attributes of the property and require those who possess and benefit from the property to pay the tax. Thus it is that local context plays an important role in determining the best strategy for defining policy and administrative practices.

Defining the base and the statutory incidence

The base of the property tax is the value that will ultimately be used to allocate the tax burden to individuals, households and businesses. The important policy questions in designing the base for the property tax include:

- What should be included in the base? It can include land only, land and immovable improvements, just the improvements, or different combinations of land and improvements for different types of land use. Public finance experts argue in favour of emphasizing taxes on land value above those on improvements, but in practice the tax is more commonly applied to both land and buildings.
- Who will owe the tax? Part of defining the base includes determining who will owe the property tax. Will it be assigned to the owners of property or those who actually use the property?
- How should value be determined and how often should it be updated? The property tax can be based on the market value of the real estate, proxies for market value or selected physical and locational attributes.

- Should these decisions regarding general approach and incidence be uniform throughout a country or should they vary within a country depending on local conditions such as the maturity of real estate markets or the nature of indigenous or other recognized property rights?
- Which types of property or ownership classes should be exempted from the property tax, if any, and why? One of the issues confronting every jurisdiction implementing a property tax is exemptions. For example, it is common, though not necessary, to exempt government-owned property. Temporary exemptions have also been granted in some cases because of natural disasters.
- Which level of government and which agency should determine which properties are exempt?

Defining the base — A fundamental principle of good tax policy can be simply stated as ***"broad base, low rates"***. In the case of the recurring tax on property, this means that including all land in the tax base will mean that the overall rate can be lower and the burden on each taxpayer lighter. With each exclusion, omission or exemption granted, the base is narrowed and the rate necessary to reach the same revenue target will of necessity be higher for those who remain subject to the tax (or public services must be reduced) (Wallis, 2003; Zodrow, 2006; Zorn, 2013).

The principle of broad base and low rates argues compellingly that all land should be included in the tax base. There are also good economic reasons to tax only land, or to tax land at a higher rate than buildings. These economic arguments revolve around principles of economic efficiency, improved land use, the potential for value sharing and minimizing the amount of information that agencies must collect and monitor.[8] There are also strong practical arguments for taxing both land and permanent improvements together as a single unit. Such an approach may be more transparent for taxpayers and may be grounded on more readily available information (McCluskey, Cornia and Walters, 2013).

In addition to determining which land and properties will be included in the base, the enabling law must also specify how taxable value will be defined. One common approach is to define taxable value as the ***capital market value*** of the property, defined as the sales price agreed to by a willing buyer and willing seller in an open market transaction (Franzsen and McCluskey, 2013).

A variation on the capital market approach uses the annual rental value of property (McCluskey and Bell, 2008). But both of these approaches assume the presence of active real estate markets. In the absence of such markets, it is quite possible to have an effective property tax system based on physical attributes and location of the property (McCluskey and Franzsen, 2013).[9]

How property rights are defined and registered, as well as the maturity of real estate markets, will have a strong impact on how the base is defined for the property tax (Bland, 2005; Zodrow, 2006; McCluskey, Cornia and Walters, 2013; UN-Habitat and GLTN, 2011).

Defining the incidence — One key question that must be addressed in the enabling legislation is who will be obligated to pay the tax. There are two obvious alternatives: the owners or the occupants (or beneficiaries). Many countries place the statutory incidence on the owners of property. But this presupposes that the owners are known or can be

8 See the chapter on land value increment taxes for a more detailed discussion of separating the tax on land and the tax on buildings.

9 More information on valuation is below.

readily identified, which in turn assumes a reasonably complete and accurate cadastre. If such a registry exists or can be created, assigning the tax obligation to owners is a very reasonable policy.

Several countries have found that a mixed strategy can be effective: define the tax as the obligation of the owner, but if the owner fails to pay the tax in full, require the occupant of the property to pay the tax and deduct that payment from any rent or other amount due to the owner.

If a reasonably complete registry of recognized owners is not available, it is feasible to place the tax obligation on the occupants of the property or those who benefit from using the property. Should the occupants be renters, the law should stipulate that the tax can be deducted from any rents due to the owners. It is even feasible to tax both owners and occupants. In France, occupiers of residential property pay the t*axe d'habitation* and the owners of the property pay the *taxe foncière*. If the property is occupied by the owner, both taxes are still due.

Exemptions — The law must also deal with the question of exemptions from the property tax. Some exemptions are common, though not necessarily well reasoned. Full and partial exemptions from the property tax should be targeted at those individuals and organizations judged by the community to be in need of the economic support provided by a reduced tax burden (Plimmer, 2013). Public services such as schools, hospitals and churches, as well as government properties may fall into this category. In some places, social housing and low-income households are also fully or partially exempt as a form of tax relief.10 The desire to extend tax benefits on socially desirable grounds must be balanced against the impact on other taxpayers.

All exemptions have the effect of narrowing the tax base and raising required tax rates for other taxpayers. Consequently, all proposed exemptions should be carefully considered and regularly reviewed to assure that the public purposes for which they were originally granted are still valid.

Generally, communities should avoid tax policies that favour some businesses at the expense of other competing ventures. Exemptions should also be avoided when they could potentially influence land use decisions and development patterns. For example, in 1954, Egypt exempted all property outside designated urban areas from property tax. In the years since, most of the development occurred outside the taxable areas in Egypt. Finally, exemptions should be established in the overarching enabling legislation and should generally not be granted by individual local governments (Augustine et al., 2009; Bowman, 2003; Brody, 2002; UN-Habitat and GLTN, 2011).

Assigning the tax — Most commonly, all or the majority of the revenue from a recurring tax on immovable property flows to local governments. However, it is not uncommon for levels of government to overlap and certain properties could receive benefits from many different levels of government. In such cases, tax revenues from a recurring tax on immovable property can be divided between these overlapping layers of government. This can be done by granting each governmental entity the power to impose a separate tax rate, or it can be done through a revenue sharing scheme. To the extent that administrative responsibilities are shared, sufficient revenues should be shared to at least cover the administrative costs and incentivize effective administration.

10 Property tax relief is discussed more fully below.

Setting the rate

The policy questions around rate setting include:

- Should all property be taxed at the same rate? If some property or some property owners are exempted from the annual property tax, not all property will be taxed at the same rate. But beyond exemptions, should rural farm land and urban residences be taxed at the same rate? Should businesses and households be taxed the same? Should poor households and better-off households have the same tax rate?
- Which level of government and which agency should set the tax rate? Setting the rate at the national or regional level assures uniformity and avoids tax competition (Delgado and Mayor, 2011; Brueckner and Saavedra, 2001). On the other hand, allowing local governments to set the rate empowers local officials and fosters local autonomy (Bahl, 2009; Bahl, Martinez-Vazquez and Youngman, 2008a, 2010a; Bahl and Bird, 2008c). Often a central government will define an acceptable range of rates, allowing the local government to select the rate within this range.

How many rates?

Beyond the inclusion of all land in the property tax base, the number of tax rates will depend on both the administrative capacity of different levels of government and broader policy objectives (Zorn, 2013). Dividing property into separate categories based on land use is commonly referred to as "classification". Common classifications include agricultural, residential, commercial and industrial, but each of these can be further subdivided. In some jurisdictions there are literally hundreds of property classifications. (Dye, McGuire and Merriman, 1999). In nearly all cases, the purpose of such classifications is to allow governments to apply different tax rates to different classes of property.[11]

Maintaining a property tax system that involves multiple classifications and multiple rates requires additional administrative capacity and effort. Consider, for example, the following fairly simple classification system involving four classes: residential, commercial, industrial and agricultural. If different rates are to be applied to each class of property, tax administrators must have the necessary information regarding land use at the individual property level to be able to determine the appropriate classification for each parcel of land.

The task is rendered more complicated because land use is not static. At some point, agricultural land can be converted to residential or commercial use. Owners of a small commercial establishment may decide to have an employee live on the premises for additional security. A residential property on a popular street may have part of the building converted to a retail commercial use. Tax administrators must monitor and update land use regularly in order to apply the appropriate tax rate. As the number of rates and classifications increases, the potential for administrative errors, omissions and corruption increases.

History suggests that neither equity nor efficiency is enhanced through complex rate structures. Reducing the effective rate for some simply means higher rates for remaining taxpayers. Bird and Slack have argued that there is no economic justification for taxing businesses more heavily than residential property (Bird and Slack, 2006, 2007; Slack, 2013). Residential property generally represents a greater burden on local services. As noted, increasing the number of tax rates

11 Classification defines actual use whereas zoning defines intended use. Classification is often more specific than zoning.

also increases the administrative costs and potential for errors.

When considering the number of tax rates and property classes, simplicity is key. Property classes may be necessary if the method of valuation is different for different types of property. Even in that instance, there is no requirement that different tax rates be applied. A single rate for all property, or a single rate for land and a separate lower rate for buildings, markedly reduces the administrative challenges for tax officials.

Rate setting authority — Good practice regarding rate setting involves a central authority establishing a range of acceptable tax rates, both minimum and maximum. Local governments are then given the authority to set the final rate within the approved range. This approach has the advantage of curtailing tax competition between jurisdictions while still giving local officials the flexibility to respond to local needs. Other spatial implications are described below in the Impacts section.

Coverage: property registration and managing the fiscal cadastre

Defining the tax base in law establishes a standard that defines which properties and which taxpayers should be included on the tax roll or fiscal cadastre. Coverage is the proportion of all such properties that actually appear on the cadastre and have tax bills generated for them. While it is most fundamentally a product of administrative quality, there are nonetheless important questions to consider in the design and initial implementation of administrative procedures (Kelly, 2013; Mikesell, 2007, 2013).

- How will information be shared between agencies controlling land ownership and occupancy records, construction records and tax records? In many instances, there is very poor communication and cooperation between these agencies. But each controls some of the information required to manage an accurate cadastre and other land records. Pooling of all information related to land and land use is an important step in achieving high coverage ratios.
- Will it be necessary to change other laws in order to ensure that the required sharing takes place?
- Will one agency be responsible for finding and recording new property? Can this responsibility be shared?
- Who will provide the technical and financial resources to establish and maintain accurate property records? The assistance of donor agencies may prove very helpful in initiating an up-to-date cadastre, but maintaining the cadastre over time will require resources. It may also require other changes in the land registration paradigm to avoid "deformalization". Deformalization is the degradation of the land registration system that has occurred in some jurisdictions following substantial investments made by donors to complete and modernize land registration and administration (Barnes and Griffith-Charles, 2007; Barnes, 2014a; Barry and Roux, 2013).

Dealing with informality

A major challenge facing many cities in many developing countries is that of informal settlements, which are rapidly increasing in many places. Such settlements often have inadequate urban services and almost by definition are not included in any land registration system. In addition, the economic conditions of such households may seem to make it too costly to attempt to include informal landholders in the tax system. It may be argued that any taxes collected will be less than the cost of registering and collecting the tax, so why bother?

On the other hand, Smolka and De Cesare argue that if informal settlements are included in the property tax

Box 3: Property registration in Hargeisa, Somaliland

The situation

In 1991, Somaliland declared independence from Somalia after decades of engaging in civil war. Hargeisa, the capital city of Somaliland, with a population of 396,000 in 2005, was bombed extensively in the 1980s, resulting in approximately 40,000 deaths and the destruction of many public records. Additionally, 500,000 people fled Hargeisa for neighbouring countries to avoid conflict while concurrently, displaced citizens from other parts of Somalia began to gather in Hargeisa. This created a significant internally displaced population.

After Somaliland had declared its independence and civil war ceased, land became an increasingly critical and divisive issue among current residents and the government. Conflicts concerning land became the primary cause of murders in Hargeisa. Unoccupied land was being claimed by the extended family members of those who fled the city for neighbouring countries, while immigrants to the city sought property of their own. Additionally, opportunists made claims on land to profit from the lack of land registration structures in place.

In addition to all land registration files destroyed in the civil war bombings, the situation was further complicated by varying competing legal systems in the country, ranging from the customary law and Sharia law to other written laws which were also destroyed in the civil war.

In 2001, indicators placed Somaliland among the poorest and least developed regions in the world, with GDP per capita estimated to be USD 200 per year. Hargesia had a property tax in place but collected only USD 169,062 in 2005, far short of the revenue needed for essential municipal services.

Actions taken

Prior to 2004, Hargeisa attempted to rectify this situation by requiring all landowners to register their land with the government. Poor participation followed as citizens recognized that land registration would result in property taxes. Additionally, the government complicated matters further by not requiring residents to register buildings constructed prior to the war, or those that had been recently sold or received via inheritance.

In 2004, Hargeisa's government, in coordination with UN-Habitat, developed a system providing a much-needed, immediate and temporary solution to the city's land administration challenges. It was recognized that navigating the legal channels necessary to adequately and accurately settle all land disputes would take many years, time the city did not have. Land-based revenue was needed to start solving the underlying problems of land registration and improved services. The solution, instead, aimed at taxing occupants of property instead of landowners.

A geographic information system (GIS) was used to increase and expand tax revenues. Satellite images were digitized and confirmed on the ground by surveyors to develop a map of all buildings and land in the city. Accurate building dimensions enabled the government to charge consistent and accurate fees across all land occupants. The development of the fiscal cadastre involved the following steps:

- Acquisition of geo-referenced, high-resolution satellite images of the city
- On-screen digitizing of the images to create a map showing all buildings and other features such as roads, rivers, airports, etc.
- Field verification of the spatial database and the collection of property attributes using pre-programmed, handheld computers
- Integration of the field data and satellite information to form the geo-database.

The field verification effort involved visiting each property in the city but collecting only a limited set of variables for each site. The variables included:

- Physical characteristics of the property (dimensions, use, building materials, access to infrastructure)
- Occupier information
- Number of residents living in the building

Based on the data obtained, the city was divided into five districts, 24 sub-districts and 77 neighbourhoods. Further, the physical characteristics were used to develop five property classes. Although the system is currently only being used as a vehicle to collect revenue, it has laid the groundwork for future land registration and tenure security.

Results

Information collected included physical characteristics of the property, the occupier and the number of residents living in the building. The process took eight months and cost USD 48,500, or USD 0.82 per property, resulting in a cadastre increase from 15,850 to 59,000 properties. The new rate system went into effect in 2007, and by 2008 revenue collections had increased by 248 per cent to USD 588,754. The original revenue estimate was USD 710,000 per year.

One important challenge the city faced was rooting the process in the municipal structure so that it could be sustained over time. The Hargeisa office staff will carry out similar on-screen digitizing projects in other Somali cities (UN-Habitat, 2008a; Abdi, Tani and Osman, 2010; Barry and Bruyas, 2007).

system, many of the residents will voluntarily pay the tax. This will be especially true if a formal process is established to grant some type of legal status to those who have paid the tax. In some instances, paying the tax for a number of years may even lead to full title registration. Of course, this may raise several issues: compensation for registered landowners and long-range planning for both privately held and public lands must be considered. However, the point here is simply that informality in itself is not a reason to exclude land from the tax base (Smolka and De Cesare, 2013; see also Payne, 2004).

Another approach to informality (and to valuation in general) has been to employ either self-declaration or self-assessment in which the landholders declare the location and description of their property. In some instances, they also calculate the value of the tax obligation based on tables provided by the local authority (Kelly, 2014; Bandyopadhyay, 2013).

One of the key components of managing the fiscal cadastre is the "discovery" of properties that should be on the tax rolls but are not yet. This discovery process can be divided into two phases: initial development or completion of the cadastre, and ongoing maintenance. If the fiscal cadastre does not exist or is seriously incomplete, a major effort to bring it up to date may be required. Such efforts frequently involve a property survey.

This process can be less complex than land registration projects intended to resolve conflicting legal claims, legally register all properties and issue land titles; land surveys for the fiscal cadastre can be much simpler and can be completed much more quickly. They generally begin with aerial photographs and remote sensing data from which a digitized map of existing buildings can be generated. These maps are then given to small teams of field workers who visit each plot of land and collect a small number of relevant variables on each parcel.

The minimal data that should be included in the fiscal cadastre are dimensions and location of the land and buildings, information on the occupants and/or owners, and often information regarding building quality. Adding this field data to the digitized information completes the initial cadastre. The Social Tenure Domain Model is one tool which seeks to recognize and record a range of property rights and could be used in such an effort (www.stdm.gltn.net).

But managing the fiscal cadastre is an ongoing process that always requires attention. Land uses change, buildings are constructed and torn down, and property can be divided, all of which may happen either legally or illegally. Cadastre managers must implement methods to monitor such changes and update cadastral records accordingly. Again, some changes may be made without legal authorization. Consequently, such actions may not be reflected in the legal cadastre, but they should be recorded in the fiscal cadastre and taxed accordingly.

Keeping the cadastre current involves information sharing between agencies responsible for issuing building permissions, authorizing changes in land use, and other construction-related local government oversight activities. In addition, local officials should engage in periodic site visits and simply exercise vigilance while moving about the community. Such efforts can be effective at identifying new land uses and construction.

Those charged with managing the cadastre should also compare the cadastre with business licence lists, utility records and other lists of entities likely to be owners or occupants of property. Census data can be very helpful in providing aggregate

counts of residential and commercial properties. Tax administrators generally cannot use household-level census data because of confidentiality restrictions, but the maps and aggregations generated from recent census efforts can be most helpful in judging the overall completeness of the cadastre.

Self-declaration and self-assessment should not be overlooked as a tool in completing and even updating the fiscal cadastre. A number of countries have successfully used self-declaration as a means to quickly and inexpensively gather property specific information. If such declarations support efforts to secure tenure rights, taxpayers have incentives to self-declare. And systems can be designed to assure reasonable accuracy in their reporting, though it is important to have a solid and well-publicized audit capacity (Gstach, 2009; Lall and Deichmann, 2006; Plassmann and Tideman, 2008; Loo and Ho, 2005).

Determining how property will be valued

Determining the taxable value of property involves both key policy considerations and important administrative practices. There are three essential policy questions related to property valuation for tax purposes:

- How is value defined?
- How will that value be determined or estimated?
- Which agency or agencies will be responsible for valuation?

A key property tax policy issue is simply defining what is meant by taxable value and how that value will be determined. Whether the property tax is based on the market value of real estate, physical attributes and location of the property, or some other model of value, someone must determine the taxable value of each parcel. Unlike the income tax or a value added tax (where the taxable value is determined by something potentially directly observable) determining the taxable value of land and improvements inevitably requires an administrative judgment.

Even if valuation is by formula, assembling the formula inputs requires gathering and managing information, assessing the relevance and accuracy of that information, and actually applying the formula. And when the valuation of a given parcel is multiplied by the number of parcels in a community, province or nation, the task becomes daunting indeed. Computerization can help immensely, but that, too, adds a layer of required technical capacity and expertise that may strain local resources (Mikesell, 2007, 2013; McCluskey *et al.,* 2013). GLTN (www.gltn.net) has and is developing tools to assist in cost-effective land administration and some of these tools can be used in the valuation process.

A related policy issue is assigning the valuation task to a specific agency or set of agencies. Often, higher levels of government are better able to attract, train and retain the human capital necessary for the more technical aspects of valuing property. For example, in both Latvia and Jamaica, property valuation is carried out by national government agencies. In Colombia, with the exception of the capital Bogotá and three other large, urban areas, the property valuation task is assigned to a national geographic institute (IGAC). Even in countries with large urban centres and substantial local capacity, the valuation of specialized properties such as railways, pipelines, electric utilities, ports and airports is frequently assigned to a higher level of government.

Even if valuation is assigned to the local government, there is often still an important training and oversight role for a more centralized agency. Precisely because valuation often involves judgment, and the exercise of discretion can result in mistakes or corruption, many of the best property tax systems involve

training, support and quality reviews from a central agency. Which agencies should fill this oversight role will depend on the structure of government in a given country. The national government should only retain this responsibility in relatively small countries that do not have sub-national governments that organizationally fall between municipalities and the national government. In federal systems, the role of oversight and training will be most effectively carried out by agencies at the state, province or other intermediate level. The valuation tasks which can be assigned appropriately to local government officials will depend on the administrative capacity of those local governments (Mikesell, 2013; Bahl, Martinez-Vazquez and Youngman, 2008a; Bahl and Wallace, 2008b; Bahl and Bird, 2008c).

Policies and practices for determining taxable value should be guided by administrative capacity and by market conditions. It requires less expertise and less information to value property based on size and location than on capital market value. And again, it is pointless to impose a tax based on capital market value if such markets are not sufficiently active to yield the required information (Franzsen and McCluskey, 2013; McCluskey and Franzsen, 2013). To say that a market is "active" means that properties are regularly bought and sold in open, arms-length (i.e. between strangers) transactions. Such markets are commonly supported by an active mortgage industry, professional estate agents and valuers (appraisers), and other professional trades related to land development, construction and land-related transactions.

Approaches to value

Valuation Methods	
Non-Market Approaches	
Area-based assessment	Same value constant per square metre (land and/or floor area) within each zone
Value banding approach	Same tax for each property within a range of values
Cadastral value approach	Average market value per square meter by zone and land-use class
Market-Based Approaches	
Comparable sales approach	Value compared to recent sales of similar properties
Cost approach	Cost of buying land and constructing the building
Income approach	Capitalized annual income that can be generated by the property
Annual rental value	Annual rent that could be collected for leasing the property

Both in theory and practice, the approaches to value can be divided into two broad categories. The choice between the two categories is driven largely by two considerations: the maturity of local land and property markets and the administrative strength of the implementing governments.

The first category acknowledges that in many locations, formal property markets and local administrative expertise may be very limited. In such circumstances, value is most often based on the physical attributes and location of property. These non-market approaches are viable from an administrative perspective and are still employed by a number of countries. The major criticism of these approaches is that as markets mature, tax revenues do not keep pace with rising property values.

The second category of approaches to value is tied directly to the capital market value of property. These approaches assume that the market for land and property is reasonably mature and active. They also assume that the necessary human and fiscal resources are available to effectively administer the approaches.

Non-market approaches are described more fully in McCluskey and Franzsen (2013) and UN-Habitat and GLTN (2011). The simplest of these approaches is known as area-based assessment. In this approach, the floor area of the building or the total land area (or both) are multiplied by a rate set by the government to determine the tax obligation. Often the rate varies by land use and location. For example, suppose a flat is 70 m2, and is located in a middle-income residential area. The local government has set the rate for this general location at EUR 1.3 per m2. Then the tax obligation would be 70 x EUR 1.3, or EUR 91. A similarly sized flat in a more expensive section of the city may have a rate of EUR 2.0, and the tax obligation would be EUR 140.

There are many potential complicating factors that can be introduced into this approach to reflect a more refined approach to location, land use, construction materials and other factors considered to reflect differences in value. The attractiveness of this approach is that the amount of information required is limited and the calculation of the tax obligation requires minimal expertise. The disadvantage of the approach is that it does not capture more subtle differences in value nor does it easily keep pace with changing market conditions.

A variation that moves closer to a market approach is the property *value banding approach* used in the United Kingdom (McCluskey and Franzsen 2013). In this approach, the range of residential property values in a city is divided into bands (i.e. categories based on value). All residential properties are assigned to a band based on a rough estimate of their relative value and all properties within a band pay the same tax. The United Kindom employs eight bands, which have not been changed since they were introduced in 1993. The approach requires somewhat more information about markets than the more simple area-based assessment, but still minimizes administrative requirements. It also has inherent inequities12 similar to other non-market approaches, but has proved to be acceptable to taxpayers in the United Kingdom.

Another variation in the non-market approach that is increasingly being implemented in countries that have maturing property markets but lack the full information required to move to a market-based approach is known as the cadastral value approach. In this approach, the city or region is divided into reasonably homogeneous areas. Within each area, market trends are monitored and average market values per square metre are calculated for each land-use class. These averages are then used to calculate the taxable value of each property by multiplying the average value by the size (m2) of the property. The approach has the advantage of incorporating currently available market trends. The disadvantage is that unique property characteristics are still not reflected in the taxable value because the tax administrator does not have access to that information.

Market-based approaches attempt to set the taxable value of each property based on current property market conditions while incorporating, to the extent possible, the unique features of each property. The techniques for using market information to estimate the capital market value of properties that have not actually sold in the market in the recent past are well developed.

A summary of these techniques is presented here, with more details and numerical examples in *Property*

12 The inequities stem from the fact that with only eight bands it is very difficult to meet accepted equity standards. Very similar properties in actual market value may pay very different taxes if one is slightly more valuable and therefore falls in the next higher band. At the same time, two very different properties may pay the same tax if one is at the high end of a band and the other at the low end of the same band.

Tax: A Policy Guide (UN-Habitat and GLTN, 2011). A comprehensive technical guide to valuation practise can be found in the RICS publication *RICS Valuation* (RICS, 2012), and the Appraisal Institute's The Appraisal *of Real Estate* (AI, 2013). The techniques involve using well-established analytical approaches to assessing value in the market place. All are grounded on the idea that the value of the property is the sales price in a hypothetical scenario where a seller seeks to sell their property, and a buyer seeks to buy this or a similar property. Neither buyer nor seller is closely connected to each other and neither is required to enter into the transaction.

The first market-based approach is the *comparable sales approach*. The analyst gathers data on similar properties close by that have sold in the recent past and makes appropriate adjustments for any remaining differences that might affect value. The fundamental logic behind the approach is that no one would pay more for a property than the price that similar properties are actually selling for in the current market. If a seller demanded a higher price, the buyer would simply purchase one of the other properties.

The second approach to value is the *cost approach*. Here, the argument is that no informed buyer would pay more for a property than the cost to acquire the land and construct the improvements. There are several technical variations on the cost approach, but the reasoning is essentially the same. Determine the cost of all the components (for example, the market value of land, building construction costs and other site improvements), make adjustments for age and obsolescence, and the result is an estimate of what it would cost to reproduce or replace the property. While applying the cost approach to complex properties may require substantial engineering expertise, most jurisdictions simply use (hopefully, current) construction cost indices to estimate structure values. The value of land is estimated separately from vacant land sales.

The third approach to value is used largely with properties zoned for commercial and industrial use, though it could, in principle, be applied to any property. The approach is known as the *income approach* and the logic underlying it argues that people purchase property because of the benefits they receive from the property. In particular, investors buy commercial property because of the income potential of the property. An investor's willingness to pay for a property will not exceed the value of the income that can be realized from the investment. Thus, with a reasonable estimate of the cash flow likely to result from the property and an estimate of current investment discount rates, the value of the property can be determined. This approach is a standard technique in the financial analyst's toolkit and tax administrators can use it as well with appropriate training and access to the necessary data.

In principle, all three approaches can be applied to any property. In many settings, the comparable sales approach is used extensively for residential properties because of the amount of available data. The cost approach is commonly applied in valuing commercial properties. The income approach is used for commercial and industrial properties which may be required to file an annual property tax form providing the information administrators need to apply the approach (McCluskey, Cornia and Walters 2013).

A variation on the capital market value approach is found in many countries with either an English or French colonial history. This approach is known as the *annual value or annual rental value*. The market employed in this approach is the rental market and the value standard is the rental price that a property owner would receive in an open market (Franzsen and McCluskey, 2013). Both the capital market value and

the annual rental value rely on the operation of the property market.

From this abbreviated discussion of market-based valuation it should be apparent that all of the standard techniques make four assumptions:

- Local real estate markets are active and sales happen regularly in all property classes
- Accurate information on actual real estate sales transactions is publicly available or at least can be readily obtained by tax administrators
- Tax officials have detailed information on each property that is to be valued
- Staff resources and expertise are sufficient to appropriately process the information and arrive at a reasonable estimate of current market value for all properties

Procedures to follow in determining value

The definition of value in the enabling property tax law sets the standard for how property should be valued for tax purposes. But such laws almost never identify the procedures which should be followed in determining value. They may specify that market value should be used, but they do not stipulate how market value is to be estimated. The law may specify that values are to be updated every ten years,[13] but do not address the question of who will pay for updating the values.

When valuation does not keep pace with actual value, legally owed taxes are not being billed and collected; therefore, the administrative design questions around valuation are very important. In Argentina, for example, Rezk (2004) reports that taxable values are generally 60 to 70 per cent of market value. This suggests that if the legal standard is market value, municipalities in Argentina are billing for 30 to 40 per cent less tax than contemplated in the law. This situation can be regressive if the proportion of undervaluation is greater for expensive properties than for less expensive ones (Franzsen and McCluskey, 2013; McCluskey and Franzsen, 2013).

To be clear, in some countries, property values are ultimately fixed by legislative or presidential decree (e.g. Senegal). Such decrees are the result of a valuation process that begins with the legal framework defining what value standard will be used (market value, annual rental value, etc.). Administrative staff are then tasked with implementing that standard and arriving at a value for each taxable parcel. The result of their effort is then formally ratified by decree. The process begins with law and ends with the force of law. In between are important administrative questions.

- What staff skills and training will be required in order to maintain values at legally required levels?
- Which level of government and which agency should be responsible for maintaining accurate taxable values?
- Who will provide the technical and financial resources to establish and maintain acceptable valuation practices?
- Will valuation practices be monitored and evaluated regularly to assure fairness and accuracy? If so, by whom?

How value is defined in the law will, of course, be very important for valuation practice, but the administrative capacity of government agencies will be just as important. Without sufficient committed, qualified staff and solid valuation practices, taxable values quickly become outdated and bear little resemblance to the legally defined standard. A more comprehensive treatment of valuation policy and practice can be found in McCluskey, Cornia and Walters (2013).

13 A better practise is to update values every five years or less. The more active the real estate market, the more frequently values should be updated.

Collection: Billing, appeals, collection and enforcement

Billing

Administrative capacity also influences tax billing and collection procedures. In Latvia, for example, the tax due is calculated by the central government agency, but the local government prepares the tax bill, mails it to the taxpayer and collects the tax. This arrangement can create some confusion if the records of the central authority and the local authority do not agree. Clearly, strong cooperation and good communication are required.

Formal notification of the tax obligation should be delivered to each taxpayer. This requirement can be satisfied through the mail if the postal system is deemed reliable. If this is not reliable, other means can be used, such as hand deliveries or inclusion of the tax notice in utility bills.

In general, common practice includes having a single point of contact with the taxpayers, even if there are multiple interests involved. This process generally requires joint owners of a property to declare an official representative and location where notices can be delivered. It is also good practice not to divide any tax obligation among joint owners. Rather, all joint interests should be responsible for the full amount. How the payment is divided among owners is not usually a matter of public concern. Notification to other interested parties may be satisfied by publication in a newspaper or posting in a public place if the tax is not paid promptly. Similarly, in some instances, posting a notice on the property may be deemed adequate notification.

If local mail delivery is unavailable or unreliable, other means of delivering the tax bill must be pursued. In some instances, local government agents go door to door delivering tax notices. It may also be possible to contract with a local utility company for delivery of the tax notice. And emerging technologies can make payment of the tax much more convenient. In Kenya, for example, the property tax can be paid using cell phones (through the *M-Pesa* system).

Although there may be varying challenges in administering the property tax, there is generally a practical approach that will meet the local need. The key is to anticipate the need, evaluate the resources available to meet the need, and to deploy all resources to best advantage.

Part of defining taxable property in the law will involve setting the tax calendar, since valuation must take place by a specific date. The establishment of these dates is important because it creates certainty for taxpayers and government budgets, and because the calendar establishes cut-off dates for changes in land use and construction activity.

Appeals

No tax system is perfect in either design or implementation. The best property tax system is no exception. Errors will creep into even the best databases; clerks will transpose numbers; administrators will misinterpret data; mistakes will happen. Even if there is no error in a given instance, the taxpayer may feel that she or he is not being treated fairly for a variety of reasons.

The design of the property tax needs to include provision for taxpayers to appeal the amount of tax due, and the government administration, therefore, must provide sufficient capacity to receive and resolve such appeals. Ultimately, of course, the taxpayer can appeal to the courts, but formal judicial proceedings

are nearly always very slow and very expensive for all parties. And if careful review reveals an obvious error, it is much better to resolve the discrepancy through an administrative process rather than through the judiciary. The taxpayer will need to provide objective documentation or the tax administrator may verify an error by inspecting the property (Carr, 1964; Kelly, 2013).

One of the ways for resolving property tax appeals is to involve an independent panel of local residents who are taxpayers but who are not employed by the local government. Such panels can objectively evaluate the claims of the taxpayer and the evidence of the tax authority. Of course, the decisions of the local panel should also be appealable to the judiciary if either party so chooses (Carr, 1964; Kelly, 2013).

In some settings, the appeals panel includes employees from other parts of the government. The advantage of such an approach is that it may be easier to ensure that panel members have the required training in law and valuation methods to make informed judgments. The disadvantage is that taxpayers and the public may not view government employees as unbiased in their judgments.

The appeals process requires that local governments be prepared to receive appeals in an orderly manner, schedule hearings before the appeals panel, and record and act on the decisions taken by the panel. While the administrative tasks associated with the property tax are substantial, they should not require the expenditure of more than 3 to 4 per cent of the revenue collected (Bahl and Wallace, 2008b; Bahl and Bird, 2008c). The percentage may be higher if some of the administrative tasks are contracted to private entities. But if such contracting can improve the efficiency, fairness or collection of the property tax, it may well be worth the additional cost (Carr, 1964; Kelly, 2013).

Collection and enforcement

The *collection ratio* is the proportion of billed taxes actually collected. Collection success requires political will, judicial support and sound administrative practices. The key administrative questions in this area include the following:

- Which agency will be responsible for collecting the property tax?
- How will tax bills be distributed?
- Where and how will taxes be collected? This is an important point because it affects the compliance costs for taxpayers. If taxpayers must travel some distance to a central tax office to pay their property tax, compliance will be lower than if paying the tax is more convenient.
- What sanctions will be used in cases of non-payment of taxes?
- Will there be oversight by other agencies or other levels of government? (Kelly 2013)

When all is said and done, collecting taxes requires political will. Without it, tax officials will be unwilling to aggressively pursue tax avoiders and courts will be unwilling to impose legally available sanctions. That being said, how property rights are articulated and the administrative capacity of government will strongly influence the design of appropriate collection processes.

One key to improved collection is to minimize the cost of compliance for the taxpayer. This means actually paying the tax should be made as simple and easy as possible. Ideally, taxpayers will be given a variety of ways they can make their tax payment, including such options as paying by cheque, using computer-based banking, automated tellers at financial institutions,

telephone banking, post offices, utility companies or other financial institutions. The objective is to make the actual act of paying the tax as easy as possible. Of course, providing a number of options for paying the tax means that administrators will have a more difficult time keeping track of payments unless the system is computerized (Kelly, 2013).

Allowing taxpayers to pay their obligation in instalments during the year may also make the tax easier to collect. Some jurisdictions offer a discount if the tax is paid promptly. If this policy is adopted, the discount should be modest (generally less than 10 per cent).

Even with strong billing and collection procedures, some taxpayers will attempt to avoid paying the tax. To minimize avoidance, there should be a clear public link between prompt payment of the tax and public services sought by taxpayers. Such services might include improved tenure security. Equally important to collection efforts are clarity and transparency in how the collected taxes will be used. If taxpayers see that their taxes will be used for meaningful urban improvements, such as infrastructure and better services, they will be much more willing to comply with the tax. To the extent that they perceive little or no improvement in their community, they will tend to resist and avoid the tax (Kelly, 2013).

In addition to positive outcomes in the community if taxes are paid, tax administrators must have a set of sanctions and penalties that can be imposed for non-payment. These should include fines and interest charges on unpaid balances. The interest rate should be higher than the cost of borrowing from local banks to avoid turning non-payment of the property tax into a low-cost loan.

Proof of payment of the property tax should be required in order to obtain individualized local services, such as birth certificates or other certified documents, permission to build or add to existing buildings, etc. If there is a national taxpayer identification system in place, non-payment of the property tax can be used to access other taxpayer assets, such as bank accounts and cars.

In addition, the list of those who fail to pay their property tax in a timely manner should be made public, along with a summary report of the percentage of property holders who have paid their taxes on time. This combination of public exposure and community pressure can be effective in increasing compliance.

While seizing property is difficult in practice, tax administrators need to be able to do this and sell property at auction if the failure to pay due tax persists for a number of years. Non-compliant taxpayers need to be notified regularly that such action is likely and they need to be given the opportunity to redeem their property at virtually any point in the process. But they also need to understand that if the tax is not paid, their property will be sold in order to recover the tax. Of course, any amounts received in the public sale that may exceed the taxes and penalties due should be given to the property owner.

Again, tax enforcement is a function of political will. If taxpayers can see the benefits of paying the tax in terms of community improvements, and if they understand that administrators have the backing of senior political leaders and the judiciary, compliance rates will increase substantially.

Impact

The likely impact of an effective recurring property tax should be considered from several perspectives, including:

- The economic incidence of the tax
- The revenue potential from the tax
- The incentives created for private investment within the local jurisdiction
- The social impacts of the tax
- The spatial and planning implications of the tax

This section reviews what is known about the impacts of the recurring property tax in each area. However, this discussion makes the strong assumption that other influences on these same dimensions are held constant. How all the various tax and non-tax elements in an urban environment interact in practice is extremely difficult to predict in advance. This discussion points out the direction of the impact of the annual property tax.

Revenue potential

As noted previously, property taxes are generally underused in the developing world. In addition, it should be borne in mind that the recurring tax on property must be coordinated and integrated into the larger domestic tax structure of a country. Those who pay the property tax will also be asked to pay other land-based taxes, the income tax, the VAT and other taxes as well. The need for local government revenue must be balanced against the overall tax burden placed on residents.

A review of the performance of the recurring tax on immovable property in 34 OECD countries indicates revenues averaged 1.05 per cent of GDP in 2010. The maximum revenue was 3.42 per cent of GDP in Canada. Revenues exceeded 2 per cent of GDP in 7 of the 34 countries (Norregaard, 2013).

Box 4: Tax structure in Switzerland

The Swiss recurrent tax on immovable property totalled 0.09 per cent of GDP in 2010, extremely low by international standards. The tax is levied at the Canton (state) level. The relatively low rate is applied only to the value of real estate (and other personal assets) after deducting the value of any remaining debts. The result is a very modest effective tax rate.

But Cantons also levy an income tax, including a capital gains tax, on real estate. The local income tax rate imposed by Cantons often exceeds 6 per cent of taxable income. In combination with other local taxes, the result is that the immovable property tax represents only 1.34 per cent of local taxes, while the overall tax burden in Switzerland is nearly 30 per cent of GDP. Switzerland has made the policy choice to fund local governments through taxes other than recurring taxes on property, however, not to the exclusion of other land-based taxes (Norregaard, 2013).

Among a sample of 31 non-OECD countries, all of which levy some form of recurring tax on immovable property, the average revenue was 0.41 per cent of GDP. In only 4 of the 31 countries did revenues exceed 0.9 per cent of GDP (Norregaard, 2013).

Thus, with appropriate policies and effective administration, the annual property tax is capable of yielding 2 to 3 per cent of GDP. A more realistic target for most developing countries would be 1 to 2 per cent of GDP (Walters, 2013a), Another way to consider the potential is to recognize that if effectively administered, the tax will generate sufficient revenue to fund basic services in a country's largest cities. It is unrealistic to expect the tax to fully fund the entire range of government services, including health and education (Bahl, Martinez-Vazquez and Youngman, 2010b). But it can provide a very important foundation of on-going revenue for essential government functions.

Incentives for private investment

Without question, the recurring tax on immovable property creates incentives that influence the decisions and actions of the private business and household sectors. Precisely what those incentives are depends heavily on how the tax is designed and implemented.

INSTRUMENT 1: RECURRING TAXES ON LAND AND BUILDINGS

It is perhaps most helpful to think about a tax on land and a tax on improvements as two separate taxes because they tend to create different incentives for private action. This distinction has been recognized and discussed by political economists since the days of David Ricardo and John Stuart Mill. More recently, it has been acknowledged by noted economists such as Milton Friedman and explored in the pages of respected periodicals such as The *Economist* (E.S.L., 2015). Economic theory argues that property taxes based on the value of permanent improvements, such as buildings, will discourage investment in such improvements, but taxes on land will encourage private investment. The reasoning behind this conclusion is explained clearly by Cohen and Coughlin (2005).

Essentially the argument is that taxes on buildings will discourage investment in those buildings. Developers will have an incentive to build smaller buildings. Building owners will likely reduce their investments in maintenance and improvements if investment means higher taxes. Ultimately, the level of investment in buildings will be reduced within the community. This can be a contributing factor in housing shortages in growing urban areas.

Taxes on land produce a very different result. Because land is immovable, increasing the tax on land provides the landholder with an incentive to increase the productivity of the land in order to meet the higher tax obligation. This also reduces the profitability of speculation in urbanized areas because the value of the land will contribute to higher taxes, even without any structures on it. The result should be more compact and more intense development, minimizing the amount of land used to accomplish a given purpose. More intense development on urban parcels can reduce sprawl while contributing housing units to the urban supply, helping to reduce any housing shortfall.

Deskins and Fox (2010) provide an excellent summary of the empirical literature on the behavioural effects of the annual property tax. These authors make the important point that, in addition to considering the incentives created by the property tax, it is just as important to consider how the revenues are used. A tax paid that never translates into noticeable impacts in the community is likely to induce a very different response from a tax that is visibly invested in community improvements.

Deskins and Fox note the strong theoretical arguments in favour of such an approach that separates the tax on land from the tax on buildings. They go on to note that there is some empirical support for the approach, but there have been few empirical studies because the required data is very difficult to obtain. There is evidence that a shift from a single tax on both land and buildings to separate taxes (with higher rates on land) may "hasten the speed at which unused parcels of land are developed" (Deskins and Fox 2010, p. 59).

Many of the impacts that Deskins and Fox describe tend to be more pronounced within a given urban area than between different areas. An impact that appears to be small and insignificant across regions may be much larger and important within a given metropolitan area (by which Deskins and Fox mean the geographic area defined by a local labour market).

For example, Deskins and Fox note that the annual property tax may have a substantial influence on business location decisions within an urban area. The influence of the tax will be much smaller on location decisions across larger geographies. Many of the factors that might influence the location decision are similar within a given urban area (e.g. labour force, transport, available infrastructure, etc.). Differences

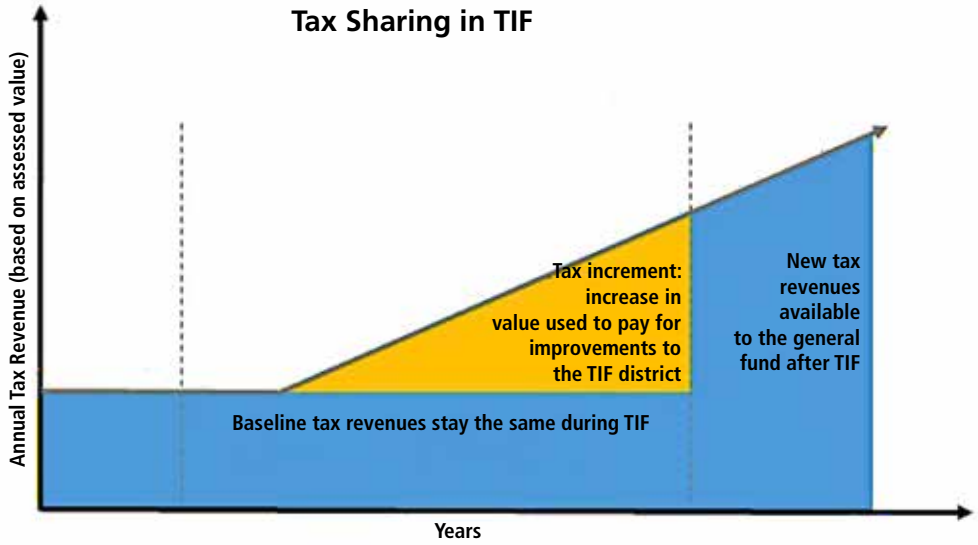
Box 5: Tax increment financing

Local governments often seek to incentivize businesses to expand or relocate in an effort to enhance the economic prospects of the municipality and its citizens. It is frequently the case that improving the investment climate requires the infrastructure and other improvements. One property tax tool that has been used extensively in the United States to address such needs is known as tax increment financing (TIF). TIF designates a portion of increased property tax revenues to pay for improvements to the TIF area.

TIF is available where a value-based, recurring property tax is functioning and tax valuations keep pace with property values. TIF does not generate extra revenue; it separates some of the revenue generated through recurring property taxes to a special investment fund.

Use of this tool has also expanded to other countries, including the United Kingdom, Australia, India and Canada. It is also being considered in New Zealand and South Africa. This instrument enables a government to pay for economic development with future increases in tax collections (Dye and Sundberg, 1998; Bartels and Hall, 2012; Callies and Gowder Jr., 2012).

Tax increment financing has been shown to successfully and substantially increase business property values over time within the district, but the effects on the broader community are more uncertain (Merriman, Skidmore and Kashian, 2011). In addition to increased property values, public goods, like road improvements and sewer construction, entice private investment by reducing the cost of business expansion or relocation (Zhao, Das and Larson, 2010). The rehabilitation of certain areas, those with a low probability of improvement without government intervention, can be attained through stimulating private commercial, industrial and residential development (Carroll, 2008).



To initiate a tax increment financing system, a government must first designate an area as a tax increment financing district. Within the district, a base assessed property valuation is established and the annual property tax collected is capped at that level. The incremental assessed value, meaning all value increases produced through infrastructure development and subsequent private investment, is then accessible by the sponsoring jurisdiction for the pre-specified number of years the TIF district will exist. Public improvements are then financed *within the district* on either a pay-as-you-go (current revenues) or a pay-as-you-use (loan financing) system. Since assessed value typically does not increase until improvements are complete, many governments issue loans to kick start value changes (Carroll, 2008).

Although tax increment financing has proved to be successful in generating revenue for capital improvement, it is important to acknowledge the concerns that have been raised. In analysing the connection between property values and public-good levels, it has been argued that localized public improvement areas (TIF zones) are typically opposed by property owners outside the affected area. These owners pay higher property taxes and receive no offsetting benefits (Brueckner, 2001). Research shows that TIFs lead to temporary increases in property tax rates if there are overlapping taxing jurisdictions. When districts close, the government administering tax increment financing raises its rates while overlapping governments lower theirs (Skidmore and Kashian, 2010).

Another challenge in implementing a TIF district is the difficulty in pinpointing exactly how much revenue such a system will generate. Research shows that the level of public improvements being funded alters the amount of economic growth. Consequently, the additional revenue gained may not be sufficient to adequately fund needed capital improvements (Brueckner, 2001). Some authors have also argued that while TIFs increase investment within the TIF zone, most of the investment comes from elsewhere within the city. The city's net increase in private investment may be modest (Dye and Merriman, 2006).

Tax increment finance is a technique worth considering in situations where:

- Significant public investment is required to induce private development, and
- The combination of public and private investment is likely to significantly increase private land values.

But it is a technique that should be used with caution.

in these same factors across regions or nations are likely to be much larger and will more than offset any differences in property tax levels (Deskins and Fox, 2010).

This suggests that if a business has decided to locate in a particular urban area, the property tax may be influential in the firm's final location within the area. If two adjacent municipalities offer similar access to labour, transport, infrastructure and city services, the property tax rate may be an important consideration in the firm's final decision. But it is unlikely that differences in property tax rates will be strongly influential if a firm is trying to decide whether or not to invest in a country.

Finally, some governments have imposed either an additional tax or a supplemental property tax on vacant urban land. For example, if the basic property tax rate on urban land is 1 per cent of market value, the tax on vacant land may be 3 per cent of value. The objective is to discourage land speculation and encourage landholders to develop their land. On its face, the policy objective is sound and the technique would seem likely to produce the desired "nudge" for landholders if the tax rate is high enough. Such an approach is likely to be especially effective if land and any newly constructed improvements are taxed at very different rates. A high tax on land will encourage its development. A low tax, if any, on improvements will not penalize new development.

Social impacts

The immediate impact of the annual property tax is to increase the cost of owning or holding land (and improvements). It may seem therefore that the social impacts of the annual property tax will be negative, but this need not be the case, especially with regard to informal settlements and improved access to land.

When the property tax is applied predominately to land (vs. improvements), it can stimulate the productive use of land in prime locations. Landholders need to build housing or non-residential space in order to generate revenue needed to pay the tax. Increasing the supply of housing and non-residential space in prime urban locations can help to keep rents lower than would otherwise be the case. Additionally, a tax on land value stimulates development on the most valuable land, deterring speculation and stimulating more compact development (i.e. less underused land close to the city centre). A more compact and contiguous pattern of development can reduce the cost per person of infrastructure and service provision.

As noted previously, there is good evidence that when the annual property tax is levied in informal settlements, residents of such areas will be willing to pay the tax. This is especially the case if doing so establishes or strengthens a legal claim on the property. It is also the likely outcome if the revenue from the tax is invested in infrastructure and other improvements within the informal settlement and these investments are visible to the taxpayers (Smolka and De Cesare, 2013).

The annual property tax, particularly when applied to land, can also be effective in promoting improved access to land for poor people and historically disadvantaged groups. Jibao and Prichard (2015b) note, for example, that in Sierra Leone property tax reform included enforcement efforts targeted on large taxpayers. The immediate rationale was that the 100 to 150 largest taxpayers in each location account for 50 per cent of potential property tax collection. Such a concentration of land among a limited group is not uncommon. Levying a substantial tax on land reduces land hoarding, encourages productive use of the land

and tends to make more land available in the market place.

A property tax applied to land values can encourage "highest and best use" (or the most profitable use) of valuable land. In other words, more valuable land will be taxed at higher rates; underused land will not produce income commensurate with the land tax burden, which can help to trigger redevelopment of this underused land.

Incentivizing highest and best use is beneficial to spatial efficiency and urban productivity. However, as less productive uses of land are pushed out to less valuable properties, this will have an adverse effect on affordable housing. The poor suffer when they are pushed to peripheral neighbourhoods with poor connectivity and infrastructure; social isolation can create a poverty trap that has negative repercussions for the whole city. In order to encourage outcomes that are both spatially efficient and socially equitable, land value taxation should be paired with a mechanism to promote mixed income developments in prime locations.

For a variety of reasons, it may be desirable to partially exempt certain groups from the annual property tax. Groups often considered for such preferential treatment include pensioners, low-income households and even homeowners in general. However, it should be recognized that the property tax system typically lacks the precision needed to meet specific social objectives. In general, property tax administrators know a great deal about land and buildings, and very little about the occupants or owners of those properties. The implication of this observation is that exemptions to provide relief or assistance to specific groups should be designed with great care. Every effort should be made to minimize the additional administrative burdens on tax administrators created by such exemptions. It is often more feasible to provide tax relief through the income tax system than directly through the property tax.

Spatial and planning implications

Deskins and Fox (2010) also review the impact of the annual property tax on urban expansion and sprawl. Based on their review, they conclude that higher average property tax rates (when applied to land) are found to result in less sprawl. The reason for this is that higher property tax rates make owning property more expensive. As the cost of ownership increases, people buy smaller properties (less land, smaller buildings). The result is more compact development and less sprawl.

