Cities that Work

Land and property taxes for municipal finance

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Executive Summary

Taxing land and properties allows city authorities to capture the enormous wealth generated by the urbanisation, and use it for the public good.

As cities grow, the wealth they create becomes capitalised in the rising land values of the city. Parts of peri-urban land in Kigali have increased in value over 1000-fold in the last 10 years.[1] The question for policy then, is who captures this gain? The default option is that it gets captured by a few lucky individuals. In the 19th century, the Duke of Westminster became the richest man in Britain purely because he owned the land upon which the city of London developed. Smart public policy leads to a different