Similarly, higher property taxes tend to result in increased density for many of the same reasons. As the cost of owning land increases, people tend to use less of it, resulting in higher densities (Deskins and Fox, 2010).

Theoretically, a property tax levied on land values can discourage speculation and non-contiguous or leapfrog development. Landowners holding vacant land within the urban area must pay taxes based on the valuable location of the land and the services provided to it. This encourages them to either develop the land or sell it to someone who will. As discussed above, a land value tax can also incentivize highest and best use, incentivizing the redevelopment of underused plots in prime urban locations.

One interesting phenomenon discussed by Deskins and Fox relates to the application of the annual property tax in peri-urban areas. In many countries, agricultural land is taxed at a lower rate than urban land. Often this lower rate is the result of taxing agricultural land based on its current income producing capacity as farmland. Urban land uses on the other hand are taxed based on estimated current market value. When agricultural land at the urban fringe is converted to residential or commercial

use, the basis for valuation changes and the taxable value increases, often dramatically. Deskins and Fox report that the empirical literature demonstrates that jurisdictions that follow this practice of taxing agricultural land based on current use tend to have a greater proportion of agricultural land than jurisdictions that do not follow this practice (Deskins and Fox, 2010). This is a key consideration for areas concerned with food security and the development of prime agricultural land.

SUMMARY OF KEY POINTS

The recurring tax on property is most commonly an annual tax levied on land, improvements such as buildings or both. The purpose of the tax is three-fold:

- To establish an on-going revenue stream for local needs
- To provide a mechanism for charging residents and businesses for services that are not subject to user charges
- To provide communities with one mechanism for sharing in the increased private land values that result from public decisions and city growth over time

Four **overarching principles** should be kept in mind regarding recurring taxes on property.

1. The property tax system should reflect and be sensitive to the local institutions and traditions related to property rights.
2. Implementing the property tax requires a fiscal cadastre and the land tax system must reflect the realities of the current formal and informal land right registration systems.
3. Since different valuation methods exist depending on the extent and maturity of real estate markets, it is critical that careful attention be paid to market conditions in different locations and for different types of property.
4. The administrative capacity of government entities must be carefully considered in designing the property tax and the administrative processes for its implementation.

The key components of the **enabling property tax law** include

- Define what is taxable
- Define what is meant by taxable value
- Identify who is responsible for paying the tax
- Determine the process for setting the property tax rate(s)
- Assign the required administrative functions to appropriate agencies
- Assign the tax revenue

The **revenue collected** from the annual property tax is a function of five elements. Two are policy determinations:

- The value of property tax base as legally defined (base)
- The property tax rate as set by law and policy (rate)

And three are administrative factors:

- The proportion of all land that should legally appear on the tax rolls that actually is included in the fiscal cadastre (coverage)
- The proportion of taxable value that is identified by the valuation process (valuation)
- The proportion of the tax levied that is actually collected (collection)

Good policies guiding how the tax base is defined include:

- Defining the base should follow the fundamental principle of good tax policy: broaden the tax base and lower the rates
- Defining the incidence — the tax should be collected from property owners if they can be readily identified. Otherwise the tax should be collected from the occupants

- Exemptions should be kept to a minimum, should be thoughtfully justified and should be reviewed regularly to assure that their public purpose is still valid
- Valuation of property can be based on capital market value, annual rental value, physical property characteristics or a hybrid approach, based on the maturity of real estate markets and the administrative capacity of implementing tax agencies
- Good policies governing rate setting include:
- The number of property classes should be kept to a minimum
- Unless there is a compelling reason, there should only be one tax rate for all property classes
- The range of acceptable rates can be set at the central level, but local officials should have the authority to determine the final rate within the approved range
- It is often the case that revenue from a recurring tax on property can be significantly increased if the administration of the tax is improved. Quality administration includes:
- Improving coverage or the proportion of legally taxable property included on the tax rolls
- Improving the accuracy and timeliness of property valuation
- Improving billing and collection procedures, including taxpayer services for processing taxpayer inquiries and appeals
- Strong administration of the recurring tax on property requires trained personnel and an adequate budget to fund all aspects of the administration.
- The required expertise need not, and most likely does not, reside in a single agency. It is often most effective to share the responsibility for administration between agency with specialized personnel.
- Central governments play an important role in providing training, administrative support in complex situations and in oversight to assure efficiency, effectiveness and fairness.

The likely impact of an effective recurring property tax should be viewed from several perspectives, including:

- The economic incidence of the tax
- The revenue potential from the tax
- The incentives created for private investment within the local jurisdiction
- The social impacts of the tax
- The spatial and planning implications of the tax

HOW TO IMPLEMENT OR IMPROVE THE ANNUAL TAX ON IMMOVABLE PROPERTY

The policies and administrative practices required to support an effective annual property tax system can be daunting. To administer a property tax effectively and fairly, all land and improvements need to be identified and catalogued on a tax roll or cadastre. Once a roll exists, it is important to update the recordkeeping methods and systems regularly.

Most importantly, an accurate and equitable valuation system must be implemented and staffed, with linking systems that track land values and tax payments, including property sales (Bahl and Wallace, 2008a). The implementation of a land revenue system should, as previously noted, be implemented at the local government level, although it can be argued that one aspect of property tax administration that can work more efficiently through a centralized system is valuation (Bahl and Wallace, 2008a; Mikesell, 2013).

Although property tax systems currently exist in many developing countries, most are deficient. In order to strengthen these systems, the property tax should be simplified and made consistent and uniform. Improving the collection and enforcement of property

Table 1: A Generic Property Tax Reform Process

Task	Action	Urgency – purpose
PHASE I		
A	Appoint a lead agency and senior official to champion the property tax reform	**Critical** – gives the green light for the project and signals top-level support for the reform
B	Appoint the project leader	**Critical** – key appointment to lead the project. Essential for strategic co-ordination of the project
C	Identify funding sources for the reform project	**Critical** – enables project to begin the work
D	Staff recruited or seconded into the project team	**Critical** – key appointments to drive the project
E	Development of the project implementation plan, risk assessment strategy and communication/media plan	**Critical** – to take the project forward
F	Media and communications strategy initiated (and will continue throughout the reform process)	**Essential** – to ensure internal and external communication is ongoing throughout the policy development, data collection and implementation processes
PHASE II		
G	Drafting of the property tax legislation	**Critical** – preparation and legal drafting to support the reform
H	Wide consultations on the draft legislation in accordance with government consultation protocols	**Critical** – identifies key areas of concern
I	Valuation agency appointed to develop valuation standards and begin evaluation and analysis of available market data	**Essential** – development of assessed values of property by location
J	Develop the IT system to support the property database	**Critical** – ensures that an integrated database system is in place to support implementation
K	Develop the initial property database (fiscal cadastre) from available data	**Critical** – comprehensive list of property holders is critical for successful implementation
L	Field work by local governments to gather information on land and buildings coordinated by lead agency	**Critical** – required to develop the property database for each local government
M	Valuation agency provides assessed values to each local government for review and comment	**Critical** – the assessed values will be used by LGUs to tax properties within their jurisdiction
N	Valuation agency revises assessed values based on local government comments	**Essential** - cadastral values must be acceptable to local governments
O	Valuation agency generates taxable values for each property and delivers values to local governments	**Essential** – valuation agency uses approved valuation methodology to estimate taxable value of each property
P	Local governments generate and deliver tax notices to taxpayers	**Critical** – local governments take responsibility for billing and collection

(continued next page)

Table 1: A Generic Property Tax Reform Process (Continued)

PHASE III		
Q	Taxpayer appeal process opens	**Critical** - taxpayers must have opportunity to object to their values, but not the tax bill
R	Local governments finalize all taxable values	**Essential** - appeals should be handled and resolved promptly in most cases
S	Local governments deliver final tax bills	**Critical** – tax bills must be delivered promptly
T	Property tax payments due	**Critical** – taxpayers should be given a reasonable but not unlimited time to pay the tax; payment methods and locations should make paying the tax as easy as possible
U	Total collections announced publicly along with local government plan for investing the revenue in the community	**Essential** – if taxpayers see the connection between what is paid and tangible benefits in the community, compliance will be much higher
V	Local governments initiate enforcement process for uncollected tax payments	**Essential** – non-payment of the tax should be costly

tax is a cost effective means to increasing revenue (Bahl and Bird, 2008a). By failing to establish a credible tax base, taxpayer confidence diminishes, compliance rates suffer and revenues stagnate (Bahl, Martinez-Vazquez and Youngman, 2008b).

Although reform is challenging, it is necessary to develop a responsive and successful local property taxation system. Steps to reform an under-performing property tax in developing nations are summarized in Table 1. (See also Bahl and Bird, 2008c.) Not all steps may be applicable in all settings, but all should be carefully reviewed and considered before being omitted.

The contemplated reform effort is divided into three phases. The first relates to creating the policy support at the most senior levels of government, identifying the individual who will champion reform, and the project leaders who will lead the effort, and drafting the legislation necessary to enable effective implementation. From the beginning, a public information campaign should be initiated to explain to the public the "what and why" of reform, and how such reforms will result in improved public infrastructure and services. Without strong political leadership and public understanding and support, serious reform is unlikely.

Phase II of the reform effort involves the detailed work of finalizing the legislation, developing requisite information systems, detailing valuation methodology, completing the fiscal cadastre, valuing all properties and consulting with local governments. The final phase is carried out largely by local governments as they deliver tax valuation notices, resolve public concerns, deliver tax bills and implement collection and enforcement processes.

SUGGESTED CASES

- Case 1: Reforming the current property tax in Albania
- Case 2: Progressive property taxes in Singapore
- Case 3: Property tax reform in Punjab, Pakistan
- Case 4: Administrative reforms in Bogotá, Colombia
- Case 5: Creating a property tax register in Kandahar, Afghanistan
- Case 6: Property tax reform in Sierra Leone

INSTRUMENT 2:

BETTERMENT CHARGES AND SPECIAL ASSESSMENTS

INSTRUMENT 2: BETTERMENT CHARGES AND SPECIAL ASSESSMENTS

The Albania and Afghanistan cases both deal with the property registration process. The Albania case also represents an effort to move from an area-based approach to value to a market-value approach. The Singapore case examines an effort to use the annual property tax to achieve redistribution. The Pakistan and Sierra Leone cases deal with property tax reform effort. The Bogotá case discusses a successful valuation update.

DEFINITION

Betterment levies are one-time charges for specific infrastructure improvements. They are assessed to landholders benefiting from the improvement. To employ the instrument, cities must identify the specific improvements to be made, the land area that will benefit from the improvements, and the level of benefit in terms of increased land value that will be received by each land parcel. The cost of the improvements is then assigned to each land parcel based on the share of benefits received. Special assessments provide a mechanism for collecting betterment charges over a period of years and can make the burden on taxpayers much easier to bear.

PURPOSE

Betterment levies, charges or taxes (all three terms are used) are intended to allow a community to share in the increased private land value that often results when infrastructure is improved, permission is granted for a land-use change or some other public action is taken. Betterment taxes differ from developer exactions in that they are usually applied to existing rather than new developments. They are similar to developer exactions in that they are usually a one-time charge and are tied to a specific event that influences land values.

In some instances, betterment taxes are an explicit attempt to share in increased land values and are applied only to the increment in private land value created by the public action.[14] However, this chapter will focus on the use of betterment levies as a cost-recovery instrument. For example, in Argentina, provinces and municipalities may finance certain public works through *contribuciones de mejoras* (betterment taxes) when the improvements result in increased land values. Rezk reports that as a rule, the governments "identify certain categories of beneficiaries and share part of the cost of construction among them in proportion to estimated benefit" (Rezk, 2004, p. 285).

Instrument	Description	Timing	Initial incidence
Betterment levies and special assessments	• Charges assessed in connection with specific infrastructure improvements • Limited to recovery of actual costs incurred	• Assessed once • Betterment levies: collected as a one-time charge • Special assessments: collected over a period of time, often as a temporary addition to the recurring property tax	Existing landholders whose land benefits from the improvements

MINIMUM REQUIREMENTS

An adequate legal and administrative framework is, of course, necessary to implement both betterment levies and special assessments. Typically, the legal code around special assessments requires some percentage of landholder approval to fund infrastructure in this

14 Taxes applied to the increase in land values after a public action are covered in detail in Chapter 4.

INSTRUMENT 2: BETTERMENT CHARGES AND SPECIAL ASSESSMENTS

Instrument	Minimum requirements for implementation
Betterment levies	• Appropriate enabling legal framework • Identification of all land plots whose value is affected by the improvements • Estimated impact of the improvements on the land value of each affected plot • Accurate estimate of the cost of the improvements • Method for allocating the improvement costs to individual plots based on the share of benefit received • Adequate one-time billing and collection system
Special assessments	• Same as for betterment levies, plus • Adequate instalment billing and collection system • Agreement of a majority of landowners

way. This is not usually the case for betterment levies, but securing landowner cooperation and agreement in advance greatly enhances the likelihood of political support for betterment charges.

The political feasibility of betterment levies and special assessments depends on the level of demand for the services and their cost. Improvements funded through these instruments must be worth their cost in the eyes of the paying landholders. The higher the demand for improvements and the lower the cost to each individual landholder, the more politically feasible betterment levies and special assessments will be.

Property markets will also affect the political feasibility of these instruments. The rationale for betterment levies and special assessments is that they increase property values through improved infrastructure. For example, a paved road with good drainage should increase the value of adjacent plots as compared to the original dirt road that floods frequently. Therefore, landholders may be willing to pay for paving and drainage. However, this assumes that landholders will be willing to pay upfront for improvements they cannot profit from until they sell their property. In actuality, they may not be willing or able to pay this upfront, particularly in poor areas.

Improvements that have a direct impact on increasing the income of landholders will likely be easier for them to pay for than those that only benefit landholders on sale of their property. For example, if a road along a major commercial street is improved to add public transit stops and improve walkability through widening, lighting and rubbish collection, the result could be more customers and a direct increase in the income of commercial landholders. Landholders in such a case would probably favour a betterment levy or special assessment to implement such improvements if it was relatively affordable.

DESCRIPTION

As noted in the Medellín case, betterment levies have been used for cost-recovery in Colombia for nearly 100 years. Their use in that context follows the same pattern found in other implementations around the world. The process begins when the city identifies a specific desired infrastructure or service improvement. The land benefited by the proposed improvements is then identified and an estimate of the degree or share of the benefit is made. The cost of the improvements is then allocated to each affected property based on the share of benefits received. Property holders are notified of their obligation and the betterment charge is collected. The numerical example in the box illustrates the type of calculations needed.

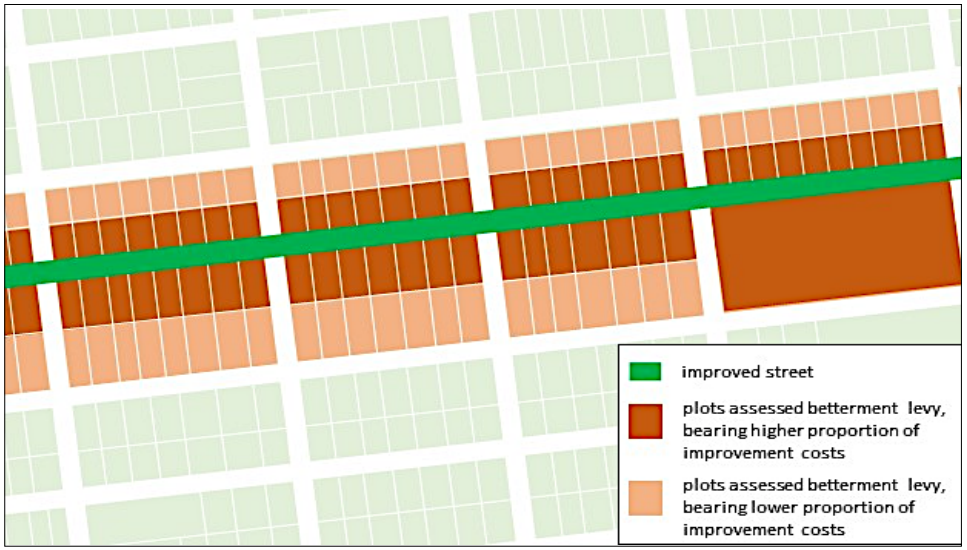
A variation on betterment levies that has been used successfully in a number of countries is the *special assessment.* These differ from other forms

Box 1 : Numerical example of a betterment tax calculation

Assume that the city seeks to improve road access along a two kilometre length of road. Excluding side roads, there are 70 land parcels on each side of the road. The improved road access will benefit all of the immediately adjacent properties equally. However, these landholders are not the only properties to benefit. On each side of the road are another 210 properties that will benefit from the improved access, but not to the same degree. The benefit received by each property diminishes as the distance from the improvements increases. After careful analysis and consultation with professional land market specialists and property owners, the city is able to group the properties into four categories, based on the distance from the improvements. (For simplicity's sake, it is assumed that there are an equal number of properties in each category and that all properties are the same size; however, property size or road frontage could also be incorporated into these calculations.)

The total cost of the improvements is estimated to be USD 1 million. These costs will be divided among all 560 properties, based on the degree or share of benefit received. Those properties with frontage on the newly improved road will be assessed a one-time betterment charge of USD 2,857. The next tier of properties will be assessed USD 2,143. The third tier will be charged USD 1,429, and the fourth tier is farthest away from the improvements and will be charged only USD 714. Other properties in the city will not be charged a betterment levy for this particular improvement project. In Colombia, the betterment levy would be collected from landowners before the installation of the improvements. In India, the courts require that the improvements are installed prior to collecting the betterment charge (Walters, 2013b).

Figure 2.1: Example of a betterment levy



of betterment levies in that rather than assessing a one-time charge, special assessments are added to the annual tax on immovable property and are collected over a period of years. This approach often requires that local governments use debt to finance the immediate construction of the improvements, but the special assessment approach has the advantage of reducing the immediate burden on landowners by spreading the cost over several years.

The special assessment has been used effectively, especially with businesses which often seek infrastructure or service improvements that will enhance their operations and they are willing to pay for those improvements over time (Morcol, 2008). However, the key feature of special assessments is the fact that the betterment charge is collected over a period of years as a supplement to the annual tax on immovable property or as a periodic fee (Medda, 2012).

There is now a lot of literature establishing the positive connection between infrastructure investments and land values (for recent examples, see Ayogu, 2007; Efthymiou and Antoniou, 2013; Ingram and Brandt, 2013; Keil, 2013; Mathur and Smith, 2013; Moreno and Lopez-Bazo, 2007; Noriega and Fontenla, 2007; Peterson, 2010; Van Ryneveld, 2006; Zegras 2003). The literature on the use of betterment levies to recover the costs of infrastructure is somewhat thinner, but still useful. It reflects the substantial interest in the approach around the world.

Colombia is a prime example of Latin American countries that have successfully employed betterment levies for cost recovery (Borrero *et al.*, 2011; Smolka and Amborski, 2000; Walters and Pinilla Pineda, 2014). The instrument, though, has been employed in Australia (Archer, 1976), India (Walters, 2013b), the United Kingdom (Booth, 2012), Tokyo and Hong Kong (Murakami, 2012).

IMPACTS

Betterment charges can become politically unpopular if overused as an instrument (Walters and Pinilla Pineda, 2014) and the methods employed in assessing the degree of benefit received can be controversial (Borrero et al. 2011; Booth, 2012).

Revenue potential

The net revenue from betterment levies and special assessments is nearly always zero. This instrument is

Box: A Business improvement district (BID) in San Francisco, U.S.

Background

Union Square is a central hub of tourism and commerce in San Francisco, California. In 1999, the 27 blocks surrounding Union Square were established as a business improvement district (BID). A BID is a type of special assessment.

The Union Square BID has a fixed term that can be renewed every 5 to 10 years. Union Square is the largest of San Francisco's 11 improvement districts, the first BID implemented by the city, and the most visited neighbourhood in San Francisco. The area started as a residential area surrounded by churches in the late 1800s, and has evolved into the commercial and retail centre of the city (Union Square, 2015).

Actions taken

The business improvement district for Union Square was created in 1999. Concerned property owners proposed the BID with the goal of enhancing the experience, cleanliness, safety and vibrancy of the area (Union Square BID Board et al., 2009). A board of directors made up of stakeholders and property owners worked closely with city agencies to carry out the goals of the BID. The 11-member Board of Directors consists of (4) district property and/or business owners representing the retail stakeholders of the district, (4) owners representing the hotel stakeholders of the district, and (3) owners representing the other stakeholders of the district.

The BID is legally possible under the San Francisco Business Improvement District Law (Union Square BID Board et al., 2009). When creating the BID, private commercial property owners in Union Square contracted with the MJM Management Group (a private body that works on many public projects) to put together a plan for the business improvement group. They submitted a pro forma (a preliminary budget and financial plan for the BID), conducted community outreach programmes to educate and gain support from the public, and now that the BID has been created, MJM Management provides the services for the BID (such as cleaning, marketing). The BID was approved by a vote of 63 per cent of 2,883 total votes in 2009 (Union Square BID Board et al., 2009).

Each year, the properties are assessed an annual fee. Services from the BID are provided year round. In exchange for annual assessment fees, residents and property owners receive the following benefits:

- Cleaning and maintenance
- Community service ambassadors
- Additional police patrols
- Marketing
- Public affairs and advocacy
- Streetscape improvements
- Capital improvements (signage, street directions, public right of way enhancements)

To fund these services, the BID collected USD 3,040,061 in the first year. That budget amount was then scheduled to increase in 2018-2019 in accordance with inflation, or 3 per cent, whichever is less (Union Square BID Board et al., 2009).

To fund these services, the BID collected USD 3,040,061 in the first year. That budget amount was then scheduled to increase in 2018-2019 in accordance with inflation, or 3 per cent, whichever is less (Union Square BID Board et al., 2009).

The annual assessments are calculated using the formula in Table 1. The cleaning and safety amount is determined for each property based on linear street footage, and a marketing and advocacy fee based on a property category is added to that amount to find a total annual assessment. Each property is assigned a category. San Francisco has nine categories, which include six categories for non-residential property (based on square footage), and separate categories for residential property, public property and Hallidie Plaza (office space). Table 2 shows each category and the fees associated with it.

Table 1: Parcel Assessments

Assessor's Parcel Annual Assessment	=	Clean And Safe Assessment (USD 70.58)	*	Linear Street Footage	+	Marketing and Advocacy Amount*

*Marketing and Advocacy Amount is based on Category identified in Table 2. (Union Square BID Board et al., 2009).

Table 2: Property Categories

Property Type	Clean and Safe Fee (USD)	Marketing and Advocacy Fee (USD)
Category 1 (Less than 2,000 building sq. ft.)	70.58	75.00
Category 2 (2,000-4,999 building sq. ft.)	70.58	150.00
Category 3 (5,000-9,999 sq. ft.)	70.58	500.00
Category 4 (10,000-29,000 building sq. ft.)	70.58	1,000.00
Category 5 (30,000-99,000 building sq. ft.)	70.58	1,250.00
Category 6 (100,000 or more building sq. ft.)	70.58	5,000.00
Residential Property	70.58	0.00
Public Property	70.58	0.00
Hallidie Plaza Parcels	3.55	0.00

Table 3 shows three examples of how the annual fees are calculated for properties in the Union Square BID. The fees are collected at the same time as property tax, appearing as a separate line of the property tax bills for San Francisco (Union Square BID Board et al., 2009).

Results

In 2009, the BID was renewed for another 10 years, through fiscal year 2018-2019. The same services are provided to the area under the renewal. Union Square is a vibrant area of San Francisco and continues to attract residents and tourists, providing events for visitors and services for residents and property owners.

Table 3: Greater Union Square BID – Fiscal Year 2013/2014 Assessment Roll

Property Owner	Category	Linear Street Footage	Building Square Area	2013/14 Clean and Safe Assessment (USD)	2013/14 Marketing Assessment (USD)	2013/14 Rounding Adjustment (USD)	2013/14 Total Assessment
Rivers-United Inc.	Category 3	25	5,400	1,859.25	526.84	(0.01)	2,386.08
Alta Apartments	Residential	1.28	n/a	n/a	95.19	(0.01)	95.18
Street Retail Inc.	Category 6	236.5	117,435	17,588.50	5,268.48	(0.00)	22,856.98

(Union Square BID, 2014)

intended to raise sufficient revenue to cover the cost of specific investments. It is reasonable to include administrative overhead in those costs, but decision makers should not expect revenue beyond actual costs for the specific investments.

It is also possible to cover only a portion of the public investment costs (rather than the full costs) through a betterment levy if there is another funding source that can cover the remaining cost. In this case, the cost of public investments exceeds the beneficiaries' willingness to pay. In high-income communities, this is likely to be a sign that the public investments under consideration are not cost-effective and should be reconsidered. However, in lower-income communities, public investments that exceed the beneficiaries' ability to pay may still be cost-effective, especially if they improve the health or income-generating capacity of the beneficiaries. In such a case, a betterment levy or special assessment can cover some costs; it can be paired by redistribution of revenue from higher-income areas or an external grant from a donor to cover remaining costs.

Incentives for private investment

Betterment levies, especially when collected as special annual assessments, can spur private investment. It is often the case that the business community will approach a city and ask for specific improvements to be funded by a betterment charge on business. Businesses understand the value of improved public access, clean and safe streets, etc. If the city can enhance the climate for businesses by using betterment charges, the private sector will respond by increasing their investment in those areas.

Social impacts

The social impacts of betterment charges should be weighed carefully. While the improvements that are funded may increase the overall wealth of landholders, the requirement to pay a one-time betterment levy may severely strain a given household's means. The net result may be to force low-income or elderly households to sell their property in order to meet the betterment obligation. Special assessments levied in annual instalments are easier for families and businesses to pay, but may still be a burden for some. At the same time, granting exemptions or discounts because of economic hardship simply transfers the cost of improvements to other taxpayers.

Betterment levies and special assessments can also be seen as a way for higher-income areas to upgrade their own infrastructure. If a city relies too heavily

on betterment levies, the disparity in conditions may increase between high-income areas and lower-income areas that are unable to afford betterment levies. A more general tax scheme (for example, annual citywide property taxes) are better suited for redistributive investments in low-income areas.

Spatial and planning implications

Betterment levies represent an important tool for planning and managing city development and expansion. They provide a means whereby cities can create added land value through public investment in infrastructure and services, and then share in that increased value as a way to pay for those investments. The key to successful use of this instrument is to

- Have a clear and specific plan for city improvements
- Secure public support for that plan
- Phase the implementation of the plan in such a way that the costs do not become too burdensome for landholders

The spatial impacts of public improvements funded through betterment levies can be to improve income-generating hubs within the city (as is the case of the business improvement district in San Francisco described above). This can lead to economic benefits and job creation. However, public improvements funded through betterment levies can also increase spatial disparities between neighbourhoods. Therefore, the socio-spatial impacts of their use should be carefully considered.

SUMMARY OF KEY POINTS

The key points regarding betterment charges and special assessments can be summarized as follows:

- Betterment levies for cost-recovery are generally one-time charges assessed in connection with specific infrastructure improvements.
- Special assessments differ from betterment charges in that they are generally not one-time charges, but are assessed annually over a fixed period.
- To employ the instrument, cities must identify the specific improvements to be made, the land area that will benefit from the improvements, and the level of benefit in terms of increased land value that will be received by each land parcel.
- The cost of the improvements is then assigned to each land parcel based on the share of benefits received.
- Securing landowner cooperation and agreement in advance greatly enhances the likelihood of political support for betterment charges.
- Special assessments are also charges assessed in connection with specific infrastructure or service improvements.
- Special assessments provide a mechanism for collecting betterment charges over a period of years and can make the burden on taxpayers much easier to bear.
- Special assessments generally require the prior approval of a majority of property owners (either by number, in property value or both).
- The assessments can be made either as a set fee based on property attributes or as an increment in the annual property tax rate.
- Betterment charges can be effective at encouraging private investment, particularly in income-generating areas; but their social costs should be weighed carefully.
- Betterment charges and special assessments are important instruments for planners and local managers.

SUGGESTED CASES

- Case 7: Betterment charges in Medellín, Colombia
- Case 8: Betterment charges collected over time in Cuenca, Ecuador

INSTRUMENT 3:

DEVELOPER EXACTIONS

INSTRUMENT 3: DEVELOPER EXACTIONS

DEFINITION

The development of vacant land or the redevelopment of existing urban areas puts a heavier burden on the municipality's physical infrastructure and increases the need for urban services. The cost of meeting the need for improved infrastructure and services falls on the municipal government.

A common practice around the world is to require that those who benefit most from the development compensate the city for public costs created by the new development. Such compensation required from developers is here called a "developer exaction". By far the easiest time to require this compensation is at the time the developers are seeking approval for their project. Developer exaction requirements go by different names in different countries.[15] But they share several common features:

- They are one-time, standardized charges assessed by local governments to the developers or landowners seeking approval for the development or redevelopment of land within the jurisdiction.
- The charges are nearly always assessed at the time the project receives approval from the local authority, though with large multi-stage projects, they may be paid in instalments as the project is constructed.
- Developer exactions generally take one of three forms, each of which is described more fully below:
  1) Required on-site improvements, such as roads, public pavements, water distribution and wastewater collection lines, and public spaces that must be constructed within the boundaries of the development project and then transferred to the local government.
  2) Payments required to offset the impact of the new project on off-site city infrastructure and services. Such payments may be in either land or money, and are intended to provide the local government with the resources needed to expand public infrastructure and services to accommodate increased service demands induced by the new development. These payments are generally assessed in an amount estimated to recover the actual costs of the expanded infrastructure or services.
  3) Payments required as the development's contribution to social improvements within the city but not tied directly to the development project. Such requirements are a form of value sharing.[16] An example of such improvements would include payments in land or money earmarked for social housing (see box below on housing impact fees).

A fourth application of developer exactions is more recent, has less history and involves allowing the developer to avoid required exaction payments when the development meets certain criteria. In this way, exactions can be used as a way to create incentives for specific developer actions. For example, Lu *et al* (2013) describe an approach that allows developers to choose to either pay an exaction fee or adopt specific development strategies which increase density and reduce storm water runoff.

To be clear, this chapter deals only with developer exactions intended to offset the identifiable community costs associated with new development. Exactions or charges levied in excess of these specific

15 Examples include "urban obligations" (Obrigações Urbanísticas) in some Latin American countries, "impact fees" in India and many English speaking countries, "system development charges" in parts of the U.S. and "community amenity contributions" in some parts of Canada.

16 Land value sharing is discussed more fully in the chapter on land value increment taxation.

INSTRUMENT 3: DEVELOPER EXACTIONS

Instrument	Description	Timing	Initial incidence
Developer exactions	• Charges assessed in connection with development approval • Can be paid in cash, in land or in kind	• Assessed once • Collected as project is approved and completed	Land developers seeking city approval

costs are discussed in the chapter on land value increment taxes.

PURPOSE

The purpose of the type of developer exactions discussed in this chapter is quite specific and usually limited in scope. They are intended to offset the municipal costs associated with new growth. As an example, converting an existing block of single-family homes to a block of high-rise flats imposes additional costs on the city. These might include:

- Larger water and wastewater lines to serve the increased number of families
- Road and parking expansion to meet the increased demand for vehicle access
- Expanded or improved public spaces to meet the increased demand in the area

Such costs are likely to extend beyond the boundaries of the development project. Thus, developer exactions can include both infrastructure improvements within the boundaries of the project (called on-site improvements) and identifiable costs outside the project boundaries (called off-site improvements). In either case, the intent is to

- Meet expanded infrastructure needs as those needs are created by new development
- Place the burden of paying for the new infrastructure on those who benefit the most
- Avoid the need for the municipality to make a direct expenditure of its own limited capital improvement resources

Developer exactions can be applied when two conditions hold true: (1) there is a requested and approved increase in development intensity, and (2) the development will put an increased burden on public infrastructure or services. The minimum requirements for effective use of developer exactions can be grouped into four categories:

- Legal
- Planning
- Engineering
- Administration

Legal — There must be an appropriate legal framework for employing developer exactions. If there is no centralized law governing such exactions,

Minimum requirements

Instrument	Minimum requirements for implementation
Developer exactions	Appropriate enabling legal framework Master plans and detailed plans for the relevant geographic area Engineering estimates of the impact of the proposed development on existing infrastructure and the cost of meeting the increased infrastructure needs The administrative capacity to administer approved plans, process development applications, calculate the exaction due and monitor compliance

it is possible for local governments to adopt their own regulations. However, in order to ensure some degree of uniformity of practice within a region, good practice would argue for the adoption of an overarching framework by a central authority. Additionally, the administering authority must have enough power in relation to developers to be able to withstand challenges and undue requests for exemption.

Whether a central government law or local ordinance, the law should address the following issues:

- **What kind of development will trigger the imposition of a developer exaction?** Will some types of small residential improvements, such as adding a floor to an existing house, require the exaction to be paid? Will large industrial projects have the same type of exaction requirements?
- **What types of project impacts or effects will be included in the exaction?** It is common to include water, wastewater and transport impacts, but some jurisdictions include other impacts such as public space, storm water, education and social housing.
- **How will the connection between the proposed project and the effect be established?** Especially for off-site improvements, this is an important consideration. If a large development in one area of the city creates traffic congestion at an intersection several blocks away, should that congestion be linked to the project and included in the calculated exaction? What if the congestion is several kilometres away? The law should specify what constitutes an impact and what does not.
- **How will the proportionate share of the impact cost be allocated to a given project?** The exaction should cover the full cost of on-site improvements. The project may also contribute to the need for new off-site improvements. But in many cases, the project will not be the only contributor to the need for those off-site improvements. How will the project's fair share of those off-site costs be determined?
- **How will the amount of the exaction be determined and by whom?**
- **When will the exaction be payable and how? Will the exaction be paid in land, money, in-kind or some combination of these three?** Who will decide the appropriate combination?
- **How will any monies received be accounted for and allocated by the jurisdiction?**

Within the boundaries established by the enabling legislation, each local jurisdiction will then adopt specific local ordinances and regulations governing the exactions.

Planning — One particularly important consideration is the relationship between developer exactions and the development of comprehensive plans for the city. It is much easier to impose and defend an exaction on a given project if the city can show how the proposed development relates to comprehensive plans for water, wastewater, transport, public spaces, etc. The infrastructure elements of such plans should include the location, capacity and development sequencing of infrastructure improvements.

Engineering — It is critical that there be a detailed assessment of the likely impact of the proposed development on existing city infrastructure and services. Such assessments frequently require civil engineering skills or at least standard procedures and formulas developed by civil engineers. Assessing the impact of a large development on water, wastewater and transport systems requires specialized expertise. It may be possible to standardize such assessments in a set of tables that have been prepared by qualified civil engineers.

Engineering expertise is also needed to accurately estimate the cost of meeting any increased need for infrastructure resulting from the new development. Again, standardized tables can be used to calculate the final exaction amount. But if these are monetary tables, they must be reviewed and updated regularly. One benefit of standard calculations for exactions is that they can increase transparency and reduce the risk for developers by providing clear and timely information.

Administration — Imposing developer exactions fairly and effectively requires administrative capacity. As part of the local jurisdiction's growth management team, managing developer exactions requires that cities be able to

- Administer the approved comprehensive plans
- Process development applications in a timely manner
- Calculate and levy the developer exaction
- Monitor the project construction to assure compliance with the approved project plan

Thus, developer exactions involve specific legal, planning, engineering and administrative requirements, as well as the ability to coordinate between planning, infrastructure and financial administration. Notice, however, that there is no requirement that land values increase as a result of the project. In fact, in the context of developer exactions, whether land values increase or not is irrelevant. What is relevant is the public cost of any proposed development. Presumably, developers will not undertake a project that does not bring them a profit, but that decision is left to the marketplace and private decisions. Developer exaction merely attempts to make sure that each development incorporates the public costs of the project. Private gain at the expense of the public should be avoided.

DESCRIPTION

Development fees, impact fees, planning fees, etc. are among the one-time fees that local governments charge developers or landowners as part of the development approval process and subsequent public oversight. Some of these costs may simply be intended to cover the city's costs that are directly related to processing development applications. When the fees and charges exceed those immediate costs, they become developer exactions as the term is used here. These exactions may either be for on-site improvements or off-site improvements, or they may be for other social improvements within the city.

Required on-site improvements — Such improvements include roads, public pavements, water distribution lines, wastewater collection and storm drainage systems, and in some instances electricity distribution lines and telecommunications lines. Cities have a long history of requiring such improvements, which are nearly always constructed by the developer and then transferred to the city (Bauman and Ethier, 1987).

Most cities have development standards that must be met before the transfer of the on-site improvements will be accepted. To ensure that standards are met, cities approve the planned improvements in advance, then inspect the installation process regularly. Developers generally are willing to provide on-site improvements since they contribute directly to the value and marketability of the overall project. Even so, cities often require performance guarantees from developers to ensure that improvements are completed in a timely manner and without creating a financial burden on the city (Barru, 2005).

Required off-site impact fees — These exactions or impact fees have a more recent history and are

intended to mitigate the impact of new development on existing city infrastructure (Bauman and Ethier, 1987; Smith, 1987; Cox and Followill, 2012; Nelson, Nicholas and Juergensmeyer, 2009). New developments often create increased demand for urban services ranging from transport infrastructure and water supplies to parks and other open spaces. Impact and development fees enable cities to respond to the increased demand without creating additional burdens on existing residents. Such fees can be either in-kind (for example through land donation) or in money.

The base for assessing developer exactions can be either the physical attributes of the proposed project or the market value of the development. In the Medellín, Colombia, example below, the base is the surface area of the buildings to be constructed and the expected occupancy loads. In other cases, the exaction is based on some measure of value, but such an approach may be less defensible and runs the risk of becoming simply a general tax on new development (Kaganova and Kopanyi, 2014).

The Medellin example (see the text box) represents one approach to developer exactions in which a specific formula is used to calculate the amount due from the developer. An alternative approach is to allow the city to negotiate the exact amount of the exaction on a case-by-case basis. The advantage of the case-by-case approach is that it is more sensitive to the unique features of each development. The disadvantage is that it depends on the integrity, analytical capacity and negotiating skills of municipal officials to arrive at a fair result.

The strength of formula-based approaches, such as that employed in Medellín, is that less is demanded of officials charged with implementing the policy, and the result is more uniform across developments. The weakness is that even with slightly different formulas for different zones within the city, the unique features of any given proposed development may result in some developments paying higher or lower exactions than in a perfectly fair scenario.

Communities have been most successful in implementing developer exactions when there is strong pressure for additional growth and local governments have the tools and institutional strength to effectively manage the growth. In such an environment, three principles should guide the design and implementation of developer exactions. First, the need for the additional infrastructure that will be financed through exactions should be a result of the new development rather than any other deficiencies in community infrastructure. Second, the value of the exaction should be equivalent to the development's proportionate share of the cost of providing the new infrastructure. Third, the exactions received should be managed in such a way that the development substantially benefits from the exaction where that is the exactions' purpose (Nelson, 1988). Note that some exactions deliberately serve a redistributive purpose. In those cases, the benefit to the development will be much less direct.

In some contexts, there may be a provision allowing developers to apply for exemption from exactions. For example, in the case that the development is providing a social benefit that outweighs the cost of increased use of services or in the case that the development will not actually use increased services or infrastructure. If exemptions may be granted, it is critical that this process follows transparent guidelines and occurs in a transparent way to avoid corruption.

If developer exactions are to be used to recover the cost of specific public infrastructure investments or to provide for future expansions of such infrastructure, calculating the amount of the exaction is largely

an exercise in accounting and engineering (Nelson, Nicholas and Juergensmeyer, 2009; Mantz and Thomas, 2012). While the exercise may be technically complicated, it is not complex. It is necessary, though, to estimate with some precision the impact that a development will have on existing infrastructure and set the exaction amount accordingly. An excellent source for the design and calculation of impact fees can be found in Nelson, Nicholas and Juergensmeyer (2009).

IMPACT

Revenue potential

Because these fees are intended to offset the costs from new development experienced by communities, a number of local judicial systems have held that the fees assessed should approximate the actual costs incurred. Under such limitations, it is difficult to realize a substantial increase in new local revenues from development fees, though they may be an important source of funds to address the pressures of new growth. One limitation of development and impact fees is that they tend to be very cyclical,

Box 1: Example calculation for a land transfer obligation

To illustrate the process of determining the calculation of a developer exaction based on the Medellín case, consider the following example. Assume a housing and commercial project is to be built in zone Z1_CN2_7 (see Table 1 on p. 145 in the Medellín case) with a total land area of 2,500 m^2 to include 45 apartments and 1,000 m^2 of commercial area.

The exaction obligation in Medellín is calculated in terms of a required land transfer. The land transfer associated with residential use is calculated as follows:

1. Obtain the average household size for similar areas in the city from the most recent information available from the national statistics office (3.62 people per household).
2. Multiply the proposed 45 apartments by 3.62 inhabitants = 163 inhabitants for the building.
3. Multiply 163 inhabitants by 3 m^2 of land transfer requirement per inhabitant.
4. Yields 489 m^2 of required land transfer for residential use.

To determine the land transfer requirement associated with commercial use:

1. Take the total commercial area to be built, divided by 100 m^2: 1,000 m^2/100 m^2= 10
2. Multiply this result by the required 7 m^2 of land transfer obligation for each 100 m^2 built: 7 m^2 X 10 = 70 m^2 of land transfer obligation for commercial use.

To determine the total land transfer requirement for the project:

1. Total area to be transferred: 489 m^2+ 70 m^2= 559 m^2
2. The minimum land transfer requirement is 18 per cent of the net area. The actual requirement is the larger of 18 per cent of the land area or the result from the calculations just demonstrated. Assuming that the plot area is equivalent to the net buildable area, the 18 per cent minimum area equals 450 m^2. Consequently the transfer obligation would be the calculated 559 m^2, or 22 per cent of the plot area.

To determine the land transfer requirement for public facilities (e.g., social housing):

1. Multiply the number of planned residential units by 1 m^2: 45 x 1 m2 = 45 m^2
2. Add 1 m^2 for each 100 m^2 of commercial area to be built: 1000/100 x 1 m^2 = 10 m^2
3. The facilities construction obligation will be 55 m^2 = 45 m^2+ 10 m^2.

In summary, the developer of this hypothetical project will be required to transfer to the city 614 m2 (559 m2 + 55 m2) of land for parks, plazas, open spaces and other public facilities. Depending on the configuration of the specific project and its location, the city may be willing to accept the cash equivalent of 614 m2 (at current market value) in place of actual land.

meaning revenues fluctuate dramatically with market conditions. In good times, the fees can be substantial, while they may disappear altogether in recessionary times.

Incentives for private investment

Developers seek to maximize their profits, though they may have other priorities as well. To the extent that developer exactions reduce the profit margins enjoyed by developers, such exactions will slow the pace of development. Exactions will also tend to encourage developers to look for projects with higher margins, such as high-end housing and commercial developments.

To balance this impact, governments may wish to reduce exactions charged for lower-income developments or exempt them altogether. Some governments may keep all exactions to a minimum or avoid them altogether in an effort to encourage private development. But the purpose of developer exactions should be remembered: they are intended to offset the public costs of private development. Those public costs are real. Without a sensible developer exaction programme, the pace of private development may be faster, but there will be a heavy cost to the public in inadequate infrastructure. Inadequate infrastructure will take both a social and an economic toll eventually.

Social impacts

Some people have argued that because developer exactions increase the cost of development, they also adversely affect the poor, making housing even less affordable (Ruming, Gurran and Randolph, 2011; Been, 2005). The research evidence suggests that the majority of these development fees are passed on to the final consumer in the form of higher prices (Evans-Cowley, Forgey and Rutherford 2005; Ihlanfeldt and Shaughnessy, 2004).

Spatial and planning implications

Impact fees can also be used to mitigate urban sprawl (Burge *et al*., 2013; Burge and Ihlanfeldt, 2013).

Box 2: Housing impact fees

The logic of developer exactions as described in this chapter is to cover the added burden on infrastructure and services created by those living or working in the new development. However, developer exactions can also be used to contribute to the social improvements that go beyond any impact of the development, as is the case in Medellín (see box above). For example, the developer may be required to provide a contribution toward social housing or community services. This may be in the form of land, built facilities or a monetary contribution.

Adequate amounts of affordable housing in highly attractive urban areas is almost always a major struggle, in both low- and high-income countries. Market conditions in rapidly growing cities may encourage developers to focus on middle- and upper-income housing and related commercial developments. Such developments may fill a very real need in the market place, but also reduce the amount of land available for affordable housing and make it even more difficult for a city's vulnerable population to obtain suitable housing.

To mitigate this negative impact, some cities have adopted "housing impact fees" or developer exactions intended to provide affordable housing. This may be done by requiring the developer to provide a certain percentage of the units constructed at below market rates, as is done in some parts of Spain (Muñoz-Gielen, 2014). It can also be done through a separate cash fee levied in conjunction with the development approval process as is done in some U.S. cities. In the latter case, the funds are used to provide affordable housing within the jurisdiction (Hickey, Sturtevant and Thaden, 2014). In the Philippines, developers of subdivision projects must develop an area for social housing which is at least 20 per cent of the total subdivision area or 20 per cent of the total subdivision project cost.

Developers who are making large profits from real estate are well positioned to address this issue. Often they are more efficient at land acquisition and development than the public sector, and can therefore provide affordable housing more cheaply.

When developers are required to provide on-site or adjacent affordable housing, a socially mixed and integrated city can be the result. Social integration is good for the city as a whole because it prevents many of the problems of social isolation and poverty traps that can form when the poor are pushed to marginalized areas.

Housing impact contributions can make substantial additions to the stock of affordable housing; and, when land for housing is contributed by developers on site, such contributions can create mixed-income developments. However, exactions aimed at adding affordable housing should be part of a broader affordable housing strategy, particularly in cities where large proportions of the population are in need of such housing.

Box 3: Community benefit agreements (CBAs)

Another option for addressing the social impacts of new development involves a private contract between the developer and local community groups. Such contracts are known as community benefit agreements (CBAs). Essentially, in these contracts, the developer agrees to provide specified benefits to the community in exchange for community support for the development. The developer has an interest in such agreements as a way of avoiding community opposition to the new project. Community groups benefit directly from the amenities provided by the contractor. Cities may have an interest in promoting such negotiated contracts in order to facilitate the overall development of the community. (Marcello, 2007)

CBAs can have outcomes similar to developer exactions, with developers paying for improvements to infrastructure and services. The two differ in that governments enact and enforce developer exactions whereas communities initiate and negotiate CBAs (while still relying on the government to enforce the official agreement). Therefore, developer exactions depend on the power of local governments, while CBAs depend on the power of communities.

Local government can strengthen the negotiating power of communities by giving them a say in the permit approval process. This type of community input, if required for all permits, can increase the risk for developers, slow development approvals and add to development costs citywide. However, some middle ground might be found where communities have influence in the approval process primarily for developments that require a zoning variance (an exception to established development standards) or are of a type that will have a major impact on the community through added traffic or pollution.

Exactions can mitigate urban sprawl if the full cost of extending infrastructure to new areas is borne by developers seeking the urban extensions. It will prove more economical to develop where much of the infrastructure is already in place.

Developer exactions may even encourage environmentally sensitive development if the level of the exaction is adjusted based on environmental considerations (Lu et al., 2013). For example, if storm water management is a consideration, assessing a lower exaction amount for designs that reduce storm water runoff may encourage developers to build in ways that mitigate citywide flood risk.

SUMMARY OF KEY POINTS

The key points regarding developer exactions may be summarized as follows:

- These are one-time charges assessed during the approval of additional development or the issuance of building permissions.
- Exactions are generally intended to mitigate the impact of such new development on existing city infrastructure, or to provide new infrastructure that is required in order to meet the needs of the citizens that will inhabit or use the new development.
- In most instances, the exactions are set at a level that has a documented relationship to the actual costs incurred or likely to be incurred by the city.
- If the exaction level or purpose is not directly tied to actual infrastructure costs, it will likely still have to be earmarked for a specific social purpose and justified in terms of the cost of fulfilling that purpose.
- An effective developer exaction programme must address at a minimum:
- An appropriate legal environment that specifies
  - What kind of development will trigger the imposition of a developer exaction?
  - What types of project impacts or effects will be included in the exaction?
  - How will the connection between the proposed project and the effect be established?
  - How will the proportionate share of the impact cost be allocated to a given project?
  - How will the amount of the exaction be determined and by whom?
  - When will the exaction be payable and how?
  - How will any monies received be accounted for and allocated by the jurisdiction?
  - A comprehensive planning approach that includes infrastructure planning

- Access to competent civil engineering expertise to assess the impact of development projects on existing infrastructure, the need for new infrastructure and the cost of the new infrastructure
- The administrative necessary to effectively implement and manage the exaction programme

SUGGESTED CASES

- Case 9: Developer exactions in Medellín, Colombia
- Case 10: Community amenity contributions in Vancouver, British Columbia, Canada

These two cases differ primarily because Medellín is a formula-based system whereas Vancouver uses negotiated exactions. Formula-based exactions are more reliable to use in less mature systems, as they can more easily avoid corruption. Standardized or formula-based calculations still require review and revision in line with cost escalation so that infrastructure and service costs are adequately connected to the burden created by new development. Negotiated exactions are appropriate when the legal system does not permit formal exactions and the local government has the political strength to negotiate with developers on an equal footing.

INSTRUMENT 4:

LAND VALUE INCREMENT TAXES

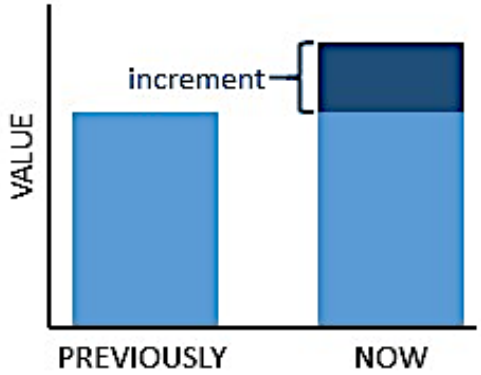
INSTRUMENT 4: LAND VALUE INCREMENT TAXES

DEFINITION

Is it a capital gains tax?

When the land value increment tax is collected at the time of sale, it is similar to a capital gains tax. However, capital gains taxes are usually collected by the central government as a form of income tax.

Land value increment taxes are taxes on increases in land value. These taxes are based on the idea that the value of land is not usually increased by landowner actions (whereas landowner actions *do* increase building value). Land values increase because of market trends, public infrastructure investments and locational attributes. These "socially created" conditions that increase land values create windfall, unearned benefit for landowners which should be shared by society.



Instrument	Description	Timing	Initial incidence
Land value increment tax	Tax assessed as a percentage of the increase in land value due to public actions or general market trends	Can be assessed when land title transfers or when specific public actions result in increased land values Collected when land title transfers, by special billing or in annual payments with the recurring property tax	Either the original title holder, the new title holder or both if tied to title transfer Existing landholders if by special billing or annual payments

There is no question that public actions and changes in overall market conditions often result in higher private land values. In societies seeking to tax this incremental value, the challenge is to measure the incremental value and apply a politically acceptable tax.[17]

There are three general types of land value increment taxes:

- One-time taxes or fees levied when approval for land use changes or increased density is granted
- One-time taxes levied when land is transferred to another party
- The land portion of an annual split-rate tax on immovable property

These will be discussed individually in this chapter.

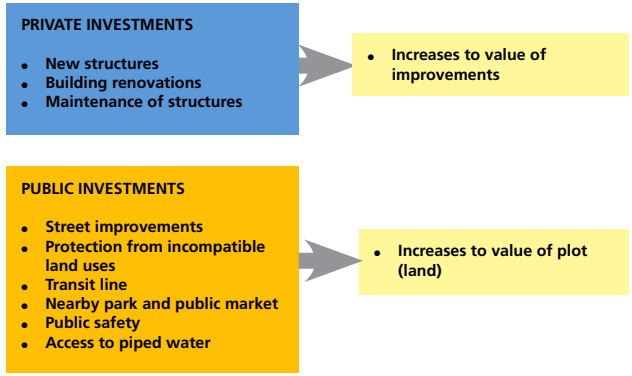
PURPOSE

Land value increment, value sharing or value capture taxes are intended to allow the community to benefit from a portion of the increased private value that often results when public infrastructure is improved, permission is granted to change land use or simply from changing market conditions.

Value sharing is often motivated by the argument that land value increases are not a direct result of private investment on the land but are a result of social processes. Examples of such processes would include approval by a public body to change land use or increase development density, or simply changing demographics and market demand. The claim is that since such incremental value is socially created, it should be available to fund public purposes.

17 Land value increment taxes differ from developer exactions because they are not based on the cost of specific infrastructure or service improvements. They differ from the annual property tax because they apply only to the increment in land value, not the full value of land and buildings.

INSTRUMENT 4: LAND VALUE INCREMENT TAXES



MINIMUM REQUIREMENTS

Day (2005) and Bahl and Wallace (2008b) identify the administrative conditions that must exist in order to effectively levy a value sharing tax. In their summary, Bahl and Wallace include (1) a quantifiable change in land values, (2) identifiable beneficiaries, (3) a public mechanism to implement the tax, and (4) the political will to implement the tax.

This list also suggests that value sharing taxes come with their own set of difficulties in implementation. Many attempts to implement value sharing taxes impose the tax as a one-time charge at the time a public approval is granted for a land-use change or density increase. This requires that the full impact of the change on the value of the land be accurately estimated. As suggested by Booth (2012), it is often difficult to determine in advance how a given public investment or permitted land-use change will impact land values. The task is complicated further if the land has improvements already in place. Separating the value of land from the value of improvements on that land is not always easy. Furthermore, collecting value sharing levies has often proven politically difficult in any sustained manner.

As Day (2005) reports, sustained political will with regard to value sharing levies has often been lacking. However, in cases where the effective tax rate remains relatively modest and collecting the tax is tied to other land-related events such as land transfers or new leases, there are examples such as Hong Kong, Taiwan and Spain where land value increment taxation has been effective over a sustained period (Hui, Ho, and Ho 2004, Muñoz-Gielen 2014).

Instrument	Minimum requirements for implementation
Land value increment tax	• Political will to implement the tax • Appropriate enabling legal framework • Estimate of the "before" and "after" land values • Administrative capacity to identify when the tax is due • Adequate billing and collection system

One commonly discussed legal concern is in regard to land value decreases. If the local government collects a portion of land value increases, is it therefore obligated to pay landowners to compensate for a portion of land value decreases? Such an obligation would expose the local government to severe risk. Many legal systems, including those of most European countries, provide that taxing gains does not require governments to compensate for losses, though this legal position appears to be changing (Renard, 2006). This is the same principle by which governments tax income but are not obligated to compensate for loss of income. Sweden is an example of a country that *does* require compensation for value reductions in some planning situations (Kalbro 2007). At the very least, it is fair to say the subject of compensation for reductions in land value as a result of public action is receiving increasing

attention and should be examined within the local legal framework (Barnes, 2014b).

DESCRIPTION

> *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 the general growth of the community must be subject to appropriate recapture by public bodies (the community), …(UN-Habitat, 1976, Recommendation D.3(b))*
>
> *The general premise that if the state creates value by declaring land developable, the state should be a beneficiary of that value, is unimpeachable (Booth 2012, p. 89).*

As with developer exactions and betterment charges, value sharing or value capture taxes are intended to allow the community to capture part of the increased value that often results when permission is granted to change land use or infrastructure is improved. Value sharing taxes as used here differ from exactions and betterment levies because they are an explicit attempt to share in the private value gain resulting from the public action. They differ from annual taxes on immovable property in that they are most often a one-time assessment and generally apply only to the increment in value resulting from the public investment, the change in land use or from changes in general market conditions.

In Denmark, for example, when farmland is legally transferred to an urban zone, a special land development gains tax (frigørelsesafgift) requires payment of approximately 50 per cent of the increase in value resulting from the change in zoning. Similar land-use changes in Poland can bear a tax of up to 30 per cent of the increment in value when the land is sold within a five-year period (UN-Habitat and GLTN, 2011).

Value sharing levies were used as early as 1921 in Colombia, with some legislation having its origins as early as 1562 in Portugal, 1607 in Mexico's colonial period and 1662 in London, England (Day, 2005; Smolka and Amborski, 2000). Value sharing taxes have a long history, but over the years, one-time taxes levied on the unearned increment in land values have generally not fared well. They tend to be politically very unpopular and, perhaps as a result, are difficult to collect in any sustained way. Mexico is just one case where such levies are permitted but are not widely used because of implementation issues (Bird, 2004).

As noted by Day (2005) and by Fensham and Gleeson (2003), value sharing taxes can be effective at capturing all or part of the incremental value generated by the conferral of specific development rights or the impact of specific projects, if decision makers and administrators have the political will to actually collect the levies. On the other hand, if the public project results in a reduction of property value for some owners, there is little inclination on the part of public officials to compensate property owners. Further, and perhaps more critical, value sharing levies very often fail to capture broader market trends and positive urban externalities that result in land value increases.

Designing the value sharing instrument

A wide range of mechanisms has been used over the centuries in an attempt to capture the unearned increment in land value that results from public and community actions. Most authors would classify many of the instruments discussed in this *Reader* as value sharing or value capture instruments, and they would be somewhat correct. To the extent that other instruments require landholders and developers to share a portion of their increased land wealth with the community, those instruments can be seen as

value sharing options. However, the focus in this chapter is very narrowly on those instruments that identify and tax the unearned increment that can generate revenue greater than any cost incurred by the local government. Walters (2011, 2012) provides a summarized discussion of a number of these alternatives. Extending his work, the approaches can be broadly divided into three groups:

- One-time fees or taxes levied at the time the change in land value takes place (i.e. with a new permit for a change in land use or increased density)
- One-time taxes levied at the time the land is sold or transferred to another party
- Collection over time through an annually recurring tax applied to increases in land value

One-time taxes or fees due upon permit or land-use approval

One type of value sharing instrument is a tax or fee levied at the time approval is granted for a land-use change or for increased density. Developer exactions may provide the resources necessary to cover the direct costs associated with the project's community impacts, but the type of fee contemplated here goes beyond cost recovery. It attempts to divide the increase in land value between the private landholder and the community based on some predetermined percentage.

In order to implement this instrument, the government agency must first estimate the value of the land before the proposed project is announced or approved. This requires both careful timing and the required valuation expertise. Timing is important because as soon as the public becomes aware of the proposed project, the land value is likely to change. Valuation expertise is necessary in order to arrive at a reasonable estimate of what the land would sell for on the open market as of the date specified.

The government agency must also estimate what the value of the land will be after the project is completed, assuming the project will be approved. This can be particularly difficult for large or complex projects that may take years to complete. Valuers must anticipate how markets will respond to the proposed project and estimate future values. Ideally, there will be similar projects that have been completed to provide some foundation for the estimates. The challenge is made more difficult because no two projects or locations are identical, and some changes in economic and market conditions are virtually impossible to predict in advance.

Once the "before" and "after" land-only values have been estimated, the difference between the two (i.e. the increment) represents the taxable base for this instrument. The cost of any developer exactions or other required land-related costs should be subtracted from this base to arrive at the final taxable amount. The enabling law should specify the tax rate or percentage charge to be applied against the final taxable amount to arrive at the final tax obligation. This tax is due and payable by the developer or landholder upon approval of the project or change in land use. For large projects that will be completed in phases, developers are sometimes allowed to pay the fee or tax as each phase of the project is initiated.

Past implementations indicate that the tax rate for this instrument is generally between 30 and 50 per cent of the net value increment. Some efforts in the past have attempted to capture 100 per cent of the incremental value, but these have generally not been successful. The text box provides a brief history of the United Kingdom's efforts to implement this type of instrument.

Land value increment taxes applied upon permit or land-use approval face difficulties in two areas as mentioned above: (1) timely pre-approval valuation and (2) accurate forecasting of future values. If

timely valuation and forecasting are beyond the capacity of a local government, a standard fee can be developed to approximate such a tax without facing the valuation burden. A fee structure can be developed for various neighbourhood areas, pre- and post-approval land-use types, and FAR or another measure of density. Application of such a fee is similar to developer exactions discussed in Chapter 3[18] but is designed to capture increases in land value rather than to compensate for community impacts.

Another country making recent efforts to implement this type of one-time value sharing instrument is Colombia. The Colombian experience is described in the next text box.

Hong Kong has been more successful in implementing this type of one-time charge through their calculation of a land lease premium. In the example shown in the Hong Kong case (see the Land Lease chapter), the tax rate on net incremental land value is 80 per cent. The Hong Kong example demonstrates both that the approach can be used in a leasing environment and that it can be successfully employed in the right development environment.

In sum, one-time taxes collected upon approval of a project struggle to overcome two major hurdles. First, it is technically very difficult to calculate the incremental land value before the project is completed, especially for large, multi-phase projects. Second, the high rates often imposed engender significant public resistance. In addition to these challenges, the instrument is simply incapable of taxing increases in land value due to changing market conditions. There must be a developer or landholder seeking approval before the tax obligation can be incurred. On the other hand, where successful, this instrument can generate substantial revenue, as demonstrated in Hong Kong.

One-time taxes due upon sale of the land

The second approach that has been used to tax incremental land values is to assess a tax based on the increase in land value, and collect the tax at the time the land is sold or transferred to another party. Here again, the "before" and "after" values must be recorded and the difference adjusted for any required developer exactions or other land-related costs.

Box 1: Land value sharing in the United Kingdom

During the twentieth century, the United Kingdom made multiple attempts to implement a value sharing levy (Plimmer and McNab, 2008; Booth, 2012). In 1947, the Town and Country Planning Act essentially nationalized all development value. The law was abolished after four years. In 1967, the Land Commission Act introduced an explicit value sharing levy on the realization of land development value and created the Land Commission to administer the tax.

The initial tax rate was 40 per cent with the expectation that the rate would move higher over time. With the change of government three years later, the Land Commission was abolished. In 1975, the Community Land Act again attempted to nationalize the development value of land. In preparation for full implementation, a development land tax of 60 per cent of incremental value resulting from development approval was put in place.

Plimmer and McNab (2008, p. 4) observe that "[t]he provisions were complex, avoidable, unpopular and raised little revenue". The Act was never fully implemented and was repealed in 1980. The development land tax was repealed in 1985. Plimmer and McNab (2008) argue that in addition to the administrative challenges associated with these efforts, one of the primary reasons for failure was that landowners, faced with the value capture taxes, simply withheld their land from the market until the tax was abolished contributing to an overall land shortage. Thus, when the United Kingdom Government proposed another betterment levy in the form of a planning gain supplement in 2006, the proposal met with stiff opposition from a number of quarters and was never adopted.

Most recently, in 2011 the United Kingdom began to implement a community infrastructure levy intended to recover the cost of infrastructure investments. As Booth notes, "The attempts by central government to capture land value have thus moved from direct taxation of betterment value to the negotiated settlement of contributions to the costs of infrastructure provision." (Booth, 2012; pp. 84-85.)

18 See in particular the fee structure used in Medellin case on Urban Transfer Obligations.

Box 2: Taxing incremental land value in Colombia

In 1997, Colombia adopted Act 388 in an explicit attempt to implement land value sharing more broadly. The provision is known as participación en plusvalías (capital gain sharing). Act 388 requires local governments to adopt land-use management plans (plan de ordenamiento territorial, POT) for future development and adopt capital gain sharing as one of the main funding sources for the plan. The basic notion is that as cities adopt development plans, they create land value as previously agricultural land is brought into the urban development sphere, or land use and densities for existing urban land are adjusted to accommodate future growth. Under the terms of the 1997 law, cities are required to capture 30 to 50 per cent of this increased value through the participación en plusvalías.

A review of capital gain sharing regulations in Act 388 indicates that the revenue collected by this tax is intended to defray the cost of public works or projects that other more traditional taxes, such as betterment contributions or the annual tax on immovable property, could not finance. Hence, its meaning and scope are greater than that of other taxes within Colombia's urban development policies. According to Article 85, the revenue derived from capital gain sharing can be earmarked for "traditional" cost recovery items, such as road infrastructure projects and public mass transit systems (no. 4), or for less conventional projects, such as the purchase of plots for social housing projects (no. 1), financing of macro projects or urban renewal programmes developed through urban action units (no. 5), and the maintenance of the municipality's cultural heritage (no. 7).

The conception of land value sharing within the Act, moreover, embodies the notion that the state has the right to receive a fraction of the increased land value generated by an administrative decision on urban land use. The revenue from this tax goes beyond recovering the cost of some public work, (unlike Colombia's developer exactions and betterment contributions). Article 74 specifies the conditions that will result in the assessment of this tax:

1. Reclassifying land as urban expansion land or agricultural land as suburban;

2. Establishing or modifying the land-use plan or zoning;

3. Authorizing a more intense use of the land available for building, either by increasing the density index or the construction index, or both at once.

While this is an explicit attempt to share in the unearned increments in land value created by specific public actions, implementing the law has proven difficult and controversial. It was not until 2004 that Bogotá began to see any revenue from this source after several rounds of clarifying negotiations. Through 2009, capital gain sharing generated between US$5.5 and US$6 million per year, or about 0.35 percent of Bogotá's own-source revenue. Other cities have also struggled to implement the law. Bucaramanga has recently implemented its version and hopes to raise US$80 million over ten years, a significant sum if successful. Manizales has been able to raise about US$10 million over three years.

The Colombian experience with capital gain sharing thus far is similar to that of other countries. Indeed, one well-known scholar of international tax systems has observed with reference to Colombia's participación en plusvalías strategy, "No one, anywhere, has been able to get very far with this approach, in practice."(Bird, 2012, p. 47.) (Walters and Pinilla Pineda, 2014.)

In most instances, the "before" value is taken from the property registry at the time the land was purchased. Estimating the "after" land value is made easier because there is an actual land transaction with a stated price. To be sure, the land registration and tax authorities need to track sufficient market data to be certain the stated price is roughly consistent with fair market value. But access to transaction declarations and current market data render estimating the "after" price much easier. Of course, this assumes that the land registration system is functioning and has accurate data on the history of sales transactions.

The Taiwan case provides an example of a country that has successfully implemented this approach through their land value increment tax (LVIT) on unearned incremental land value. The Taiwan system is sometimes criticized because their valuations for tax purposes are not accurate reflections of current market values. The result is that effective rates are in the neighbourhood of 10 per cent of actual market value, and must be compensated for by higher tax rates. More troubling is the significant variation in effective rates across the country; the undervaluation is often more severe for higher-income areas, creating a regressive system which creates a higher burden on poor areas. While this can create inequities and should be addressed over time, valuation inaccuracy should not diminish the importance of the example as an effective approach to land value increment taxation.

Other authors have observed that this instrument is simply a capital gains tax. A capital gains tax is

assessed on the profits resulting from the sale of a property. Capital gains taxes are most commonly integrated with the income tax system. If an investor sells a property, then as part of completing the income tax filing for that year, a calculation is made of the net proceeds from the sale (sales price minus the amount invested in the property) and the tax on those proceeds is paid with the income tax. Often, the tax rate on capital gains is lower than the rate on other income. It is also frequently the case that the rate varies with the length of time that the property is held, in an effort to reward long-term investors while penalizing speculators. Capital gains taxes are often criticized as discouraging capital investments; however, this does not apply to land, as discussed below.

There are two important distinctions between Taiwan's LVIT and typical capital gains taxes. First, the LVIT applies only to land whereas capital gains taxes generally include all improvements on the land. As noted in the case, Taiwan tracks the declared value of all land parcels and updates those values each year. These declared values are the basis for calculating the LVIT obligation, exclusive of any permanent improvements. Second, the LVIT is a local government revenue. In most countries, since the capital gains tax is paid with the income tax, the revenue goes to the agency collecting the income tax. In most cases, this is the central government.

Between 75 and 80 per cent of countries around the world levy a capital gains tax on properties used exclusively for residential purposes. The average tax rate is between 15 and 20 per cent, but legal rates as high as 40 per cent can be found in some countries (for example, South Africa and Myanmar). The tax rate for business properties is often higher. Given variations in administrative effectiveness, it is difficult to assess what the realized tax rates are as a percentage of transaction value.

In sum, one advantage of charging one-time taxes on incremental land value at the time of sale is that valuation of the increment can be easier. This will be the case if the jurisdiction maintains a reasonable property registration system because the calculation is based on actual market data. The buyer has an incentive to report the purchase price accurately, because he or she will have to pay a tax on the increase over the reported purchase price when he or she sells the property. A second advantage is that the tax can be applied even if no specific improvement or land-use change is sought.

A disadvantage of this approach is that jurisdictions only receive revenue when properties sell in the market place and some land plots may not sell for decades.

It is very difficult to implement land value increment taxes at the time of sale if the property registration system is not kept up to date. The tax itself may tend to encourage buyers and sellers to avoid registering their transaction in order to avoid the tax. However, there are many reasons to maintain an up-to-date property registry that impact planning and public administration. There are also a growing number of simple technologies to do this.[19] Maintaining the property registry is a hurdle that can and should be overcome, particularly if taxes will be applied at the time of transfer.

Value sharing through a split-rate property tax

The third approach to effectively taxing the unearned increment in land value requires that jurisdictions separate the taxation of land from any taxes on buildings or other permanent improvements. Walters (2013b) has suggested that taxing permanent

19 Contact GLTN for more information: http://www.gltn.net/index.php/land-tools/introduction-to-land-tools

improvements (i.e. buildings) should be approached as a "benefit tax", while the tax on land should be seen as value sharing. Whether his view is adopted or not, there is substantial literature that supports taxing land and improvements differently. Such taxes are referred to as either split-rate taxes or two-rate taxes, both indicating that the tax rate applied to land is different (and generally higher) than the rate applied on permanent improvements.

Cohen and Coughlin (2005) provide an excellent introduction to the rationale and theory behind taxing land and buildings differently, with higher taxes on land than buildings. Perhaps the best overall discussion of the approach is provided in the volume edited by Dye and England (2009) and the summary they provide in a follow-up policy focus report (Dye and England, 2010).

The basic notion of the split-rate tax is based on the explicit recognition that the value of land and the value of buildings do not have the same origin. The current value of buildings and permanent improvements is the result of private investment. Those taking the risks and making the investment should be able to receive any rewards (gains) resulting from changing demand in the market. But the origin of land value and land value increases is not due to private investment, but rather to social conditions.

To be sure, speculators may seek to profit from increased land values by risking their capital to invest in a plot of land and then waiting for the price to increase. But any actual increase is not the result of the investment or any action taken by the landowner.

Land value increases are the result of public actions. Either the government formally approves a change that increases land values or community market conditions result in increased demand for the land. In either event, increased land value is socially created and should be available to the community to meet public service needs.

Box 3 : Numerical example of the split-rate tax

Suppose that a plot of vacant land is valued at 10,000. The landowner obtains permission from the city to develop the land. Granting that permission immediately doubles the market value of the land to 20,000. The landowner invests 80,000 in buildings and other improvements. In addition, land values are increasing in the area at a rate of about 8 per cent per year. Construction costs for buildings are increasing about 5 per cent per year, and depreciation on buildings is generally around 3 per cent per year.

The city has adopted a split-rate tax. The city estimates that the cost of providing services to the building is about 0.75 per cent of the value of the building. The rate applied to land is intended to both encourage the development of vacant land and to share in incremental increases in land value. As a result, the city has set the tax rate for land at 4.5 per cent.

The following table summarizes land and building values, and the tax obligations for this property over the first five years of operation.

Year	Land Value	Tax on Land (4. 5% of value)	Building value	Tax on Building (0.75% of value)	Total tax
0	10,000	450	0	0	450
1	20,000	900	80,000	600	1,500
2	21,600	972	81,600	612	1,584
3	23,328	1,050	83,232	624	1,674
4	25,194	1,134	84,897	637	1,770
5	27,210	1,224	86,595	649	1,874

The total increment in land value is 17,210. Over the five-year period, the tax paid on this increment (above the base land tax of 450 per year) is 3,030, or nearly 18 per cent.

INSTRUMENT 4: LAND VALUE INCREMENT TAXES

The split-rate tax approach requires that land and all permanent improvements are valued separately. Nearly always, both are valued at their capital market value (though the approach could also be used in the context of land leases). Valuation information should be maintained for both land and improvements in a single fiscal cadastre. Implementation of the split-rate tax takes place when one tax rate is applied to the value of improvements and a separate (and higher) rate is applied to land. A simple numerical example is provided in the text box to illustrate how the split-rate tax works and how it can effectively tax the unearned increment in land value.

If the proceeds from land value sharing are needed in the short term to provide essential infrastructure or services, it may be necessary to pair the split-rate tax with municipal borrowing. The loans can be secured by dedicating the tax proceeds to loan repayment. This often results in lower interest rates. The requirements for accessing international credit markets for municipal loans are explored in the chapter on municipal loans.

An extreme version of the split-rate tax sets the tax rate on buildings at zero and then becomes a land-only tax (also called a site value tax). Franzsen (2009) reviews the international experience with taxing land and buildings at different rates. He notes that at least 25 countries currently use some form of this instrument.

It is true that in recent years several countries have moved away from a split-rate tax in favour of taxing land and buildings at the same rate. This policy choice is often made for two reasons. First, professional valuers argue that in developed urban areas it is difficult to accurately estimate the value of land independently of improvements on the land. Second, policy makers see the very high property value in buildings and wish to tax them more heavily. Neither argument should be dismissed lightly, but neither poses an insurmountable barrier to land value sharing through a split rate tax approach (Dye and England, 2009).

To summarize, the advantages of a split-rate tax approach to land value sharing include

- There is a strong body of economic theory that supports taxing land separately and differently than buildings
- Changing land values are more readily calculated because estimates are based on observed market transactions
- Collecting the tax over a number of years eases the burdens placed on taxpayers and makes the tax politically more acceptable. This is particularly relevant for low-income households. If the tax is collected as a one-time charge, developers are likely to try and pass the tax forward in the form of higher prices, making housing less affordable. If the tax is collected over time, it adds to the annual cost of housing, but does not impact the initial cost
- Taxing land more heavily than buildings improves the efficiency of land use
- Collecting the tax on an annual basis can be effectively paired with municipal borrowing to facilitate the need for up-front cash while allowing those who use the public infrastructure to pay for it over the life of the asset

There are also disadvantages to a split-rate tax approach. The principle disadvantage is the burden it places on the land registration and land valuation capacities of a jurisdiction. Changing land values must be identified and incorporated into the taxable value of land. This requires regular monitoring of land markets and regular updating of taxable values. Regular valuation may still be less burdensome than

the required pre- and post-improvement valuation typically used in betterment levies or one-time increment taxes upon approval (discussed above). However, the administrative costs and technical demands associated with a split-rate approach are substantial.

The other major disadvantage is that the cash flow from the tax is deferred and collected over a number of years. This makes financing capital-intensive projects more complicated. If municipal loans are required to provide the needed up-front capital, the projects may also be more expensive if funded through a split-rate tax approach because of the additional costs incurred associated with issuing debt and subsequent interest charges.

IMPACT

Revenue potential

The revenue potential for land-value increment taxes appears to depend heavily on the rates assessed. If the rate is modest (less than 20 per cent of the increment upon sale) or the tax is collected over time as an annual tax, the revenue potential can be significant (see the Taiwan case). High (30 to 50 per cent or more) rates tend to anger landowners and reduce the number of sales transactions, limiting the actual revenue collected. Such high rates have rarely been sustainable over time.

Incentives for private investment

The incentives for private investment differ markedly depending on whether the tax is administered as a one-time charge or as an annual tax on land. As a one-time charge, land value increment taxes reduce the number of land sales in a given period. Because the profits from such sales are lowered by the amount of the tax, landowners will be less willing to sell.

If the tax is an annual tax on land, and the rate is higher than any rate on buildings, there will be a strong incentive for landowners to invest and improve their land. The higher tax on land must be paid each year. As a result, landowners will look for ways to increase the productivity of their land, especially if there is no (or a very small) tax on those improvements (Mills, 1998; Nechyba, 1998; Nieuwoudt, 1995; Oates and Schwab, 1997).

Social impacts

Parallel to the arguments regarding the incentives for private investment, the social implications of land-value increment taxation depend on whether the tax is a one-time charge or an annual charge. If the tax is a one-time charge, landowners will tend to hold their land off the market and thus reduce the overall supply of land for prospective buyers. If the tax is an annual charge, landowners who find it difficult to fully use all their land will sell their unused land and thereby increase the supply of land for others.

On the other hand, in areas where land values are rising quickly, land value increment taxes charged at the time of sale can reduce the displacement of low-income households that often accompanies gentrification. Such taxes reduce the incentive of predatory purchases where the goal is to quickly make a profit on the land value increase by buying cheaply from lower-income households and selling at a much higher price.

Spatial and planning implications

Land value increment taxes can be very productive in terms of the revenue generated for infrastructure investments if the rates are reasonable and the administration is effective. Again, see the Hong Kong and Taiwan cases for examples.

Additionally, land value increment taxation decreases the profitability of speculation and could lead to more prime land being used instead of being held for purposes of speculation. This use of prime land can

have benefits for urban economic functioning as well as the housing supply.

SUMMARY OF KEY POINTS

Value sharing taxes differ from exactions and betterment levies because they are an explicit attempt to share in the private value gain resulting from public actions. They differ from most annual taxes on immovable property in that they are most often a one-time assessment and generally apply only to the increment in value resulting from the public investment, the change in land use or from changes in general market conditions.

Three approaches to implementing a value-sharing tax have been attempted over time:

- A one-time tax levied and collected at the time a change in land use or development density is approved by the local jurisdiction
- A one-time tax levied and collected at the time land is transferred to another party
- The land portion of a split-rate tax collected on an annual basis
- One-time taxes collected **upon approval of a project** struggle to overcome two major hurdles.
  - It is technically very difficult to calculate the incremental land value before the project is completed, especially for large, multi-phase projects.
  - The high rates often imposed engender significant public resistance.

In addition to these challenges, the instrument is simply incapable of taxing increases in land value due to changing market conditions. There must be a developer or landholder seeking approval before the tax obligation can be incurred. On the other hand, where successful, this instrument can generate substantial revenue, as demonstrated in Hong Kong.

One-time taxes collected *when land is transferred to another party* address two of these concerns. The valuation of the increment is somewhat easier because it is linked to observable market transactions, if the jurisdiction maintains a reasonable property registration system. Accurate declarations of value are also encouraged if the buyer's declared value becomes the "before" value for future transactions. A second advantage is that the tax will capture general market trends even if no specific improvement or land-use change is sought.

A disadvantage of this approach is that jurisdictions only receive revenue when properties sell in the marketplace and some land plots may not sell for decades. It should be noted that it will be very difficult to implement if the property registration system is not kept up to date. The tax itself may tend to encourage buyers and sellers to avoid registering their transaction in order to avoid the tax.

The third approach is to view the *land portion of a split-rate tax* as a potential land value sharing instrument. This has the advantage of being supported by economic theory and being more politically acceptable because the cost of the tax is collected over a number of years. It does pose administrative burdens on tax authorities and the spread of revenue over time (instead of in a lump sum) may require municipal loans to provide needed capital.

SUGGESTED CASES

- Case 11: Land value sharing in Taiwan
- Case 12: Capital gain sharing in Bogotá, Colombia

INSTRUMENT 5:

SALE OF DEVELOPMENT RIGHTS

INSTRUMENT 5: SALE OF DEVELOPMENT RIGHTS

DEFINITION

Development in this context means the construction of buildings and other improvements on land. Most cities strive to regulate and guide development, including the type of land use and the density of development. In many cases, the demand for additional development is greater than the regulated level set by local policy. This increased demand can be tapped to generate additional resources for the local government through the sale of additional development rights.

This version of value sharing probably began in Europe, especially in France in 1975 (Smolka, 2013). It is being implemented in São Paulo and elsewhere in Brazil, as well as other parts of Latin America. In this approach, a local government agency identifies the amount and type of additional development that will be permitted in a given area. The additional development potential is then divided into "development rights" and sold, either to existing landholders or on the open market.

This approach clearly identifies the development potential of a property as a distinct right created by society. This right is separate from other ownership rights and does not exist in law until granted by the city (Levinson, 1997; Smolka, 2013).

Development rights fall into two separate categories. The first category involves selling the right to convert rural land to urban use. The second category includes the local government adjusting zoning rules or height restrictions within a current urban area to either modify land use or allowed density (Peterson, 2008).

Instrument	Description	Timing	Initial incidence
Sale of development rights	Payments received in exchange for permission to develop or redevelop land at higher density or changed land use Rights can either be sold at auction or at fixed price Rights may be transferable to other locations or resold	Collected once	Purchaser of the development right

PURPOSE

The sale of development rights is generally for either or both of two reasons:

- Generating revenue needed for infrastructure investments in a particular area
- Regulating and guiding private investment and related infrastructure and services

A city may sell additional development rights and use the proceeds for infrastructure development. Alternatively, the city may allocate development rights as a bonus for private investment in publicly beneficial services. If market conditions warrant and the city is willing to allow increased density in a given area, the rights may be assigned to and used on particular parcels in that area. Frequently, however, a city may seek to influence either the location or type of development that takes place.

For example, a city may have need more affordable housing. To encourage private investment in affordable housing, the city may issue additional development rights as a "density bonus" to developers who include additional affordable housing in their project. Alternatively, a city may seek to preserve land in one area and direct growth to

INSTRUMENT 5: SALE OF DEVELOPMENT RIGHTS

Minimum requirements

Instrument	Minimum requirements for implementation
Sale of development rights	• Appropriate enabling legal framework • Effective control of existing development rights • Demand for additional development rights • Administrative and planning capacity to determine acceptable amount of additional development • Capacity to manage the process of selling additional development rights • Capacity to monitor use and any resale of rights sold

other sectors of the city through the use of movable development rights.[20] Thus, the sale of development rights frequently serves the dual purpose of generating revenue for infrastructure and directing or limiting growth (Sandroni, 2010; Levinson, 1997; Pruetz and Standridge, 2008).

Not all environments are suitable for creating and selling development rights. Several preconditions must be met:

- The combination of culture, law and administrative strength must be such that development rights are excludable. This means that unless the landholder acquires the *right* to develop, they cannot construct additional improvements on their land, and this restriction is generally observed and enforced.
- There must be sufficient market demand for additional development in the location where the rights will be sold. If developers are satisfied with the current supply of developable land and the allowed density and land use, they will not be willing to pay for additional development rights.
- In addition to a legal structure governing land use and planning, the law must include provisions that allow cities to create and sell additional development rights.
- The city must have an up-to-date comprehensive plan for growth and infrastructure management. The plan needs to identify
  - The desired density of development in each area of the city
  - Areas within the city where increasing development density would be acceptable
  - The amount of increased density that can be accommodated in these "receiving areas"
  - Areas within the city or in peri-urban areas where land should be preserved
  - Current and projected infrastructure needs
- The city must have the administrative infrastructure to
  - Effectively manage the planning process
  - Record and track development rights that are issued
  - Create and manage a market for development rights, if those rights are to be sold on open market

DESCRIPTION

One potential advantage of selling development rights is the ability to access and share potentially lucrative value increases before a developer even begins building her or his project. The instrument can allow the issuing government to finance long-term high priority projects without creating a deficit or issuing debt (Sandroni, 2010; Levinson, 1997).

20 Sale of development rights is different from transfer of development rights (TDR) which is a framework for development rights to be sold by landowners with unused development potential to landowners elsewhere who wish to do more development than is currently zoned. TDR typically involves specified sending and receiving areas and is a planning tool used to allocate density (see for example Wang et al., 2010). Because TDR is not a public revenue tool, it is not discussed here.

INSTRUMENT 5: SALE OF DEVELOPMENT RIGHTS

Systems involving the sale of development rights range from being simple to very sophisticated. A straightforward example might be to simply increase the allowable ratio of constructed floor space to land area for a given zone from, say, 1.0 to 1.2. This would allow landholders to increase the floor space of their buildings in that zone by 20 per cent. An additional fixed fee would be charged for the additional development right when the landholder applied for building permission.

More complex systems might involve designating "sending" and "receiving" zones. Sending zones are those areas where additional development is deemed to be undesirable. These may be agricultural land that should be preserved, environmentally sensitive areas or simply areas where existing infrastructure is already stretched to the limit. Receiving zones are areas where additional development can be accommodated. Developers purchase the development rights from the city. The development rights from the sending zones are then transferred to the receiving zones, often with a density bonus granted by the city to incentivize the transfer.

Even more complex systems might involve the sale of development rights in an open auction or through negotiation between developers and the government. This allows the value of the rights to be set by market forces. This approach is intended to maximize the revenue received by the city for the rights being sold. In most cases, negotiated sales should be avoided due to the system's susceptibility to poor transparency and corruption. One system in Brazil uses statutory pricing (a standard chart of prices) for development rights in order to prevent corrupt practices, which can often occur when development intensity is increased.

Certificates granting the right to build in specified areas are not refundable. If building does not occur by the certificate holder, there is no way for the holder to recuperate losses. Another collateral effect of this method is that it is very capitalistic in nature, discouraging low- and middle-class families from developing or adding built space to their land. One solution to this problem, as was evidenced in Faria Lima and Agua Espraiada, Brazil, is to designate some areas as exclusively affordable housing (Sandroni, 2010).

There are many different practical examples of how sale of development rights might be used in urban development.

One application of sale of development rights comes from Bangalore, India. The Bangalore Metro Rail Corporation is a public agency responsible for the Bangalore Metro Rail system. As the system expands, it becomes necessary to acquire additional right-of-way from private landowners. Bangalore Metro Rail has begun compensating private landowners in part with development rights that can then be sold in the market place and used in other areas of the city. The intent is not to generate revenue, but rather to save the government the cost of paying for the land in cash. The case serves as an example, though, of sale of development rights[21] being used creatively to help solve urban management challenges (Walters, 2013b).

Another example is explicitly an effort at value sharing and also comes from India. The Government of Mumbai approved an infrastructure construction policy raising the maximum floor space index, the ratio of floor space to land area in a specific lot, from 1.0 to 1.3. The additional revenue comes from the requirement that builders purchase the additional 0.3 floor space from the government. For high-income housing in Mumbai, the additional building area's

21 In India, this is called "transfer of development rights" since landowners recoup the proceeds from the sale.

price was set at 80 per cent of the price per square foot in the assessed zone, resulting in a forecasted several billion dollars in revenue. The sale of development rights in Maharashtra, India, is becoming the government's primary source of infrastructure development financing in growth areas (Peterson, 2008).

A third example is also an explicit effort at value sharing and comes from São Paulo, Brazil. As described in the São Paulo case, the municipality determined the type and amount of additional development desired in a given section of the city. The agency then issued Certificates of Additional Construction Potential (CEPACs) for that area and sold the CEPACs through an electronic auction.

The first auction took place in the Agua Espraiada area of São Paulo in July 2004. One hundred thousand CEPACs were offered at a minimum price of USD150. All were sold, producing USD 15 million in revenue. The income was earmarked in advance for two infrastructure investments: the construction of a new bridge and 600 affordable housing units in a designated slum area. Peterson (2009) describes the process and an example auction in the Faria Lima area. Sandroni (2010) provides a more detailed discussion of the multiple CEPAC auctions that have been used in São Paulo.

Not all such auctions have been so successful. When the minimum auction price was too high for profitable development, as in the Faria Lima area, developers were less responsive. In addition, São Paulo's CEPACs have been criticized for leaving too much to the market and not making adequate provision for meeting other social needs (Neto and Moreira, 2012; Donkervoort, 2013; Carmichael, 1974).

Sandroni (2010) concludes that countries attempting to replicate the São Paulo experience should use extreme care. The CEPAC mechanism requires both a buoyant real estate market and a robust financial market. It also requires considerable expertise on the part of public servants and sensitivity to the full range

Box 1: Selling development rights in Curitiba, Brazil

Curitiba, Paraná, Brazil, has been selling development rights since 1991. The law enabling this instrument (called Solo Criado) allows local governments to create incentives to implement "housing programmes of social interest" (i.e. social housing) by increasing the floor area ratio (FAR) or height of buildings. Higher FARs in Curitiba were granted for free in some sectors of the city as an instrument to promote transit-oriented development in corridors where bus rapid transit systems where installed. The maximum FAR limit was raised even further for developers paying into a fund earmarked for social housing (Teixeira and Moreira, 2011).

The city's master plan specifies the zones in which construction potential can be increased through the sale of additional development rights. These zones tend to be along major transit corridors. Developers have the right to build at a specified minimum FAR. In order to increase the building floor area beyond this minimum, the developers must purchase the additional rights at a predetermined price set by the city. In addition to encouraging higher density along the transit corridors, this revenue from this approach has been used to fund additional affordable housing.

Affordable housing in Curitiba has been built and managed by the metropolitan housing authority, Affordable Housing Company of Curitiba (Cohab-CT—Companhia de Habitação Popular de Curitiba), since 1965. Established by the federal government and linked to the federally funded Housing Financing System (SFH—Sistema Financeiro da Habitação), this agency is responsible for the financing, planning, construction and distribution of affordable housing units to low-income families. One of the most successful housing policies to have been implemented in Curitiba is the Municipal Housing Fund (FMH—Fundo Municipal de Habitação), instituted in 1990 and managed by Cohab-CT. This programme is funded through the sale of additional development rights (increased FARs).

Cohab-CT provides low-income housing in various forms — single-family, detached houses, multi-family units, serviced lots and, more recently, regularization of informal settlements — according to the applicants' income range. About 70 per cent of the families registered with Cohab-CT earn between one and three times the minimum wage (Macedo, 2004).

In 2011 and 2012, Curitiba was able to raise about USD 17.5 million each year through the sale of increased construction potential (Smolka, 2013). The city has also used a variation of this approach to preserve historically significant buildings and green space by allowing purchased development rights from such land to be transferred to other locations.

of social priorities. While the CEPAC mechanism is complex, São Paulo also uses a more simple system for sale of additional development rights in the city as a whole. This system uses a pre-established chart of prices and therefore requires less staff capacity to operate, in addition to promoting transparency.

IMPACTS

Revenue potential

In cities that have been successful in implementing sale of development rights, the revenues have been substantial when the market conditions support such sales. Revenues will be maximized when development rights are sold in an open auction, such as that in São Paulo. However, even if the city sets a fixed price, as in Mumbai, the resulting revenue can be very significant. It should be noted again that this assumes that the market for real estate is active and that demand for additional development in the designated areas is strong.

Incentives for private investment

As noted, the sale of development rights can be used to guide and direct private investment, both in terms of location and type of investment. In a given location, densities can be adjusted based on the type of development. For example, giving a density "bonus" for affordable housing is fairly common. Sale of development rights can be effective in preserving and protecting land as well (Pruetz and Standridge, 2008).

Social impacts

The social impacts of selling development rights should be monitored carefully and will depend on how the resulting revenue is used.

- If designed appropriately, the sale of development rights can be effective at increasing the availability of affordable housing, particularly if affordable housing is explicitly written into development right sales or incentives. Frequently, the intention of policy makers is that the affordable housing thus created will be integrated with market-rate housing units creating neighbourhoods with socio-economic diversity.
- There is some evidence that suggests this integration does not occur. While the supply of affordable housing increases, the new units are clustered in segregated patterns that may create long-term challenges related to social isolation (Ryan and Enderle, 2012). This is particularly the case when developers are not required to build affordable housing on the site of the market rate development or allowed to build the affordable housing to a different design standard. In some cases, even when affordable housing is built adjacent to market rate housing, barriers such as high traffic roads or walls are intentionally used to create separation. This should be avoided through appropriate legislation.
- Selling development rights on the open market may have the effect of excluding low- and moderate-income landowners who cannot compete with large developers. Such a result may limit the ability of some populations to invest in their land (Neto and Moreira, 2012; Donkervoort, 2013).
- Sale of development rights used as a form of value capture can generate public benefits from increases in development potential. In some cases, such as the sale of CEPACs in São Paulo, public income raised from the sale of development rights must be reinvested in the densifying area. However, other systems (including the secondary, more simple system of selling development rights in São Paulo) allow for spending the money in other neighbourhoods. Money spent outside the densifying area typically has a more redistributive effect, allowing for public investment in poorer neighbourhoods.

INSTRUMENT 5: SALE OF DEVELOPMENT RIGHTS

Spatial and planning implications

Under the right conditions, the sale of development rights can be a very effective tool in promoting efficient urban design. Such sales can generate substantial revenue for infrastructure investments. They can encourage and direct private investment. However, the required conditions for the effective use of this instrument should not be underestimated (Pruetz and Standridge, 2008; Sandroni, 2010, 2011).

One of the preconditions is that demand for additional density beyond current limits exists. Unless sale of development rights is able to keep pace with this demand, the restrictions on density can have adverse impacts on the type of compact development that is efficient and environmentally sustainable. Municipalities that are actively attempting to encourage densification beyond the current level may not find sale of development rights useful.

SUMMARY OF KEY POINTS

By selling development rights, cities separate land ownership from the right to further develop that land. Cities then sell the right to further development within a given area. Rights can be sold to existing landowners/leaseholders directly or auctioned in an open market.

- The requirements for employing the sale of development rights include:
- The combination of culture, law and administrative strength must be such that development rights are excludable.
- There must be sufficient market demand for additional development in the location where the rights will be assigned.
- The law must include provisions that allow cities to create and sell additional development rights.
- The city must have an up-to-date, comprehensive plan for growth and infrastructure management.
- The city must have an adequate administrative infrastructure.
- The sale of development rights can be structured in a variety of ways ranging from simple density standards to complex auctions. The best approach in a given environment will depend on the capacity and resources of the issuing municipality.
- The sale of development rights can be used to manage and limit growth as well as encourage it.
- The social impacts of selling development rights should be monitored carefully. The selling through open auctions may prevent low- and moderate-income households from acquiring those rights and thereby limit their ability to invest in their land.
- Selling development rights is a potentially powerful and adaptable instrument that can provide a fairly consistent revenue base for long-term, high priority projects.

SUGGESTED CASES

- Case 13: Selling development rights in São Paulo, Brazil
- Case 14: Mumbai development rights

INSTRUMENT 6:

LAND LEASES AND SALE OF PUBLIC LANDS

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

DEFINITION

This chapter covers both the lease and sale of publicly owned land. In some countries, only one of these two options may be available due to the structure of land ownership.

The **sale** of public lands converts one type of public asset (land) into another (cash) through the sale of the land to the private sector. This is a one-time revenue generator.

Leasing publicly owned land through multi-year leasing agreements for either annual or one-time revenues, or both, creates a private leasehold interest that allows private entities to develop the land and potentially sell the lease in a secondary market.

PURPOSE

The primary purposes of sale or lease of public land are to (1) generate public revenues and (2) contribute the land to the market for real estate development. An additional goal may be to engage the private sector to develop or use the land in a way that is socially beneficial or in accordance with a broader public plan or vision.

Financial rationale

An important purpose of selling or leasing public land is to generate revenue. If managed strategically, this revenue can fund one or more long-term, priority capital projects through a large upfront payment (in the case of sales and potentially leases) or through ongoing payments to service a loan (in the case of land leases). Improving public land through planning and infrastructure provision can also be a public investment that generates revenue through later lease or sale (for example, in the case of Egypt's new cities).

Instrument	Description	Timing	Initial incidence
Sale of public land	• Payment received in exchange for freehold title to public land	• Collected once	Purchaser of the land
Lease premiums	• Payment received in exchange for right to occupy and benefit from public land • Permitted land use is specified • Terms vary from 2 to 99 years	• Assessed and collected once	Purchaser of the leasehold
Recurring lease payments	• Payment received in exchange for right to occupy and benefit from public land • Permitted land use is specified • Terms vary from 2 to 99 years	• Recurring payments • Payment amount reviewed and updated periodically	Purchaser of the leasehold

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

The potential for substantial upfront revenue is not a conclusive argument to use publicly held land sales for financing infrastructure and other high-priority projects. Land sales, however, can be one element of a comprehensive, strategic plan to shape the pattern of urban development and fund public investments. Land sales can be used as a financing method by those municipalities either with a mandate to divest non-core assets or for governments with surplus land on their balance sheets and a desire to transfer that asset to long-term priorities (Peterson, 2006, 2010).

Development rationale

The sale and lease of public land can be primarily a financial decision, as described above. It can also be a strategic action intended to spur specific types of development. The sale or lease of land can be accompanied by requirements to develop sites in publicly beneficial ways or according to a city's master plan. Public private partnerships (discussed below) are also a way to partner with the private sector to ensure that the development of land meets specific public goals.

Land market rationale

If the amount land to be sold or leased is large, it will have supply side impacts on land markets. In some cases, this is a primary goal of public land transactions. For example, in Egypt, the sale of lands to be developed into new cities is intended to displace development pressure on existing urban areas such as the Cairo and Alexandria metro regions. This is done to preserve prime agricultural land on the periphery of existing urban areas and to accommodate population growth in areas that will not drive up prices further.

No matter what the primary rationale for the sale or lease of public land, governments should carefully assess (1) the best way to meet financial objectives through the land transaction, (2) the impact on land use and the urban fabric, and (3) the impact on the real estate market.

MINIMUM REQUIREMENTS

The minimum requirements for the sale of public land differ somewhat from the requirements for a leasing programme. The requirements can be summarized as follows:

- The government must have land that it has determined should be developed privately. This is an important judgment with very long-term consequences. Caution in reaching such a judgment is required.
- There must be an appropriate legal framework that authorizes governments to sell public lands and sets out the procedures that should be followed.
- There must be a market for the land.
- The land should be sold through a transparent process, such as an auction, in order to ensure that full market value is obtained.
- If it is desirable for policy reasons to discount the land below full market value, the discounting should be transparent and fair.
- Care should be taken that all proceeds from the sale are appropriately accounted for.
- This is a straightforward technique to generate one-time revenue for high-priority, long-term projects, but it should be used with great caution and only with full transparency and public consultation.

Land leases can generate either an annual lease payment, an upfront lump sum, or both.

Leasing public lands has different requirements, particularly with regard to ongoing administration. In order to **lease** publicly owned land,

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

There must be an appropriate legal framework that

- Authorizes governments to lease public lands for private use and development
- Sets forth basic terms and conditions, which must be included in any lease agreement
- Identifies the agency or agencies responsible for managing the leasing system
- Specifies how the revenue generate will be assigned and managed

- The government entity must have available land and it must have the administrative capacity to administer and regulate a leasehold system.
- To develop a leasehold system from the ground up, a government must
  - Identify public land appropriate for leasing and unlocking value,
  - Develop a specialized institution to manage a leasehold system,
  - Earmark revenues for specific purposes, and
  - Develop a compensation policy for current tenants of public land.
- Governments without a strong administrative ability to manage such a system have not found success in generating meaningful revenue. Additionally, the more control the government relinquishes in leasehold agreements typically results in the prospect of more revenue. The most successful systems, in terms of revenue generation, are those that are modelled closely on freehold systems.

Instrument	Minimum requirements for implementation
Sale of public land	• Appropriate enabling legal framework • Administrative and planning capacity to determine which lands should be privately developed • Capacity to manage a transparent and fair sales process • Capacity to allocate and manage sale proceeds
Lease premiums and recurring lease payments	• Appropriate enabling legal framework • Administrative and planning capacity to determine which lands are available for lease • Appropriate estimate of market value of land to be leased • Administrative ability to solicit and negotiate leases • Administrative ability to monitor leases for the duration of the lease • Administrative capacity to allocate and manage lease proceeds

Sale vs. lease – which is best?

Depending on the structure of land ownership and the legal context, the sale and lease of public lands are not always available options. In those countries in which all land is publicly owned, leasing land to private entities is the only option for private development.

In those countries where private ownership is authorized, the choice between selling and leasing public land is more complicated. Selling public land may be administratively easier and, under the right conditions, may generate substantial one-time revenue. Sales can generate large upfront payments which can provide the capital for critical investments, particularly where access to other capital is constrained. On the other hand, in selling public land, the public relinquishes a good deal of control over how the land is used. Re-acquiring the land at a future date can be expensive and politically difficult if expropriation is necessary. Major problems with the sale of public land are issues of transparency and corruption, and the fact that land sales are a one-time event which cannot produce an ongoing revenue stream (though the land may be subject to the annual property tax).

The advantage of leasing public land is that it ultimately reverts to public control. The time lag may be substantial, but reversion is inevitable. In

addition, leasing has the potential to generate both upfront cash payments in the form of lease premiums and on-going revenue in the form of annual lease payments. The challenges with leasing generally relate to the need for a strong administration to manage the leasing system and to make sure that both lease premiums and annual lease payments are regularly updated to reflect changing market conditions.

This chapter covers first **sale,** then **leasing** public land.

SALE OF PUBLIC LAND

The sale of public land occurs in instances where a government owns land and makes the strategic decision to sell that land in the market to a private entity. Selling public land can be an invaluable method to generate significant revenue for high-priority capital projects for municipalities with land assets in excess of that needed for public services.

How it works

To properly sell land while maximizing the economic value captured by the municipality, a government must possess an inventory of land assets, determine the market value of potentially sellable land, and develop a strategy concerning the land's best use, many times including an open auction to sell the land.

Issues and limitations warranting special attention

Although potentially lucrative and game changing for municipalities in their quest to develop economically, land sales are not appropriate in every situation and come with risks and limits. A lack of transparency in large, one-time revenues can lead to corruption in the system and a loss in economic value for the municipality. Additionally, land markets tend to be volatile, especially in developing nations, making even the most detailed projections of limited value.

Advantages to land sales

Land sales are not appropriate for or even possible for every government. However, many cities in developing countries have underused public lands that would be more valuable if sold and converted into infrastructure assets. Several developed nations, including the United States, France and the United Kingdom, developed their infrastructures and financed rapidly growing cities in the nineteenth century though calculated land sales (Peterson, 2006, 2010).

Land-based transactions offer rich opportunities to help close the infrastructure financing gap and support the sustainable development of cities in developing nations. Selling public land to the private sector via open auctions is a market transaction that raises finances on market terms and is simpler than many other revenue instruments (Peterson, 2006, 2010). The revenue generated from land sales can provide funding for high-priority, long-term needs that are crucial to the economic development of a particular region while circumventing more traditional methods that may not be possible given a government's circumstances or lack of resources.

Selling public land is not a practical or even desirable method to fund an entire capital budget. As part of the financing solution, though, it has considerable and significant practical advantages. Selling public land generates revenue up front, reducing the dependence of and risks associated with debt and the capital markets. Additionally, public land sales reinforce efficiency in urban land markets, enabling the acceleration of urban development in key areas by the private sector while also contributing to infrastructure development (Peterson, 2006, 2010).

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

Requirements to maximize value in land sales

In order to maximize the value in the sale of publicly held land, key requirements exist beyond simply holding land rights worth selling. A government must possess an inventory of land assets, determine the market value of potentially sellable land and develop a strategy concerning the land's best use, including an open auction to sell the land (Peterson, 2006, 2010; Bland, 2005).

Inventory of land assets

Careful planning is required beforehand to develop an inventory of land assets including potential sellable assets. This inventory should identify land that both maximizes return AND should be developed by the private sector (i.e. not needed for public services or open space and can contribute to a compact and connected urban fabric) (Bourassa and Hong, 2003b). Preserving public rights of way for streets and other transport as well as public open spaces is advisable so that the government does not have to expropriate this land later. Although admitting that some public land should be privately developed is seemingly contrary to the nature of government entities who value assets and the leverage they bring (Peterson and Thawakar, 2013), it is a critical step to successfully implementing a value-maximizing land sale strategy.

Determine the market value of land assets

After such an inventory is prepared, a government must use appropriate valuation techniques to determine the market value of its potentially sellable land assets. Current good practices in land valuation include comparable sales, income analysis, cost analysis and cost of development. (German, Robinson and Youngman, 2000). These valuation techniques are discussed in more detail in Chapter 2 (Instrument 1). Each individual municipality must decide on which valuation method fits its needs and resources best and that decision will be based on two factors: 1) the availability of market and other information, and 2) the availability of trained expertise to appropriately use the information (Bland, 2005). There is less burden on precise valuation if the land is to be sold at auction.

Land strategy and open auction

Developing a regulated and strategic land-sale strategy is critical to making proper use of this method in generating revenue for long-term priorities. Where the primary goal of land sales is revenue generation, open auctions are generally the best strategy. Open auctions increase transparency and ensure that the most land value is captured by the seller, the respective municipality (Bland, 2005).

Risks and limitations to land financing

Land sales are not appropriate for every municipality as they are accompanied by significant risks and limitations. These include: the volatility of land markets, the potential lack of transparency and accountability, the inability to continue indefinitely and their nature as instruments of capital finance (Peterson, 2010). These are explored further below.

Volatility of land markets

Especially in developing nations, land prices have had a history of volatility. Typically, there is not a strong reason to believe that this will change moving forward (Peterson, 2006, 2010). One-time revenues should not be used to fund on-going operating costs such as salaries and employee benefits.

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

Lack of transparency and accountability

Since the majority of land sales are conducted off-budget,22 there is little public accountability as to how revenues are used. Since such large sums of money are changing hands, there is a higher propensity for corruption and deceit. To mitigate this risk, it is important to release capital budgets, balance sheets and receipts from land sales to the public (Peterson, 2006, 2010). Earmarking sales revenues for specific purposes is another way to provide some accountability.

Inability to continue indefinitely

Although the amount of land available for sale will vary from government to government, it is important to note that land sales cannot continue indefinitely (Peterson, 2006, 2010). This is a significant limitation to this financing technique.

Land sales as instruments of capital finance

Selling land is simply an instrument and not the solution for revenue generation or infrastructure development. To realize its full potential, the approach must be embedded in a careful planning process that considers both the long-term needs for land and the more immediate needs for public infrastructure investments.

Examples of the sale of public land

The Table 1 below provides four examples of cities where the respective municipality sold land for significant profit, enabling it to fund projects that, in years past, dwarf the annual capital projects budget.

Table 1: Examples of Public Land Sales in Developing Nations

Country	Activity	Amount	Purpose	Magnitude
Cairo, Egypt	Auctioned off desert land in May 2007	USD 3.12 Billion	Internal infrastructure and highway	117 times total urban property tax, equal to 10% of total national revenue
Mumbai, India	Auctioned off land in City's financial center in 2006/2007	USD 1.2 billion	Finance projects in metro regional transportation plan	10 times total capital spending in 2005
Istanbul, Turkey	Sale of old municipal bus station and administrative site in April 2007	USD 1.5 billion	Dedicated to capital investment budgets	Total capital spending in 2005 was USD 994 million
Cape Town, South Africa	Sale of waterfront property by transport agency Transnet in November 2006	USD 1 billion	Recapitalize Transnet and invest in core infrastructure	Sale proceeds exceeded Transnet's total capital spending in 2006

(Peterson, 2006, 2010)

22 Although in-budget sales do occur, as in the Egypt case.

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

LEASING PUBLIC LANDS

In those countries where all or most land is publicly owned, governments enter into long-term rental or leasing agreements which grant to private individuals the right to occupy, improve and use land for a specific period. These leasehold interests are frequently transferable to other parties and can thus be bought and sold. In exchange for the right to occupy and use the land, the lessee makes payments to the government.

While these rental or lease payments are often recurring, it is important to distinguish them from a tax. These are payments to pay for occupying and using the land, and they do not reflect the service burden placed on the community. Whatever use the lessee makes of the land, that lessee will also use public infrastructure and public services; the cost of that public usage of infrastructure and services is frequently not reflected in the land rents. This does not in any way suggest that land rents and leases are unimportant sources of revenue in communities where they are used. The resulting revenue can provide important capital for urban development. The point here is simply that paying ground rent and paying a tax based on land are not incompatible, and such an arrangement does not represent double taxation.

Leasing public land can be a valuable instrument or method to generate or normalize revenue needed for specific functions like infrastructure development. Although there are numerous strategies to lease land that must be custom tailored to each municipality, the concept in its simplest form involves a government converting land into revenue by selling leaseholds, granting private entities the right to occupy, use and improve the land. The government must, of course, possess current public ownership of land or have the authority to acquire land for leasing purposes (Peterson, 2006).

As will be evidenced through the various examples described here, lease agreements can vary greatly but include elements such as lease length, rent payment options, land valuation methods, ownership of improvements and the transferability of land rights.

Main issues of land leasing

Ideological differences in land leasing approaches

Differences in land leasehold agreements are rooted in ideological differences concerned with whether it is best that land is owned by the government or by private citizens (Bourassa and Hong, 2003a; Hong 2013). Those who feel that private citizens acting in their own interests will yield the most efficient market outcomes will pursue a leasehold system that mirrors as closely as possible a freehold system. Leases will be for very long terms and leaseholders will have substantial freedom in how they use the land.

Those who see land as an important public asset and the government as the steward for the interests of all people will pursue a leasehold system with shorter term leases and more public oversight. The greatest challenge to building such a system from scratch is the level of freedom granted to governments as land market players (Peterson, 2006; Yao, 2000).

Although these differences in opinion result in major differences between land leasing systems, all systems can share a set of common goals. These include:

- Share the income from land value increases for infrastructure investment
- Facilitate urban growth or redevelopment through leasing conditions or incentives
- Manage urban growth by issuing leases only for compact and contiguous urban extension

- Reserve land for public purposes, such as streets, government buildings and green areas
- Stabilize land and housing prices (Bourassa and Hong, 2003a)

The last three points require that the government holds a significant amount of land in order to influence land markets. Generally, the strategy behind leasing a few properties will differ from the strategy employed by governments that own a large share of all properties in a given market.

Lease length and renewability

These range from 5 to 99 years. Longer leaseholds with nearly automatic renewals closely mimic the freehold system and are meant to incentivize private entities to develop land. Such lease terms are much more common and attractive to private entities. Short-term leaseholds theoretically give the government more control and autonomy to develop land as it sees fit in the public's best interests (Bourassa and Hong, 2003a).

Rent payment options

Payment of lease or rent is typically structured one of two ways. First, as an annual payment based on land valuation with a 3 to 5 per cent of the total land value paid upfront and second, in one lump upfront sum (Bourassa and Hong, 2003a). It is also fairly common for governments to require an upfront lease "premium" in addition to annual lease payments. Should the leaseholder seek to change the land use during the lease period, an additional lease premium may be required. Leases should also be structured so that annual lease payments can be adjusted to reflect changing market conditions.

Land valuation methods

Land value is either calculated from a government assessment of the property or determined through the value dictated by the market. Government assessments are the most common form of land valuation in government leasehold systems (Bourassa and Hong, 2003a). Land valuations dictated by the market involve auctions where private entities bid against each other, thus allowing market conditions to determine the value of land. Hong Kong is the primary example of this type of system.

Ownership of improvements

Essentially all leasehold systems allow the lessee to improve the land by constructing or repairing buildings on the leased land. When the lease expires or is collected by the government, the lessee is entitled to, in most situations by law, the full monetary value of the land improvements. Whether compensation is due and how improvements are valued varies across countries (Bourassa and Hong, 2003a), Some systems allow leasehold interests to be subleased or monetized and exchanged in a secondary market while others are much more restrictive.

Characteristics of effective land leasing approaches

Land leasing is an extremely flexible instrument and can be effective in accomplishing policy goals. It is essential to note that successfully orchestrating initial land leases and maintaining such a system requires a motivated and entrepreneurial municipality that has the resources to manage a complex programme. Leasehold systems are expensive to maintain, and must bring in adequate revenue to prove their worth. This method is especially attractive in those situations where municipalities have few other financing options, where fiscal frameworks strictly limit or prohibit tax increases (Peterson, 2006).

Bourassa and Hong (Bourassa and Hong, 2003b) explained that some desired purposes of land leasing

are more attainable than others. Below is a description of which characteristics have been successful in terms of revenue generation, the creation of affordable housing, the regulation of land use, the facilitation of urban development and the promotion of industrial development.

Revenue

Hong Kong has arguably found the most success in generating revenue, which is credited to its leasehold system closely resembling a freehold system (Hong 2003). The government, though, still holds the title to the land and the right to reacquire the land if it is in the best interest of the municipality. In Hong Kong, lease lengths are long, land value is dictated by the market, lease premiums are paid in full upfront and annual use fees as a percentage of the land's market value are used to generate continued revenue (Bourassa and Hong, 2003a; Yao, 2000).

In Hong Kong, from 1970 to 2000, the government collected USD 71.1 billion in leasehold arrangements, comprising 16 per cent of total revenue. Systems in the Netherlands, Sweden and Canberra, Australia, have failed to generate significant revenue to justify high administration costs. (Bourassa and Hong, 2003b; Mattsson, 2003; Needham, 2003; Virtanen, 2003). There is a trade-off between revenue generation and government control: less government control is associated with higher value leases and more revenue. Balancing the two is essential in developing a system that suits need and fit.

Affordable housing and government facilities

This is a highly achievable purpose of public leasehold systems, because the government is in a position to discount land rents for specific purposes. This allows for a balance of public and private interests in land (Bourassa and Hong, 2003a). However, the granting of such discounts should be based on general policy statements and should be transparent in administration.

Regulation of land use

Land lease agreements have historically not been successful in regulating land use. Even in systems where land use controls are evident in lease agreements, like in Canberra (Australia), the Netherlands, and Hong Kong, enforcement is expensive and therefore lax (Bourassa and Hong, 2003a; Needham, 2003; Neutze, 2003; Hong 2003). Enforcing land-use provisions in leases requires somewhat different administrative capabilities compared to managing lease agreements. Enforcement requires periodic inspections and administrative judgments about what constitutes non-compliance. Managing lease agreements is largely an in-office task. Enforcement is largely in the field. This distinction may explain why governments have struggled with land use enforcement provisions.

Promotion of urban and industrial development

There is not a large amount of research supporting the claim that leasehold agreements have proved to facilitate urban development, although in theory, the structure of leasehold agreements could do so if the agreement specifies it as a priority. Similar to how leasehold systems allow for affordable housing and government facilities, governments have found success in leasing land below market or assessed value to attract businesses (Bourassa and Hong, 2003a).

Steps in implementing land lease policies

Peterson (2010) developed a four-step process to implement a land lease system from scratch. These steps include identifying public land for lease,

allocating specialized institutions to manage such a system, earmarking revenue for specific purposes and developing a compensation policy for land transactions.

Identifying public land appropriate for unlocking value

It is inherently unnatural for public entities to classify land as surplus, due to the political power valuable assets yield. However, this process is exactly what is needed to develop a leasehold system. An inventory of public land including potential leasehold uses is necessary to identify land that is not needed or appropriate for provision of public services. Land can either be vacant or convertible to leasehold land if planned use improves service efficiency.

Specialized institutions to help manage and dispose of land assets

Specialized, professionally managed institutions are essential to capturing the most land value and adequately managing such a system. Without such institutions, land value is lost. Proper systems require careful, expert management. Good management in this instance requires qualified staff who can monitor changing market conditions and recommend changes in lease pricing, both for new leases and for updating existing leases. Initial lease premiums can be set by auction, but the reasonableness of auction outcomes must still be confirmed by knowledgeable managers. Pricing the annual lease payments should be guided by market conditions, proposed land use and policy objectives. Experience, knowledge and judgment are all required if the leasing system is to be both fair and effective in raising revenues.

Earmarking revenues for infrastructure investment

It is not recommended to lease land and then employ the resulting revenue for the provision of general government services. Systems are much more likely to succeed when attaching leasehold revenues to specific outcomes, like infrastructure development. A system must be set in place before revenues are generated that earmarks funds for use.

Compensation policy for public land transactions

If public land designated for leasehold is currently being either formally or informally occupied it is important to establish compensation policies for current tenants and to ensure such policies are uniform and consistent (Peterson, 2010).

Examples of land leasing

Below are summarized charts from Bourassa and Hong (2003a) detailing the qualities of land leasing systems across a variety of municipalities. The charts detail the qualities of systems with poor revenue generation, established systems with strong revenue generation, and of developing systems where revenue generation is not yet known.

Established systems with poor revenue generation

The leasehold systems in Canberra (Australia), the Netherlands and Sweden have generally lagged in generating revenue and are regarded as lacking on this dimension (Neutze, 2003; Mattsson, 2003; Needham, 2003). Their characteristics are summarized in Table 2.

Table 2: Examples of Land Leasing Systems: Established with Poor Revenue Generation

Country	Canberra, Australia	The Netherlands	Sweden
Stage of Implemented System	Established	Established	Established
Success in Generating Revenue	Poor	Poor	Poor
Lease Length in Years	99 All	50 All	60 Residential; 20 Other
Lease Payments	Up-front	Up-front or Annual	Annual
Valuation of Land Worth	Assessed	Assessed	Assessed
Renewable	Yes	Yes	Yes
Ownership of Improvements	Lessee	Lessee	Lessee
Transfer Land Rights	Yes	Yes	Yes
Public Attitude	Negative	Negative	Negative

Table 3: Examples of Land Leasing Systems: Established with Strong Revenue Generation

Country	Finland	Israel	Hong Kong, China
Stage of Implemented System	Established	Established	Established
Success in Generating Revenue	Strong	Strong	Very Strong
Lease Length in Years	50 All	49 All	50 All
Lease Payments	Annual	Up-front	Up-front
Valuation of Land Worth	Assessed	Assessed	Market
Renewable	Yes	Yes	Yes
Ownership of Improvements	Lessee	Lessee	Lessee
Transfer Land Rights	Yes, No Sublease	Yes	Yes, Sublease w/ Permission
Public Attitude	Regionally split positive/negative	Positive	Positive

Established systems with strong revenue generation

The leasehold systems in Finland, Israel and Hong Kong are all established with strong or very strong revenue generation (Virtanen, 2003; Alterman, 2003; Hong, 2003). The characteristics of these systems are summarized in Table 3.

Developing systems in transition

In 2003, the leasehold systems in Beijing, Ukraine and Poland were all developing or in transition with revenue success to be determined (Deng, 2003; Dale-Johnson and Brzeski, 2003; Strong, 2003). Beijing has since made significant strides in part because they have moved to an auction approach for pricing leases (Qu and Liu, 2012). Both Poland and the Ukraine continue to face significant challenges.

Table 4: Examples of Land Leasing Systems: Developing and In Transition

Country	Beijing, China	Ukraine	Poland
Stage of Implemented System	Transitional	Transitional	Transitional
Success in Generating Revenue			
Lease Length in Years	70 Reside.; 40 Comm.; 50 Ind.	5-49 Years	40-99 years
Lease Payments	Up-front	Annual	Small up-front then Annual
Valuation of Land Worth		Assessed	Assessed
Renewable	Yes	Yes	Yes
Ownership of Improvements	Lessee	Lessee	Lessee
Transfer Land Rights	Yes	Yes, Sublease w/ Permission	Yes
Purpose of Revenue	Infrastructure		
Public Attitude	Positive	Negative	Negative

What emerges from a review of these examples is the conclusion that two factors are largely responsible for realizing the potential of land leasing systems: strong, capable administration of the system and broad-based public support.

PUBLIC PRIVATE PARTNERSHIPS AND ECONOMIC DEVELOPMENT

Public-private partnerships entail a mutually beneficial relationship between a government and a private organization to achieve a specific purpose. Commonly, such partnerships involve public entities leasing public assets, such as land, to private companies. These assets are generally income producing, such as through constriction of tolls, airports, seaports or sports arenas. Since the assets produce revenue, they provide the companies an income stream that can be used to meet lease payment obligations to the government, provide for the continued operation of the facility, and yield a profit to the leaseholder. Such leases can be beneficial to the government involved because they provide access to private capital for public purposes.

If the facility already exists, entering into the lease generally involves a substantial cash payment to the government in addition to periodic lease payments. If the asset is to be developed, the private company provides the capital for construction. In either case, the private partner operates and maintains the facility for the length of the lease, generally 50 to 99 years.

These relationships extend beyond anything implied in any contract, but are rooted in a mutual commitment to succeed in a working arrangement. These partnerships must consist of:

- Jointly determined goals
- Collaborative and consensus-based decision making
- Non-hierarchical and horizontal structures and processes
- Trust-based and informal as well as formalized relationships
- Synergistic interactions among partners
- Shared accountability for outcomes and results (Brinkerhoff and Brinkerhoff, 2011)

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

The nature of public-private partnerships have evolved as a response to public sector resource deficits by allowing for the pooling of technical, managerial and financial resources, thus improving efficiency, quality and innovation. Collaboration refers to joint activity between multiple organizations that solve complex problems more efficiently than possible through singular work. Successful collaboration relies on the careful management of relationships and trust. Unlike conventional contract agreements, public-private partnerships require mutually interdependent responsibilities for achieving common goals (Alam, Kabir and Chaudhri, 2014).

Economic development public-private partnerships are collaborations that aim to promote economic growth and combat poverty. Relatedly, infrastructure development partnerships bring together governments and the private sector to fund, construct and maintain infrastructure ranging from ports to waste treatment facilities (Brinkerhoff and Brinkerhoff, 2011). Public-private partnerships can play a crucial role in infrastructural development by increasing the responsibility of partners to share the inherent risks and financial burdens of large projects (Alam, Kabir and Chaudhri, 2014).

In a study of 40 developing economies between 1990 and 2000, researchers found that successful public-private partnerships are a result of governments adequately managing and protecting property rights, enacting equitable and quality bureaucratic processes, enabling effective capital markets and establishing clear rule of law. These attributes are critical to enticing private organizations to partner with public entities through reducing investment risk (Banerjee, Oetzel and Ranganathan, 2006). Success with this type of public-private relationship has been mixed from the perspective of the governments involved (Araújo and Silvestre, 2014; Byoun and Xu, 2014), but the approach continues to hold promise as a method of obtaining private sector funding for public infrastructure.

Box 1: Land trusts for affordable housing

One innovative approach to providing affordable housing for the poor that has received increasing attention in recent years is the community land trust (CLT) (Greenstein and Sungu-Eryilmaz, 2005). CLTs differ from other types of land leases in that a private (generally not-for-profit) entity owns the land and leases it to low-income households. The objective is to insulate low-income households from increasing land prices and to minimize the impact of escalating house prices.

The "classic" CLT acquires land and then leases the land to individuals, households or businesses at below market rates. Some CLTs rent finished housing, while others allow leaseholders to own their building. Dwelling prices are shielded from excessive price increases and rent levels through affordability formulas set by each CLT. When the owner sells their home, the resale price is limited, delivering modest equity gains to the seller while maintaining the benefits of subsidies or donations to the CLTs for the next buyer.

CLTs have been in use for a number of years in the United States, the United Kingdom (Aird, 2010), Australia (Crabtree, 2010) and other countries. Their use in Kenya has been discussed by several authors (Bassett, 2005; Bassett and Jacobs, 1997; Midheme and Moulaert, 2013; Weru, 2004). Crabtree and co-authors have produced a very useful manual based on the Australian experience (Crabtree et al., 2013). A more general discussion of CLTs can be found in the Lincoln Institute's edited volume (Davis, 2010).

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

IMPACTS

Revenue potential

As demonstrated in the cases listed below, the revenue potential from either sales or leases of public land can be substantial. In order to realize this potential, there must be appropriate and effective administrative infrastructure and public support.

Incentives for private investment

The issue of incentives for private sector actors should be weighed carefully both for land sales and leases. The concern is that land speculators may purchase or lease land and then not develop it for an extended period, if at all. Their objective is to realize a profit by simply waiting for land values to increase and then disposing of the land at a higher price. Lease agreements can be structured to require that land is developed within a specified period or the lease is automatically cancelled. There can also be incorporated into the lease periodic reviews of market conditions and adjustments to annual lease payments based on observed changes. It is more difficult to structure sales agreements with similar provisions. If land is sold, it may be necessary to also implement a vacant land tax to increase the cost of holding land.

Social impacts

Achieving desirable social impacts is feasible through leases. The government is in a position to require certain types of land use and to discount land rents for specific purposes. This allows for and embraces a balance of public and private interests in land (Bourassa and Hong, 2003a). Any discounts should be based on general policy statements and should be transparent in administration to avoid abuse.

Achieving similar social impacts through land sales may be more difficult. One way to ensure that development generates social benefits is to attach conditions to the sale of land, such as provision of some social housing. Alternatively, if the government uses part of the proceeds from selling land to accomplish the desired social impacts, selling land can also have important positive social impacts.

Spatial and planning implications

The spatial and planning implications of either sales or leases will depend heavily on how well integrated these instruments are with an effective planning process. Careful assessment of community needs and effective planning to meet those needs should be carried out before land is identified for private development. Private investments can then be channelled either through sales or leases to locations and uses that will best meet community needs. Additionally, identification of land for public rights of way and public open space, as well as plotting, can (and should) be done in advance of a sale or lease.

SUMMARY OF KEY POINTS

In conclusion, **selling** publicly owned land is simply an instrument and not a catch-all solution for revenue generation or infrastructure development. If used appropriately in the right circumstances it can be an effective instrument to generate substantial revenue to finance long-term priorities.

- Requirements:
  - The government must have land that it considers to be used best for private development. This is an important judgment with very long-term consequences. Caution in reaching such a judgment is required.
  - There must be a market for the land.
- The land should be sold through a transparent process, such as an auction, in order to ensure that full market value is obtained.

INSTRUMENT 6: LAND LEASES AND SALE OF PUBLIC LANDS

- If it is desirable for policy reasons to discount the land below full market value, the discounting should be transparent and fair.
- Care should be taken that all proceeds from the sale are appropriately accounted for.

This is a straightforward technique to generate one-time revenue for high-priority, long-term projects, but it should be used with great caution and only with full transparency and public consultation.

Leasing publicly owned land through multi-year leasing agreements for either annual or one-time revenues, or both, creates a leasehold interest that allows private entities to develop the land and potentially sell the lease in a secondary market.

- The government entity must have available land and it must have the administrative capacity to administer and regulate a leasehold system.
- To develop a leasehold system from the ground up, a government must
  - Identify public land appropriate for leasing and unlocking value,
  - Develop a specialized institution to manage a leasehold system,
  - Earmark revenues for specific purposes, and
  - Develop a compensation policy for current tenants of public land.
- Governments without a strong administrative ability to manage such a system have not found success in generating meaningful revenue. Additionally, the more control the government relinquishes in leasehold agreements typically results in the prospect of more revenue. The most successful systems, in terms of revenue generation, are those that are modelled closely after freehold systems.

SUGGESTED CASES

- Land sales
  - Case 17: Land sales in Egypt
  - Case 18: Land sales in Ahmadabad, Gujarat, India
- Land leases
  - Case 15: Land leases in Hong Kong
  - Case 16: Land leases in Finland

INSTRUMENT:7

TRANSFER TAXES AND STAMP DUTIES

INSTRUMENT 7: TRANSFER TAXES AND STAMP DUTIES

DEFINITION

Transfer taxes are assessed when the property rights associated with land and buildings are transferred to another party. These rights may reflect a statutory (freehold) ownership title, a leasehold interest or any other legally recognized and recorded form of land rights. Most commonly, the transfer tax is expressed as a percentage of the value of the real property being transferred. It is levied in addition to any notary fees or other fixed charges collected at the time the transfer is registered.

The transfer tax differs from the capital gains tax in that the capital gains tax or increment tax[23] is a tax on income (the value of the sale, less the original investment). The transfer tax on the other hand is a tax applied generally to the total value of a land transaction and must be paid in order to complete the transfer of title to another party. It is often charged even if the transfer is not the result of a sale. In some countries, the transfer tax is referred to as a stamp duty.

Statutory title refers to a legally registered ownership claim or right that can also be defended in the courts. In contrast, many property rights are communal or informal.

23 The increment tax is discussed in depth in Chapter 4.

Instrument	Description	Timing	Initial incidence
Transfer taxes and stamp duties	• Charge assessed for recording the transfer of a land title from one private party to another • Can be either a fixed fee or a percentage of the value of the property being transferred	• Assessed and collected once	Either the original title holder, the new title holder or both

A transfer tax differs also from a traditional property tax. The property tax is assessed every year whether the land and property is transferred or not. The transfer tax obligation is incurred only when the assignment of property rights changes from one holder to the next.

PURPOSE

The most straightforward purpose for charging a transfer tax is to fund the property registration system. In countries where this is the primary purpose of the tax, the tax rates tend to be fairly low (around 2 per cent or less).

A second purpose pursued by some countries is as a general revenue source. If this is the objective, rates tend to be higher (on the order of 8 to 10 per cent).

A third objective of the transfer tax found in some countries that have experienced very rapid increases in real estate values is to restrain overheated real estate markets. In such cases, the rates can approach 20 per cent of the transaction value. Actions to dampen overheated markets can also be applied only to the specific property markets of concern through charging different rates depending on the type of property (e.g. investment property, rental property, etc.).

Because the transfer tax is levied at the time the registered title to real property is transferred from one party to another, the minimum requirements for implementing a transfer tax are tied to the land registration system.

- There must be an up-to-date, formal land registration system that includes all land parcels and is recognized by the society as the definitive repository for land-related claims. While some countries attempt to implement a transfer tax without an up-to-date land registration system, the resulting tax is inherently unfair in that those

INSTRUMENT 7: TRANSFER TAXES AND STAMP DUTIES

Minimum requirements

Instrument	Minimum requirements for implementation
Transfer taxes and stamp duties	• Appropriate enabling legal framework • Effective land registration system • Administrative capacity to identify when the tax is due • Capacity to estimate taxable value • Adequate billing and collection system

with registered land rights must pay the tax while those with unregistered land escape the tax.

- Land law must
  - Require the registration of all land title transfers. Again, these "titles" can reflect a freehold private ownership interest, a leasehold interest or any other form of recognized property right.
  - Set out the land registration and transfer requirements and process, including the documents required and any involvement by notaries, engineers or other third parties.
  - Specify what is meant by transaction value for purposes of the transfer tax. This may be the contract price between buyer and seller, but generally also includes reference to some other standard to assure that buyers and sellers do not misrepresent their actual agreement.
  - Specifically allow for the imposition of a transfer tax (or stamp duty), including specifying the range of approved rates and assigning the revenue to appropriate entities.
- The land registration administration must be capable of
  - Receiving and processing required registration documentation, including verification of authenticity and accuracy
  - Assessing the accuracy of reported transaction prices
  - Levying and collecting the appropriate tax

DESCRIPTION

Transfer taxes are common around the world. The tax is most commonly applied to the market value of the real estate being transferred and is calculated as a percentage of that value. In some instances, different rates are applied to different classes of property.

Different rates may also apply based on the length of time the seller or owner has held the property. Table 1 summarizes the transfer tax rates in effect in a sample of countries in early 2010. It is clear from the table that there is wide variation in transfer tax rates.

In considering the appropriate rate for the transfer tax, policy makers should consider carefully the incentives created by the rates selected. High transfer tax rates may discourage business investment and property development. Additionally, high transfer tax rates are likely to encourage misrepresentation of sales prices by buyers and sellers, which undermines other aspects of the tax system. Perhaps most detrimental, if taxpayers perceive the transfer tax to be too high, they are less likely to register the property transfer at all.

In many countries, the process of registering land and land transfers is complicated and expensive, often requiring six or more procedures (World Bank Group 2015) and the assistance of legal representation and land surveyors. If, in addition to these requirements, a substantial transfer tax is imposed, buyers and sellers may resort to informal transfers. In Ethiopia, for example, the transfer tax on residential property is 6 per cent on dwellings and 21 per cent on commercial buildings. These high rates reinforce a system where

land registration is limited in scope and many property transfers occur in informal markets (Soressa and Gebreslus, 2009).

Another challenge created by relatively high transfer tax rates is that both the buyer and seller may have an incentive to misrepresent the value of the transfer (IADB, 2004). Because of the administrative challenges of verifying property values as of the date of the property transfer, some countries have adopted an approach that identifies an acceptable range of declared value for a given property type or neighbourhood. As long as the value declared by the parties to the transfer falls within the pre-determined range, it is accepted as the taxable property value. This is the approach taken in Mozambique (see the text box).

To avoid the perverse incentives created by high transfer tax rates, countries seeking to take advantage of property transfers as an efficient point for raising additional revenue should consider a land value increment tax discussed in an earlier chapter.

Table 1: Transfer Tax Rates: 2010

Region	Country	Transfer tax rate
South and Central America	Argentina	~2.5%
	Brazil	2%
	Chile	0%
	Costa Rica	~2.3%
	Peru	3% - 9.5%
	Venezuela	0%
North America	Canada	~2%
	Mexico	2% - 5%
	United States	0% - 2%
Asia & Australia	Australia	5.5%
	Cambodia	~4%
	China	8% - 10%
	Indonesia	5%
	Japan	2.5% -6%
	Republic of Korea	4.6% - 9.4%
	Malaysia	1% - 3%
	Philippines	0.5%

(continued next page)

Table 1: Transfer Tax Rates: 2010 (continued)

Region	Country	Transfer tax rate
Europe	Belgium	10% - 12.5%
	Cyprus	3% - 8%
	Denmark	0.6% - 1.5%
	Finland	4%
	France	0.7% - 5.1%
	Germany	4.5% - 4.5%
	Greece	19%, 9% - 11%, 1%
	Ireland	0% - 9%
	Italy	~10%
	Luxembourg	~10%
	Malta	5%
	Netherlands	6%
	Norway	2.5%
	Portugal	0.8% - 7.3%
	Spain	0% - 7%
	Sweden	3%
	Switzerland	0% - 3.3%
	United Kingdom	0% - 4%
Russia & former Soviet Union	Czech Republic	3%
	Poland	0%
	Romania	0%
	Russia	18%
	Ukraine	22.4%
Africa	Burkina Faso	8%
	Dem. Republic of Congo	3%
	Mauritius	5% - 15%
	Mozambique	2.4%
	Niger	1.5%

Source: (World Bank, 2010; NCSL, 2015)

Box 1: Transfer taxes in Mozambique

All land in Mozambique is owned by the state. Titles are issued that permit individuals and companies to use the land for a (renewable) period of 50 years. There is a national property transfer tax imposed when buildings are sold or otherwise transferred. The base for the tax is the declared value, as long as the declared value is deemed reasonable by the director of the fiscal area where the property is situated. The tax rate is 2 per cent of declared value, unless the buyer resides in a higher income country and then the rate is 10 per cent. In practice, local authorities lack the expertise and the data to challenge declared values. This lack of capacity is compounded by the fact that there is limited detailed identification of property owners and limited enforcement of the tax. Proof of payment is required in some circumstances, but many properties appear to be undervalued (Nhabinde, 2009).

High transfer tax rates in prior periods, inadequacies in the land registration system or simply informal construction can lead to serious under-reporting of land transfers. In such cases, it may be worth considering an amnesty period during which transfers can be registered with either no or a greatly reduced transfer tax. Such amnesty periods have be attempted by several Mediterranean islands (e.g., Cyprus, Crete,

Box 2: Transfer tax and stamp duty in Jamaica

Jamaica levies both a transfer tax and a stamp duty. Both are based on the market value of the property on the date of transfer. Exemptions are granted for the principal place of residence in the event of the owner's death. The transfer tax is borne by the seller of the property, while the stamp duty is divided evenly between seller and buyer. Over time, Jamaica has reduced the rates for both taxes, as shown in the following table.

Date	Legal tax rates		Total tax rate	
	Transfer tax	Stamp duty	Sellers	Buyers
From 1984 to 1 May 2008	7.5%	5.5%	10.25%	2.75%
1 May 2008-31 Dec 2008	6.0%	4.5%	8.13%	2.13%
1 Jan 2010 – 31 Mar 2013	4.0%	3.0%	5.5%	1.5%
1 Apr 2013 to present	5.0%	4.0%	7.0%	2.0%

Jamaica's rates remain relatively high despite reductions in past years. Jamaica recognizes the challenges associated with "family land" tenure in rural areas, incomplete land registration and informal settlements in urban and peri-urban areas. While several initiatives are attempting to address these challenges, it is reasonable to ask whether current transfer and stamp rates might be an impediment to progress.

Balearic Islands) and recently in Egypt (Oxford Business Group, 2014).

IMPACTS

Economic incidence

Most developed countries have a transfer tax in place for real estate transactions. The effect of the tax is to increase the transaction costs associated with buying, selling or otherwise transferring property between parties. If the transaction cost is higher, it should be expected that there will be fewer transactions. This means that fewer properties will be bought and sold, at least through the official land registration system. To the extent that only official transactions will be carried out, increases in transfer taxes will be associated with increases in the costs of moving for homeowners. This cost increase can be expected to negatively affect the willingness of homeowners to move. Thus, the transfer tax may tend to distort housing markets (Hilber and Lyytikäinen, 2013).

When Toronto imposed a transfer tax of 1.1 per cent in 2008, the result was a 15 per cent decline in the number of sales and a drop in housing prices about equal to the tax. This suggests that it would have been more economically efficient to increase the annual property tax by an equivalent amount (Dachis, Duranton and Turner, 2012).

Davidoff and Leigh (2013) find that transfer taxes in Australia fall largely on the seller of the property. They also find that a 10 per cent increase in the transfer tax lowers sales turnover by 3 per cent in the first

Box 3: Vancouver Mayor seeks transfer tax increase

In May, 2015, the Mayor of Vancouver, British Columbia, Canada, called for the provincial government to grant the city legal authority to pursue policies intended to calm the real estate market and reduce speculation. At the time, the transfer tax in British Columbia was 1 per cent on the first CAD 200,000 of property value, and 2 per cent on the amount above that. The tax generates about CAD 900 million a year for the provincial government.

The request included:

- Increase the transfer tax rate on the most expensive properties, with proceeds earmarked for affordable housing
- Create a speculation tax on those who buy and then sell property within a very short time
- Give the city authority to track ownership more closely especially for "investment homes"

Source: Nagel (2015)

year and by 6 per cent if sustained over a three-year period.

A reduction in turnover may be exactly what policymakers intend if real estate prices appear to be rising at a faster rate than is considered desirable. Recent evidence suggests such an approach can have a noticeable effect on real estate markets (Kopczuk and Munroe, 2014), reducing the number of real estate transactions that would otherwise take place.

Revenue potential

The revenue potential from the transfer tax depends equally on the purpose for the tax (and therefore the rate) and the quality of administration. Transfer taxes on the order of 1 to 2 per cent of market value are generally adequate to fund the land registration system.

As rates rise above that level, the efficiency of the local real estate market is compromised. In addition, buyers and sellers have increased incentives to misrepresent the transaction price or to avoid registering the transaction at all. Both actions undermined revenue potential and, more importantly, the integrity of the land registration and other land-based revenue instruments.

Incentives for private investment

Because transfer taxes increase the cost of buying and selling real estate, rates above those necessary to maintain the land registration system will tend to reduce the number of such official transactions. Businesses may seek to avoid the transfer tax by placing land and other real property in shell corporations and then selling the entity thereby avoiding any legal "transfer" of the property. Local law will determine whether such strategies might be effective. The key point is that transfer taxes increase the cost of doing business and therefore are likely to have a restraining effect on private investment.

To be sure, other aspects of property law and land transfer regulations may have an equally chilling effect on private investment, but such an evaluation is beyond the scope of this *Reader.*

Social impacts

To the extent that transfer taxes increase the cost of acquiring property and reduce residential mobility within a city, the social impacts of the tax are not positive. On the other hand, high transfer taxes have been effective in some instances at reducing the amount of real estate speculation and the rate of price increases. For example, neighbourhoods that have experienced long-term disinvestment can experience gentrification and displacement of the poor when new public and private investments come in and prices rise quickly. If real estate investors are entering such a low-income area to quickly flip properties (buying them at low prices from the original owners and then selling them quickly at a higher price) this predatory behaviour can be reduced through high transfer taxes. Distinguishing between speculation and more traditional property owners is generally

Box 4: Singapore's Seller's Stamp Duty

In an effort to curb speculation that was seen as driving up home prices in Singapore, the government raised the transfer tax rate on homes purchased after 14 January 2011 and held for less than four years. If sold within the first year, the seller is required to pay a transfer tax of 16 per cent of the sales price. With each year of ownership, the rate drops by 4 per cent, so that properties held over four years have no seller's stamp duty obligation. As a result, the number of properties sold within one year of purchase fell from 1,400 in 2010 to just 59 in the 12 months prior to July 2015

Source: Lim (2015))

based on how long the property has been owned by the seller. However, governments should also consider the increment tax (Chapter 4) to achieve similar goals with fewer adverse market effects. As a long-term policy, the social impacts are a concern. But to achieve specific short-term social objectives, high transfer taxes may be effective.

Another positive impact from modest transfer taxes is the availability of adequate revenue to maintain the land registration system. Effective land administration promotes security of land tenure. To the extent that transfer taxes provide the funding needed to build and maintain the land registration system, transfer taxes contribute to security of tenure.

Spatial and planning implications

Transfer taxes tend to slow the real estate market and reduce its efficiency. Beyond that, the spatial and planning implications seem to be minimal.

SUGGESTED CASES

- Case 19: Singapore's Stamp Duties
- Case 20: Stamp duties in Tanzania
- Case 21: Transfer taxes in Turkey

CASE STUDIES

CASE 1: RECURRING TAXES ON LAND AND BUILDINGS: ALBANIA

Module 1: Recurring tax on land and buildings

Background

Albania is a small country on the Balkan Peninsula in South-East Europe. The country's total land area is 28,748 km2, and the population was 2.8 million as of the 2011 Census. With the fall of the Communist regime in 1990, Albania experienced massive out migration. Between 1991 and 2004, it is estimated that 900,000 people left Albania, most settling in neighbouring Greece. There was also substantial internal migration into the capital city of Tirana. The World Bank considers Albania to be a middle-income country.

At present, the property tax in Albania consists of two taxes, both based on surface area. The agricultural land tax applies to all land registered as agricultural land with the national Immovable Properties Registration Office (IPRO). All other land is currently not taxed. The second tax relates to buildings and is based on the total area (square metres) of the building, including any surface area below ground and on all floors above ground. The revenue from both taxes is assigned exclusively to local governments (municipalities and communes).

The obligation to pay the agricultural land tax falls on the registered owner of the land as shown in the national property registry. Failure to register the transfer of a title with IPRO does not relieve the registered owner of the tax obligation. At the same time, unregistered property is not taxable. The building tax applies to all buildings (urban and rural). The calculation of the tax obligation is based on the buildings floor area as stated in the property registration documents. Thus, if a building is not formally registered with IPRO, it is not taxable. Only about 10 per cent of buildings are currently in the IPRO digital database. Likewise, if the description (class and floor area) of the building in the registry is not accurate, the amount of the tax due will also be inaccurate. Anecdotal evidence suggests inaccuracy is often a problem.

Building tax rates vary by land-use class and by jurisdiction. The more heavily urbanized areas have higher rates than other parts of Albania. A distinction is also made between residential buildings built before 1993 and those constructed after that year. Based on current rates, a 100 m2 apartment in the capital city of Tirana built after 1993 would have an annual tax of USD 27, while a 100 m2 retail trade business in the same city would owe USD 360 per year in property tax. Currently the annual tax on immovable property generates revenues of 0.13 per cent of GDP of municipalities, well below international standards.

Local governments are responsible for billing and collection of the tax. At present, the capital city Tirana has a fairly accurate registry of business properties and delivers tax bills to these businesses. There is no comparable registry of residential properties. Delivery of bills is complicated further because efforts to standardize the national address system were suspended in 2011. Because of the lack of a registry and a comprehensive address system, no bills are delivered to local residents. The only enforcement mechanism currently in place occurs when a resident requires some form of documentation from city government, such as a birth certificate. At that point, city officials request proof that the property tax is paid before issuing the requested document.

As part of the fiscal reforms that the Albanian Government committed to in early 2014, the country

CASE 1: RECURRING TAXES ON LAND AND BUILDINGS: ALBANIA

is committed to reforming their property tax and moving to a modern "value based" tax.

Actions in process

The government requested the assistance of the World Bank to complete IPRO's digitized property registration system. That effort involves mapping all properties and resolving all legal claims prior to official registration and issuance of legal titles. There are approximately 1.1 million residential properties in the country. At present, only about 400,000 have been registered and completion of the legal registry is expected to take another decade because of competing legal claims and limited resources.

USAID also has an ongoing project to assist eight local governments in the development of GIS and fiscal management software which will facilitate tax collections and planning efforts.

The current potential property tax base in Albania varies significantly by location, with the capital Tirana representing a significant share of overall property wealth in the country. In 2011, there were just over 1 million housing units, though about 30 per cent of these were reported as vacant during the Census. Based on Census data, these dwellings represent 60.6 million m2 in building area. In addition, there are 9.9 million commercial buildings, representing 6.4 million m^2 in building area. Finally, there are 695,500 ha of agricultural land.

Based on these estimates it is possible to calculate the revenue potential from the property tax under the current law, which taxes building area and agricultural land area. If all land and buildings were registered, and all taxes billed and collected, the total property tax revenue would be 6,600 million Albanian lek,(ALL) or about USD 65 million. With total collections in 2013 at ALL 1,963.7 million, Albania is collected less than 30 per cent of potential revenue under current law. Thus, substantial gains could be made in additional revenue without changing the law if administration were significantly improved.

It is estimated that the current value of all land and buildings in Albania is ALL 8,700,000 million (about USD 70,000 million). This would imply that a revenue neutral tax rate (the rate that would result in the same amount of total revenue being collected) would be a tax rate of 0.076 per cent of market value. This is still extremely low by international standards (current revenue only accounts for 0.47 per cent of GDP). The rate that would result in revenues of 0.7 per cent of GDP would be a tax rate of 0.114 per cent applied to market values. If this tax rate were successfully applied to property values, all parts of Albania would see significant increases in revenue.

The proposed tax reform seeks to change the law and move to a market value approach to the taxation of all land and buildings. Such a system requires property-specific data that simply does not exist in Albanian public records. It also requires accurate data on the full range of market transactions. Such data is available in the private sector in Albania but the public sector has only limited access to this information. Finally, a property tax based fully on market values is technically demanding to administer and there is no current public agency in Albania with the expertise and capacity to undertake such a task.

In order to create the required data for each property it will likely be necessary to physically survey each property. The task seems daunting, but the 2011 Census involved visiting every dwelling in Albania as well. The National Statistics Bureau employed 12,000 temporary workers deployed in small teams. Each team was assigned to visit 100 homes and the entire process was successfully completed in one month.

CASE 1: RECURRING TAXES ON LAND AND BUILDINGS: ALBANIA

Data on market transactions is actually already being collected. As part of the land restitution and compensation programme being carried out by the national government to resolve land claims that remain from the Communist era, a national agency estimates the current market value of land in each of over 3,000 cadastral zones throughout the country. In addition, a separate agency tracks housing construction costs for the same zones as part of programmes to provide social housing.

Thus, the most practical way forward for Albania is to move to a cadastral value approach in which all property in a given land-use category in one of the existing 3,000 cadastral zones is valued at the same average market rate per square metre for that zone. This would not be a true market value approach since it does not fully incorporate all of the factors that buyers and sellers in real estate markets consider. But it is tied to market conditions and it would be a practical next step for Albania.

The other key requirement to implement such an approach is the creation of a central agency to manage the creation of the fiscal cadastre, the generation of cadastral values and the determination of taxable value for each property. Local governments should play a role in both the transition and the final system, though it is unlikely that the municipalities in Albania have the capacity to manage the cadastre and accurately estimate market conditions. In 2014, the national government consolidated Albania's 373 municipalities and communes into 61 municipalities. Even with consolidation, the average municipality population will be less than 46,000 inhabitants. The capital is the largest jurisdiction and will have a population of about 600,000.

Results

The government's commitment to move to modern, value-based annual property tax has precipitated a careful review by the government of legal and administrative requirements and capacities. International agencies such as the International Monetary Fund, the Swedish International Development Cooperation Agency and the European Commission are being consulted regarding necessary legal and administrative changes. Ongoing support from the World Bank for land registration and from USAID for building local government capacity continues.

CASE 2: PROPERTY TAX RATES IN SINGAPORE

Module 1: Recurring tax on land and buildings

Source: Inland Revenue Authority of Singapore

Situation

Singapore, as a former British colony, has adopted many property laws and planning practices from Great Britain. Public land ownership of over 80 per cent of all land has given Singapore a resource that enables it to subsidize certain types of uses, like housing or industry, but also to capture increased land value of undeveloped land while regulating speculation. Public land is leased to private individuals who then have the right to develop the land. They can also sub-lease the land or sell the lease to other private individuals.

Singapore is an affluent city-state with a population exceeding 5.4 million. During the period from 1985 to 1997, Singapore's real GDP grew at an average annual rate of 9.7 per cent. This rapid increase in national income resulted in growing public concern about income inequality.

In 2010, the residential property market in Singapore was very strong and property values had increased by more than 25 per cent in one year. Any decline that had occurred because of the worldwide financial crisis had been recovered, and prices were rising much faster than overall economic growth. Strong economic growth that did not benefit all segments of society equally and a very strong real estate market resulted in two concerns. One was about the affordability of housing for Singapore residents, and the other was about the fairness of a single property tax rate for all types of property.

Actions taken

Prior to 2011, the annual property tax in Singapore was assessed at 10 per cent of annual rental value on all property, with a 60 per cent exemption granted to

Table 1: Singapore Owner-occupied Residential Property Tax Rates Effective 1 January 2015

Annual Rental Value(SGD)	Owner-occupied residential rate
First SGD 8,000 (USD 6,400)	0%
Next SGD 47,000 (USD 37,600)	4%
Next SGD 15,000 (USD 12,000)	6%
Next SGD 15,000 (USD 12,000)	8%
Next SGD 15,000 (USD 12,000)	10%
Next SGD 15,000 (USD 12,000)	12%
Next SGD 15,000 (USD 12,000)	14%
Above SGD 130,000 (USD 104,000)	16%

Table 2: Singapore Non-Owner-occupied Residential Property Tax Rates Effective 1 January 2015

Annual Value(S$)	Non-owner-occupied residential rate
First SGD 30,000 (USD 24,000) Next SGD 15,000 (USD 12,000)	10% 12%
Next SGD 15,000 (USD 12,000)	14%
Next SGD 15,000 (USD 12,000)	16%
Next SGD 15,000 (USD 12,000)	18%
Above SGD 90,000 (USD 72,000)	20%

CASE 2: PROPERTY TAX RATES IN SINGAPORE

owner-occupied residences (leaving owner-occupied properties with a rate of 4 per cent of annual rental value). The annual value is the estimated annual rent that a property could command in the open market, with the knowledge that the landlord remains responsible for maintenance and improvements.

Historically, the government has attempted to curb speculation through higher tax rates, although the policy has varied depending on market conditions. Beginning on 1 January 2011, the government moved to a progressive rate on owner-occupied housing in an explicit attempt at redistribution. While all other property continued to be taxed at 10 per cent of annual rental value, the new rates for homeowners were:

- 0% on the first SGD 6,000 of annual rental value
- 4% on the next SGD 59,000 and
- 6% on the amount above SGD 65,000

Effective from 1 January 2014, the number of rates were increased and the highest rates raised, and a progressive rate structure was extended to all other residential property. The rates effective from 1 January 2015 are as shown in Tables 1 and 2. All vacant residential land, commercial and industrial property continues to be taxed at the rate of 10 per cent of annual rental value.

Currently, the average gross rental value for a three-bedroom apartment in the city centre is SGD 76,627 (USD 61,300) per year. Based on schedules available on Singapore's Inland Revenue website, the city deducts about 33 per cent from the gross rent, which represents expenses paid by the landlord. This arrives at the annual rental value, which for this property would be about SGD 52,000 (USD 41,600). Using the 2015 tax rate schedules in the tables, the tax obligation for a property with an annual rental value of SGD 52,000 can be calculated as shown in Table 3.

Results

Historically, Singapore's property tax rates and level of government intervention in housing have had significant success. At present, Singapore's economy continues to grow at about 4 per cent per year, and housing price increases have slowed to about the same rate through 2013. Early indications in 2014 are that housing prices may actually be declining. Property tax revenue as a percentage of GDP has increased as shown in Table 4.

Table 3: Calculating the residential tax obligation for a the average property

Owner-occupied		Non-owner-occupied	
Value	Tax	Value	Tax
First SGD 8,000	0	First SGD 30,000	3,000
Next SGD 15,000	600	Next SGD 15,000	1,800
Next SGD 15,000	900	Last SGD 7,000	980
Last SGD 14,000	1,120		
Total Tax due	SGD 2,620 (USD 2,100)	Total Tax due	SGD5,780 (USD4,600)

CASE 2: PROPERTY TAX RATES IN SINGAPORE

Table 4: Singapore Property Tax Revenue as a Percent of GDP

Year	Property Tax Revenue (Percent of GDP)
2010	0.87%
2011	1.13%
2012	1.05%
2013	1.13%

The revenue implications of the new rate structure are not yet public. But the implications for owners and renters can be illustrated by comparing the tax bills for the typical city-centre home used in Table 3. This home has an average taxable value of SGD 52,000. Table 5 compares the tax bill for this home under the rate structure in place in 2011 with the obligation under the 2015 rate structure, for both owners and renters.

Table 5: Property tax bills compared for an the average city-center home (Taxable value of S$52,000)

Occupancy status	Tax in 2011 (SGD)	Effective rate	Tax in 2015 (SGD)	Effective rate	Per cent change
Owned	1,840	3.5%	2,620	5.0%	42.4%
Rented	5,200	10.0%	5,780	11.1%	11.2%

Thus, the most recent changes in tax rate structure are affecting homeowners much more than renters, but rental properties continue to bear a much heavier tax burden than do homeowners. Given that the homeownership rate in Singapore exceeds 90 per cent, placing a heavier burden on renters may be an attempt to tax expatriates working in Singapore and the owners of investment properties where owners do not live.

These taxes have played a role in dampening the rapid rise in housing costs. The new policies are also a very clear attempt to tax those who can afford to live in the city centre and other high-end properties more heavily with the intent to redistribute wealth. The question is how precisely this redistribution can be carried out through the property tax system? Typically property tax administrators know a good deal about land and buildings, and very little about the occupants of those buildings. Obtaining information on occupants increases the administrative burden substantially.

CASE 3: PROPERTY TAX REFORM IN PUNJAB, PAKISTAN

Module 1: Recurring tax on land and buildings

Background

Property tax collection in the Punjab province is extremely low. It is estimated that with comprehensive reform, property tax revenue for Punjab can increase to almost 25 billion Pakistani rupees (PKR) (USD 246 million).(IGC, 2011) This would be ten times the amount collected in 2010. In 2013, property tax collections represented 5.7 per cent of total provincial tax revenues and 0.8 per cent of current expenditure needs.

Voters now see more clearly that the responsibility to deliver social and economic outcomes rests squarely with the four provincial governments in Pakistan. Given the substantial gap between the Millennium Development Goals and actual outcomes, expenditures will have to be increased and greater provincial revenue effort will be essential. The annual property tax could play a much larger role if administered more effectively.

Actions taken

The Punjab Urban Immovable Property Tax

The Punjab Urban Immovable Property Tax (UIPT) is levied under the Property Tax Act of 1958. Although, following the Local Government Ordinance (LGO) 2001, UIPT became a local government tax, in reality it functions as a provincial tax subject to revenue sharing with city district governments (CDGs) and Tehsil Municipal Administrations (TMAs). At present, sub-provincial entities lack the capacity to implement the tax on their own.

The base for the UIPT is the annual rental value of land and buildings. Value is assessed using a banded approach[24] similar to that employed in the United Kingdom. Most properties are taxable. The current rate is 20 per cent of annual rental value for properties valued at less than PRK 20,000 (about USD 200), and 25 per cent for all other properties.

Problems with the Punjab Urban Property Tax

Even though property taxation has a long tradition in Punjab, the current revenue from the UIPT is extremely low, generating only 0.01 per cent of regional GDP. The gap between budget targets and collections has become worryingly large. This reflects problems of tax administration. In the 2012-13 budget year, actual property tax collections were less than 46 per cent of the amount budgeted. This pattern of increasingly large gaps between budget targets and actual collections has emerged over the past decade. Prior to 2005, both budgeted amounts and actual collections were low. In recent years, expectations have increased. Performance has not followed at the same pace.

The main problems with Punjab's UIPT are as follows:

Valuation

Despite the surge in market rents in the province between 2001 and 2008, the property tax base has not grown. This is because valuation tables are not updated frequently enough to reflect actual market value. According to some estimates, for tax purposes, average property in the Punjab might be undervalued by almost 45 per cent.

24 See Chapter 2 (Instrument 1) for an explanation of the banded approach.

CASE 3: PROPERTY TAX REFORM IN PUNJAB, PAKISTAN

Collections and incentives

The World Bank (2006) has argued that strengthening tax administration and the billing and collection system can double if not quadruple revenue from the property tax. An IGC research project, in close cooperation with the Department of Excise and Taxation, is currently underway that experiments with different incentive packages to motivate tax inspectors to increase collections (IGC, 2011).

Poor coverage

Failure to notify new rating (taxable) areas and extensions in existing rating (taxable) areas have resulted in approximately 300,000 out of 750,000 properties remaining untaxed in Lahore alone. (Bahl, Wallace and Cyan, 2008). A modest estimate (two years old) is that approximately 73 more rating areas exist in the Punjab that need to be brought into the tax system.

Tax rates

Two issues related to tax rates are: 1. Property tax rates of 20 to 25 per cent are considered too high, creating incentives for evasion. 2. The difference in tax rates between rented and owner-occupied properties in Punjab (rented properties pay rates 10x higher) is much more extreme than in Karachi (rented properties pay rates 2x higher) and in Islamabad Capital Territory (rented properties pay rates the same as owner-occupied properties). This means that in Punjab, owner occupied properties pay a mere 10 per cent of the tax levied on the same property if rented out. The differential in rates is argued to be the most important source of corruption in the Excise and Tax Department that results in a substantial leakage of revenue.

Getting the property tax back on track: Options for reforms

The Government of Punjab has set a target of increasing revenue from urban property tax to at least 2.5 per cent of the provincial budget over the next ten years under a phased approach. A task force on tax reform was announced by the Chief Minister of Punjab in 2008, which deliberated on all major sources of erosion of the property tax base and decided to focus, in the first phase, on reforming the system of valuations and the rate structure. Although the task force's recommendations tackled other issues such as extending the coverage to include new rating areas, complete reform of current system of exemptions, strengthening tax administration and improving collections, core recommendations addressed issues of valuation and tax rates.

Valuation

The task force recommended that the interval between successive surveys/re-assessments be reduced from five years to three years and the Punjab UIPT Act, 1958 be amended accordingly via an ordinance. To avoid political a backlash from substantially increase taxable values, the tax rates will also need to be revised.

Tax rates

The task force tackled both issues of tax rates and the differential between rates applied to owner-occupied versus rented property. Various simulations were run to assess a) the impact on revenues and b) the impact on the taxpayers. The task force recommended reducing the tax rate on owner-occupied properties to 10 per cent immediately. They also recommended reducing the differential between owner-occupied and rented property tax rates to zero in a phased manner achieving 1:1 parity by 2018. By applying the new valuations, reducing the tax rate to 10 per cent and the differential down to 1:5 in the short term, the

CASE 3: PROPERTY TAX REFORM IN PUNJAB, PAKISTAN

revenue potential nearly doubles while making the system more fair.

To assess the political viability of reform, the task force estimated the impact these changes would have on the taxpayers. As in any reform process, some categories of taxpayers pay less whereas others have an increase in the tax burden; however, it is important to note that these increases are perceived to be highly affordable (IGC, 2011). While these reforms may improve the revenue performance of the property tax, further administrative reforms will be essential if the tax is to reach its full potential.

Results

Despite the low impact on household budgets, there is resistance to the proposed reforms by important players in the ruling Pakistan Muslim League. Reform, however, is inescapable. Recent developments at the national level have changed the landscape of fiscal arrangements in Pakistan. The federation's decision to increase fiscal transfers to the provinces reflects the realization that the provinces need to be held fully accountable for the services they deliver to the citizens and the overall investment climate they create for economic growth and employment. It is also clear, however, that the current resources to provincial governments are insufficient to provide the needed services. Therefore, provinces will have to tap into under-explored sources of provincial revenue, including, importantly, the urban property tax. There is thus reason to be optimistic that a substantially reformed property tax yielding a healthy stream of revenues will eventually be implemented.

Sources: (Bahl, Wallace and Cyan, 2008; IGC, 2011; Nabi and Hina, 2011).

CASE 4: ADMINISTRATIVE REFORMS IN BOGOTÁ, COLOMBIA

Module 1: Recurring tax on land and buildings

Background

In Bogotá, property tax accounts for 40 per cent of local revenue. From 2009 to 2010, the city's cadastral office successfully revalued all its urban properties. Many governments are unable to administer a well-functioning property tax, but Bogotá provides a positive model, demonstrating both success and challenges.

In 2008, property tax accounted for 20 per cent of local tax revenue in Bogotá. The city's property tax is based on capital market value.[25] The two key elements in determining the tax obligation are the tax rate and the base, (estimate of market value). The city council sets the rates and the city's cadastral office establishes the property tax base by assessing property values. Revaluing (updating the values listed) and updating the property registry to include more properties resulted in a 30 per cent increase in property tax revenue, an additional USD 171 million during financial year (FY) 2009 and financial year 2010.

Bogotá's Administrative Department for the District Cadastre (DACD) was established in 1981 but was not fully operational until 1991. The process for updating the cadastre database was provided for in Article 5 of Law 14 of 1983, but was started in 1997. The Bogotá cadastre relied on the national cadastre programme guidelines before formulating a programme that reflected local interests and concerns.

Colombia strengthened local governments in 1991. Large cities (Bogotá, Medellin and Cali) each conduct their own valuations. The National Geographic Institute Agustin Codazzi (IGAC) values all land outside these three cities. These valuations define the property tax base. When revaluation results are made public, they generate strong resistance from property owners who see an "arbitrary" tax increase. Local public finance and tax authorities must then deal with serious appeals regarding perceived errors in the valuation and political resistance to increased potential taxes.

Of course, local officials have the authority to reduce tax rates to offset increases in valuations. The valuation office does not have the final determination of the tax obligation. That is ultimately a political decision that takes place in the rate setting process. The job of the valuation office is to accurately estimate market values consistently so that under any final tax rate, the burden is borne fairly across all properties.

Actions taken

Cadastral updating process, 2009-2010

In two years, the DACD successfully updated information of all 2.1 million urban properties in the city (98.6 per cent of all properties). This updating included revaluation, which resulted in a 47 per cent real increase in the city's cadastral value: from USD 66.5 billion for FY 2008 to USD 98 billion for FY 2010 (see Chart 1).

Keys behind its success

Mayor Antanas Mockus set a goal for his administration in 2000–2003 to undertake a complete updating of Bogotá's real properties. In spite of the unpopularity of this task, the mayor's political will, his commitment of the necessary budget and resources, and the persistence of the district cadastre's staff ensured that the goal was met. The political motivation that contributed to the success of the process involved the construction of a new subway

25 Capital market value is the sales price that would be agreed to by a willing buyer and willing seller in an open market transaction.

CASE 4: ADMINISTRATIVE REFORMS IN BOGOTÁ, COLOMBIA

transport system. In order to build the subway line without increasing the tax rate, the mayor updated the tax base by updating property values and increasing the percentage of properties included on the tax lists. These efforts were carried out by the cadastral office with the support of the city's financial department head and the mayor, and the approval of the city council. Stakeholders and interests groups were also involved and informed early on.

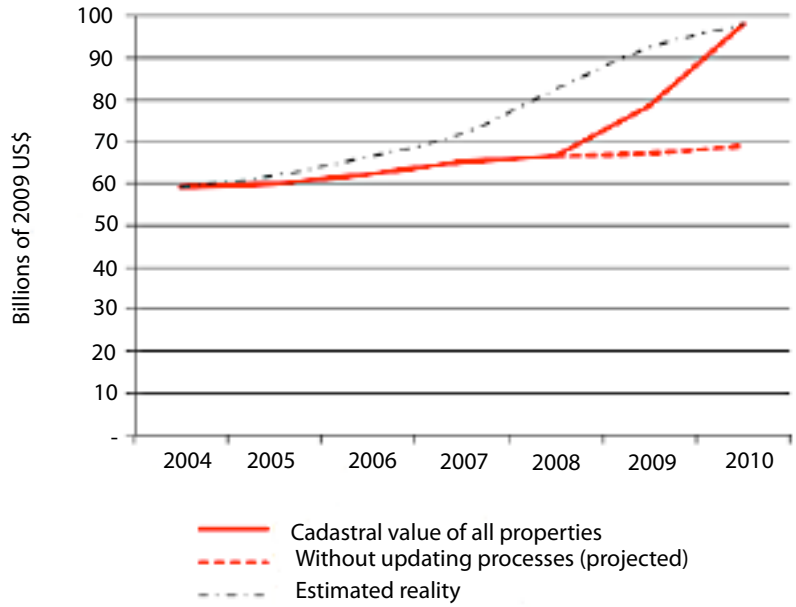
Benefits beyond revenue

The information gathered during cadastral updating has allowed the city to make informed decisions about its physical and economic development: knowing property values, land uses, access to public infrastructure, urban informality and other factors.

Direct costs of the cadastral update

Updating Bogotá's cadastre and estimated property values required fieldwork. This had three elements:

Chart 1: Evolutions of total cadastral values in Bogota



physical, legal and economic, and each component required human, technological and administrative resources proportional to the number of properties to be updated. Physical assessments are made in-person (including measuring, photographing, etc.), captured through a personal digital assistant and sent to a central database. Legal enforcement makes sure the cadastre database matches the Land Registry to link property to its owner. A small staff validates specific information through written reports (e.g. copy of titles) when there is deficient registration information or inadequate access to the registry's database. A large group of assessors evaluate the land economically, wearing uniforms to identify them as cadastre officials, vehicles to travel, printed maps and reports. Senior staff must coordinate, supervize and manage these processes.

During 2009, the Cadastre Office of Bogotá updated the information of 1,212,000 urban properties at a total cost of USD 7.8 million. The cost of updating one property was USD 6.46 (see Table 1).

A cost-benefit analysis shows that the updating process was worth the cost; with direct costs at USD 7.8 million, the city received an additional USD 171 million in property tax revenue.

Problems generated by national regulations

To assess land values, cadastre officials must determine physically homogenous zones (ZHF), conglomerates of properties with identical conditions of access to roadways and public utilities, topography and land-use

regulations. Research on the area's market for empty plots allows assessors to establish values for land and building of the sampled property. All parcels within a geo-economically homogenous zone (ZHG) must have the same value per square metre. Mathematical models assess the value of the buildings per square metre of construction as a function of physical characteristics (e.g. structure, materials, age, state of preservation) in a mass appraisal approach. These results sum with each ZHF to generate the cadastral value of each property.

The need to abide by the national regulations, over 20 years old, on cadastral practices accounted for a significant share of the updating process cost.

Regulations require that land and buildings are valued separately. Land must be valued using ZHF and ZHG methods. Buildings are valued based on construction costs and variables such as location, environment, use and age of the structures. This piecemeal approach resulted in overall assessed values that were impossible to explain or justify. Mixed-use condominiums further complicated matters. Between 2004 and 2010, there was an increase in this type of property. Though one property might be housing, commerce, office and parking in a single plot, it must get one single value according to cadastral regulations.

Resolving these discrepancies requires staff with expertise in valuation not just model building.

Table 1: Cost structure of the updating process - FY2009

Item	(US 2009)	%	Notes
Administrative support	557.827	7%	Managing staff, selection of personnel to he hired, administrative staff
Support staff and material	954.778	12%	Project headquarters,. vehicles, attires, secretaries, and assistants
Mapping	392.225	5%	Digitizing staff and career officials to supervise
Communications	79.093	1%	Staff and contractors managing relations with media and communities
Economic component	958 147	12%	Assessors, career E illi I servants to. supervise,. econometric modeling team
IT support	550,485	7%	PDAs, hardware lease, IT support staff
Temporary employees	4,330,346	55%	Over 457 technicians and professionals
Total costs	7.832.902		

Unfortunately, there was a shortage of trained valuers in Bogotá. It should be noted that property owners' complaints centred around total values (land and buildings) and never around just one of the components. The need for a large number of individual assessments and the limited number of available assessors to hire not only increased the costs of contracting with them, but it created delays in the updating process. This, in turn, can affect the accuracy of the valuation if there is great delay. In 2008 and 2009, around 830 people were hired by the cadastre office of Bogotá to support the valuation effort. In 2009, direct or indirect costs associated with field assessment work accounted for 47 per cent of total costs.

Results

Yearly updating of the cadastral base

Authorities in Bogotá want to have yearly updates of the cadastral database and further improve the performance of the property tax. New methodologies streamline the process and reduce the need for both massive fieldwork operations and hiring numerous assessors. Continued efforts on the part of city officials focus on:

CASE 4: ADMINISTRATIVE REFORMS IN BOGOTÁ, COLOMBIA

- Reducing costs by effectively optimizing fieldwork. This requires the integration of construction data, planning data and other spatial databases within the city, which in turn allow cadastral officials to find changes in the field more readily and focus their efforts on those changes.
- Improving the reliability of economic and market data. The data used to value properties needs to be more reliable. Transfer taxes generate incentives to under-declare true values. Under-declaration of transaction values is a widespread practice. The Cadastral Real Estate Observatory (OIC) has made formal arrangements with real estate agents to gain access to accurate market information.
- Adjusting the rate structure to reflect the city's master plan. Now that values are up-to-date, the finance department is pressing to reform and improve the tax rate scheme currently in place. They seek to eliminate differential rates by land use and introduce surcharges to underused land in order to link the city's land use master plan and the property tax.

Source: (Ruiz and Vallejo, 2010; Bustamante and Gaviria, 2004).

CASE 5: CREATING A PROPERTY TAX REGISTER IN KANDAHAR, AFGHANISTAN

Module 1: Recurring tax on land and buildings

Background

The population of Kandahar has doubled over the past five years to nearly 500,000 people, due to the influx of internally displaced people and the continuing conflict. Average family income is estimated to be just under USD 37 per week. The city has lacked the funds, facilities, vehicles, expert staff and management systems to reliably service the growing population.

Afghan municipalities are self-sustaining, receiving no regular funding from other government agencies. In principle, localities collect revenue from more than 55 local sources including *safayi* (property) tax, business licensing fees, public land sales and property leases. In practice, the municipal tax base in Afghanistan is often very narrow, revenue is unpredictable, collection is inefficient and tax administration is frequently disorganized and prone to corruption. In Kandahar, revenue collection was a persistent problem. In 2009, Kandahar collected only 26 per cent of its budgeted revenues.

Action

With the help of international donors, Kandahar began a systematic process to register land, license businesses and implement an integrated financial management system. The *safayi* tax and business licenses were targeted for improvement. This is because the local emphasis on legal recognition of property ownership and business operations meant that the interests of the municipality and local taxpayers were aligned.

Municipal outreach activities were initiated to develop training assessments and programmes, highlight the expansion of municipal services, provide critical information on government policies and programmes, and solicit input to further improve service delivery and strengthen public ownership of local government initiatives. Using a variety of media outlets, including radio announcements, billboards and municipal newsletters, efforts were made to reinforce the importance of citizen participation in public decision-making and emphasized the critical link between tax revenue and local service provision.

The process of improving collection of the *safayi* tax involved a survey of all properties within the city, and the issuance of *safayi* notebooks and bills (*hawalai tahsili*) to registered owners, which facilitated tax payments. The survey involved visiting each land parcel and collecting data on plot and building dimensions, building construction materials, boundary walls, land use, location and whether or not the property had an additional accommodation (guest/guard room).

- Four categories of construction materials were used: modern, concrete, semi-concrete and mud
- Five location categories were used (zones 1 to 5)
- Values were set for land and construction units using the factors shown in Table 1

Tax rates were set by the national government (Independent Directorate of Local Governance in the General Directorate of Municipal Affairs). The rates are shown in Table 2.

Examples:

1. A typical consolidated low-income dwelling in Loya Wala (an informal settlement) is a mud house of 350 m^3 on a plot of 500 m^2 and a perimeter wall of 50 m^3.

CASE STUDY 5: CREATING A PROPERTY TAX REGISTER IN KANDAHAR, AFGHANISTAN

Table 1: Kandahar land and property valuation factors

Classification of Land and Physical Structure	Building and Land Category	Value per M³ (AFN)	USD equivalent
A. Building	Modern	1,000	17.50
	Concrete	700	12.25
	Semi-Concrete	500	8.75
	Mud	250	4.37
B. Additional on-site accommodation (e.g. guest/guard room)	Modern	1,000	17.50
	Concrete	700	12.25
	Semi-Concrete	500	8.75
	Mud	250	4.37
C. Basement	Modern	1,000	17.50
	Concrete	700	12.25
	Semi-Concrete	500	8.75
	Mud	250	4.37
D. Boundary Wall	Modern	1,500	26.24
	Concrete	1,000	17.50
	Semi-Concrete	600	10.50
	Mud	200	3.50
E. Land (Residential)	Zone 1	2,000	34.99
	Zone 2	1,000	17.50
	Zone 3	750	13.12
	Zone 4	400	7.00
	Zone 5	200	3.50

- The assessed value of land is: 500 m² x 200 (zone 5) = 100,000 afghani.
- The assessed value of the improvements is 350 m³ x 250 = 87,500 afghani + 50 m³ x 200 = 10,000.
- Total assessed value= 100,000+87,500+10,000= 197,500 afghani.
- Annual *safayi* fees 197,500* 0.3%= 593 afghani (about USD 10).

2. A luxury house on a plot of 900 m² in zone 2, with a boundary wall of 100 m³, modern building material, building volume of 1000 m³ (including guard room)

- The assessed value of the land parcel is 900 x 1000=900,000 afghani.
- The assessed value of the improvements is 1000 x 1000=1,000,000 afghani + 100 x 1500 = 150,000.
- Total assessed value = 900,000 + 1,000,000 + 150,000 = 2,050,000 afghani
- Annual safayi fees 2,050,000 x 0.3% = around 6105 afghani (about USD 112).

CASE STUDY 5: CREATING A PROPERTY TAX REGISTER IN KANDAHAR, AFGHANISTAN

Classification of Land and Physical Structure	Building and Land Category	Value per M³ (AFN)	USD equivalent
E. Land (Commercial)	Zone 1	8,000	139.97
	Zone 2	5,000	87.48
	Zone 3	3,000	52.49
	Zone 4	1,500	26.24
	Zone 5	1,000	17.50

Table 2: Afghan Safayi (Property) Tax Rates

Land use	Tax rate
Residential	0.30%
Institutional	0.60%
Commercial	0.75%
Industrial	1.00%

Table 3: Kandahar Safayi tax revenue

Hijri Year	Gregorian Year	Safayi Revenue (AFN)	USD Equivalent	Percent change since 1389
1389	21 March 2010 – 20 March 2011	24,256,015	424,388	
1390	21 March 2011 – 19 March 2012	33,111,629	579,328	36.5%
1391	20 March 2012 – 20 March 2013	35,112,943	614,343	44.8%
1392	21 March 2013 – 20 March 2014	50,421,153	882,179	107.9%

Results

The property survey included nearly 90,000 properties at a cost of about USD 4 per parcel. The revenues collected from the *safayi* tax have since increased significantly each year as shown in Table 3. The average overall revenue per property surveyed is USD 9.80, an increase of just over USD 5.

With the increased and more stable revenues, the city has invested in new infrastructure and improved solid waste management systems.

Source: Mohamad Esa, General Directorate of Municipal Affairs, Afghanistan (Turkstra, 2014)

CASE 6: PROPERTY TAX REFORM IN SIERRA LEONE

Module 1: Recurring tax on land and buildings

Background

Sierra Leone is a small (71,740 km2) West African nation of just over 6 million people. Following the devastating civil war from 1991 to 2002, Sierra Leone was ranked second from the bottom in the United Nations Human Development Index (Edwards, Yilmaz and Boex 2014). Following independence from Britain in 1961, the national government began to centralize political power. In 1972, all local councils were abolished.

The continued centralization of power and resulting deterioration in the provision of local services were important contributors to the civil war (Jibao and Prichard, 2013). During the war, government buildings and records were systematically targeted and destroyed, including property registries and tax records (Jackson 2005; Edwards, Yilmaz and Boex, 2014).

In the post-conflict recovery process, stakeholders from all sides selected decentralization as a state building strategy in order to avoid what were seen as past mistakes: exclusion and deprivation of the rural population and exclusionary patronage politics (Zhou, 2009). The post-war government led by the Sierra Leone Peoples' Party (SLPP) committed itself to decentralization in 2002, beginning with the re-establishment of elected local councils. In March 2004, the Local Government Act (LGA) was enacted and local council elections were held three months later (Edwards, Yilmaz and Boex, 2014).

The LGA established 19 local councils, including 13 district councils, 6 urban town/city councils. Under the law, these councils are given responsibility for a wide range of services along with authority for planning and raising taxes. Each council has an appointed local government chief administrator and elected members of the council. At the same time, local councils were being re-established, an attempt was underway to revitalize traditional authorities through the country's 149 chiefdoms (Edwards, Yilmaz and Boex 2014), each of which is governed by a chiefdom council. From the outset, there was a certain amount of tension surrounding the division of authority between the new district councils and the chieftaincy system (Jibao and Prichard, 2013).

The important role of the chiefdoms was reconfirmed by the adoption of the Chieftaincy Act of 2009, which institutionalized the power that traditional authorities had acquired during the colonial period. Each chiefdom is ruled by a paramount chief whose responsibilities include, among other things, serving as custodian of land for the people, maintaining law and order and dealing with land and customary and traditional matters (Edwards, Yilmaz and Boex 2014). Paramount chiefs rule through a network of sub-chiefs and a chiefdom bureaucracy including a treasury clerk and a civil servant hired and paid by the central government.

The Local Government Act of 2004 empowers local councils to collect own-source revenue from various sources, including head taxes, property taxes (rates), licences, user fees and charges, and shares of mining revenue. For each of these, the local council is allowed by law to set their own rates and fees. One source of tension between the new local councils and the chiefdoms was due to ambiguity in the law. Before the 2004 law, most of the revenue sources assigned by law to councils had been collected by chiefdom councils. The 2004 Act provided for revenue sharing in some cases but such sharing has not worked well

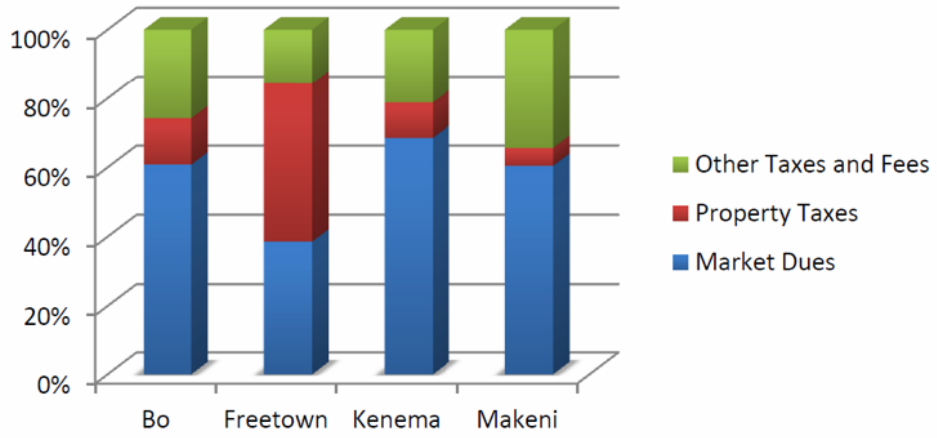
CASE 6: PROPERTY TAX REFORM IN SIERRA LEONE

Table: Four Urban Councils

City Council	Province	Number of Households 2004 Census	Population 2004 Census	Population 2015 (Estimate)
Bo	Southern	22,699	149,957	174,400
Freetown	Western Area	134,138	772,873	802,600
Kenema	Eastern	20,383	128,402	143,100
Makeni	Northern	12,260	82,840	87,700

(Kargbo, 2009). These ambiguities and tensions have yet to be fully resolved.

Composition of own revenue 2005



Source: (Jibao and Prichard, 2013)

No district councils (rural areas) had credible databases for revenue sources and the databases in urban councils were incomplete and outdated. Despite training efforts funded by donors, as of 2005 councils were still struggling to mobilize revenue. Legal ambiguities and a lack of resources to build the necessary databases severely limited their efforts. The rest of this case will focus on four urban councils which have made significant progress in generating new revenues: Bo, the capital city of Freetown, Kenema and Makeni. The table reports the size of each in terms of population and number of households as of 2004 and an estimate of the population size in 2015.

As of 2006, all of these councils were heavily reliant on central government transfers. In all four, transfers represented 60 per cent to 70 per cent of total revenue. At the same time, the central government separately pays most local government salaries and directly provides major public services. In addition, actual own-source revenue collection was half or less of budget estimates, ranging from USD 0.34 per capita in Freetown to USD 0.06 per capita in Makeni (Jibao and Prichard, 2015a). The revenues that were collected came largely from market dues as shown in the next figure. In the figure, "other taxes and fees"

CASE 6: PROPERTY TAX REFORM IN SIERRA LEONE

consists of business registration, licences, local head tax, and other fees and charges.

Actions taken

While the Local Government Finance Department of the Ministry of Finance began to pay significant attention to revenue mobilization in 2007, by that time reform efforts had already begun through other channels. The reform effort began in the urban council of Makeni in late 2006 with the help of a Canadian chartered surveyor recruited through the local United Nations Development Programme office. The consultant was successful in helping the council to reinvigorate the existing property tax collection process. Based on this early success, the local council recognized the potential value of a more comprehensive reform effort. Recognizing the limited capacity and financial resources of the council, a very simple strategy for revenue improvement was designed consisting of five elements (Jibao and Prichard, 2013):

1. Discovery
2. Assessment
3. Billing
4. Sensitization
5. Collection

The first two elements of the reform effort were discovery and assessment. These called for the assembly and maintenance of a database capturing the location and assessed value of all properties within the council area, in order to ensure equitable contributions to municipal services. The development of this type of fiscal cadastre is often a barrier to successful property tax implementation. In many instances, developing the cadastre has proved to be expensive, time consuming and difficult to maintain over time.

In order to avoid these pitfalls, Makeni recruited local valuation officers and provided training to identify and assess properties, including assigning street names and house numbers. Portable global positioning system (GPS) devices were used to identify the location of each property. All of the relevant information was recorded using readily available database software, with at least one locally recruited valuation officer trained to operate the software.

Valuation was based on a set of readily observable characteristics for each property in order to easily establish value in a way that was transparent to taxpayers and still somewhat progressive. In addition to land use (residential, commercial), land area and the number of rooms in the structure, data was collected on

- The dimensions of the structure
- Construction type (timber, mud, corrugated iron sheets or brick)
- Location and accessibility (access to roads, hospitals, water, electricity, etc.)
- Facilities on the property

This additional information was deemed essential in order to ensure that the system was sufficiently progressive and would therefore have greater perceived legitimacy. Physical characteristics were used to minimize disputes and uncertainty. Gathering the data for all properties in Makeni was expected to take three months and employ five to ten valuation officers.

The billing process involved the automated production of Rate Demand Notices. These notices included the specific tax liabilities for each property owner, calculated from each property's specific information and a formula to be updated annually by the council. The system was designed to make valuation highly

transparent, rules-based and resistant to manipulation by senior officials (Jibao and Prichard, 2013).

As the Rate Demand Notices were being produced and delivered, the council undertook an extensive sensitization effort designed to communicate to taxpayers

- The basis for their tax liabilities,
- The ultimate purpose of the taxes collected,
- Procedures and timelines for tax payment,
- Available options for appealing tax assessments.

These efforts were carried out through a variety of media, including regular radio programming featuring both presentations and call-in shows involving elected officials, tax officials and, importantly, chiefs and religious leaders.

Distribution of the demand notices and the sensitization effort were important elements of the programme to encourage voluntary compliance. At the same time, the final element in the design of the collection process was focused on pursuing delinquent taxpayers.

Past efforts to collect the property tax in all councils had been very weak. This was due in part to poor record keeping and limited capacity. But it was primarily due to politicization of the system (Jibao and Prichard, 2013). Most large property owners are wealthy and have strong connections with political and judicial elites. In the past, court action against defaulters was rare and even more rarely successful. But the data indicated that about half of all expected revenue would be coming from the 100 to 150 largest taxpayers. Enforcement with this group would be essential.

Preliminary implementation of the Makeni reform programme required supplemental funding particularly for the identification and valuation of properties. The Makeni City Council agreed to provide in-kind support and additional funding of about USD 2,000 was obtained from a local partner of Care International. The discovery and assessment phases were successfully carried out with the result that property tax revenues increased over 700 per cent between 2006 and 2007, although from an extremely low starting point. The success prompted further efforts to develop and implement a more robust computer software system.

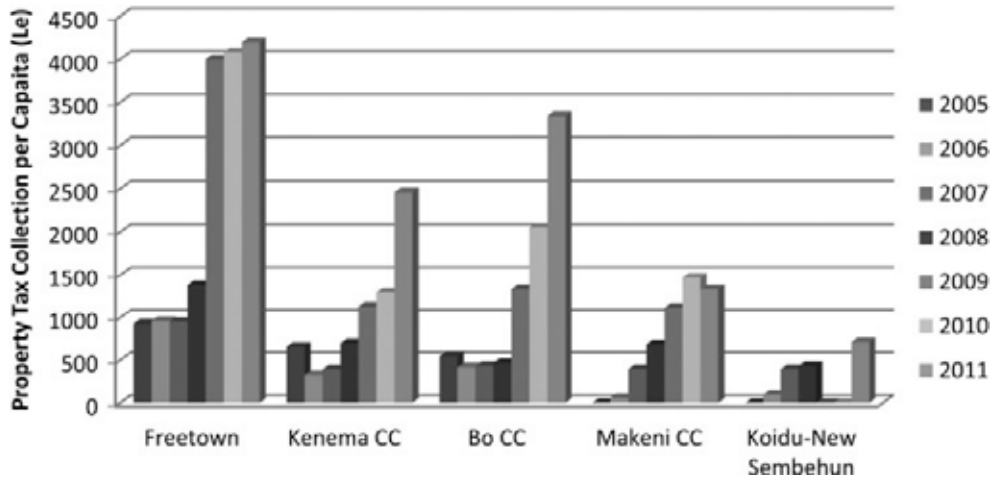
Results

Recognizing the dramatic success being realized by Makeni City Council, the Local Government Finance Department asked the same consultant to travel first to Bo City Council and then Kenema City Council to set the stage for repeating the process in those councils. Following an initial delay related to the local election at the end of 2007, Bo immediately began implementation in early 2008. Kenema began implementation later in 2008. Concurrent efforts were also made in the capital city Freetown, but implementation was much slower there. An identification and valuation process was initiated in Freetown in 2009 with support from the World Bank.

The reform programme resulted in substantial improvements in property tax collections across all four city councils, with nominal revenue increasing more than five-fold on average between 2007 and 2011. Equally telling, property tax revenue increased roughly twice as quickly as other revenue sources, increasing from an average of 15 per cent of total revenue collection in 2006 to 31 per cent in 2011 (Jibao and Prichard, 2015a).

CASE 6: PROPERTY TAX REFORM IN SIERRA LEONE

Property tax collection per capita 2005-11



Source:(Jibao and Prichard, 2015a)

While all of the councils experiencef substantial gains in property tax revenue, there was also significant variation across the four jurisdictions. This can be seen in the simple revenue per capita figures reported in the next figure. Revenue increased the most in Bo (about 450 per cent between 2007 and 2011). In Kenema, the increase over the same period was about 350 per cent. In Makeni, revenue actually fell from 2010 to 2011 and the overall increase was less than 200 per cent. The performance in Freetown increased substantially, but is seen by most observers to be particularly disappointing given the city's dramatically larger tax base. Collections in Bo were only slightly less than in Freetown, despite Freetown having over four times the population and a dramatically larger tax base (Jibao and Prichard, 2015a).

The differences in outcomes can be explained by differences in implementation. Jibao and Prichard (2015a) provide an excellent discussion of the differences in these four councils. All attempted to follow a similar reform design but achieved very different outcomes, largely because of differences in political leadership and commitment. The key points of the Jibao and Prichard study may be summarized as follows:

Discovery and valuation — All the city councils experienced improvements in identification and valuation. All introduced new information technology. Bo City Council introduced the most robust system with greater transparency and more limitations to prevent manipulating the data. Freetown lagged behind and has yet to fully implement the IT platform, with the result that only about 25 per cent of properties have been identified and valued.

Outreach — Each city expanded outreach to taxpayers, but not all to the same degree. Bo City Council was most ambitious through public education programmes, new efforts to make the connection between revenue and expenditures, and new forums for engagement with taxpayers. Makeni and Kenema adopted more modest approaches, and Freetown made the least progress on all fronts.

Collection — Jibao and Prichard state that the most striking differences between the councils was in the area of enforcement against large taxpayers. Their

CASE 6: PROPERTY TAX REFORM IN SIERRA LEONE

findings indicate that Bo City Council was most effective at consistent enforcement, even among large taxpayers. In Makeni, initial enforcement efforts were curtailed after 2007 with only limited enforcement actions taken against elites. Kenema tended to focus enforcement efforts on average taxpayers with very limited enforcement against elites. Freetown is simply described as having weak enforcement among elites.

A major purpose of the Jibao and Prichard study is to explore why the observed variations in political support vary across these jurisdictions. It is one thing to observe that political support varied, and quite another to attempt to explain why the variations exist. Jibao and Prichard identify four political factors that they argue account for the differences in the level of political support among these councils.

The relationship among economic elites and political leaders — Where there is high cohesion between economic elites and there are close ties and overlapping interests among economic elites and political leaders, tax enforcement is likely to be weak. When there is a comparative lack of cohesion among local economic elites, local leaders are more likely to be independent and more likely to pursue enforcement policies against those elites. Building a broader base of popular support for taxation through effective public outreach and clear links between revenues and expenditures can help local leaders counter the political influence of elites.

The extent and character of ethnic diversity — To the extent that ethnic diversity reduces elite cohesion, it facilitates tax reform.

The relationship between local and central political parties — As in nearly all developing countries, local councils in Sierra Leone rely heavily on central government transfers. When the political party in power at the local level differs from the party in power at the national level, local officials begin to worry about the stability of transfer revenue. In such a climate, local officials have a strong incentive to seek greater revenue autonomy, and are more likely to support effective property tax reform.

The extent and character of local-level political competition — In councils with contested elections and periodic turnover in the governing party, local leaders have a greater incentive to deliver effective service improvements. Property tax reform can provide the increased revenue to fund improved services. Public support for reform can be built if the connection between taxes paid and services received is made clear and is trusted by the public.

Jibao and Prichard conclude that local leadership and commitment to property tax reform is more likely where local elite resistance is fragmented, the local government is motivated to seek greater autonomy from the centre, and local-level political competition creates incentives for more explicit links between taxes collected and benefits provided to taxpayers.

CASE 7: BETTERMENT LEVIES (CONTRIBUCIÓN DE VALORIZACIÓN) IN MEDELLÍN, COLOMBIA

Module 2: Betterment charges and special assessments

Background

Medellín has experienced massive amounts of growth dating back to the 1980s, resulting in a need for infrastructure improvement and increased revenues to do so. Estimates indicate that the population of the city increased by more than 14 per cent between 2005 and 2013, but the land area of the city did not increase during this period. The increased demand for space that results from adding 300,000 people to the city means the general trend in land values overall has been increasing.

Further, Medellín is similar to most cities in that it makes an effort to rationalize and regulate land-use patterns. But the city must constantly re-evaluate land-use regulation in response to changing demographic and market conditions. When the city government agrees to change the allowed density of development on a given plot of land, the commercial market value of that plot could change drastically overnight. At the same time, Medellín has made huge investments in public infrastructure in recent years. Many of these investments directly affected the value of adjacent properties, significantly enhancing the attractiveness and development value of the land.

Medellín, as a city that is consistently growing, has needed additional funding to finance its expansion.

Actions taken

Medellín has successfully implemented betterment contributions in the past to recover the costs of specific improvement projects. Current law limits the revenue collected through this instrument to the actual costs incurred for a specific project, plus a percentage for administration. As of this writing, Medellín has not received significant revenue from the betterment contributions for more than ten years because the revenues have been replaced with transfers from the public utility company (EPM).

Betterment contributions, or special assessments, are a frequently used instrument in Colombia and other countries. In Colombia, these are known as contribución de valorización. The logic of betterment charges is that a public infrastructure investment or service improvement in a specific area benefits adjacent private landowners more than other more distant landowners.

Implementation involves identifying the benefited land, assessing the relative benefit to each parcel, and assigning the cost of the public investment to each parcel based on the proportion of benefit received. Both in Colombia and elsewhere, betterment contributions are generally limited in scope to the recovery of the actual cost of the infrastructure or service improvement rather than value sharing in a broader or more extensive sense.

A review of previous Colombian acts and regulations shows that both the national and the local governments have made use of betterment contributions as a funding instrument for public works since the beginning of the twentieth century. This tax has "a long tradition of being implemented in Colombia" with the first implementations going back to the passage of Act 25 in 1921 (articles 3 and 4). Medellin was one of the first cities to use this funding instrument.

CASE 7: BETTERMENT LEVIES (CONTRIBUCIÓN DE VALORIZACIÓN) IN MEDELLÍN, COLOMBIA

From the 1940s to the 1960s, Act 1 of 1943, and its subsequent regulations, allowed the amount charged to be distinguished from the estimated cost of the public works, and defined the "recoverable amount" as the increased land value resulting from the public works. As Jaramillo states: "from being a mere financing mechanism for public works, it became an instrument for capital gain sharing, and redistributive arguments began to appear in its rationalization". (Jaramillo, Moncayo and Alfonso, 2011). This expanded interpretation proved controversial. With Decree 1604, approved in 1966, the national legal system chose a more constrained option and equated the maximum betterment contribution to the cost of the public works plus up to an additional 30 per cent for administrative and collection costs.

The tax calculation methodology used in Medellín is quantitative, as long as an estimation of the market value of the immovable property has been done before and after the project to capture the capital gain or value increase. This practice assumes the existence of an important technical ability to determine price increases on property resulting from public interventions. It should be noted again that the increase in private value due to the project is used only as an instrument in allocating the share of project costs to each affected landowner.

Results

It is estimated that more than 50 per cent of Medellín's main road grid was paid for using betterment levies, clearly indicating that, historically, betterment levies have been extremely successful in their ability to provide funding for projects in Medellín.

However, it should be noted that based on the information in June 2013, betterment charges have declined in importance in recent years. In fact, the public works outlined in the current city Development Plan (2012-2015), and which are to be funded through betterment charges, were also included on the previous Development Plan (2008-2011).

Despite being adopted by the city council, collecting betterment charges has not taken place on any consistent basis. This decline is most likely due to a combination of factors, including difficulties in clearly identifying land affected by the projects, diminishing public support for this instrument and, perhaps most important, the development of alternative funding schemes.

Source: (Walters and Pinilla Pineda 2014, Borrero *et al.,* 2011)

CASE 8: SPECIAL ASSESSMENT (*CONTRIBUCIÓN ESPECIAL DE MEJORAS*) IN CUENCA, ECUADOR

Module 2: Betterment charges and special assessments

Background

The city of Cuenca (Santa Ana de los cuatro rios de Cuenca) is the capital of the Azuay Province in Ecuador. With a population of just over 330,000 and a land area of 67.7 km2, the population density is just over 4,900 per km2. The city centre is listed as a UNESCO World Heritage Trust site due to its many historical buildings.

Throughout Ecuador, local municipalities are charged with regulating land use and planning; providing urban roads, drinking water, sewage treatment, solid waste collection and disposal; managing transport; maintaining the land registration system and other similar urban services. In 2010, the national Legislative Assembly of Ecuador adopted the Organic Code for Territorial Organization, Autonomy and Decentralization (COOTAD). This new law clarifies spending responsibilities for each level of government, creates an administrative structure to oversee and facilitate decentralization and develops a model for intergovernmental transfers with pre-defined rules.

Nationally, local government revenue increased significantly between 1994 and 2008. Both own-source revenues and national transfers increased in real terms. However, because of the willingness of the central government to increase transfers to local governments, municipalities have not generally developed their own-source revenues as rapidly. Central government transfers continue to represent between 50 per cent and 90 per cent of total municipal revenue (Aulestia and Rodríguez, 2013). Only in the largest cities do own-source revenues approach 50 per cent of total revenue.

Subnational government revenues include tariffs and fees on immobile bases. Municipalities are assigned the urban and rural property tax, vehicle taxes, property transfer taxes and an asset tax. Subnational governments are also granted the authority to create or modify both the base and the rates for taxes to pay for community improvements, including special assessments (Contribución Especial de Mejoras or CEM). Aulestia and Rodríguez draw a clear distinction in the orgin and purpose of the property tax and the CEM. The property tax is based on the total value of the real property which by law should be updated every two years. The CEM on the other hand is intended to allow the public to share in the

Table 1: Aggregate Property Tax and Special Assessment revenue in Ecuador

Source	2007	2008	2009	2010
	Revenue (USD millions)			
Property tax	40.0	42.7	43.7	54.1
CEM	49.5	48.6	50.8	55.3
Total own-source revenue	459.8	476.3	496.5	512.2
	Percent of total revenue			
Property tax	2.7	2.1	2.0	2.4
CEM	3.3	2.4	2.3	2.4
Total own-source revenue	22.4	18.7	18.7	19.2

Source: (Aulestia and Rodríguez, 2013) and calculations by the author

CASE 8: SPECIAL ASSESSMENT (CONTRIBUCIÓN ESPECIAL DE MEJORAS) IN CUENCA, ECUADOR

Table 2: Municipal variations in implementation of CEM

Municipality	Population 2010	Income and VAT tax revenue (USD) (A)	USD per capita	CEM revenue (USD) (B)	USD per capita	(B) as a percent of (A)
CUENCA	505,585	250,538,821	496	2,393,160	24.51	4.9
STO DOMINGO	368,013	18,252,495	50	1,348,619	3.66	7.4
AMBATO	329,856	71,384,666	216	2,433,492	7.38	3.4
PORTOVIEJO	280,029	16,653,588	59	262,072	0.94	1.6
MACHALA	245,972	29,484,569	120	1,588,412	6.46	5.4
MANTA	226,477	29,221,138	129	2,342,778	10.34	8.0
RIOBAMBA	225,741	18,980,970	84	98,159	0.43	0.5
LOJA	214,855	17,466,529	81	632,796	2.95	3.6
IBARRA	181,175	11,520,961	64	393,096	2.17	3.4
LATACUNGA	170,489	10,606,854	62	117,003	0.69	1.1
MILAGRO	166,634	3,713,700	22	544,063	3.27	14.7
BABAHOYO	153,776	4,396,822	29	14,534	0.09	0.3

Source: (Aulestia and Rodríguez, 2013)

private increase in land value resulting from public investments. Of course, this assumes that private landowners benefit from public investments through increases in the value of their land (Aulestia and Rodríguez, 2013).

As early as 1967, the Ecuadorian Constitution established the economic autonomy of municipalities and assigned the urban property tax as a local revenue source. The 1971 Organic Law of Municipalities gave the urban and rural property taxes, along with the capital gains tax on real estate, to municipalities and at the same time assigned responsibility for administering these taxes to local authorities. By 1993, municipalities in Ecuador collected USD 4.2 million through the CEM, about half that amount through capital gains taxes on real estate and USD 10.2 million through the urban property tax (Aulestia and Rodríguez, 2013). More recent collections are shown in Table 1.

The data in Table 1 indicate the relative importance of central government transfers since these transfers make up nearly all of the remaining 80 per cent of local government revenue. Table 1 also shows the relative importance of the property tax and CEM revenues. In combination, these two taxes represented less than 5 per cent of total municipal revenue in 2010. Compared with collections in 1993, revenues in

CASE 8: SPECIAL ASSESSMENT (CONTRIBUCIÓN ESPECIAL DE MEJORAS) IN CUENCA, ECUADOR

2010 had actually declined significantly after adjusting for inflation.

The current law regarding the CEM allows communities to adjust the tax based on the economic and social situation of the taxpayer, even allowing contributions in kind through donated labour. The law further limits the total CEM to no more than 50 per cent of the increased land value. A further feature that is not common in Latin America is that the collection of the CEM takes place only after the work is completed.

There is significant variation among cities in the implementation of the CEM. Table 2 reports similar data for all Ecuadoran cities with a population between 100,000 and one million. As a proxy for local wealth, the table reports the total Income tax and value added tax collected in each city. On a per capita basis, this revenue varies from a low of USD 22 in Milagro to USD 496 in Cuenca, as shown in the third data column of the table. The next columns report the annual revenue from the CEM both in total and on a per capita basis. The last column of the table shows CEM revenue as a per cent of income and VAT tax collections.

The point of Table 2 is to show that there is very little relationship between the population size or relative wealth of a city and its reliance on the CEM. The poorest city listed in the table (Milagro) also has the highest relative reliance on CEM. Cities that are apparently much better off, like Riobamba and Latacunga, are not making similar use of the CEM.

It is worth noting though that Cuenca was able to collect a much higher CEM per capita than the other cities. In fact, its revenue from this source was close to that of Quito or Guayaquil, cities several times larger in terms of population.

Actions taken

In 2000, Ecuador was facing a banking, monetary and fiscal crisis (Jácome, 2004). Inflation was very high, government revenues were down and the country was in the midst of a banking crisis. In order to proceed with needed public works projects, the Cuenca city administration made the decision to repay infrastructure loans with proceeds from the CEM collected from taxpayers over a period of years. Since that time, two subsequent mayors not only maintained the programme, but expanded it based on citizen support for the approach.

The city's implementation of the CEM has allowed Cuenca to continue its neighbourhood improvement programme, which has several steps, summarized here.

1. The residents of the sector seeking public improvement address a formal request to the programme administration. The request asks for the inclusion of their neighbourhood in the programming of road improvements, the installation of basic services, street lighting, green spaces or police units. Residents understand from the beginning that carrying out the requested project will result in a required CEM.
2. The municipal administration checks the availability of public services in the sector and the existing planning for the area.
3. Municipal managers enter into a dialogue with the community and carry out a participatory process to identify the potential public improvements to be executed.
4. Technical experts from the relevant departments carry out a site inspection to determine the scope of the required work.
5. A prioritization matrix is developed on the basis of technical, social and political criteria. The result is a careful assessment of both the demand and

CASE 8: SPECIAL ASSESSMENT (CONTRIBUCIÓN ESPECIAL DE MEJORAS) IN CUENCA, ECUADOR

technical requirements. A prioritized listing is generated providing an order of priority in dealing with citizens' requests.

6. The execution of public improvements is contracted seeking the participation of the greatest possible number of contractors. While this phase has some inherent inefficiencies, the potential loss in efficiency is offset by the additional demand for labour while engaging a significant number of construction professionals. For projects valued at less than USD 60,000, the previous experience requirement for participation in the programme is reduced. The scheme allows contracting of sections as small as one block (about 100 metres).
7. Beyond the technical supervision provided by the city, social oversight is a key component of the programme. The benefitting community elects a supervisor among its members, whose judgments must be incorporated into the audit report. This allows a link between contractor, community and municipality. It channels community concerns and tracks compliance with environmental policies.
8. he return on investment is a key element of the programme. The costs of the work are divided among the beneficiaries:

- 40 per cent of the cost is divided based on street frontage
- 60 per cent is divided based on changes in property valuation

For streets of more than eight metres wide, transit interchanges and projects with direct impact on the heritage area, costs are divided between all urban properties. The maximum repayment term is seven years, and discounts apply for prompt payment, which happens fairly often.

9. The proceeds from the programme are reinvested in new projects, generating a cycle that allows continued financing of urban development (Aulestia and Rodríguez, 2013).

Results

Cuenca's implementation of CEMs with substantial public involvement and taxes collected over a period of years has achieved considerable success.

- 270 km of roads have been paved
- 1,800 construction contracts have been carried out with a total investment of USD 106 million
- The municipality estimates that land values have tripled in relation to values prior to the public investments
- 90 per cent of citizens pay their contributions before the fourth year
- 95 per cent of the public projects had the support of at least 60 per cent of the beneficiaries who were required to pay the CEM
- About 3 per cent of taxpayers are late in their payment of the CEM

Aluestia and Rodríguez observe that the success of Cuenca stems from four key factors:

- A shared responsibility between citizens and the municipality for financing urban development. This sharing is based on clearly defined rules that are known by the population in advance.
- Political stability and continuity of the programmes implemented by previous governments.
- Institutional credibility in the eyes of citizens, builders and financiers. Citizens, contractors and lenders trust that the city administration will deliver on its commitments.
- Active citizenship that participates in the process, is vigilant in taking oversight, and fulfils its obligations.

CASE 9: DEVELOPER EXACTIONS (*OBLIGACIONES URBANÍSTICAS*) IN MEDELLÍN, COLOMBIA

Module 3: Developer exactions

Background

Medellín has experienced massive amounts of growth dating back to the 1980s, resulting in a need for infrastructure improvement and increased revenues to do so. Estimates indicate that the population of the city increased by more than 14 per cent between 2005 and 2013, but the land area of the city did not increase during this period. The increased demand for space that results from adding 300,000 people to the city means the general trend in land values overall has been increasing.

Further, Medellín is similar to most cities in that it makes an effort to rationalize and regulate land-use patterns. But the city must constantly re-evaluate land-use regulation in response to changing demographic and market conditions. When the city government agrees to change the allowed density of development on a given plot of land, the commercial market value of that plot could change drastically overnight. At the same time, Medellín has made huge investments in public infrastructure in recent years. Many of these investments directly affected the value of adjacent properties, significantly enhancing the attractiveness and development value of the land.

Medellín, as a city that is consistently growing, has needed additional funding to finance its expansion.

Actions taken

Developer exactions have proved to be very useful in Medellín in the past. Developer exactions have taken the form of "urban transfer obligations". The exaction system in place requires developers to transfer land to the city for public purposes in proportion to the size of their development. Each zone of the city has potentially different transfer requirements. Such exactions or transfers are charges landowners and developers must pay either in land or money as part of the approval process for a specific development. Such transfer obligations are commonly used throughout Latin America and Medellín is no exception.

In the case of Medellín, there is a well-developed formula used by the city to calculate the developer exaction for a given project based on the location of the proposed development. The developer may elect

Table 1. Table from Medellín POT Article 252 outlining approved uses and transfer obligations

City Sector	Approved Land Uses			Transfer Obligations		
	Density (Inhabitants per building)	Construction Index (Buildable land area as a proportion of total plot size)	Maximum number of floors	Square metres per Inhabitant	Square metres per 100 sq. metres of other uses	% Minimum Net Area
ZN1_CN1_2	230		4	3.0	7	18
Z1_CN2_7	270	3.00		3.0	7	18
Z2_RED_31	350	3.40		4.0	10	18
Z2_RED_26	300		4	2.0	5	0
Z4_CN1_12	350	3.40		5.6	20	18
Z6_D_5	170	1.40		5.6	20	18

Source: Compiled from the POT of Medellín

CASE 9: DEVELOPER EXACTIONS (OBLIGACIONES URBANÍSTICAS) IN MEDELLÍN, COLOMBIA

to either transfer the land exaction to the city or pay the equivalent cash value.

Since the adoption of its first land-use plan (POT), Medellín has had a complete system of urban development transfer obligations (exactions) applicable for developing or urbanizing vacant land and for building. In practice, therefore, any construction project within the city initiates a set of urban obligations. The precise obligations in any given location depend on the location and applicable land use.

The modifications to the POT in 2006 changed the applicable standards and formula used to define the urban transfer obligations in each city area and made an important change by introducing housing density in the calculation of the transfer obligation. The current urban transfer obligation regime in Medellín, in accordance with Ordinance 46 of 2006, covers lands subject to any project and sets out the required transfer obligations in several categories.

The determination of land transfer obligations for parks and public facilities is regulated in Article 252 which also defines the possible urban uses in each city sector, as indicated in Table 1. The city is divided into six zones and 180 zoning areas, and in each different uses are permitted and different transfer obligations required. As there are so many zones, Table 1 provides a few representative examples.

When the property to be developed does not include land that can be integrated into the city's public space infrastructure, the transfer obligation can be met through a cash payment with the resources to be allocated according to a formal city policy. Part of these proceeds are to be earmarked for the equitable creation of new public spaces as outlined in a separate policy statement. The remaining money will be invested in areas of the city with the greatest need, as determined by technical research, as well as areas under land registration and legalization processes.

To illustrate the process of determining the transfer obligation, consider the following example. Assume a housing and commercial project is to be built in zone Z1_CN2_7 (highlighted in Table 1) with a total land area of 2,500 m^2 to include 45 apartments and 1,000 m^2 of commercial area.

The land transfer requirement associated with residential use is calculated as follows:

1. Obtain the average household size from the most recent National Administrative Department of Statistics (*Departamento Administrativo Nacional de Estadística*) information (3.62 people/household).
2. Multiply the proposed 45 apartments by 3.62 inhabitants= 163 inhabitants for the building.
3. Multiply 163 inhabitants by 3 m^2 of land transfer requirement per inhabitant.
4. Yields **489** m^2 of required land transfer for residential use.

To determine the land transfer requirement associated with commercial use:

1. Take the total area to be built, divided by 100m^2: 1,000m2/100m^2= 10
2. Multiply this result by the required 7 m^2 of land transfer obligation for each 100m2 built: 7m2 X 10= 70 m^2 of land transfer obligation for commercial use.

To determine the total land transfer requirement for the project:

1. Total area to be transferred: 489 m^2 + 70 m^2= **559 m^2**
2. The minimum land transfer requirement is 18 per cent of the net area. The actual requirement is the larger of 18 per cent of the land area or the

CASE 9: DEVELOPER EXACTIONS (OBLIGACIONES URBANÍSTICAS) IN MEDELLÍN, COLOMBIA

result from the calculations just demonstrated. Assuming that the plot area is equivalent to the net buildable area, the 18 per cent minimum area equals 450 m^2. Consequently the transfer obligation would be 559m^2, which is 22 per cent of the plot area.

To determine the land transfer requirement for public facilities:

1. Multiply the number of planned residential units by 1 m^2: 45 x 1 m^2 = 45 m^2
2. Add 1 m^2 for each 100 m^2 of commercial area to be built: 1000/100 x 1 m^2 = 10 m^2
3. The facilities construction obligation will be 55 m^2 = 45 m^2 + 10 m^2.

In summary, this hypothetical project will produce the following urban obligations:

- 559 m^2 of land transfer for parks, plazas and open spaces.
- 55 m^2 for public facilities.

Results

Between 2006 and 2011, Medellín collected approximately USD 58.7 million in cash payments from developer exactions, in addition to any actual land transfers, making it the most successful form of value sharing in Medellín in recent years. The city is averaging about COP 23,000 million (approximately USD 11.7 million) annually, a significant contribution to the city's urban infrastructure. It is important to note that this total only reflects the revenues collected from urban transfer obligation cash payments without taking into account the areas for green zones and facilities transferred to the city in cases where developers chose to fulfil their duty through on-site land transfers. Information on land transfers is not updated and is not available from the regular monitoring of this tool carried out by the planning department.

The main virtue of these developer exactions or urban transfer obligations, at least regarding the compensatory payment in cash, is that they clearly represent a new funding source for the construction of public spaces and facilities which is usually lacking at the local level on this scale. Just as relevant is that new clear rules and criteria have been generated for the whole process including

- Calculation method
- Assessment procedures
- Budgetary and accounting tools for the management and investment of the resources
- Criteria for an equitable distribution of the resources within the whole city
- Mechanisms for the prioritization and monitoring of the selected plots

These transfer obligations also demonstrate the range of options available to local authorities in Colombia to implement land value sharing strategies not only through taxes but also through regulatory mechanisms that are both flexible and have the potential to result in new financial sources related to the densification process.

Source: (Walters and Pinilla Pineda 2014, Evans-Cowley 2006)

CASE 10: COMMUNITY AMENITY CONTRIBUTIONS IN VANCOUVER, CANADA

Module 3: Developer exactions

Background

The city of Vancouver, British Columbia, is an active seaport city on the west coast of Canada. With a population of about 610,000, it is at the heart of a region with a population of 2.4 million. With a land area of 114 km2 and a population density in the city of about 5,300 per km2, Vancouver is one of the most densely populated cities in Canada. City population is expected to increase by about 10 per cent by the next census (2021).

Vancouver has adopted a required **development cost levy** (DCL) assessed as a fixed fee per square metre (square foot) of new construction. The city is divided into ten DCL districts and the DCL rate per square metre varies by area and land use based on the area's written infrastructure development strategy. The rates are adjusted for inflation each year by the city. The only exemptions granted are for delivery of affordable housing and preservation of heritage buildings. Between 2005 and 2014, the city collected DCLs on an average of 6.5 million square feet (604,000 m2) of floor area per year (77 per cent residential and 232 per cent non-residential). Revenue from these fees averaged CAD 44.4 million per year. Over the lifetime of the DCL programme, the city has raised CAD 526 million through this tool (Director of Finance, 2015b).

DCLs collected within each district must be spent within the area boundary, except for housing related DCLs which can be spent anywhere in the city. DCLs are an important source of capital project funding for parks, childcare facilities, social and non-profit housing and engineering infrastructure. Between 2009 and 2014, DCLs funded the construction of 1,141 housing units, 277 childcare spaces, seven new parks, seven pedestrian and cycling paths, and upgrades for three major roads. All funds are allocated through the city's normal capital budgeting process (Director of Finance, 2015b).

Under British Columbian law, cities can specify the allowed density in each land use zone. They are also allowed to grant a "density bonus" if the development is deemed to be in the public interest. But cities are not allowed to attach required fees or charges for granting a density bonus tied to the rezoning of a property. Yet rezoning for higher density can create additional burdens on city amenities and infrastructure. In order to better meet the range of needs created by additional growth, Vancouver adopted a second approach to developer exactions.

Actions taken

The second approach employed by Vancouver is termed community amenity contributions (CACs). CACs are in-kind or cash contributions (fees) paid by property developers when the city government grants additional development rights through rezoning. Because of legal limitations on exactions, CACs are technically voluntary contributions from developers. But developers recognize that in order to obtain approval for higher density development, they must be willing to meet the city's expectations regarding CACs.

CACs are founded on the recognition that greater development density increases land values. Public approval of a density bonus creates wealth and CACs are the city's approach to sharing in that increased value.

Because the new development increases strain on the existing services, the monies received from CACs are used to expand services and amenities such as: park

space, libraries, childcare facilities, community centres, transport services, cultural facilities and community-based neighbourhood service organizations (Vancouver City, 2015a).

Choosing an approach

There are currently three typical strategies used to collect revenue and fund services and amenities through a density bonus approach. These are: (1) including density bonus provisions in a zoning bylaw; (2) setting CAC target levels for properties being rezoned, typically on a per-unit or an area basis; and 3. seeking CACs based on the expected increase ("lift") in the value. Each is described more fully below.

Density Bonus Zoning. Under this method, the developer can always develop at the approved base density (dwelling units per hectare) level. However, if they choose to develop at higher densities, they must provide certain infrastructure amenities or affordable housing (or another option chosen by the city) as specified in the city ordinance. This approach provides the greatest certainty for developers. If they provide the specified contribution, they are assured the right to develop at the higher density. This mechanism resembles sale of development rights (see Instrument 5).

Setting Preferred CAC Targets for Properties Being Rezoned This method involves a set baseline of CACs to receive from developers when land is rezoned. These targets are set so that the city has a base point for negotiation, and apply to more typical and standard developments. However, they are not a fixed charge. The following is an example of this approach.

Example — The following table shows an example of proportional cost sharing in setting CAC target levels. A table like this would be created when rezonings are suggested. The impact on city services attributable to new development is represented as a percentage of the overall costs. The CACs collected from each housing unit or commercial building ($X) can then be determined in order to reach the total cost attributable to rezoning (target from rezoning) (Vancouver City, 2015a).

Table 1: Example of proportional cost sharing to set CAC targets

City-wide amenity	Capital cost	Percent of cost attributable to new development	Target for rezoning proposals	Recommended contributions from rezoning applicants
Transit exchange expansion	$1.5 million	10%	$150,000	$X per housing unit $X per m2 commercial or office use
Old Market Heritage preservation project	$800,000	10%	$80,000	$X per housing unit $X per m2 commercial or office use
Commuter bike path expansion	$680,000	10%	$68,000	$X per housing unit $X per m2 commercial or office use
Exceptions: • Purpose built rental housing (such as care homes) may be exempted • Single-family dwellings under 1,200 ft2 (111.5 m2) and accessory buildings under 600 ft2 (55.7 m2) may be exempted from up to 50% of recommended targets				

Negotiating CACs Based on Property Value "Lift"

This method involves estimating the land value prior to rezoning, and estimating the value after rezoning. The difference between the values is the "lift".26 The negotiation focuses on the share of the land value lift that the developer will provide as the CAC (MCSCD, 2014). This process provides developers with the least level of certainty in advance. Because of the lack of clarity and potential lack of transparency, some observers have been particularly critical of this approach (Moore, 2013).

CACs are negotiated with developers at the time a property is rezoned to a higher density. When developers request a rezoning, the increased population density can create the need for more community amenities and services. The city council uses CACs to ensure that, as land is rezoned, Vancouver's high standards of liveability are maintained by sharing the costs of additional community amenities between developers and the public. The contributions collected are generally used only in the district that experiences the rezoning.

Table 2: Comparison of Development Cost Levies and Community Amenity Contributions

Contribution	Applies to	Due date	Allocation	Rate approach
Development Cost Levies	All developments including those being rezoned	When the building permit is issued	DCL money will partially fund parks, childcare facilities, replacement housing, and engineering infrastructure	A flat rate, per square metre of floor space to be built
Community Amenity Contributions	Only developments that are being rezoned	Before rezoning enactment	CACs contribute to community centres, libraries, daycares, park improvements, neighbourhood houses, and more	Various approaches are used, including fixed-rate targets and site-specific negotiation

Source: City of Vancouver

The following table summarizes the differences between DCLs and CACs.

In order to set up a CAC system, Vancouver collected detailed information on the capacity of infrastructure such as roads, water systems, fire services and recreation facilities, in an effort to understand the current capacity. This information also provided the city with the ability to plan for additional development. Planning ahead helped local officials understand which services and amenities are the highest priority when considering new development.

The Vancouver approach requires

- Understanding future growth projections and how they impact the vision of the community;
- Working with the community and stakeholders, including developers, to determine what local services and amenities will mitigate the impacts of growth; and
- Estimating and allocating the costs required to pay for the amenities and services (MCSCD, 2014).

The exact details of the CACs (what the developer will provide in either cash or in-kind contributions) are determined based on the area, and the proposed change to the zoning.

26 Elsewhere in this Reader, this is defined as the "increment".

CASE 10: COMMUNITY AMENITY CONTRIBUTIONS IN VANCOUVER, CANADA

- All downtown rezonings are processed with negotiated CACs on a site-by-site basis.
- Many rezonings in the rest of the city outside of downtown are covered by the citywide CAC policy, which sets out a framework for standard rezonings, non-standard rezonings and exemptions.
- Standard rezonings use a flat-rate target approach and non-standard rezonings use a negotiated approach, evaluated on a site-by-site basis (Vancouver City, 2015a).

Standard rezonings have a current fixed rate target CAC of CAD 32.29 per m². The fixed rate target applies only to the net increase (density bonus) in floor space allowed by the new zoning. Standard rezonings are typically smaller projects outside the downtown area. This includes rezonings that change the use from commercial to residential without increasing total floor area.

For non-standard rezonings, the CAC is determined through the negotiated approach. The following rezonings are classified non-standard: (i) large site rezonings – greater than 0.81 hectares or the site is in a neighbourhood with a neighbourhood centre or shopping area and is larger than 0.40 hectares; (ii) change of land-use rezonings from industrial to residential; (iii) downtown rezonings, including rezonings for height increases, density increases, and/or change of land use (Vancouver City, 2015a).

Non-standard rezoning CACs are negotiated using well-established evaluation criteria and standard valuation techniques, though the general negotiated approach to exactions has been criticized for precisely for being non-standard and often not transparent (Moore, 2013).

Key steps in the negotiated process include:

1. The developer provides the city with a pro forma (estimated financial analysis of the development proposal)
2. The developer and the city determine the value of the property under existing zoning status using standard valuation approaches.
3. The city and the developer estimate the property value increase after rezoning (called the "land lift") either by comparing sales evidence or by deducting development costs and the developers profit from estimated sales revenue. This can be a contentious negotiation since it involves estimating future market conditions (Moore, 2013; Mattinson, 2015).
4. The city and the developer negotiate a CAC that reflects a percentage of the increase in property value due to the rezoning. After taking into consideration development risks, public interest and a reasonable developer profit, CACs typically represent 70 – 80 per cent of the increase in property value (Vancouver City, 2015b).

The results of CAC negotiations will be different with each project, again leading some to raise concerns about equity (Mattinson, 2015; Moore, 2013). CACs can be negotiated to meet a variety of public objectives and planning goals such as urban design, density, land use, liveability, traffic impact, community input and community facility impacts (Vancouver City, 2015a).

Once collected, CAC funds can be applied to projects to provide amenities and services, but they must be approved by the city council in the normal capital budgeting process, and meet the following guidelines:

1. Be located in the community in which the rezoning takes place and/or serve the site;

2. Be growth-related, or meet past deficiencies or other community priorities;
3. Be operationally viable - i.e. long-term operating and maintenance costs are supportable;
4. Be within city servicing standards - i.e. a type of service normally provided or supported by the city and at a service level supported by city policy;
5. Be identified through an assessment of: (a) the full range of city services and of the adequacy of existing city amenities in the area; (b) opportunities to meet needs; (c) city plans and policies; (d) the cost to provide the amenities; (e) community input obtained during the rezoning and through community plans or visions, and/or city-wide plans and policies; and (f) for negotiated rezonings, the development economics of the donor project.

Certain rezonings and developments are normally considered exempt from CACs.

- Rezonings where there is no increase in total floor space
- Small, lower-density residential areas
- Neighbourhood Housing Demonstration Projects (affordable housing)
- Social housing
- Historical or heritage sites
- Public schools
- Community facility rezoning
- Places of worship
- Non-profits (MCSCD, 2014)

Legal risks

To avoid legal risks and accusations of illegal taxation, Vancouver identified the several guidelines for city officials. First, CACs must be negotiated rather than imposed, since British Columbia's Local Government Act (s.931 (6)) prohibits imposing CACs. Second, elected officials need to be impartial and avoid approving rezoning requests just to receive the contributions from CACs. CACs are not a way to "sell" rezoning (MCSCD, 2014). The principles of "nexus" and "proportionality" can also help local governments and officials avoid legal trouble. The principles of nexus and proportionality are applied to all CAC negotiations to ensure that applicants/developers see CACs as fair and reasonable. They also help community members to accept new developments.

The principle of **nexus** states that there must be a direct, observable link between the CACs and the impact of the new development. For example, when neighbourhood parks are already overcrowded, developers and residents are more likely to accept CACs when the funds are used to expand existing parks.

The principle of **proportionality** implies that the CACs should be proportional to the impact of the development. Small developments with minimal impact should provide a much smaller CAC compared to a large development with a substantial impact on city services (MCSCD, 2014).

Results

Vancouver has used CACs for 25 years. In general, the number of projects resulting in CACs is relatively small. In 2014, for example, Vancouver issued 1,400 building permits, only 50 of which involved either density bonuses specified in the bylaws or zoning changes for higher density. The following table reports on the number of approvals, the addition density authorized and the value of CACs received. In addition, the table reports on the number of secured market rental housing units. These are housing units secured for the life of the building as rental units but owned by private owners. It should be noted that in both 2011 and 2014, very large single projects were approved that resulted in unusually large CACs.

Table 3: Summary of CAC and density bonus activity

Year	Number of approvals	Additional density approved (thousands of m²)	Total value of public benefits secured ($ millions)	Additional secured market rental housing (units)
2014	50	604	$234	1,073
2013	45	242	$133	886
2012	44	223	$68	1,011
2011	36	390	$180	402
2010	23	204	$27	106
Annual average	39	334	$128	696

Source: (Director of Finance, 2015a)

The city reports having used over CAD 27 million in past years to "fund over ten arts and culture facilities, such as the Orpheum renovation, Vancouver International Film Centre and the Contemporary Art Gallery" (Vancouver City, 2015a). The latest city report states the 2014 public benefit contributions by category and these are shown in Table 4. The amount shown for city-owned affordable housing equates to 290 housing units.

Table 4: 2014 City of Vancouver public benefit contributions by category

Public Benefit Category	Contribution Value ($ Millions)
Affordable Housing (city-owned)	$111
Community Facilities (e.g. libraries, community/seniors centres, family places, cultural facilities, etc.)	$52
Parks and Open Spaces (incl. Public Art)	$40
Child Care Facilities	$17
Heritage (i.e. on-site preservation & purchase of density)	$12
Transportation	$1
Not yet allocated	$1
Total:	$234

Source: (Director of Finance, 2015a)

However, this success has not come without challenges and criticism (Mattinson, 2015; Moore, 2013). To some citizens and developers, CACs can feel hidden and developers feel they do not fully understand their use. There is consistent pressure to standardize target levels and reduce negotiated CACs. CAC policies need to be made as consistent, fair and transparent as possible.

Another fear of CACs is the loss of affordable housing. As property values increase through rezoning and development, there is a danger of housing prices increasing rapidly. Vancouver is attempting to offset this pressure by focusing on the provision of affordable housing as a designated amenity (Vancouver City, 2015a). However, the city's strong focus on "urban containment", the amenity level in the city and the influx of wealthy immigrants has meant that the affordability of housing in the Vancouver metro area in general has "deteriorated markedly" (Meiszner, 2014).

CASE 11: LAND VALUE SHARING IN TAIWAN

Module 4: Land value increment taxes

Background

Taiwan is an island nation with a population of 23.3 million inhabitants and a total land area of just under 14,000 km2. With a gross national income of USD 22,513 per capita, Taiwan is considered a "high income" country.

Embedded in the national constitution are two grounding principles related to land. First is the protection of private property rights lawfully acquired through private investment. The second principle is that land value increases resulting from public action or changing social conditions belong to and should benefit all of society. These two principles motivate several laws affecting land and land-based taxes.

Of particular interest are the three taxes imposed on land and improvements: the land tax, the house tax and the land value increment tax. In combination, these three taxes make Taiwan one of the most successful countries in implementing value sharing taxes (Tsui, 2008).

Actions taken

Land administration in Taiwan is a key function of both the national Ministry of the Interior (MOI) and sub-national governments. The MOI, through the Department of Land Administration, supervises and oversees the land administration activities of local governments. This oversight includes the adoption of land-related regulations governing administration of the land taxes, cadastre management, land valuation and land rights.

Land value tax

The land value tax is an annual tax levied on the assessed value of land. The tax is administered by local governments, which also receive all the revenue it generates. Land values are set each year by the municipality or county where the land is located. Each parcel of land has a "posted" value estimated by the local government. There is a variety of tax rates applied to the officially declared taxable value, depending on land use, location and exemption status. For most properties, the rate is progressive, ranging from 0.2 per cent of taxable market value on small urban plots (less than 300 m2) to a rate of 5.5 per cent on high-end properties. Local governments have some flexibility in setting the final rate and may raise the rates by up to 30 percent with approval of the local council; however, few if any governments have actually taken advantage of this provision.

Taiwan has been criticized for their assessment practices which place the taxable value of land at well below its actual market value (Tsui, 2008; Lam, 2000; Lin, 2010). Values are re-evaluated regularly by the local land value assessment commission, which is comprised of the city mayor or county magistrate and delegates from the local council. Tsui (2008) argues that, despite regular updates, political pressures on this body keep taxable values artificially well below market values. The result is that what appear to be relatively high land tax rates translate into modest effective tax rates.

The lack of consistent valuation ratios between communities is even more troubling than the overall undervaluation. The variance in the ratio of taxable value to actual market value across the country results in substantial inequity in the relative tax burden across different communities.

House tax

The house tax is levied on all houses attached to land and on any buildings that enhance the value

of such houses, which encompasses most buildings. The taxable base for the tax is the current value of the building as judged by the real estate assessment commission in each local government and updated every three years. Rental properties are taxed at between 1.5 per cent and 3.6 per cent of current value. Owner-occupied properties are taxed at 1.2 per cent of current value. Other rates apply for other occupancy uses, and local governments are allowed to set the final rate within the nationally determined ranges.

While the tax is intended to be collected from the building owner, ultimately it can also be collected from the occupant if the owner cannot be identified. Many exemptions and reductions are available for both public and private buildings. Here again, current valuation practices mean that the effective tax rate is substantially below the stated or nominal tax rate.

Land value increment tax

One of the unique features of the Taiwanese land tax system is that the land value increment tax (LVIT) is written into the national constitution. It is grounded in the philosophies of Dr. Sun Yat-sen, who believed firmly that the "natural value increment" of land belongs to the public not the private landowner, and should be shared by the general public (Ministry of Finance, 2014). While some have characterized the LVIT as a capital gains tax (Tsui 2008), Taiwan's Ministry of Finance is careful to distinguish it from ordinary capital gains because of its underlying social objectives (Ministry of Finance, 2014).

Collecting the LVIT is the responsibility of local governments, which also receive all of the revenue. The tax base, tax rate, exemptions, deductions and special provisions are all set at the national level. The calculation of the tax base is the difference between the value of the land when originally acquired and its current value, less certain deductions for expenses. The two values are determined by the local government. Each year, the land value assessment commission reviews land values and announces a **government-announced present value** (GAPV) for each parcel of land in its jurisdiction. At the time that a parcel of land is transferred from seller to buyer, the local government calculates the "natural land value increment" (NLVI) in land value using the following formula:

$NLVI = GAPV_{current} - (GAPV_{original} * CPI/100) - (\text{land improvement cost} + \text{construction benefit fee} + \text{fee for land consolidation} + \text{GAPV of donated land})$

Again, the GAPV is set and announced for each parcel of land each year by the local land value assessment commission. When a parcel is transferred through a regular sale, the GAPV at the time of the sale declaration is the GAPVcurrent. The GAPVoriginal is the GAPV at the date of the last transfer of the property. This original value is adjusted by the change in the consumer price index (inflation) since the date of last transfer. Further deductions are allowed for

- investments made to improve the land,
- betterment charges (called construction benefit fees),
- land readjustment fees (fee for land consolidation) and
- any land required to be donated for public purposes as part of a rezoning process, valued at GAPV

As noted, the tax rates are set at the national level and vary with the size of the NLVI in relation to the original GAPV. Here again, the rates are progressive.

- 20 per cent on NLVI of less than 100 per cent of the original GAPV

- 30 per cent on the increment between 100 per cent and 200 per cent of original GAPV
- 40 per cent on the increment above 200 per cent of original GAPV

Thus, if a parcel sold for a price that was 250 per cent of the original GAPV (after all adjustments), the tax would be:

(20% * 1.00 + 30% * 1.00 + 40% * 0.50)/2.50 = 0.70/2.50 = 28% of NLVI

A further reduction is made based on how long the property has been held by the seller. These adjustments apply to the amount of the tax due above the lowest rate. If the property has been held for over 20 years, the amount of the tax above the lowest rate is reduced by 20 per cent. If the property has been held for over 30 years, the amount of the reduction is 30 per cent. Over 40 years, the reduction is 40 per cent.

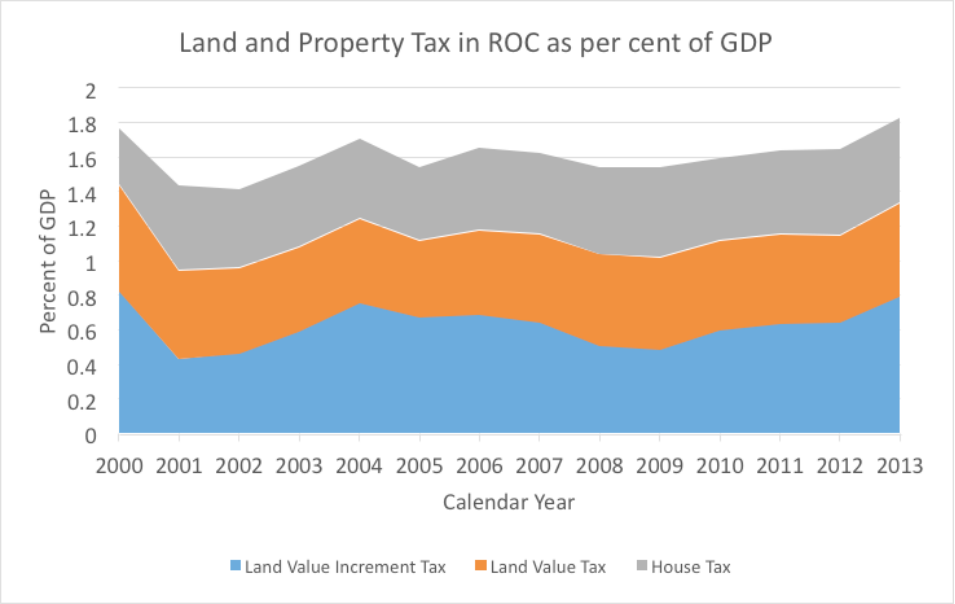
In addition, if the land being sold has been owner-occupied residential land for at least a year prior to sale, does not exceed 1.2 hectares in size (urban areas, slightly more in rural areas), and the owner has never exercised this option previously, the owner may qualify for a rate of 10 per cent of NLVI. Other exemptions and reductions apply for government-owned land, agricultural land sold for agricultural purposes and other privileged land uses.

The LVIT has also been the subject of criticism because of local assessment practices. While the GAPV is adjusted annually, the adjustments are carried out by the same politically motivated land value assessment commission (Tsui, 2008).

Results

There is little question that the assessment practices that set the land and building values for the land value tax, the house tax and the LVIT are likely to have been manipulated for political purposes. Past research

Figure 1



CASE 11: LAND VALUE SHARING IN TAIWAN

suggests these practices have resulted in substantial inequity in tax burdens across the country (Tsui, 2008). Nonetheless, the revenue yield of the combination of the land value tax, the house tax and the LVIT has been and continues to be impressive.

- Between 1990 and 2013, the land value tax has averaged just over 0.53 per cent of GDP each year, and it has never dropped below 0.44 per cent of GDP.
- During the same period, the house tax has averaged 0.52 per cent of GDP, and fell below 0.4 per cent of GDP just once in that 24-year period.
- The LVIT has been the most volatile of the three, ranging between 3.7 per cent of GDP in 1992 and a low of 0.43 per cent in 2001. Over the past decade, the LVIT has averaged 0.63 per cent of GDP and has shown much greater stability.

Figure 1 shows the trends in all three taxes since 2000. The combined revenue from the three taxes has averaged 1.6 per cent of GDP. The stability of the revenue has also been impressive, varying between 1.4 per cent and 1.7 per cent of GDP.

To be sure, these aggregate values mask likely variations and inequities in tax burdens within the country as a result of local assessment practices. But by international standards, the aggregate revenue yield has been very respectable. Improving assessment practices would likely improve equity in the distribution of the tax burden. But to the extent that such improvements increase taxable values, those increases are likely to be offset by reductions in tax rates such that actual revenue increases will be limited at best. It seems probable that the same political pressures that keep current values low will also work to keep overall tax collections at about the current level even if values are more accurate; therefore, the main benefit from improved valuation would be the improved fairness resulting from consistency in valuation between areas.

The Taiwanese case also demonstrates several important principles:

1. A land tax can be separated from a tax on immovable improvements and the two can be taxed at different rates. In the case of Taiwan, the land tax by itself is often at a lower rate than the tax on buildings, which may be less than optimal in promoting efficient land use and economic development.
2. Taxing the unearned increment in land value can be done effectively through a one-time tax if
   a. There is a fairly well-defined methodology for determining the tax obligation
   b. The tax is collected at the time of a land transfer
   c. The effective tax rate is not excessive (Tsui estimates that the effective LVIT is about 10 per cent)

Finally, Tsui (2008) concludes with an important observation. The land tax system in Taiwan works because land ownership registration is reasonably complete for the entire country. The registration system makes administration of the land taxes much easier and the taxes themselves, much more transparent. Successful adaptation of the Taiwan example to other contexts will depend heavily on whether such a registration system is in place and functioning well.

CASE 12: CAPITAL GAIN SHARING IN BOGOTÁ, COLOMBIA

Module 4: Land value increment taxes

Background

Bogotá is the capital of the Colombia. The city's urban area encompasses about 40,000 hectares and is home to about eight million inhabitants. The city has an annual growth rate of in excess of 2 per cent per year. With this growth has come increasing demand for urban services.

Colombian law regarding land and urban development codifies the principle of an "equitable distribution of the costs and benefits generated by urban development" between private and public entities (Rodriguez Vitta, 2012). In Colombia, the concept of an "equitable sharing of costs and benefits" is interpreted to mean that some portion of private wealth created by public actions (as opposed to private investment) should be shared with local governments.

In 1997, Colombia passed Law 388, which requires local governments to adopt a master plan for future development and adopt *plusvalías* (capital gain sharing) as one of the plan's main sources of income.

The basic notion is that as cities adopt development plans, they create land value as previously agricultural land is brought into the urban development sphere, or land use and densities for existing urban land are adjusted to accommodate future growth. Under the terms of the 1997 law, cities are required to capture 30 to 50 per cent of this increased value though a levy known as the *participación en plusvalías.*

Actions taken

Law 388 requires local governments to adopt land use management plans (*plan de ordenamiento territorial*, POT) for future development and adopt capital gain sharing as one of the main funding sources for the plan. The basic notion is that as cities adopt development plans, they create land value as previously agricultural land is brought into the urban development sphere, or land use and densities for existing urban land are adjusted to accommodate future growth. Under the terms of the 1997 law, cities are required to capture 30 per cent to 50 per cent of this increased value through the *participación en plusvalías.* In Bogota, the rate was set at originally set at 30 per cent and was phased in over several years to the current rate of 50 per cent.

The base for Bogota's capital gain sharing tax is the difference in land value before and after the approved land use change. Thus, if granting public approval for a change in density increases the land value by 70 per cent, then at the current rate, the tax obligation would be half of that increase. Current practice involves calculating this change in value based on factors such as changes in approved floor area ratio, number of floors or zoning (Kim, Panman and Rodriguez, 2012).

Under the capital gain sharing regulations in Law 388, the revenue collected by this tax is intended to defray the cost of public projects that other taxes used in Colombia, such as betterment contributions or the annual tax on immovable property, could not finance. According to Article 85 of the law, the revenue derived from capital gain sharing can be earmarked for such projects as:

- road infrastructure projects and public mass transit systems
- the purchase of plots for social housing projects
- financing of macro projects or urban renewal programmes developed through urban action units
- the maintenance of the municipality's cultural heritage

CASE 12: CAPITAL GAIN SHARING IN BOGOTÁ, COLOMBIA

The Act also allows local governments to tax increased land value generated by other administrative decisions. Article 74 specifies the conditions that will result in the assessment of this tax:

1. Reclassifying land as urban expansion land or agricultural land as suburban;
2. Establishing or modifying the land use plan or zoning;
3. Authorizing a more intense use of the land available for building, either by increasing the density index or the construction index, or both at once.

According to Jaramillo, the chief novelty of the capital gain sharing instrument under Law 388 is that "it includes governmental actions that do not entail fiscal costs, and even in public works investments the effect on real estate prices is taken into account rather than the cost of the public works" (Jaramillo, Moncayo and Alfonso, 2011).

Results

While Law 388 is an explicit attempt to capture unearned increments in land value created by specific public actions, implementing the law has proven difficult and controversial. It was not until 2004 that Bogotá began to see any revenue from this source, after several rounds of clarifying negotiations. Through 2010, *plusvalías* generated between USD 5.5 and USD 6 million per year, which was about 0.35 per cent of Bogotá's total own-source revenue.

Implementation of the law has been undermined by the lack of a precise methodology for measuring changes in property values. The tax has also been hampered by discrepancies between pre-existing development potential and actual use. If the new land use does not increase the development potential, there is no legal obligation to pay the tax, even though the actual use may increase quite substantially. (Kim, Panman and Rodriguez 2012).

Perhaps more troubling than the minimal revenue the policy generates is the apparent impact on the availability of land. Acosta (2008, p. 89) notes that construction companies are willing to pay the tax, but they are finding that landowners are resistant due to the impact the tax has on their expected returns and they are therefore unwilling to sell land. Despite the challenges, Colombia remains an important experiment and will bear watching in the years ahead (Restrepo, 2010).

CASE 13: SELLING DEVELOPMENT RIGHTS IN SÃO PAULO, BRAZIL

Module 5: Sale of development rights

Background

As Brazil emerged from a military regime in the 1980s, its leadership needed to address many of the social problems in the large cities, such as growing the *favelas*, or slums. In 1995, CEPACs, or Certificates of Additional Construction Potential, were proposed as a solution. Cities select areas for redevelopment and issue certificates that represent the right to develop property within that area. These certificates are then sold on the Stock Market Exchange. The certificates are bought by developers, entitling them to build extra density within the specified area. The idea of CEPACs took time to develop and be accepted. The first auction took place in 2004.

Actions taken

One of the first areas to issue CEPACs was the urban operation (UO) district Faria Lima. The bonds were created to finance the enlargement of a main avenue. Developers who bought the bonds would be entitled to more building rights.

Table 1: Public and Private Auctions of CEPACS in Faria Lima UO, 2004-2009

	Offered (no. of CEPACs)	Sold (R$)	Price (R$)	Income (R$)
2004				
Public	90,000	9,091	1,100	10,000,100
Private		24,991	1,100	27,490,100
2005				
Private		9,778	1,100	10,755,800
2006				
Public	10,000	2,729	1,100	3,001,900
Private		6,241	1,100	6,865,100
2007				
Public	156,739	156,730	1,240	194,345,200
Private		72,942	1,240	90,448,080
2008				
Public	83,788	83,788	1,538	128,865,944
Private		2,500	1,725	4,312,500
2009				
Public	100,000	55,612	1,700	94,540,400
Public	30,000	1,521	1,715	2,608,515
Public	120,000	120,000	2,100	252,000,000
Total		545,923		825,233,639

Source: (Sandroni 2010)

Today, CEPACs are issued by the São Paulo city hall and are sold in electronic auctions in the São Paulo Stock Market Exchange (Bovespa). Bearers of CEPACs have rights to larger floor area ratios and footprints, and the chance to change plot uses. CEPACs represent

compensation given to the public in return for building rights.

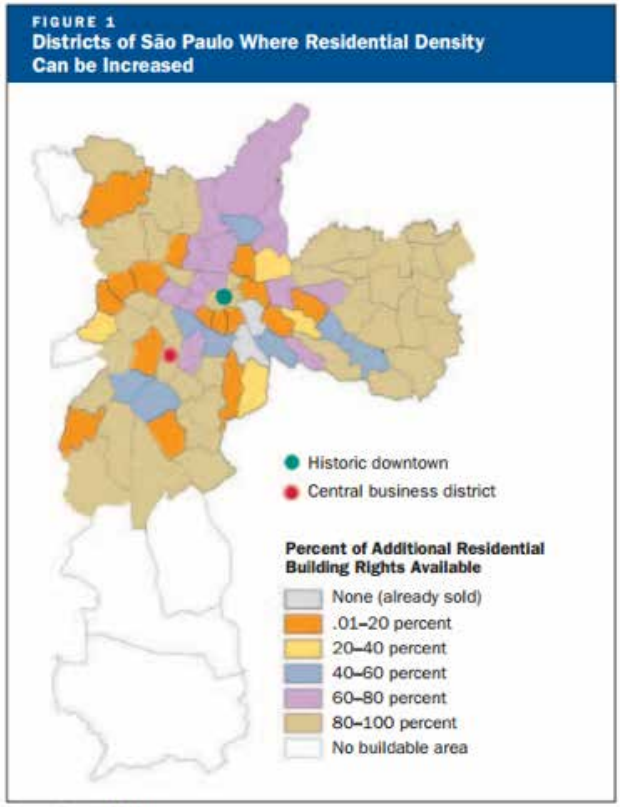
Benefits of CEPACs

The main benefit of using CEPACs is that the city receives revenue before development occurs. The city can then use the money to fund public infrastructure projects or other city development without issuing municipal debt.

Preparation

In order to issue CEPACs, São Paulo first needed to establish urban operations (UO) areas. These are specific areas of the city that leaders have identified for development and improvement. When development rights (in the form of CEPACs) are auctioned for these areas (the UOs), the money that is raised through issuing CEPACs is used to fund previously identified improvement projects within the area. The money collected should be applied specifically to projects in the UO in which they are issued. For each area, the city administration must determine the current buildable area, the maximum buildable area (determining desired density levels) and the amount of available additional building area that can be issued through CEPACs.

Figure 1. (Sandroni 2011)



Source: Secovi (2010).

An exchange system, such as a stock market, will also be needed for issuing the certificates. This can be an electronic or physical exchange. In São Paulo, city hall issues CEPACs that are sold in electronic auctions. The amount of certificates issued does not exceed the amount of development that the area can support. Analysis by architects, engineers, economists and other experts sets the upper limit of development that the UOs can support in São Paulo. Figure 1 at the end of the case shows how much additional residential density each district can support.

Auctions

Currently, only two of São Paulo's five UOs issue CEPAC certificates to fund improvements — these are UO Agua Espraiada and UO Faria Lima. The first CEPAC auction was held in 2004, and 100,000 CEPACS were issued with a minimum price of USD 150. The auction resulted in all of the certificates being sold, bringing in USD 15 million in revenue to the city to fund the construction of a cable-stayed bridge over the local river, and 600 affordable housing units to urbanize the *favela*.

Table 1 shows the results of private and public CEPAC auctions for UO Faria Lima from 2004 – 2009. The first auction in UO Faria Lima was in December 2004.

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The auction offered 90,000 CEPACs, at an initial price of USD 550. Barely one tenth of these certificates were purchased. This is likely due to the higher price than was offered in UO Agua Espraiada, and the fact that many developers purchased rights prior to the auction, anticipating the new changes to development practices. At the next public auction in 2007, all of the certificates issued were sold at least at their offering price.

Issuing CEPACs

Before auctions are held, São Paulo's city hall must determine how many CEPACs to issue and the initial price. The total amount of CEPACs issued cannot be larger than the total allowed by law for each UO. Once purchased, developers do not have to use their additional development rights immediately, but can hold them for as long as needed.

Each CEPAC issued must specify which UO has issued the CEPAC (and subsequently where it can be used for development), the price, the amount offered, the projects the CEPAC will finance, the total value of the auction issue, information regarding any conversion of CEPAC that developers can use for uses or changes rather than additional building area. Generally, each CEPAC offered through an auction is the same price, but the size of development it represents (generally in square metres) differs, representing differing values of areas within the UO. The certificates are issued by the municipal government, but auctioned by a federal bank.

Results

By 2009, the CEPACS had created USD 812 million total, or around 11 per cent of property tax revenue per year. The strategy has become popular throughout Latin America. According to Paulo Sandroni, "in the Agua Espraiada UO, the total additional area to be sold corresponded to 3.75 million CEPACs, of which 1,483 million had been sold by December 2009. In the Faria Lima UO, since 2004 when the CEPACs began to be used until December 2009, 545,923 CEPACs have been sold, and the administration has around 610,000 to offer in future auctions"(Sandroni, 2010). There is still a bright future in São Paulo for issuing CEPACS.

CEPACs and other similar tools have become popular in Latin America, but this financial instrument requires expertise in real estate and financial auctions. The city implementing certificates such as CEPACs must have access to a robust financial market and functioning real estate market to recreate the success of São Paulo. The real estate markets suffer from economic fluctuations and CEPAC bearers face the same risks.

Another final risk to consider is that the improvement and upgrading of slums and *favelas* can lead to increases in land and housing prices that push out lower income families. In UO Faria Lima and UO Agua Espraiada the city seeks to combat this effect by designating certain areas of the UO as affordable housing only.

CASE 14: MUMBAI DEVELOPMENT RIGHTS

Module 5: Sale of development rights

Background

Mumbai is the most populous city in India and is the capital of the Indian state of Maharashtra. It is currently the eighth largest city in the world, with a population of over 18 million. Following India's independence from the British Empire in the mid-twentieth century, Mumbai experienced rapid growth and today is considered the financial hub of India (Shaw, 1999). However, India has struggled to invest sufficiently in urban infrastructure to keep up with the rapid growth (Peterson, 2008).

Actions taken

To keep growth and density under control, Mumbai has used a floor space Index (FSI) since 1964. A floor space index puts a limit on the density allowed for each plot area. Rule 2(3)(42) of the Development Control Regulations for Greater Bombay, 1991 (DCR) identifies FSI as the total covered area of all floors divided by the size of the plot area. For example, a building with two floors, each 250 square metres, located on a 500 square metre plot has an FSI of 1 (Motiwala, 2015).

(250+250) / 500 = 1

Not all developed space contributes to FSI. The following are excluded from the calculation:

- Basements
- Stilt parking (parking built under the building)
- Staircases
- Lifts and lift lobby
- Pump rooms, utility areas, security cabins
- Shafts
- Society Office up to 12 m^2 if there are less than 20 apartments, and 20 m^2 if more
- Gymnasium up to 2 per cent of FSI area
- One Servants' toilet per floor up to 2.2 m^2 with access from lift lobby
- Refuge Areas and terraces (SDM, 2015)

In Mumbai, the allowed FSI is different for the city and the suburbs. In the suburbs, the highest allowed limit is 1, while in the city, the limit is 1.33 (SDM, 2015). Education, hospitality and healthcare buildings are allowed four times the base FSI. If a plot is not at its capacity FSI, Mumbai allows developers to buy and sell transferable development rights (TDR). TDRs represent the right to develop land and are detachable from the land plot itself. Returning to the previous example, if the 500 square metre plot of land had a building with only one floor of 250 square metres, the additional ability to develop 250 square metrrs could be transferred to a different plot when detached as a TDR.

In addition, all developers can currently purchase up to 0.33 additional FSI from the government. This brings in revenues to offset increased infrastructure costs associated with development.

Another way to increase the FSI for a plot encourages the building of affordable housing. Developers who build affordable housing on their land can transfer all of the original FSI to other projects, in the form of TDRs. Essentially, when building affordable housing, the FSI from the land is detached completely and used elsewhere. This is a way to get the private sector to willingly contribute funding for affordable housing (Motiwala, 2015).

The state government is currently considering increasing the allowed FSI for buildings in Mumbai. The increase would be another 0.33 FSI. The additional 0.33 FSI would be sold by the state to developers.

CASE 14: MUMBAI DEVELOPMENT RIGHTS

This will not only bring in revenue to the state, but will also encourage growth in the city to be directed vertically (in the form of taller buildings) rather than horizontally (through urban sprawl) (Babar, 2015).

This proposal is also intended to combat the rising prices of existing TDRs. Since the amount of space to develop is limited, the price of TDRs has steadily risen. With the introduction of the additional 0.33 FSI, up to 30 million square metres of built-up space will become available in the suburbs of Mumbai, perhaps bringing down prices of existing TDRs (though many think this is unlikely to happen) (Nair, 2015).

Results

The newest proposal to increase the FSI by an additional 0.33 has not yet been approved by the state government of Maharashtra. If it is approved, the government can expect to receive additional revenues—but the amount will not be known until the prices are firmly determined.

While strictly limiting the FSI has helped Mumbai direct and control growth and development, it has caused property prices to rise. This can hurt affordable housing, however, and lead to a greater need for public investment in affordable housing projects.

CASE 15: LAND LEASES IN HONG KONG

Module 6: Land leases and land sales

Background:
The island of Hong Kong is roughly 1,104 km2 and has a population of about seven million people. China owns nearly all the land in Hong Kong.27 The Government of Hong Kong, through the office of the Chief Executive, has the power to lease land to private individuals and other entities. Thus, all private occupancy of land in Hong Kong is by virtue of government leases (or special grants for shorter periods), even though leaseholders own the buildings and improvements placed on the land.

This system of leases existed during the time the British occupied Hong Kong as well. Hong Kong has been a Special Administrative Region (SAR) of the China since being returned by the British on 1st July 1997. One of the issues negotiated under the Sino-British Joint Declaration between the British and China concerned the status of pre-existing leases.28

27 China does not own the land on which St. John's Cathedral stands.
28 Typical lease term lengths were fixed terms (no right to renew) of 75 years, 99 years, 150 years or 999 years. There were also renewable leases available for 75 years, 99 years or 150 years.

While these arrangements affected the lease terms for some properties, the system of private leases of public land persists throughout Hong Kong.

Actions taken:
Established on 1 April 1982, the Lands Department is responsible for all land matters in the Hong Kong SAR. It comprises three functional offices, one of which is responsible for valuation of land and properties for various purposes, and lease enforcement. A second office is responsible for mapping and geographic information systems. The third office provides land-related legal support and services (Linn, 2015).

Relative importance of land premium and other land-based taxes
Hong Kong has a long history of land-based revenue generation. The Hong Kong system makes several important distinctions regarding land and taxes, each somewhat different. As noted, nearly all land in Hong Kong is ultimately owned by the government and granted to private individuals through leases. To obtain a lease or change the terms of an existing lease generally requires payment of a land premium as described below. In addition to that premium, the following taxes apply in most cases:

- Annual land rent, called Government Rent in Hong Kong, assessed at the rate of 3 per cent of the annual rental value of the land.
- General rates assessed at 5 per cent of the annual rental value of both land and improvements.
- Property tax levied on tenant occupied properties at a rate of 15 per cent of net rental income.
- Immovable property stamp duties (described and discussed more fully in Instrument 7)

One common feature of all five land-based revenues is that all are tied to the estimated annual rental value of the land (and improvements where relevant). As a result of this level of reliance, Hong Kong has developed a sophisticated valuation capacity that updates all land and property values annually based on changing market conditions.

Hong Kong's land premium
The calculation of the premium due for a change in land use is based on the expected increase in land value, including all costs and estimated profit margins. The calculation of the premium requires a multi-step process as follows:

1. Calculate the current gross development value (the "before" value)

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Table 1: Example of the land premium calculation for a change in land use from an existing industrial site to a new residential complex (values in HK$)

Calculation step	Description	Value
Calculate the current gross development value	4,600 m2 industrial building valued at $8,700/m2	$ 40 million
Subtract the cost of improvements to arrive at gross land value (GLV)	Replacement cost of current improvements: Building = $23.2 million Professional fees = $1 million Construction profit = $4.8 million Financing costs = $1 million Total = $30 million	- 30 million $ 10 million
Divide GLV by 1 plus land profit margin to obtain "before" land value	$10 million / 1.3	$7.7 million
Estimate gross development value after the change	New development: Residential space = 26,000 m2 @ $31,000/ m2 Private parking = 104 spaces @ $250,000 each	$806 million + $26 million $832 million
Estimate costs to obtain new gross development value	Construction costs: Residential flats = 29,000 m2 @ $12,000/ m2 Car park = 7,400 m2 @ $3,500/ m2 Club house = 1,200 m2 @ $10,000/ m2 Recreation facilities @ 3%	$348 million $26 million $12 million $12 million $398 million
Subtract estimated development costs to obtain new GLV	Estimated development value less development costs	$832 million - $398 million $434 million
Divide estimated GLV by 1 plus the land profit margin to obtain the "after" land value	$434 million/1.2	$362 million
Calculate the premium due	After minus Before ($362 million – $7.7 million)	$354.3 million

CASE 15: LAND LEASES IN HONG KONG

2. Subtract the cost of improvements and all relevant fees to arrive at the gross land value
3. Divide the gross land value by 1 plus the profit margin for the current land use to arrive at net land value
4. Estimate the gross development value after completion of the project (the "after" value)
5. Subtract the cost of improvements, construction financing and other relevant fees from the gross development value to arrive at the new gross value of land
6. Divide the new gross land value by 1 plus the profit margin for the new land use to arrive at the new net land value
7. Calculate the premium due by subtracting the net current land value from the estimated new net land value

The land-based profit margins assumed for purposes of calculating the premium for land development since 2008 are:

- Residential development: 20 per cent
- Commercial and hotel development: 25 per cent
- Industrial development: 30 per cent

While in theory these margins are related to market conditions, they nonetheless have the effect of allowing developers of industrial projects to keep a larger proportion of profits from development projects. This may encourage more development of employment opportunities, but it may also have the effect of increasing the relative cost of housing.

All of the revenue from the land premium is used to fund capital infrastructure improvements.

The following example illustrates the required calculations to arrive at the land premium charged in Hong Kong.

Thus, the land premium charged in Hong Kong is similar in effect to the capital gain sharing taxes attempted in Colombia and elsewhere. One significant difference is that Hong Kong has been successful in collecting the land premium. Part of the difference may be due to the way this tax is discussed. Rather than describe the proportion of incremental land value the government plans to take, Hong Kong describes the land profits that they consider normal for their market.

Nonetheless, Hong Kong's continued success has not come without objections from developers. In January 2014, the Hong Kong Chief Executive outlined the government's plan to streamline the resolution of disputes over land premiums by introducing a "Pilot Scheme for Arbitration on Land Premium". Since the scheme was launched in October 2014, the success of the new approach still remains to be demonstrated.

Land (government) rent:

Land *rent* is also an important revenue source for Hong Kong. In addition to the land premium, leaseholders are required to pay an annual rent to the government for continued occupation of their land parcel. Land rent is currently set at 3 per cent of the annual rental value of the land. In essence, this 3 per cent tax on the property gives the "owner" the legal right to continue occupation of the leased land. Many of the land grants (leases) were set to expire in July of 1997 when the British leasehold expired but an extension until June 2047 was offered. As part of the extension, the leaseholders were not required to pay a premium but they were subject to the land rent starting after 1 July 1997 (RVD, 2015a).

CASE 15: LAND LEASES IN HONG KONG

The legal framework and governance of Hong Kong's land rent is established by the Government Rent (Assessment and Collection) Ordinance (Cap. 515) of 1997. As stated previously, the land rent is based on the assessed annual rental value of the land.

The law provides for exemptions from land rent for an indigenous villager or his lawful successor in the male line who has continuously owned an old lot, village lot, small house, or other rural holding since 30 June 1984 and is still the lease holder (RVD, 2015a).

The law also stipulates that the leaseholder is required to pay the land rent; however, the government may demand that the ratepayer or occupant pay rent as well. If the person who pays land rent is not the owner, he may claim reimbursement of the amount paid from the owner or offset the amount paid from any money due to the owner, unless there is an express agreement to the contrary.

Rates:

Whereas land rent is only assessed on the value of the land, rates are assessed on the value of the land and any structures. "Government rates" is a term widely used in former British colonies that still retain an annual land and property tax based on annual rental value. Hong Kong is no exception. Each year, property is reassessed to determine the current rental value of land and improvements. This estimated value is called the rateable value. This is done to assure adjustment from the previous year with regard to inflation, economic conditions and other factors that can affect the rental value of the property. As of 2014-2015, the rate was set at 5 per cent of the rateable value. The rate has not changed since 2000. The government currently has 2.41 million assessments on the tax list comprising about 3.11 million taxable units (RVD, 2015b).

The law does not specify whether the owner (leaseholder) or occupant is to pay the tax but instead both are held liable for the tax. Typically, the contract between the occupant and the leaseholder will dictate which of the two will pay the tax. The law does state that if it is not specified, then the occupant is to pay the tax.

On 1 July 1995, the Commissioner of Rating and Valuation took over from the Director of Accounting Services (Head of the Treasury) the responsibilities of Collector of Rates in order to provide an improved one-stop service to ratepayers. The Collector of Rates's functions include issuing demands for rates (tax bills), maintaining rates accounts and ratepayers' details and recovering rates arrears.

The Treasury, however, continued to be responsible for the physical collection of rates via their Treasury

Table 2: Calculating the annual property tax

[A]	Rental Income
[B] Less:	Irrecoverable Rent
[C]	(A-B)
[D] Less:	Rates paid by owner(s)
[E]	(C-D)
[F] Less:	Statutory allowance for repairs and outgoings (E x 20%)
	Net Assessable Value (E-F)

Source: (GovHK 2015)

sub-offices located throughout Hong Kong. These collection services were outsourced in October 2001 to the Hong Kong Post, as were all rates payments by postal remittance from April 2003.

The Rating and Valuation Department is directly responsible for the administration of the various electronic payment methods available to ratepayers. Payments can be made by auto pay (an electronic payment is made automatically on a scheduled date), electronic means (such as PPS, an option available online, mobile phone, bank automated teller machines or Internet), sending a crossed cheque (a means of payment in Hong Kong whereby a check can only be redeemed through the bank account of the intended recipient, thus creating a more secure means of payment) to the Director of Accounting Services, or in person at all post offices except mobile post offices.

Rent/rate objection:
Given that the government's Rate and Valuation Department re-values property every year, there is a provision for the objection of lease owners if they feel the valuation of the property is inaccurate or unjust, or if they feel an adjustment is needed. Those seeking to appeal their valuation file a "proposal" with the Commissioner of Rating and Valuation office. In 2013-14, there were 2,737 appeals pending at the beginning of the year. During the year, an

Table 3: Land-based revenues in Hong Kong, 2004-2014 (HKD millions, unless otherwise noted)

Year	General rates	Government land rents	Property tax	Immovable property stamp duties	Total operating revenue	Land-based operating revenue as a percent of total operating revenue	Land premium revenue	Total capital revenue	Land-based capital revenue as a percent of total capital revenue
2004-05	12,640	3,931	1,116	9,233	188,004	14.3%	32,033	75,587	42.4%
2005-06	14,146	4,727	1,267	9,466	204,548	14.5%	29,472	42,487	69.4%
2006-07	15,467	5,744	1,247	9,700	234,420	13.7%	37,001	53,594	69.0%
2007-08	9,495	5,811	1,241	15,701	276,314	11.7%	62,318	82,151	75.9%
2008-09	7,175	5,944	833	10,009	281,485	8.5%	16,936	35,077	48.3%
2009-10	9,957	5,868	1,678	16,237	262,860	12.8%	39,632	55,582	71.3%
2010-11	8,956	6,305	1,647	24,505	299,800	13.8%	65,545	76,681	85.5%
2011-12	9,722	6,470	1,949	20,448	339,421	11.4%	84,644	98,302	86.1%
2012-13	11,204	7,857	2,259	22,355	344,606	12.7%	69,563	97,544	71.3%
2013-14	14,911	8,591	2,584	18,161	355,292	12.5%	84,255	100,054	84.2%

Note: HKD 1 million = approximately EUR 120,000

additional 71 cases were received and 186 cases were completed. These figures suggest that while there are relatively few appeals, those that are filed take a while to resolve.

Property tax

The third tax that applies to just over 500,000 properties is the annual property tax. This tax is levied on all properties which are tenant occupied. As with land rent and rates, the tax is tied to the annual rental value of the property. In this instance, however, the calculation of the tax begins with the gross rental income for the property. Individuals receiving rental income are required to report that income either on their personal tax filing or through a property tax return (if the property is owned by more than one party).

Rental income is defined as gross rent received or receivable, plus other consideration received by the owner. From this amount, the owner is allowed to deduct non-recoverable rent and rates paid by the owner. There is then a statutory deduction of 20 per cent for repairs and other expenses. The result is the net assessable value (NAV), and the amount of tax due is 15 per cent of this NAV.

Table 2 describes how the property tax is calculated for each rental unit.

Results:

Table 3 reports the revenues from each of these sources both in millions of Hong Kong dollars (HKD) and as a percentage of total operating and capital revenues. Several important observations can be made from the table. First, land-based revenues play a very significant role in Hong Kong's government finances. Rates, land rents, the property tax and stamp duties combine to make up between 10 and 15 percent of general operating revenues. Second, land premium revenues are the primary source of funding for capital improvements and have provided 70 to over 85 per cent of infrastructure funds over the past five years.

CASE 16: LAND LEASES IN FINLAND

Module 6: Land leases and land sales

Background

Finland is a parliamentary democracy that was part of Sweden until 1809 and from then was an autonomous Grand Duchy of Russia until it gained independence in 1917. Municipalities, or local governments, in the nation play a central role in administration. The 35 towns in Finland founded before 1906, representing one-third of all towns in the nation today, received gifted land from former sovereigns. The gifted land, though, could not be re-sold. Local municipalities had valuable assets on their balance sheet without a clear path to generate any revenue from them. Finland needed to generate revenue from these assets and needed to consider working within its current legal and political situation or work to change their situation to better suit needs.

Actions taken

Finland's path and attitude to its current system is rooted both in policy and circumstance. As donated land could not be sold, Finland's options in generating revenue involved leasing publicly held land for private use through an annual rent system or instigating legislative change to allow land sales.

The practice of leasing public land became a part of Finland's culture and citizens have continued to express their interest in renewing it. This has led to pockets of Finland instigating no change in their local legislation, resulting in scattered strong leasehold systems in use throughout the nation. This sentiment enabled legislation which tightened government's ability to regulate land. In 1920, the Neighbourhood Act was founded, which forbids landowners from using land in a way that could hurt neighbours. This led to a wave of land regulation that limited landowner's use of their property. Finnish leasehold systems allow ground lease rights to be transferred by the lessee and used as collateral to secure a mortgage loan, mimicking the freehold system.

In Helsinki, the city owns 68 per cent of all land within its boundaries. Public ground lease is widely used and accounts for 75 per cent of the land owned by the municipality. Land is leased for industrial uses, housing and businesses. Two features of Helsinki's system that make it unique are first, the annual ground rent adjustment is based on a cost of living index, and second, public agencies that lease public land are required to pay an internal land rent.

Table 1: Period of Lease in Helsinki, Finland, for different functions

Purpose	Length
Industrial Purposes	30 years
Office Use	55 to 100 years
Private Housing	55-99 years
Social Housing	55-100 years
Agricultural Purposes	1-10 years
Social Purposes	55-100 years
Cultural Purposes	Depends on Size of Investment
Sporting Grounds	Depends on Size of Investment

CASE 16: LAND LEASES IN FINLAND

Lease periods differ depending on use, as shown in Table 1.

In Helsinki, the idea of introducing the option to buy public land has not gained any traction as there has been virtually no political pressure to transition to a freehold system. Over time, however, other segments of the Finnish population, those without the rich history of leasehold systems in their respective towns, have expressed and acted on desires to move closer to a freehold system. This has also expressed itself in legislation. The process of moving from the rigid inability to sell publicly held land to the more lenient mixed position that is held today started in 1943, when the restriction on the sale of land was partly removed. In 1962, the second phase of loosened control occurred when municipalities were given the right to sell land in all areas located inside and outside municipal planning areas.

Results

Finland, through its leasehold system, has successfully been able to generate substantial profits from land leases. Although the amount of such profit is difficult to quantify as such systems are administered on the local level in varying capacities, data from individual cities has been promising. It is estimated that in 1998, all municipalities in the nation together generated USD 190 million from leasing public land, compared to the USD 106 million generated from land sales. Of the USD 106 million Finnish municipalities generated from land sales, USD 11.22 million came from converting leased lots to freehold land.

Residents in older communities continue to embrace public leasehold systems whereas newer communities founded after 1906, where land was never gifted by sovereigns, prefer freehold systems.

Local government land ownership is more common in towns than in rural areas, although some exceptions do exist. As mentioned, Helsinki owns 68 per cent of land within its boundaries. Citizens in Finland are divided over the issue of public land leasing. One group feels that freehold land systems better serve their interests, while the other group believes in "socially bounded land ownership", meaning they feel land is a unique resource that must serve the community's needs first and landholders second. This second group trusts in this leasing methodology as Finland has a track record of protecting leasehold interests.

Large real estate investors prefer freehold systems in Finland, while small- and medium-sized industries prefers leasehold systems, which lowers their need to invest in the land. Many single-family housing units in Finland were given the option to purchase the freehold rights to their occupancy, but only a small percentage of these families took advantage of the opportunity.

Source: (Dornette ND, Virtanen 2003)

CASE 17: LAND SALES IN EGYPT

Module 6: Land leases and land sales

Background

In the late 1990s and early 2000s, Cairo experienced rapid population growth. More than 10 million individuals unofficially resided in undeveloped and unplanned agricultural areas outside the official boundaries of the city. Agricultural land is privately owned and had been sold or converted for informal residential use, resulting in the loss of 121,000 hectares of farmland. Cairo's government needed to implement dramatic changes to control growth for its sustainable future.

Egypt's New Urban Communities Authority (NUCA), in coordination with the national government, concluded that the only feasible solution for massive and accelerated population growth was through the construction of new cities. Egyptian law stipulates that the state owns all desert land selected for expansion, which it transferred to NUCA for management. NUCA needed massive amounts of capital to build new cities and had one major asset: under-used land.

Actions taken

With developable land as an asset, NUCA had three options to consider. First, NUCA could sell land outright on an "as-is" basis; second, NUCA could develop the land itself, complete with construction for residential and commercial purposes; and third, NUCA could develop basic infrastructure first then sell serviced land. By choosing to install basic infrastructure, NUCA would be breaking from traditional practices, as historically the state government had functioned both as infrastructure investor and final developer.

Figure 1

Source: Hegazy and Moustafa (2013)

NUCA decided to install basic infrastructure before selling land, thus allowing it to play an active role in shaping land use and design while still maintaining the ability to capitalize on private entrepreneurship. In developing 435 square kilometres through various communities (see map below in Figure 1), NUCA spent USD 12.7 billion on electric, water, communications and infrastructure, in addition to the cost of connecting these to existing primary systems.

NUCA sought to develop three specific types of cities, which were developed at different times leading to what has been termed the three generations. They are:

- **Independent Cities (First Generation)**: Independent cities are major cities intended to have their own industrial base and sizable populations.
- **Satellite Cities (Second Generation):** These cities are located close to the city of Cairo with a

short-term goal of reducing immediate population pressure in Cairo.

- **Twin Cities (Third Generation):** These represent urban expansions into the desert and are usually constructed next to an existing city, thus the name twin city.

The first generation cities (Sixth of October City, El-Sadat, El-Obour, 15th of May City and New Domiat) were planned to be geographically and economically independent major cities, each with their own industrial base and large target populations of between 250,000 and 500,000. By the mid-1980s, the "second generation" was launched in the desert around Greater Cairo. These new towns (El-Shrouk, El-Obour, Badr and Shik Zaied) were planned to absorb the population increase in Cairo. In parallel, a "third generation" of new towns was established in the near desert as sister towns or twins to existing cities (Ali, 2003). Examples include New Assiut, New Thebes, New Minia, New Aswan, etc. At present there are 20 new towns which are functioning or are under construction and more than 40 new cities and communities on the drawing boards (Hegazy & Moustafa, 2013).

The Sixth of October

One of the first generation cities that was planned and developed was 6th of October City. This particular city was planned in the late 1970s and construction began in the 1980s. Like other first generation new towns, its original economic plan was for an industrial city with a large industrial zone to the west, a mix of public housing and individual housing subdivisions to the east, and a central commercial spine to interconnect the city. According to Hegazy and Moustafa (2013), while the city has enjoyed many business relocations to the industrial area, the population growth has been disappointing. The city was initially built to house a population of 500,000 but by 2006 the population had only reached 126,000.

Of all the cities under NUCA development or control, 6th of October City is considered to be one of the most successful. However, this is only due to a population growth in the 1990s after reform to the city's boundaries allowing for more privatization. The following are also considered to be factors contributing to the success of 6th of October City:

- Location within the capital region where so much of the nation's economic activity takes place
- Favoured target for large subsidized public housing programmes
- Large industrial area with both public sector industries and private factories enjoying considerable incentives
- Attractiveness for flagship public and private investments and signature brands

NUCA is now experimenting with updated versions of the original plan. This includes a process of selling undeveloped land. The cost of this land is reduced by the estimated cost of the infrastructure that the area will need for development. This land is then to be developed by the private sector with the understanding that the developer will provide the needed infrastructure as part of the development. In one instance, NUCA received USD 1.45 billion from developers for land which developers will then provide with urban infrastructure. In addition, the developer also agrees that once the development is completed, 7 per cent of the land developed will be returned to NUCA and used for low-income housing.

By using this method, NUCA is able to not only generate revenue, **but** at the same time also provide an environment for development and housing for low-income households. The advantage of this system

CASE 17: LAND SALES IN EGYPT

is that much of the risk is shifted from NUCA to the private developers. This also reduces the obligation of NUCA to provide the infrastructure before the development can occur.

Results

After investing USD 12.7 billion into infrastructure development, land was auctioned off at triple the administrative price, which paved the way for large cities to grow. The new cities outside of Cairo were expected to house more than 5.6 million people by 2015. A development and construction map had been prepared for Egypt until 2017, which included the assignment of 24 new cities reflecting new urban communities that were intended to absorb 12 million people, which is 50 per cent of the expected annual increase until that year (Ellahham, 2014).

In 2007, NUCA was reformed to push the limits of the potential gains from the process it championed years earlier. While still installing basic public infrastructure beforehand, policy now indicated that all substantial land parcels in new cities designated for anything beyond low-income housing were to be sold at public auction to a broader audience. In May 2007, multiple land parcels sold for a combined USD 3.12 billion, substantially exceeding the initial infrastructure development costs, thus resulting in proceeds that the government committed to subsidies for low-income housing and a new four-lane highway connecting new communities to Cairo. The proceeds of the sale were 117 times the total urban property tax of Egypt and were equal to 10 per cent of the total national revenue.

Due to the success NUCA had with this method, the government is currently considering its use to design and develop a new capital city just outside Cairo. According to some reports, the whole process with be privatized with no cost being incurred by the government. The proposed city will be roughly 28,300 hectares and will house all the new government buildings and residential, industrial and retail areas. Through this method, all sections of the development will have infrastructure provided (JPOST.com staff, 2015).

Lastly, while this method has generated revenue and helped to reduce population pressures in existing cities, the revenue source is not, nor will it be, a continuous revenue stream. Once the land is developed and sold, there is no opportunity for the government to collect revenue from the property except through other land-based financing instruments.

Source: (Peterson 2007, 2013), unless noted otherwise.

CASE 18: LAND SALES IN AHMADABAD, GUJARAT, INDIA

Module 6: Land leases and land sales

Background

India is the second most populous country in the world. Currently, about 32 per cent of the population lives in cities and urban areas, and the balance lives in over 630,000 villages. India is urbanizing rapidly with the urban population growing at nearly twice the rate of the population generally (2.4 percent compared to 1.3 per cent). By 2050, it is expected that half the population will live in cities and towns. There is enormous pressure across the country to improve urban services and provide serviced land to meet the growing demand. At present, large areas are not serviced by roads, water supply, sewage and storm water networks. Traffic congestion and inadequate public transport systems are common. Unregulated and chaotic growth, slums and poor building stock create serious challenges.

Ahmedabad, in the state of Gujarat, is no exception. The city population in 2011 was 5.6 million, with a population of 6.4 million in the metropolitan area (2011 Census). With a total land area of 464 km2, the population density in 2011 was just over 12,000 people per km2. In 2010, Forbes magazine rated Ahmedabad as the fastest growing city in India. Once known as the "Manchester of India" because of its textile industries, economic decline in the 1980s and 1990s led to reduced tax collections and resulting reductions in operating and capital investments by the city government.

With an aging infrastructure, slum population totalling approximately 440,000, and rapid population growth overall, Ahmedabad faced serious challenges. In 1999, the Ahmedabad Urban Development Authority (AUDA) put forward the 2011 Development Plan (DP) for the metropolitan area. The DP called for the construction of a 76.3 km ring road around the city to strengthen and improve mobility in the region. The challenge was how to pay for the new road, since there were only the most limited funds available for new infrastructure construction.

Action taken

In order to fund infrastructure such as the Ahmedabad ring road, the state of Gujarat implemented a land pooling and reconstruction (LPR) framework, which enabled cities to implement a self-financing land management and readjustment process.[29] The Gujarat version of land readjustment offers three key monetary benefits: the public agency only incurs minimal land acquisition costs; the public agency is able to finance urban development through betterment charges and the sale of land; and landowners gain from the appreciation in the land value due to the provision of infrastructure (Mathur, 2014; Van der Krabben and Needham, 2008).

The Ahmedabad ring road was divided into 46 neighbourhood LPR projects and used to acquire 78 per cent of the land used for the roadway. Original landowners were compensated with smaller but more valuable plots. (Land value increased due to the new roadway.) The balance was acquired through compulsory purchase because the land was zoned for agricultural use and under Gujarat's law could not be included in an LPR scheme. The first of the 46 neighbourhood LPR projects was implemented in 2004 and the last in 2012. Each area consisted of 100 to 150 landowners. A key feature of the process that greatly enhanced the financial viability of the project was that the AUDA did not immediately sell

29 See the *Reader Annex on Land Readjustment for a more detailed discussion of land readjustment.*

CASE 18: LAND SALES IN AHMADABAD, GUJARAT, INDIA

the serviced land created in the first LPR projects. By waiting for land values to increase, they were able to realize a much higher percentage of the land value increment created by the construction of the new roadway. After completion of early LPR phases, the sale of land enabled the city to fund the infrastructure development in later phases, thus creating a revolving fund mechanism.

The result

The success in Ahmedabad and elsewhere in Gujarat has prompted other Indian states to consider adopting the LPR and land sales solution. Due to the self-financing nature of such LPRs, these projects typically have favour with governments. Despite the lack of financing methods available, Ahmedabad self-financed the entire 76 km ring road around their city through the combined use of a series of small LPR projects and the sale of public land.

The process of an LPR scheme in Gujarat should take three to four years but often can take much longer. With strong political leadership in Ahmedabad, 20 LPR areas were completed between 1999 and 2005. Another 14 were planned and implemented between 2006 and 2008. The final 12 were planned and implemented between 2009 and 2012.

Source: Ballaney (2008); Mathur (Mathur, 2013a, 2014); Mittal (2014).

CASE 19: STAMP DUTIES IN SINGAPORE

Module 7: Transfer taxes and stamp duties

Background

Singapore is an island city-state off southern Malaysia. It is now a global financial centre with a multicultural population of 5.5 million. With a total land area of 718.3 km^2, the population density of Singapore is 7,615 per km^2 (Department of Statistics, Singapore). Total population in Singapore is divided into three categories as shown in the following table. When reported statistics refer to the resident population in Singapore, only citizens and permanent residents are included. The non-resident population includes foreign workers, certain dependents and students.

Table 1: 2014 Singapore population

Category	2014 Population (000s)	Percent of total
Non-residents	1,599.0	29.2
Permanent residents	527.7	9.6
Citizens	3,343.0	61.1
Total	5,469.7	100.0

Source: Department of Statistics (2015)

Singapore's housing policies focus largely on citizens and permanent residents. Among this group the homeownership rate exceeds 90 per cent because of sustained policies encouraging and subsidizing homeownership. But because of the strong economic growth, the influx of non-residents to meet local labour market demands and past efforts to attract wealthy foreign investors, the cost of living in Singapore has risen significantly over the past decade as well. The cost of housing and related expenditures in particular has risen both in real terms and as a share of total household expenditures. Based on the most recent household expenditure survey, the cost of housing for the average Singaporean household increased by over 48 per cent between 2007/08 and 2012/13, including the imputed rent on owner-occupied housing. Focusing just on actual rental properties, rents paid increased by 25.5 per cent over the same period (Department of Statistics, 2014).

Between the bottom of the great recession in 2009 and late 2012, residential house prices in Singapore increased by 50 per cent. Government-built housing units increased in value by 2.5 per cent in late 2012 compared to the same point in time a year earlier. This was the largest increase in five quarters. Any decline that had occurred as a result of the worldwide financial crisis had been recovered, and prices were rising much faster than overall economic growth.

Concerned about the rising cost of living in general and the price of housing in particular, the government focused, in part, on the impact that foreign investors in residential real estate were having on housing prices generally. Led by wealthy Malaysian, Indonesian and Chinese buyers, high-end properties in Singapore appeared to be attractive investments to foreign buyers in 2010 (Kolesnikov-Jessop, 2010). Foreign purchases accounted for 19 per cent of all private residential property purchases in the second half of 2011, compared to 7 per cent in the first half of 2009 (IRAS, 2011). One research report out of the National University of Singapore argued there was a significant ripple effect from foreign investment across the entire housing economy (Liao *et al.*, 2012; Stevenson, 2015).

Actions taken

Singapore views taxes as having two objectives: to raise revenue and to promote economic and social goals. One of the tools the Government of Singapore uses in an attempt to regulate housing market activity is through stamp duties on property transfers. There

CASE 19: STAMP DUTIES IN SINGAPORE

are currently three types of duties payable on the sale, purchase, acquisition or disposal of property:

- Buyer's stamp duty—payable on the purchase or other acquisition of property. The tax base is the purchase price of the property or the market value, whichever is higher
- Additional buyer's stamp duty—payable on some residential properties acquired after 8 December 2011. The base is again the higher of the purchase price or market value
- Seller's stamp duty—payable on properties acquired after 20 February 2010 (for residential properties) or 12 January 2013 (for industrial properties)

Whether a property is considered to be residential or not depends on the legally permitted use.

Box: An illustration of how the Buyer's Stamp Duty is calculated

If a property is purchased for a price of SGD 400,000, the Buyer's Stamp Duty of SGD 6,600 would be calculated as follows:

First SGD180,000:	180,000 X 0.01	= 1,800 +
Next SGD 180,000:	180,000 X 0.02	= 3,600 +
Last SGD 40,000:	40,000 X 0.03	= 1,200 +
Total Buyer's Stamp Duty		= 6,600

The Buyer's Stamp Duty has been in place for over 20 years and is somewhat progressive with marginal rates ranging from 1% to 3%. The tax applies to all property, residential and commercial, and the rates are shown in Table 2 and the adjacent box illustrates how the stamp duty is calculated.

On 7 December 2011, the government announced an Additional Buyer's Stamp Duty that would apply to certain categories of residential property purchases. The stated objective was to "promote a sustainable residential property market where prices move in line with economic fundamentals" (IRAS, 2011).

High demand was seen as contributing to a volatile property price cycle, and therefore to increased risk to the economy and the banking system. The higher rate for foreign investors was seen as particularly necessary "in view of the large pool of external liquidity and strong buying interest from abroad, and the relatively small size of the Singapore market" (IRAS, 2011). The additional stamp duty rates are also shown in Table 2.

By late 2012, the government was still concerned about the strength of the real estate market. In an explicit effort to further "cool demand" and

Table 2: Buyer's Stamp Duty rates

Profile of buyer	Buyer's stamp duty rates	Additional Buyer's stamp duty rates	
		From 8 Dec 2011 to 11 Jan 2013	From 12 Jan 2013
Singapore citizen buying first residential property	1% on first SGD 180,000 (USD 128,000); 2% on next SGD 180,000 (USD 128,000); 3% on remainder	No duty payable	No duty payable
Singapore citizen buying 2nd residential property		No duty payable	7%
Singapore citizen buying 3rd and subsequent residential property		3%	10%
Singapore Permanent resident buying first residential property		No duty payable	5%
Singapore Permanent resident buying 2nd and subsequent residential property		3%	10%
Foreigners and entities buying residential property		10%	15%
Buyers of non-residential property		No duty payable	

Source: Inland Revenue Authority of Singapore

CASE 19: STAMP DUTIES IN SINGAPORE

Table 3: Seller's stamp duty on residential properties

Date of purchase or zone change	Holding period	Seller's stamp duty
Between 20 Feb 2010 and 29 Aug 2010 (all inclusive)	Up to 1 year	1% on first $180,000 2% on next $180,000 3% on remainder
	More than 1 year	No duty payable
Between 30 Aug 2010 and 13 Jan 2011 (all inclusive)	Up to 1 year	1% on first $180,000 2% on next $180,000 3% on remainder
	More than 1 year and up to 2 years	0.67% on first $180,000 1.33% on next $180,000 2% on remainder
	More than 2 years and up to 3 years	0.33% on first $180,000 0.67% on next $180,000 1% on remainder
	More than 3 years	No duty payable
On and after 14 Jan 2011	Up to 1 year	16%
	More than 1 year and up to 2 years	12%
	More than 2 years and up to 3 years	8%
	More than 3 years and up to 4 years	4%
	More than 4 years	No duty payable

Source: Inland Revenue Authority of Singapore

Table 4: Seller's stamp duty on industrial property

Date of purchase or zone change	Holding period	Seller's stamp duty rate
On or after 12 Jan 2013	Up to 1 year	15%
	More than 1 year and up to 2 years	10%
	More than 2 years and up to 3 years	5%
	More than 3 years	No duty payable

Source: Inland Revenue Authority of Singapore
Transfers that are not "stamped" or that pay an insufficient stamp duty are subject to penalties of up to four times the amount due. In addition, if a government audit of the transaction reveals deliberate misrepresentation or fraud, the convicted taxpayer may be fined up to SGD 1,000 (about USD 700) and jailed for up to six months.

Box: Examples of the combined effect of the Singapore Stamp Duties

The following examples illustrate the combined effect of these stamp duties. In both examples, the property being traded is a luxury apartment valued at SGD 4 million.
Example 1: The property is being purchased by a Singapore citizen from a licenced developer. The only transfer tax due in this case would be the Buyer's Stamp Duty, which would total 2.9 per cent of the purchase price.
Example 2: The purchaser is considered a "foreigner" under Singapore law, and that the seller has owned the property for less than two years. The buyer would be required to pay both the Buyer's Stamp Duty and the Additional Buyer's Stamp Duty, for a total of SGD 714,600, or nearly 18 per cent of the purchase price. In addition, the seller would be required to pay the Seller's Stamp Duty of 12 per cent (SGD 480,000). The total stamp duty for this transaction would thus be very close to 30 per cent of the purchase price.

"moderate the increase in housing prices" (IRAS, 2013), the government imposed a new rate structure for residential properties. In particular, there was a significant increase in the stamp duty for Singapore residents buying more than one house and a 50 per cent increase in the stamp duty rate for foreign buyers.

Real estate speculation was also seen as a contributing factor to the volatile real estate market. In August 2010, the government extended the holding period required to avoid the seller's stamp duty from one

year to three years. In 2011, the holding period was extended again to four years. The stated objective was again "to ensure a stable and sustainable property market where prices move in line with economic fundamentals" (IRAS, 2010). The rates and holding periods are shown in Table 3.

Sellers are exempted from the seller's stamp duty if they are a government agency, a licenced developer or if the government acquires the property.

In 2013, concern about speculation in the non-residential market prompted an extension of holding periods and new Seller's Stamp Duty rates for "industrial" property. Industrial in this instance includes most legally permitted commercial uses. The rates effective since January 2013 are shown in Table 4.

Results

The impact of Singapore's stamp duty policies can be seen in both the overall activity of the real estate market and in property prices. Table 5 reports the number of sales and purchase transactions for which stamp duties were assessed by fiscal year. The table clearly shows the substantial decline in the overall volume of sales transactions in 2011/12 and again in 2013/14. For the period 2011 through 2013, the average Buyer's Stamp Duty per transaction was about SGD 38,000 (USD 27,000). The number of transactions in which the Buyer's Stamp Duty was assessed fell by 30 per cent in 2013 compared to 2012 (IRAS, 2015).

At the same time, the percentage of transactions that involved both the Buyer's Stamp Duty and the Additional Buyer's Stamp Duty increased to nearly 42 per cent in 2013. The average revenue from the Additional Buyer's Stamp Duty increased from SGD 91,000 (USD 65,000) in 2011 to nearly SGD 120,000 (USD 85,500) in 2013 (IRAS, 2015).

Less than 3 per cent of transactions reported between 2011 and 2013 also involved a Seller's Stamp Duty. The average duty paid in 2013 was SGD 57,528 (about USD 41,000).

Thus, from a revenue received perspective, the rate changes between 2011 and 2013 do not appear to have affected total revenues significantly, even though the total number of sales transactions fell sharply after the 2011 changes and again after the 2013 increases.

The impact of these stamp duties on real property prices can be seen in Figure 1. The figure illustrates the volatility of the real estate market in Singapore. Prices fell dramatically during the international recession, and then rebounded very strongly, especially in the residential market. Following the latest round of

Table 5: Stamp duty revenue from property sales and purchases

Fiscal year	Number of transactions	Total revenue (SGD 000s)	Average Revenue per Transaction (SGD)
2006/07	138,060	1,738,252	12,591
2007/08	187,323	3,361,255	17,944
2008/09	128,237	990,828	7,727
2009/10	172,434	2,060,490	11,949
2010/11	176,725	2,523,662	14,280
2011/12	81,159	2,271,704	27,991
2012/13	89,187	3,515,639	39,419
2013/14	57,190	3,181,204	55,625

Source: (IRAS, 2015) and calculations by the author

CASE 19: STAMP DUTIES IN SINGAPORE

measures to "cool" the market in early 2013, housing prices began to fall and have continued to decline through the first quarter of 2015. Rental prices have also come down from their peak in 2013. From this perspective it would appear that the policy objective has been met and that the residential property market has cooled substantially (Stevenson, 2015)

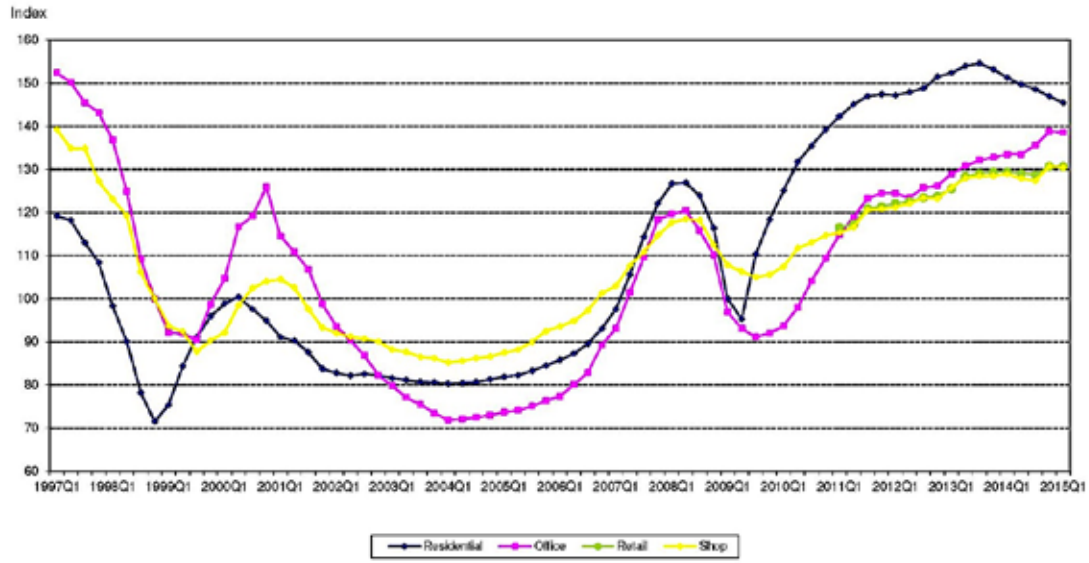
On the other hand, this same cooling has resulted in a substantial slowdown in new housing construction in Singapore. In 2012, new housing starts totaled 21,478. In 2014, the total was less than 7,700, or just over one-third the rate observed two years earlier (URA, 2015). And much of the new construction taking place is state sponsored.

The current rate of new construction may be consistent with current policy objectives in that it may be sufficient to meet the demand from the resident population. Based on 2014 population estimates and average household size, it appears that Singapore resident population is increasing at a rate of about 7,500 new households each year.

On the other hand, if the non-resident population is included in the calculation, the need for new housing is about 15,000 to 20,000 new units per year. In this regard, Singapore faces some important challenges. The resident population is growing at less than one per cent per year and the population is aging. The current median age is over 39. The non-resident population is growing at close to 3 per cent per year, even after the government's efforts to slow the flow of foreign workers into the country.

If Singapore is going to maintain its record of strong economic growth while providing services to an aging population, demographics may require more foreign workers than the current housing construction pattern can support.

Figure 1: Singapore Real Estate Price indexes



Source: Singapore Urban Development Authority

CASE 20: TRANSFER TAXES IN TANZANIA

Module 7: Transfer taxes and stamp duties

Background

Tanzania is an East African country just south of the equator with a population of 50.8 million (2012) and a land area of 885,800 km2. The commercial capital city of Dar es Salaam has an estimated population of 4.4 million. Five other cities have populations in excess of 300,000. Overall, the urban population in Tanzania is about 26.7 per cent of the total, and is growing at a rate of 4.8 per cent per year.

Following the independence of Tanganyika in 1961 and the islands of Zanzibar in 1963, the two regions combined to form the current United Republic in 1964. Zanzibar continues to be semi-autonomous with its own separate legal framework for governing land. This case will focus on the Tanzania mainland.

All land in Tanzania is considered to be public land, held in trust for the people by the president. The land is classified into three categories: reserved land, village land and general land. Reserved land refers to land set aside for a special purpose, such as preserved forests, game parks, highways, public utilities, land designated under the Town and Country Planning Ordinance, or hazardous land. Village land includes registered village land, land demarcated and agreed to as village land by relevant village councils, and land (other than reserved land) that villages have been occupying and using as village land for 12 or more years (including pastoral uses) under customary law. Village councils do not own the land, but only manage it. General land includes woodlands, rangelands and urban and peri-urban areas that are not reserved for public use. General land also includes unoccupied or unused village land (USAID, 2010).

Five types of land tenure are recognized:

Village Land—The Village Land Act recognizes the rights of villages to land be held collectively by village residents under customary law. Village land can include both communal land and land that has been individualized. Villages can demarcate land, register their rights and obtain certificates documenting their rights. As of 2009, 10,397 villages were registered, but only 753 had obtained certificates (USAID, 2010).

Customary right of occupancy—Villagers have a customary right of occupancy for village land they hold under customary law or which they have received as an allocation from the village council.

Table 1: Distribution of Tanzania land tenure, 2012

Type of legal rights to land where the main dwelling is built	Percent of households		
	Dar es Salaam	All Urban	National total
Title deed (Granted right of occupancy)	37.7	29.9	9.4
Residential license	24.0	9.0	2.4
Offer (Granted right of occupancy pending)	3.0	7.0	2.5
Customary ownership (village land)	9.1	22.4	50.0
Contract	9.9	7.1	4.1
No Legal right	16.3	24.4	31.4

Source: (National Bureau of Statistics 2015)

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Granted right of occupancy—Granted rights of occupancy are available for general and reserved land, subject to legal restrictions and the terms of the grant. Grants are available for up to 99 years. The land must be surveyed and registered under the Land Registration Ordinance. The land is also subject to annual rent.

Leasehold—Leaseholds are derivative rights granted by holders of granted or customary rights of occupancy. Such leases must be in writing, must be registered and must be for a term that is at least ten days less that the term of the granted right of occupancy. Short-term leases are defined as leases for one year or less and need not be registered.

Residential license—A residential licence is a right granted by the state on general or reserved land. Such licences may be granted for urban or peri-urban, non-hazardous land.

As of the 2012 national Census, the distribution of private households among tenure types was as shown in Table 1. As the table shows, all of the tenure types are common even in the most urban settings.

Tanzania has a two-tiered system of government. Below the unitary republic, there are 25 regions on the mainland. Regions are divided into 169 urban and rural districts. The ten largest urban districts all have populations in excess of 450,000. The Dar es Salaam region is divided into three municipal council districts, ranging from 1.2 million to 1.8 million in population (2012 Census).

One of the key objectives of Tanzania's Local Government Reform Programme initiated in 2006 is to increase the resources available to local government authorities and improve the efficiency of their use (PMO-RALG ND).

Actions taken

Land-based revenues in Tanzania are divided between the national and local governments. Under current practice, there are two land-based revenues assigned to the national government:

Stamp duty—In place since 1972, stamp duties are levied on the transfer of property from one party to another and it is based on the fair market value of the property. For property, the rate is 0.5 per cent of the first TZS 100,000 (about USD 60), and 1 per cent on the amount in excess of TZS 100,000. For transferring a land lease, the rate is 1 per cent of the annual rent for a lease of any duration. Billing is done by the central government and collection is undertaken by the Tanzania Revenue Authority.

Capital Gains Tax—Three rates are currently in use. For a resident person, the rate is 10 per cent of the net gain coming from the sale of an investment in land and buildings. For a non-resident person, the rate is 20 per cent of the gain. Gains derived by companies are taxed at the corporate tax rate of 30 per cent.

The base for the tax is calculated using the following formula:

- The value of the consideration (money, etc.) received, less
  - the cost of acquiring the property,
  - the cost of any improvements to the asset, and
  - any expenditures incurred in connection with the transaction (registration fees, stamp duties, etc.)

The tax must be paid in a single instalment before the title is transferred to the buyer. The Tanzania Revenue Authority collects the tax and provides a certificate verifying that the tax has been paid. This certificate must be shown to the Register of Titles in order to complete the transfer. Exemptions are granted for residential property if the property has been occupied

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by the owner at least intermittently for three years or more and the realized gain is not more than TZS 15 million (about USD 9,000). Exemptions are also granted for some agricultural property (TRA, 2015).

Land rent is a land-based revenue that is shared between the national and local authorities. Since all land is owned by the government, the right to occupy and use land is granted through leases, as described above. Such leases require the payment of an annual land rent. District councils are responsible for enforcing and collecting land rent on behalf of the Ministry of Lands, Housing and Human Settlement Development. But land rent in Tanzania is shared revenue. Local governments are allocated 20 per cent of the annual collections with the national government receiving the other 80 per cent. The 20 per cent share allocated to local governments is based on the total collected by all local governments, not the amount collected within the local authority. This is significant because 70 per cent of all land rents are collected in Dar es Salaam (Kelly, 2003).

The amount of land rent due is set by the Commissioner at the Ministry of Lands, Housing and Human Settlement Development, based on land area, land use, market conditions and the amount of any lease premium paid. Land rents vary from one local authority to another.

The only other land-based revenue available to local authorities is the **property tax (rates).** The property tax is levied by local government councils and is based only on the value of improvements (manmade structures). The taxpayer is either the owner or the occupant. The intended taxable value is market value, currently estimated using a replacement cost approach. Current law also allows local governments to use a simple flat rating system.

While the property tax as a general rule applies to all properties within the relevant boundaries, the 11 urban districts have taken a different approach. The methodology adopted was to identify only substantial, high-value properties up to a predetermined maximum number. Only these high-value properties were valued. The result is that only a small percentage of the overall potential base is valued. The intent is to value the remaining properties at a later date. In the meantime, the properties waiting to be valued are taxed under the simple flat rating system (Olima, 2010).

The local valuation department is responsible for maintaining the valuation roll and for issuing tax demand notices. The actual revenue collection activities are administered by the local treasurer's office. Actual collection rates appear to be fairly low (less than 50 per cent in Dar es Salaam). Some have suggested that the low collections are largely the result of a lack of political will and administrative inefficiency (Olima, 2010).

Registering property in Tanzania is a fairly complex process which further compounds any political or administrative challenges related to the property tax. The figure reports on the time and complexity of registering property in Tanzania compared to other countries in East Africa. The process is both time consuming and relatively expensive. One result of this combination of factors is that property registrations in Tanzania are "haphazard". For example, in the Illala Municipality (part of the Dar es Salaam Region), registrations for tax purposes are less than 50 per cent of properties (Olima, 2010).

Results

Land-based revenues in Tanzania are relatively small in the overall Tanzanian tax scheme. At the national level, total domestic taxes have increased from 7.7

Table 2: Stamp duty revenues and land administration expenses

Fiscal Year	Expenditures for central government land development activities					Revenue	Expense as % of Revenue
	Land administration	Surveys & mapping	Registration of titles	Valuation unit	Total	Stamp duties	
Tanzanian shillings (millions)							
2014-2015*	2,752	4,702	1,427	1,012	9,894	11,896**	
2013-2014	2,457	3,990	994	964	8,406	12,548*	67.0%
2012-2013	2,791	3,319	1,133	790	8,033	11,065	72.6%
2011-2012	2,177	3,723	825	666	7,392	11,017	67.1%
2010-2011	1,965	3,318	594	438	6,316	7,041	89.7%
2009-2010	1,742	2,939	461	395	5,537	6,136	90.2%
Approximate USD equivalent (millions)							
2014-2015*	1.65	2.82	0.86	0.61	5.94	7.14**	
2013-2014	1.47	2.39	0.60	0.58	5.04	7.53*	67.0%
2012-2013	1.67	1.99	0.68	0.47	4.82	6.64	72.6%
2011-2012	1.31	2.23	0.49	0.40	4.43	6.61	67.1%
2010-2011	1.18	1.99	0.36	0.26	3.79	4.22	89.7%
2009-2010	1.05	1.76	0.28	0.24	3.32	3.68	90.2%

** Estimated from most recent budget estimates*
***First half of year actual revenue*
Source: Ministry of Finance, budget books, various years; calculations by the author

per cent of GDP in the fiscal year 2006-2007 to 10.6 per cent in 2012-2013. The combined total of both national and local land-based revenues for the same period was largely unchanged as a percent of GDP. In 2006-2007, the combined revenue from stamp duties, the capital gains tax, property taxes and land rents total just 0.112 per cent of GDP. In 2012-2013, the combined revenue from these taxes was reported at 0.136 per cent of GDP. This overall low performance from land-based revenues masks some important trends in the individual components.

Before turning to a discussion of the individual taxes, it is important to note that in Tanzania, taxes are largely an urban occurrence. In the year of the most recent census (2012), 74 per cent of all national direct and indirect tax revenue came from two regions, Dar es Salaam and Arusha, while these two regions

accounted for only 13.9 per cent of Tanzania's total population. As noted earlier, Dar es Salaam is also the source of 70 per cent of collected land rents.

The stamp duty (transfer tax) is normally intended to fund the land administration system. Raising the transfer tax rate beyond the level needed for this purpose can contribute to price misrepresentation and even an increased number of informal transactions. In Tanzania, high stamp duties do not appear to be a problem, as shown in the Table 2.

Table 2 reports the actual expenditures by the Ministry of Land, Housing and Human Settlement for land administration functions. In every year since 2009-2010, stamp duties have at least modestly exceeded the actual expenditures. As noted in the previous figure, the World Bank reports that the cost of registering property in Tanzania is about 4.5 per cent of the property value. However, since the official stamp duty is less than 1 per cent of value (see previous description), this relatively high cost is not attributable solely to the stamp duty. Other factors such as legal representation, notary services and other fees apparently increase the overall cost significantly.

It is also worth remembering that over 80 per cent of Tanzanian households either live on village land or have no legal right to the land they occupy (see Table 1). The government continues to make strides to regularize informal settlements (Kironde, 2006; UN-Habitat and GLTN, 2010), but much remains to be done in order to bring all village and general land into the land registration system. The current stamp duty will provide and important source of revenue for maintaining the land administration system, but it may not be adequate for the initial completion of the system.

The capital gains tax also appears to be keeping pace with economic growth. Table 3 reports total capital gains tax revenue as a per cent of GDP. Strong economic growth and the influx of people into Dar es Salaam and other urban centres has created strong upward pressure on real estate prices. Increased activity in urban real estate markets also results in increases in capital gains tax revenue. But the total revenue collected depends both on the strength of the real estate market and the administration of the tax. At present, the capital gains tax is mostly paid in the largest urban areas where registration and monitoring is strongest.

Table 3: Central government land-based revenues as a percentage of GDP

Fiscal year	National land-based revenues (per cent of GDP)			
	Stamp duty	Capital gains	Land rent	Total
2012-2013	0.025%	0.045%	0.041%	0.110%
2011-2012	0.029%	0.041%	0.053%	0.123%
2010-2011	0.022%	0.046%	0.075%	0.143%
2009-2010	0.022%	0.023%		
2008-2009	0.018%	0.023%		
2007-2008	0.025%	0.020%		
2006-2007	0.027%	0.018%	0.030%	0.074%

Source: Ministry of Finance, various years; calculations by the author

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Table 3 also reports national revenue from land rents which are of the same general magnitude as the capital gains tax. Since land rents should be universally collected on all registered property (land rents are not currently collected on unregistered land), the total revenue should be much higher. It is also concerning that revenues fell each year after the peak in 2010-2011. This suggests that the political will to collect the tax waned as other revenue sources increased that were politically easier to collect.

Local government land-based revenue consists of the property tax on buildings and land rents. Table 4 reports both as a percentage of GDP. By international standards, the combined revenue from the tax on buildings and the rents paid on land are extremely low. Property taxes have struggled to keep pace with economic growth. In each of the years for which data is available, the property tax revenue as a per cent of GDP declined. Land rents have followed the national pattern and also declined. The result is that local governments were less reliant on land-based revenues in 2013 than they were six years earlier.

The last column of Table 4 reports the combined central and local government revenue from the land-based instruments discussed in this case.

Table 4: Local government land-based revenues as a percentage of GDP

Fiscal Year	Local government land-based revenues (Per cent of GDP)			Total Central and Local land-based revenue (Per cent of GDP)
	Property tax	Land rent	Total	
2012-2013	0.015%	0.010%	0.026%	0.136%
2011-2012	0.020%	0.013%	0.033%	0.156%
2010-2011	0.024%	0.019%	0.043%	0.185%
2009-2010	na	na	na	na
2008-2009	na	na	na	na
2007-2008	na	na	na	na
2006-2007	0.031%	0.007%	0.038%	0.112%

Na = Not available
Source: Ministry of Land, Housing and Human Settlements, various years; calculations by the author

International good practice indicates that land-based revenues in developing countries should approach one percent of GDP. That standard suggests that Tanzania could increase land-based revenues by five to seven times. There is thus great potential for additional revenue. But not from the stamp duty except as land administration and registration become more comprehensive. Stamp duty revenues will increase naturally under existing law as the quality and scope of land administration improves. Increasing the transfer tax rate beyond current levels is likely to undermine the government's efforts to improve land administration and discourage participation in the formal land market.

Improvements in land administration, along with other improvements in local government management, will only occur as local government authorities are strengthened. Stronger administrative capability at the local level and increased political will at all levels will be required to improve land-based revenues in Tanzania (Mbogela and Mollel, 2014).

CASE 21: TRANSFER TAXES IN TURKEY

Module 7: Transfer taxes and stamp duties

Background

Turkey lies at the crossroads of Asia, Europe and Africa. The country has a total land area of 769,604 km^2 and an estimated population of 77.7 million. Over the past half century, there has been a strong urbanizing trend in Turkey with over 76 per cent of the population currently living in urban areas. (Ministry of Interior, 2011) Half of the country's urban population lives in the seven largest municipalities (Turkey Country Unit, 2004).

Turkey was founded as a unitary government with all sovereignty vested in the central government. The central government carried out the main administrative and economic functions of the state and operated at both the national and provincial level (Ministry of Interior, 2011). Turkey's 81 provincial units each had branch offices of major central government ministries to carry out administrative responsibilities. Provincial authorities were appointed by the central government and were authorized to implement decisions on behalf of the central government. As of 2011, the 81 provinces were further divided into 892 districts, again as extensions of the central government (Ministry of Interior, 2011).

Following a major local government reform effort in 2004, substantial responsibility was devolved to the local level. Local authorities were created with administrative and fiscal autonomy to provide local public services. The administrative reforms implemented at this time were intended to harmonize the local administrative system with the European Charter of Local Self-Government (Congress of the Council of Europe, 1985; Ministry of Interior, 2011). These local authorities were of three types: special provincial administrations, municipalities and villages. As of 2011, there were 81 special provincial administrations, 2,950 municipalities and 34,395 villages. Municipalities were organized as public corporate entities with a locally elected municipal council. Municipalities were further divided into

- Metropolitan municipalities where the population size was larger than 750,000 (16 as of 2011)
- Provincial municipalities—provincial population centres, but populations less than 750,000 (65 in number as of 2011)
- Metropolitan district municipalities—central urban settlements in a district where the district was within the boundaries of a metropolitan municipality (each metropolitan municipality was divided into at least three districts; 143 in number as of 2011)
- District municipalities—central urban settlements in districts not within the boundaries of a metropolitan municipality (749 in 2011)
- Town municipality—all other settlements with a population of at least 5,000 (1,977 in 2011)
- (Ministry of Interior 2011)
- By law, municipalities are required to provide or contract out a range of urban services including in part:
- Urban infrastructure including land development planning and control, water, sewage treatment and transportation
- Geographic and urban information systems
- Environmental health, sanitation and solid waste
- Municipal police, fire protection, emergency aid, rescue and ambulance services
- *Housing*

Funding for municipalities continued to be largely through central government transfers. The level of funding was determined by a formula which included

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population, land area, number of villages and level of development as factors in assessing relative need. In 2010, municipalities received 8.8 per cent of total public revenues (Ministry of Interior, 2011). Central government transfers represented 50.6 per cent of total municipal revenues, while local taxes totalled 17.1 per cent and other local revenues made up the balance. Local taxes included the annual property tax and other smaller taxes. Central government transfers continue to be the largest single source of local authority revenue.

In 2010, the population of the 16 metropolitan municipalities totalled 46.1 per cent of Turkey's total population. Because the allocation formula weighed population heavily, 64.8 per cent of revenues in these municipalities came from central government transfers. Only 2.1 per cent of revenue came from local taxes. The remainder was collected from rents, fees and other local charges (Ministry of Interior, 2011).

In 2012, new legislation created 14 additional metropolitan municipalities and expanded the borders of these large municipal governments to coincide with provincial boundaries. One consequence was that the metropolitan population increased from 47 per cent to 73 per cent of the national population, and the land area included in metropolitan municipalities increased to 50 per cent of Turkey's total land area (Akilli and Akilli, 2014).

Table 1: Total revenue from property transfers and annual property tax

Year	National Totals (TRY millions)					Local authority share
	Title deed fee	Notary fees	stamp tax	Property tax	Total	
2003	625	123	1,855	1,167	3,770	36%
2004	847	165	2,124	918	4,054	31%
2005	1,262	298	2,457	1,148	5,165	31%
2006	1,618	341	3,149	1,409	6,517	30%
2007	2,000	389	3,642	1,464	7,495	27%
2008	2,169	390	3,945	1,717	8,221	30%
2009	1,889	437	4,169	1,854	8,349	30%
2010	3,328	389	5,082	2,669	11,468	31%
2011	4,042	437	6,464	3,464	14,407	32%
2012	4,844	486	7,360	3,528	16,218	30%
2013	7,072	603	9,416	3,847	20,938	27%
2014	8,066	661	10,325	4,993	24,045	29%

Source: OECD and calculations by the author

As a result of the restructuring and expansion of the metropolitan municipalities, 30 provincial administrations, 1,591 smaller municipalities and 16,082 villages will be dissolved and become neighbourhoods (mahalle) in the metropolitan municipalities (Akilli and Akilli, 2014).

The arguments made for this consolidation are largely based on the economies and efficiencies obtainable with larger governmental units. Some have suggested though that this reconsolidation of local governments violates important principles of subsidiarity and may undermine larger democratic reforms (Akilli and Akilli, 2014).

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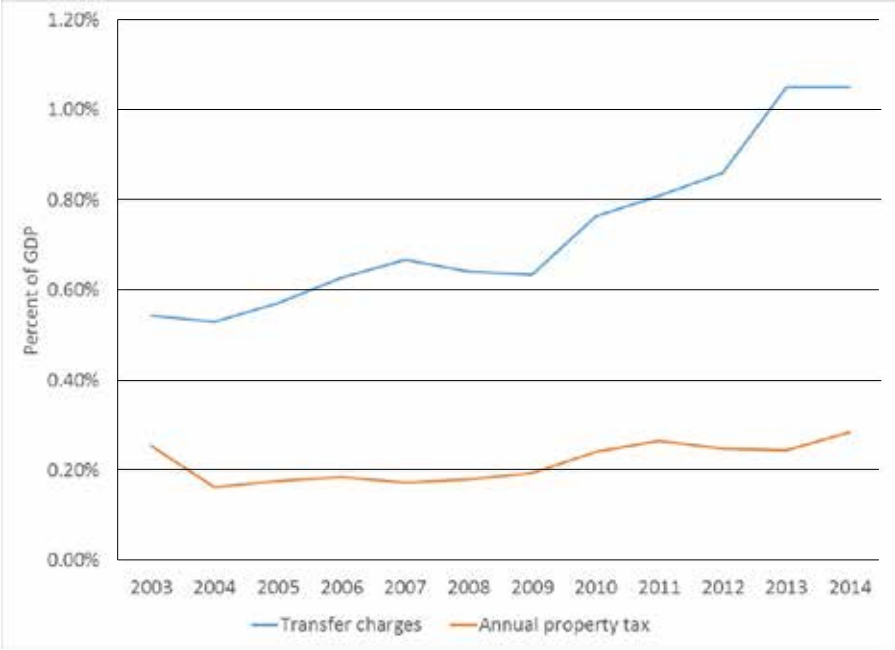
The Turkish economy has grown rapidly in the past decade. With the exception of the worldwide recession years 2008-2009, real growth in GDP has averaged 5.9 per cent per year since 2005. Real estate is a vital sector of the Turkish economy and represents 19.5 per cemt of total GDP (ISPAT, 2014). The Central Bank of the Turkish Republic reports that housing prices increased by 52.7 per cent in Istanbul between 2010 and 2013, and by 38.1 per cent in the country as a whole.

The major taxes applied to land and improvements include the annual property tax levied by local governments, a capital gains tax levied by the central government when properties are transferred, and transfer taxes levied by the central government but shared with local governments.

Figure 1: Transfer charges and property tax as a percentage of GDP



Actions taken

The annual property tax varies from 0.1 per cent to 0.3 per cent of declared value. Land is generally taxed at 0.1 per cent, while buildings are taxed at 0.2 per cent. Approved building sites are taxed at 0.3 per cent. Residential properties are taxed at 0.1 per cent. Tax rates are doubled in metropolitan municipality areas (e.g. Istanbul) (Almy, 2013).

Property owners are required to file property tax returns every four years. These forms require the property owner to provide a physical description of the property, information on land use and occupancy. The minimum taxable value is then calculated by the taxpayer using construction cost tables provided in the form for buildings and government produced land value estimates. The declared value (the value set by the owner or officially agreed to by sellers and buyers) is intended to be at least as high as this estimated minimum value.

Capital gains tax on real property is levied by the central government. The tax is based on the difference between the declared value when the property was acquired, adjusted for inflation, and the declared value at the time the property is sold. Gains of less than TRY 6,000 (about USD 2,100) are

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not taxed. The tax rate varies from 23 per cent to 35 per cent. Up until 2015, property owned for over five years was exempt, but this exemption was repealed in 2015 (Harvey and Merzaban, 2014).

Turkey has several required transaction fees associated with the transfer of land and property. There is first a title deed fee. Prior to 2012, the rate was 1.65 per cent of the declared value for both the buyer and the seller. As of 2012, the rate was increased to 2 per cent. In practice, this tax is often negotiated so that the buyer ends up paying the full 4 per cent. Second, if the transaction involves a financial instrument, such as a mortgage or a preliminary sales contract, the government levies a stamp tax of 0.948 per cent of the declared value on each such instrument. There are also notary fees and other smaller fixed fees set by the local authorities and totalling less than USD 200 per transaction.

Results

The fact that both the capital gains tax and the transfer taxes are based on the declared value and are substantial creates perverse incentives for property owners and buyers. In order to minimize their capital gains tax and their share of the transfer tax, sellers have a strong incentive to understate the declared sales price. Buyers should have an incentive to overstate the declared price in order to set the base for their future capital gains tax as high as possible. The evidence, however, is that buyers tend to agree to a much lower declared price in order to avoid their share of the transfer tax, which in many instances is 100 per cent.

The result is illustrated by an interesting note on one website offering advice to foreign purchasers of Turkish real estate:

> *Note: Declared amount of the property is not the same as the purchase value. Sellers and buyers almost always under-declare their property values so as to lessen the blow of stamp duty and capital gains tax where 4applicable. Turkish tax authorities are more than aware of this and thus they test for "reasonable declarations". Fifty to sixty per cent of purchase value is nowadays accepted as reasonable by Turkish Revenue and thus not challenged. However, if you are purchasing real estate in Turkey and the seller insists on a very low declaration (say less than 30 per cent), then seek legal advice before agreeing to it for unreasonably low declarations may be challenged by the Turkish tax authorities.*
>
> *Source: (Property Turkey 2015)*

At least one other source indicates that declared values are significantly below market values. (Aydinoglu, 2004). If the under declaration is discovered, the corrected tax amount is due, plus a 25 per cent penalty on the additional tax now due. Based on the available anecdotal evidence, the penalty does not appear to be an effective deterrent to under reporting sales prices.

The transfer taxes and stamp duties for real estate generate substantial revenue. Table 1 reports on the aggregate revenue collected at all levels of government for title deed fees (transfer tax), notary fees, stamp duties on real estate financial documents and the annual property tax. The table clearly shows the substantial increases in transfer fees and taxes. But property transfer charges are assessed by the central government and only a portion of the revenue collected is assigned to local governments. On the other hand, all of the revenue from the property tax is collected and remains at the local level. The result is

shown in the last column of Table 1, which reports the percentage of the revenues going to local authorities.

Another way to view the relative performance of transfer charges and the annual property tax in Turkey is to express both as a percentage of GDP. Figure 1 presents these percentages for the period 2003 to 2014 based on OECD data. Transfer charges have seen strong growth throughout most of the period shown. The annual property tax on the other hand has remained relatively flat compared to GDP. To be sure, given the strong growth in Turkey's economy, revenue from the annual property tax has grown over the past decade, but not as much as transfer charges. And by international standards, the annual property tax is very modest.

The question that should be considered is: Do the high transfer fees based on self-declared values, which are well below actual market values, undermine the integrity of property valuations generally? If they do, part of the poor performance of the property tax can be attributed to high property transfer charges. Reducing the property transfer charges could conceivably accomplish three desirable outcomes:

- The integrity of property transfer information could be improved
- The performance of the property tax could be improved
- The share of these land-based revenues flowing to local authorities could be increased

ANNEXES

ANNEX 1: MUNICIPAL BORROWING

The ability to generate revenues from land opens the door to an even broader range of financing mechanisms. As urban development occurs, land-based finance instruments allow for some of the value generated by development to feed back to the public sector. This linkage between development and a predictable public revenue stream sets the stage for establishing creditworthiness and can make available additional financing options. While there are a number of financing options which could complement land-based instruments (including financing through public-private partnerships and financing leases), this annex focuses on municipal borrowing.

Stable land-based revenue streams is a step toward creditworthiness.

Municipal loans refer to borrowing money from the capital markets at market rates of interest, resulting in large, upfront sums with legal options to repay both the capital and interest in typically regular intervals (Peterson, 2008). Subnational borrowing has continued to rise due to the decentralization of subnational governments giving access to financial markets, rapid urbanization requiring large amounts of capital for infrastructure development, and the emergence of private capital to compete with traditional bank loans (Canuto and Liu, 2013).

Minimum requirements

- The national legal framework must allow local governments to borrow directly, but must also establish limits and guidelines to assure prudence on the part of local authorities. This framework should include rules for:
  - Incurring debt
  - Limits on loans outstanding and deficit ceilings
  - Rules for borrowing in international markets
  - Regulation of municipalities' borrowing based on fiscal capacity criteria
- National macroeconomic and political conditions can either support or undermine local access to credit markets
- Private capital markets consider two factors in evaluating prospective borrowers:
  - The assessment of the creditworthiness of the regional or local government desiring to sell bonds in the market
  - The likelihood that some other government entity (e.g. the national government) will provide support in order to prevent default
- The creditworthiness of the regional or local government is assessed based on
  - Economic capacity of the region
  - Institutional ability and flexibility of the regional or local government to raise revenue and control spending
  - Actual management and fiscal practices of the regional or local government

Description

To meet the growing demand for large capital outlays, cities must develop access to sources of capital that often match or exceed their annual budgets. The ability to access external capital sources is often vital. Such access depends on the creditworthiness of the government entity. Creditworthiness begins with identifying a stable cash flow that can be used to repay borrow funds. Often the stability of the cash flow is tied to land. As a recent World Bank publication puts it:

> To start with, [a] government can establish its creditworthiness by first securing cash flows from user fees and taxes—and by leveraging the value of land in various ways, including taxes. Only with future cash flows secured can the government begin to borrow money and

ANNEX 1: MUNICIPAL BORROWING

attract private investment (World Bank, 2013, p. 67).

Most of the chapters in this *Reader* are focused on the task of "securing cash flows". This chapter takes up the other aspects of gaining access to private capital markets.

The shortage of municipal borrowing is for the most part not due to a shortage of interested investors. Instead, many cities lack the capacity to develop bankable projects. It should be emphasized that the projects financed through debt should be selected very carefully. Debt financing increases the benefits of good projects, freeing up near-term resources for other uses and enhancing creditworthiness in the longer term. However, debt financing also increases the negative consequences of bad projects, sticking the municipality with long-term payments and interest on a bad decision. Therefore, good planning, market assessment and a coordinated capital investment strategy are critical to successful borrowing.

Many developing nations are currently facing primary challenges in developing liquid, deep and competitive subnational credit markets. Currently, bank loans are dominating the supply of credit to local governments, while public financial institutions are dominating the credit supply in other countries (Canuto and Liu, 2013).

Local governments that have found success in their early reliance on national government financing now have no interaction with creditors and therefore no credit history to warrant future issuance (Canuto and Liu, 2013).

Credit risks for local governments in developing nations are intertwined with national macroeconomic and institutional reforms. This means that a local municipality's ability to capitalize on low cost debt financing is essentially capped by its parent nation. Historically, local governments that have struggled with debt financing were in situations involving unregulated borrowing (Canuto and Liu, 2013).

Generally, municipalities should look first to borrowing on domestic markets rather than international. Borrowing in the international markets creates currency risks, as the revenues are in local currency while the bond payments are in international currencies. There is no need to go to international markets to raise loans for municipalities if there are domestic options.

Needed rules and consequences of issuing debt

The World Bank's report (Canuto and Liu, 2013) on municipal debt stipulates procedural rules that must exist beforehand, for a municipality to borrow successfully:

- Rules for incurring debt
- Limits on debt and deficit ceilings
- Rules for borrowing in international markets
- Regulation of municipalities' borrowing based on fiscal capacity criteria

In addition to this groundwork, poor fiscal performance must face consequences. These consequences must be enforceable and regulated in order to ensure low-cost financing.

Avoidance of both pre-borrowing and performance regulations results in irresponsible behaviour from both borrowers and lenders, and unavoidable large amounts of debt that threaten macroeconomic stability (Canuto and Liu, 2013).

The purpose of such regulations is not to minimize lending, but to promote mutually beneficial, long-term relationships with lenders that result in a competitive and diversified credit system, thus ensuring the lowest

possible cost of capital and a sustainable line of credit. The biggest indicator of a local government's success in debt restructuring is its central government's commitment to adhere to and enforce its conservative fiscal policies.

> *Regulations on debt and insolvency cannot compensate for inadequacies in the design of overall intergovernmental fiscal relations. The intergovernmental fiscal system underpins the fundamentals of the subnational fiscal structure. Without increased fiscal autonomy and greater own-source revenues, subnationals will rarely be in a position to borrow sustainably on their own. In addition, an intergovernmental fiscal transfer system that routinely fills deficit gaps will undermine the incentives for a balanced budget. The regulations on debt and insolvency cannot substitute for other reforms, such as budgetary and financial management, taxation reform and governance reforms. The incentive signals of insolvency mechanisms require a more competitive subnational capital market (Canuto and Liu, 2013, p. 27).*

Implementing a quality debt financing structure involves understanding the dynamics of capital markets in addition to matching present day spending with future abilities to pay for debt service. Additionally, it is essential to strictly adhere to the implemented system and avoid discretionary application of rules and standards (Canuto and Liu, 2013).

Financial requirements

The key actions that governments must take to enter the credit market are described by Moody's Investor Services, a major international credit rating agency. As of 2008, Moody's rated the creditworthiness of 306 regional and local governments in 35 countries (Rubinoff, Bellefleur and Crisafulli, 2008). The criteria employed by Moody's are only summarized here. While these criteria are those used by a U.S. rating agency for international borrowing, they are typical of the factors considered by domestic bond buyers as well.

Moody's rates the creditworthiness of regional and local governments outside the United States based on two key factors:

- The government's intrinsic credit strength, termed the Baseline Credit Assessment (BCA)
- The likelihood of extraordinary support from another entity to prevent a default

BCAs are a measure of the likelihood that a government will require assistance from a third party, such as the national government, a higher tier government other than the nation, or its peers, to avoid a default. BCAs do not take into account the likelihood that the local government will receive such external support, which is assessed in the second factor. Moody's defines "extraordinary support" as action taken by the higher-tier government to prevent a default by the bond issuing government. This support could take different forms and might include a formal guarantee, direct cash infusions or facilitation of negotiations to enhance access to financing.

In assessing credit risk, Moody's and other international rating entities consider both general risks and specific risks. General risks are those that apply to all regional and local governments in a country. They are generally related to overall economic strength and stability, and the institutional arrangements between national and subnational governments. Specific risks are those that reflect the status and performance of the individual local government. In developing countries and emerging markets, both types of risks

can be important in the rating agencies assessment of creditworthiness.

As an example, Moody's considers six factors in determining the BCA:

1. The operating environment, meaning the national circumstances that affect the risk of an economic, financial market or political crisis. Moody's contends that "… national crises have been among the factors most often associated with (regional and local government) defaults in recent years" (Rubinoff, Bellefleur and Crisafulli 2008, p. 6). A country's operating environment is assessed using GDP per capita, the volatility in GDP annual growth over the most recent twenty years, and performance based on the World Bank's Government Effectiveness Index.
2. The institutional framework that determines the powers and responsibilities of national and subnational governments. This is a qualitative assessment of the predictability, stability and responsiveness of local governments to changing circumstances, and the sufficiency and flexibility of local government revenues and spending.
3. Financial position and performance. Position and performance attempts to forecast whether recurring revenues will cover ongoing spending commitments given existing policies and expected demographic trends. Revenues and expenditures are assessed independently. Four measures are used in the assessment
   a The ratio of gross operating balance (operating revenue minus operating expenditures including interest payments) to operating revenue.
   b. The ratio of the cash financing result (cash generated by operating and capital activities) to total revenue, before principal payments.
   c. The ratio of net working capital (current assets minus current liabilities) to total expenditures.
   d. The ratio of interest payments to operating revenue
4. The debt profile considers the structure and composition of existing debt, as well as the legal framework and limitations on debt issuance and

Box 1: The China Example

China's reforms to better allow its local governments to issue debt started in 2009 with reforms to pilot municipal bonds. Since it takes a considerable amount of time for a municipality to build up the credibility to issue debt, China's central government acted as the issuing agency. From 2009 to 2011, the central bank issued USD 90 billion of debt in the form of provincial bonds. In 2011, China took another step forward in its reform efforts by allowing four cities to issue debt in the capital markets without the central government acting as the issuing agency (Liu and Qiao, 2013).

This process of inching local governments into the capital markets allowed these municipalities to significantly lower their finance costs while developing legal, institutional and market infrastructure. Although China has significantly more work to do in order to best capture the value associated with municipal debt, it is well on its way towards lowering financing costs for individual municipalities throughout the nation (Liu and Qiao, 2013).

Liu and Baoyun (2013) explained that China's strengths in accelerating the use of debt include:

- A stable economy with an impressive growth record
- Vast domestic savings, which have been used to provide capital to the financial markets
- Rapid urbanization
- A decentralized fiscal structure
- Advanced infrastructure companies
- A rich history of and propensity for reform

payment. It also relates the government's debt level to measures of ability to pay, including the taxable property values.

5. Governance and management practices includes a review of the government structure, its fiscal management practices, the transparency of its financial disclosures, and the political and administrative arrangement under which it operates.
6. Economic fundamentals as they reflect the ability of the local government to generate necessary future revenues. This capacity is measured through regional GDP per capita.

Managing and repaying debt

Debt issuances that are directly tied to specific revenue decisions, including tax increases or other dedicated revenue sources, are much more likely to successfully be repaid on time. A rules-based system that is dictated by a central government is pivotal in ensuring that local municipalities follow this council (Canuto and Liu, 2013).

Summary

- The national legal framework must allow local governments to borrow directly, but must also establish limits and guidelines to assure prudence on the part of local authorities. This framework should include rules for:
  - Incurring debt
  - Limits on debt and deficit ceilings
  - Rules for borrowing in international markets
  - Regulation of municipalities' borrowing based on fiscal capacity criteria
- National macroeconomic and political conditions can either support or undermine local access to credit markets
- Private capital markets consider two factors in evaluating prospective borrowers:
  - The assessment of the credit worthiness of the regional or local government desiring to sell bonds in the international market
  - The likelihood that some other government entity (e.g. the national government) will provide support in order to prevent default
- The creditworthiness of the regional or local government is assessed based on
  - Economic capacity of the region
  - Institutional ability and flexibility of the regional or local government to raise revenue and control spending
  - Actual management and fiscal practices of the regional or local government

ANNEX 2: INCREASING LAND VALUES THROUGH LAND READJUSTMENT

Definition

Land readjustment consists of pooling all land parcels within the readjustment area, the joint planning for servicing the land, and the redistribution of parcels in an orderly configuration, making room for public improvements. Land readjustment has been widely used in a number of countries for many years.

Land readjustment does not typically generate revenues for a municipality's general fund, and is therefore not in the same category as the other instruments in the body of this Reader. However, land readjustment has the potential to defray the costs associated with provision of public space and neighbourhood upgrading.

Minimum requirements

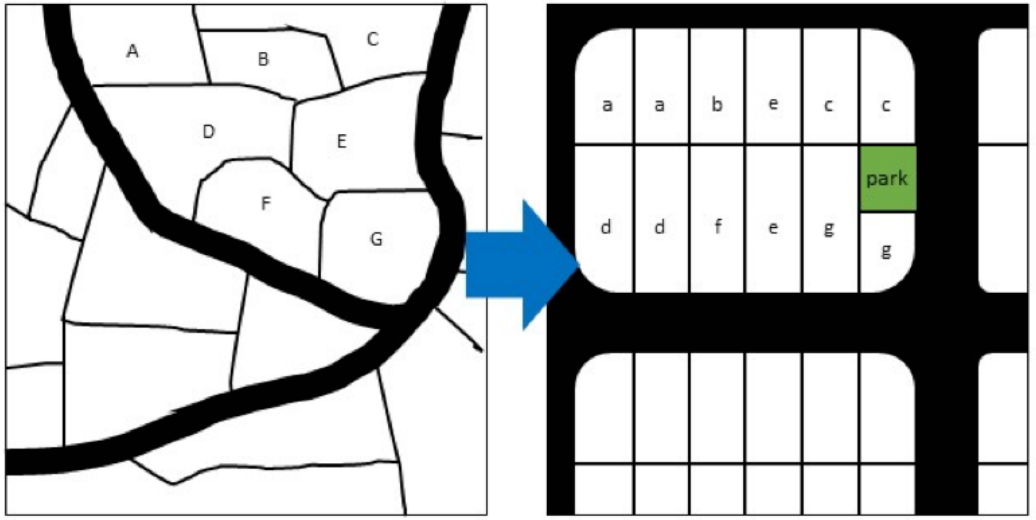
An effective land readjustment process requires the following

- Existence of an appropriate legal framework
- Projects should be self-financing to the extent practical (including infrastructure and constructions costs where possible)
- Fairly shared project benefits and costs
- Sufficient land use, infrastructure and financial planning
- Participation of landowners and other stakeholders
- Adequate project management and technical personnel
- Quality cadastral maps
- A favourable real estate market

Description

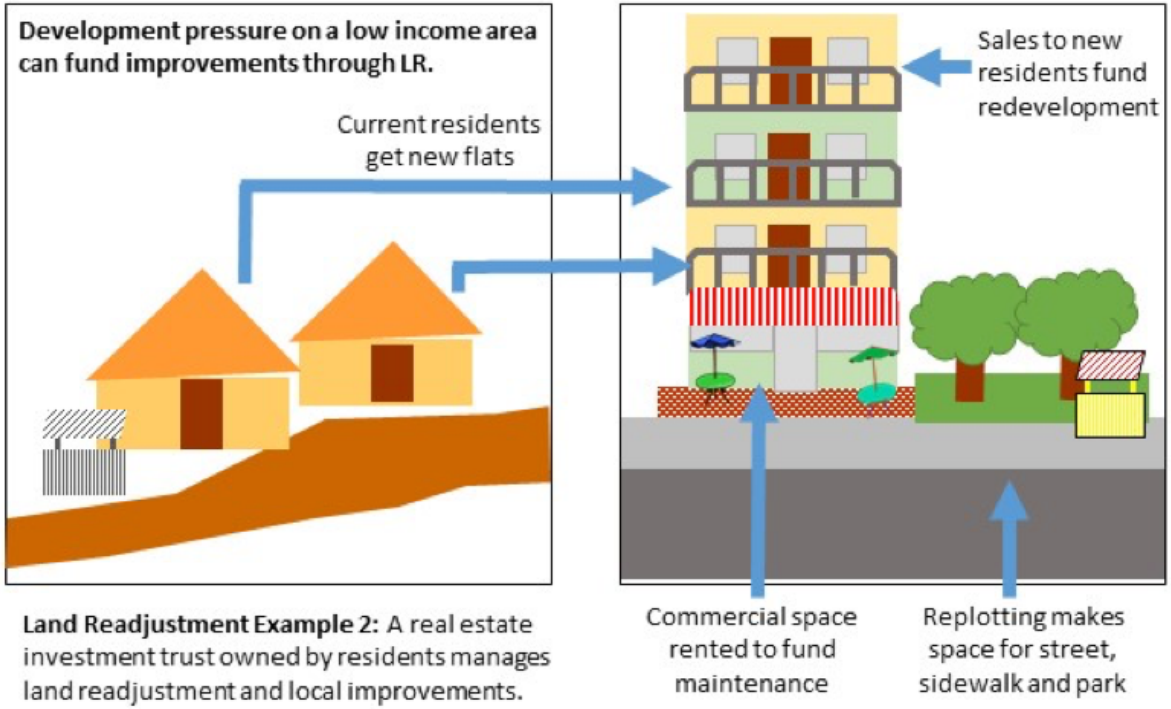
The world's urban population continues to grow very rapidly, especially in developing countries. Between 1980 and 2030, 2.5 times the equivalent of all cities

Figure 1: Land readjustment example



Land Readjustment Example:
Replotting increases the value of plots despite reducing their size. This makes room for public space and utilities. Plots are reallocated based on a pattern agreed to be fair and socially just.

ANNEX 2: INCREASING LAND VALUES THROUGH LAND READJUSTMENT



Land Readjustment Example 2: A real estate investment trust owned by residents manages land readjustment and local improvements.

in existence in 1980 will have been built (Sorensen, 2000, p. 55). Many urban areas in developing countries struggle to keep pace with the need for adequate services, infrastructure, and safe public spaces (UN-Habitat, 2014). Where urban areas have developed or plotting was completed without planning for adequate public space, including space for streets, parks, and utilities, creating this space can be a huge challenge.

Land readjustment is an instrument typically used to address three challenges: (1) a disorderly plot pattern, (2) insufficient public space or space for public services, and (3) lack of funding or ability to expropriate private land to create the needed public space. Through the pooling and re-allocation of plots, new public space can be created, avoiding the cost of expropriation.

Additionally, land readjustment can raise funds through the creation and sale of extra plots. This funding usually feeds back into the improvements associated with the readjustment project and can be used to repay borrowing for capital improvements. Revenues from sale of extra plots typically does not go to the municipality's general revenues. Therefore, land readjustment is not considered a revenue tool, but can be used to allow neighbourhood upgrades to be self-financing.

Land readjustment is usually only approved if a minimum number of participating landholders are in favour. Land readjustment benefits landholders by providing their plots with access to new public space and services, thereby increasing the value of their land. While the surrender of some land for infrastructure and public spaces is a key characteristic, the land retained by the original landowners as a result of the readjustment process is assumed to be inherently

ANNEX 2: INCREASING LAND VALUES THROUGH LAND READJUSTMENT

Figure 2: Example of a Japanese project carried out in connection with a new underground railway branch line. (Larsson 1997)

more valuable as a result of improved services and development potential (Yau and Cheng, 2010; UN-Habitat, 2014).

Land readjustment is an approach to managing either the planned development of urban-fringe lands or redevelopment of existing urban lands. It can be initiated either by a government agency or by the landowners themselves. Land readjustment allows rapidly growing cities to more efficiently service and provide access to an area of land already in use, thereby increasing the attractiveness and value of the land.

Land readjustment has different names in different countries: "land readjustment" in Japan and South Korea, "land pooling" in Australia and Nepal, "land consolidation" in Taiwan and Indonesia, and "land re-plotting" in Canada (Karki, 2004). It will be referred to as land readjustment (LR) in these materials for consistency. Figure 2 provides an example of land readjustment through before and after maps of a land readjustment project in Japan.

Brief history of land readjustment

LR has been used as a development tool since at least 1791 in the U.S. for planning the Washington D.C. area. LR, in its different forms, has become widely popular today in countries such as Australia, Germany, France, Netherlands, Sweden, Israel, Japan, Thailand, South Korea, Indonesia and others (Mittal, 2014).

> The success of LR in the above countries is also attributed to the fact that cities in these countries were largely fiscally constrained, and were experiencing rapid population growth. The real estate values were high and land markets were significantly active, causing demand for urban infrastructures and serviced urban land to accommodate new growth. In many cases, land

ANNEX 2: INCREASING LAND VALUES THROUGH LAND READJUSTMENT

Table A2.1: Land Readjustment at a Glance

Key Features	Germany	Japan	South Korea	Taiwan, China	Australia	India
Legal basis	Baugesetzbuch (1987)	LR Act of 1954	LR Project Act of 1966	Articles 56, 76, and 161 of bylaws of Equalization and Urban Land Rights Law of 1957	Sections 6, 7, and 13 of Town Planning Development Act of 1928-1996	-Maharshtra Regional and Town Planning Act of 1966 -Gujarat Town Planning and Urban Development Act of 1976
Initiating entity	-Local gov. -Landowners -Developers	-Individuals -Associations -Local gov. -Administrative agencies -Public corporations	-Private landowners -Associations of landowners -Municipal/ provincial gov. -Ministry of Construction	-Local gov. -Landowners	-Local gov. -Associations	Local gov.
Participation of landowners	Compulsory when publicly initiated	-Compulsory when publicly initiated -At least 2/3 of landowners and lessees (by area and number) must consent when privately initiated	-Compulsory when publicly initiated -At least 2/3 of landowners and lessees (by area and number) must consent when privately initiated	At least half of landowners (by area and number) must consent to an application	-Compulsory when publicly initiated -At least 2/3 of landowners and lessees (by area and number) must consent when privately initiated	Voluntary
Cost recovery	-Land contribution for public space -Cost-equivalent land for cost of project	-Land contribution for public space -Cost-equivalent land for cost of project	-Land contribution for public space -Cost-equivalent land for cost of project -Land contribution can be used for affordable housing	-Land contribution for public space -Cost-equivalent land for cost of project	-Land contribution for public space -Cost-equivalent land for cost of project	Land contribution for public space
Amount of land contribution	-Value basis: no more than 30% of market value of land -Area basis: no more than 30% of area	Land deduction rate not determined (usually 20% for communal land and 10% cost-equivalent land)	Land deduction rate not determined (usually 24-28% percent deduction for communal land and 8-10% cost-equivalent land)	Not more than 40% for public purposes and cost-equivalent land	Land deduction rate undetermined	Up to half of value increment
Public sector support	All procedural costs	-National and prefectural subsidy -Low or zero-interest loan	Deficits covered from general municipal budget	Unknown	Initial costs provided by gov, but must later be recovered through the project	Costs above those collected from half the increment value covered by local authority
Distribution method	-Value basis -Area basis	-Value basis -Area basis	-Value basis -Area basis	-Value basis -Area basis	Value basis	Value Basis
Valuation method	Market value (using pre and post-adjustment values)	Pre-adjustment value based on a formula including plot characteristics	Pre-adjustment value based on a formula including plot characteristics	Pre-adjustment value based on a formula including plot characteristics	Market value of land	Arbitrary
Minimum size of LR plot	None	At least five hectares	None	None	None	100 hectares under Gujarat Town Planning and Urban Developmental Act

Source: (Lozano-Gracia et al., 2013)

ANNEX 2: INCREASING LAND VALUES THROUGH LAND READJUSTMENT

> readjustment was chosen as the land development tool because of its self- financing nature and its greater social and political acceptability (Mittal, 2014, p. 315).

In the international literature, Germany's examples of the LR process are some of the oldest and most often cited examples. In fact, in the early 1900s Japan adopted Germany's land readjustment model. Now currently, Japan is Asia's example for LR schemes (Lozano-Gracia *et al.*, 2013). Another prominent Asian example of LR use is in Indonesia, where about 132 projects in 70 cities have used LR for urban development since 1982 (Sorensen, 2000).

Different variations of land readjustment

Countries often differ in their implementation of LR based on the needs of their society and their legal structure. Table A2.1 provides a summary of the key features in several different countries.

The LR variations in the countries of Germany, France and Japan are described in the following text box to provide a clearer picture of the different types of LR schemes.

Basic conditions required for successful land readjustment

As noted by Lozano-Gracia and co-authors (2013), a number of countries practice LR, however, its application is context-specific. Before implementing LR countries must first assess whether enabling institutions exist to facilitate the adoption of the preferred LR approach. Based on the literature, there are nine conditions repeatedly seen that are required for a successful LR project. Along with these conditions, examples of previous LR projects, whether

Box 1: Three examples of land readjustment processes

Germany

As stated previously, Germany's LR model (*Umlegung*) is possibly the oldest and most pervasive example in the literature. The process is carried out by local authorities and all landowners within the boundaries of the LR area have no option to leave the programme. They can express their views and have a right to appeal but have very little formal power. Maps are drawn and a common share is taken out of the landowner's properties for streets and other public spaces. In the reduced area of private ownership, every landowner receives a share of land back in proportion to their original holdings, either in area or in value. LR in Germany is an important and recognized means for building in Germany. It is probably the most common method used for implementation of new dwelling plans (Larsson, 1997; Davy, 2007).

France

In France, LR can be initiated by landowners or the government. The responsibility is mainly given to landowners. Normally, 2/3 of the owners AND those who own 2/3 of the total area, need to agree on the project. After the area for public use has been deducted from each individual property, the landowners receive a redistribution of land with at least the value of the land they owned before the project. In some cases, land can be exchanged for cash. This LR method takes a longer time than Germany's approach and requires more commitment from and risk for the landowners (Larsson, 1997).

Japan

The model in Japan is called the *Kukaku Seiri* and has developed into the major scheme (around 50 per cent) of all new development areas. This model is not designed for either the public or private sector specifically (Larsson, 1997). Projects in Japan can be either privately or publicly initiated, and can include 1) individuals, 2) landowner associations, 3) local governments, 4) government agencies, and 5) housing and town corporations. Because of the range of executors, Japan is often seen as having one of the most participatory LR processes in the world (Lozano-Gracia et al., 2013; Sorensen, 2007).

If initiated by the private sector, then 2/3 of owners and leaseholders must agree on the project. The cost sharing between private and public sector is determined in each project by mutual agreement. This method is sometimes criticized, however, because there is no deadline for completion nor is it always combined with formal building plans (which creates an atmosphere of buildings with very different appearances in the same neighbourhood). (Larsson 1997)

successful or not, are provided to demonstrate the importance of these basic conditions.

1. Existence of an appropriate legal framework

In order to apply many LR principles, a legal framework needs to be established by a central government. LR provides an alternative to expropriation, but the law must still address a fundamental question: if a given landowner resists providing land for public purposes, what options exist? Under expropriation, the landowner can be forced to sell the land. The LR legal framework must specify what options exist in an LR project including the principles and procedures to be followed (Turk, 2008).

Additionally, the enabling legal structure can regulate when and why LR will occur in an urban area. To increase the possibility of implementation, legal regulations should also stipulate which entities can initiate an LR project. This could be limited to a public agency (Germany), the landowners (France), or any of a variety of entities (Japan and South Korea) (Turk, 2008).

It is also desirable to spell out how property valuation will be determined. In Germany, for example, the law mandates the setting up of valuation committees, the definition of standardized market values and the method for collecting purchase price data (Lozano-Gracia et al., 2013, p. 10).

Finally, the legal framework should provide guidance regarding the status of land titles. The legal framework provided guidelines regarding the legal status of land titles. This legal instrument guided the implementing agency in supporting a transparent, collaborative and step-wise process of LR. Since in LR, the land titles are readjusted, ownerships are switched, and property-lot boundaries are altered, having clear land titles and property records, electronic surveyed cadastre records further expedites this process (Mittal, 2014, p. 316). Again, a legal framework helps the LR process. Clear legal regulations can make the LR process more streamlined, efficient and likely to succeed.

2. Projects should be self-financing to the extent practical, including construction costs where possible

LR projects inherently require infrastructure investments for road expansion and realignment, public space and utility improvements as well as management costs. LR projects are therefore much more likely to be implemented and to succeed if they are self-financing. This can be done either through public acquisition of a portion of the land in the project, or through betterment levies and other charges against the incremental increased value of the remaining private land (Turk, 2007). Turk argues that the more common approach is to deduct a portion of the land for public purposes (Turk, 2008). In some LR methods, the areas that are deducted from landowners are sold to cover all or a significant portion of the management and construction costs. In order to adequately cover these costs, the LR project must result in increased value to the property.

Some countries include infrastructure and constructions costs in the LR model while others do not. Germany's local governments build LR construction costs into their annual budget. However, if infrastructure and construction costs are included in the LR model, it reduces the burden for the municipality. This often speeds up the process to complete the LR project since financing these costs is no longer an issue (Turk, 2008).

If infrastructure and construction costs are not included, then often delays occur. An example of

this is a LR project in Indonesia, in which roads could not be opened and the sewage system could not be installed because the infrastructure costs had be included in the process. In this case, although the project was completed in 1990, the development in the project area was suspended in 1991 (Turk, 2008).

Of course, infrastructure and other construction costs need not be completely included or completely excluded from the project. Some costs may be included that can be self-financed, while others may be financed from other sources to meet other policy objectives (Walters and Pinilla Pineda, 2014).

One challenge is that many of the needed costs occur relatively early in the LR project. As a result, it may be necessary to secure short-term funding from local banks or other institutions. If this is not possible, then selling cost-equivalent land may be necessary. However, such land sales are not recommended because the value of this land will in all likelihood be much lower at the beginning of the project than it will at the end (Turk, 2008). The ring road project in Ahmedabad, India, addressed this issue by using land sales from previous LR projects to fund the upfront infrastructure costs in the new LR project. The value of land in the older, well-developed projects was usually much higher than the land in the newer schemes. It was therefore possible to establish a revolving fund mechanism that allowed the local governments to capture significant land value gain, and to employ that gain for urban development (Mathur, 2013b).

Even though there are upfront costs, revenues from the sale of land can be a significant source of revenue. In the LR project in Gujarat, India, the revenue exceeded the agency's expectations due to both rapid increases in the land values and the large amount of land that was reserved for sale (Mathur, 2013a).

3. Shared project benefits and costs

Transparency and certainty in sharing both the costs and the benefits among the municipality and the landowners are important. This does not necessarily mean that the municipality and the landowners share costs or benefits equally. For example in Germany, the municipalities initiate LR and little power is given to landowners in the process. In these models, the municipality assumes the majority of the cost of the project. Muñoz-Gielen (2014) describes a policy in Spain that allows local governments to share a significant portion of the incremental land value created through land readjustment. When the landowners are active participants in the LR process, they should also share more of the risk of the project (Turk, 2008).

Furthermore, equity and fairness needs to be maintained among landowners. At the beginning of the LR process, each landowner's property has a different value. During the project, equity needs to be maintained, as some might be able to use their property during the process while others will not. Even more important, at the end of the LR project fairness should be achieved between landowners when re-allocating property to the original owners in proportion to the previous value of their property. During this "distribution" stage, estimates must be made of new market values resulting from the project. Formulas can be used to aid the process, but using a skilled land appraiser is the best approach (Turk, 2008).

4. Sufficient land use, infrastructure and financial planning

It is important to carefully consider the size and location of LR projects. Small and medium sized areas tend to be more successful because fewer landowners must be convinced to participate and because they can normally be completed more quickly and at lower

cost. This suggests that projects on the urban fringe may be more straightforward, or large projects may be subdivided and pursued sequentially. It is crucial to choose an area that will increase in land value after the LR is complete because if the land does not increase in value it will be much more difficult to finance the project.

Furthermore, it is important to link the LR project to the city's master physical plan. This more comprehensive plan should guide the LR projects and should set standards for subdivisions and service areas. Finally, it is important to follow through on completion of construction, perhaps even setting deadlines enforceable by law to make sure this happens (Turk, 2008).

Good planning also means that pieces of the LR project, like provision of infrastructure, are completed in a timely manner. This is important because projects are more likely to get support from landowners in the future if they receive quick benefits. An LR project in Gujarat, demonstrates this principle:

> … the early development of infrastructure (roads and water, sewer and electric systems that use road right-of-way) is perhaps the most significant reason behind landowner support for (LR) in Gujarat. This support also shows that landowners are likely to support planning policies that quickly provide them with clear and significant benefits (Mathur, 2013b, p. 206).

Through good planning, Germany has been able to streamline its process, taking only two to five years to complete. Some countries take up to 10 years to complete an LR project (Lozano-Gracia *et al.*, 2013). In essence, sufficient planning on all dimensions increases the likelihood the project will be completed more quickly and efficiently overall.

5. Participation of landowners

Given the importance of land and tenure security in all cultures, participation of landowners is important to the success of an LR project. Recognition of the vital role landowners play has led UN-Habitat to initiate a specialized version of land readjustment with particular focus on participation. (UN-Habitat, 2014). Landowners who are 1) more educated about the project and its benefits, 2) feel like they have a voice, and 3) who are well informed about the LR process are more likely to agree to the project without bringing court action against the project or otherwise seek to delay progress (Turk, 2008). Furthermore, landowner satisfaction is crucial to both the success of current and future projects. The more examples of agreement there are for LR projects, the more willing landowners will be to engage in LR projects (Mathur, 2013b).

In general, opponents to LR projects take one of two positions. First, and most common, there are those who do not believe they will gain any benefit and may in fact be worse off as a result of the project. The second group tends to have plans of their own for the land and may resist subordinating their plans in an LR project. This second group often tends to encourage other landholders to oppose the project as well (Turk, 2008). In order to gain support from a majority of the landowners and promote landowner satisfaction with both the process and the outcomes, landowners should

- Be well informed and know how the LR project benefits them.
- Know the different channels (informal and formal) available to express their views.
- Be given a time frame for commitment.

- Be allowed to participate in as many LR exercises as possible.
- Be given plenty of public notice about progress of the project.

In addition, discussions of meetings should be well documented, so landowners know their voice is being heard and is important (Yau and Cheng, 2010).

6. Project management and technical personnel

Both the number and the quality of project management and technical personnel are important in the success of an LR project. The personnel directly affect all aspects of the project. Project management personnel need to be skilled in public relations, negotiation and bringing people with differing views together to reach consensus on project developments (Turk, 2008). LR projects nearly always require substantial negotiation efforts with landowners. Project managers should be trained and proactive (Karki, 2004). In most cases, project management should be a full time assignment, rather than an additional responsibility of existing staff. Karki also argues that it is very helpful to minimize staff turnover because turnover interrupts and slows the project requiring additional time and resources (Karki, 2004).

Technical expertise also contributes significantly to project success. For example, Turk (2007) argues that it is hard to have successful LR projects in Turkey due to a lack of quality technical personnel. Municipalities often lack construction management and auditing staff in sufficient numbers as required by the LR planning and application processes. As in other aspects of land-based revenue policy, political leadership can also play an important role in the success of LR efforts. Mittal (2014) cites the example of the Ahmadabad ring road projects. In this case a political leader was instrumental in amending a state law to expedite the LR process, and Mittal goes on to observe that effective political leadership can also help in minimizing potential resistance at any stage of planning a large project or series of projects.

7. Quality of cadastral maps

Quality technology and programs are also important to an efficient and effective LR project. Incoming data should be precise to avoid any technical difficulties later (Turk, 2007). Cadastral maps are the technical representation of the legal and planning status of real properties. They should reflect accurately actual boundaries, land use and occupancy characteristics. Errors or omissions in the cadastral maps often lead to disputes, delays and increased expense. Turk cites such an example of inaccurate maps and the resulting turmoil in one LR project in Turkey (Turk, 2007).

8. Need for favourable real estate market

LR projects do not just depend on the public facilities needed, "every land readjustment project should be designed to make readjusted sites developable and marketable for development. … It is the marketability of readjusted sites that matters most" (Lin 2005, p. 101). Mittal (2014) observes that a robust and rising market demand for land and housing are important preconditions for successful LR. In the absence of strong and rising land prices, landowners have little incentive to sacrifice part of their land through LR if there is little hope of a net gain in overall value. It is therefore important that the government consider market conditions carefully by consulting land developers and appraisers when choosing a site.

PILaR

UN-Habitat has recently piloted a new LR methodology called Participatory, Inclusive Land Readjustment (PILaR), which is specifically aimed at using land readjustment to achieve inclusive outcomes and by way of a participatory process. The pilot,

which took place in a low-income neighbourhood in Medellin, used densification and external sales to fund redevelopment of the neighbourhood, similarly to what is shown in the "Land Readjustment Example 2" graphic above. A detailed source book on the subject, entitled *Remaking the urban mosaic: Participatory and inclusive land readjustment.* is available from UN-Habitat (UN-Habitat and GLTN, 2016).

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UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME (UN-Habitat)

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GLTN aims to contribute to poverty alleviation and the Millennium Development Goals through land reform, improved land management and security of tenure. The Network has developed a global land partnership. Its members include international civil society organizations, international finance institutions, international research and training institutions, donors and professional bodies. It aims to take a more holistic approach to land issues and improve global land coordination in various ways. For further information and registration visit the GLTN web site at www.gltn.net.

About this Publication:

The potential contribution of land based financing to the development of sustainable and equitable cities and properly serviced communities is often underestimated. Land based financing is a collective name given to a range of instruments by which local governments could expand their revenue base and generate funds that will help them to deliver services and infrastructure development and achieve their maintenance goals. These instruments can be used to improve public finance; equitably link public investments, private benefits and public revenues; and promote more sustainable patterns of urban development.

This publication comprises a two volume training package on land-based finance, including a Reader and a *Trainer's Guide*. Land-based finance instruments are organized into seven modules: recurring taxes on land and buildings, betterment charges and special assessments, developer exactions, land value increment taxes, sale of development rights, lease and sale of public lands, and transfer taxes. The *Reader* defines, discusses and reviews the literature for each module, referencing 21 case studies from around the world. It also includes two annexes on municipal borrowing and land readjustment. The *Trainer's Guide* provides the format for a hands-on, interactive and action-focused training workshop. The goal of this training package is to support local and national leaders who seek to tailor, adopt, implement and improve land-based finance in their own cities.

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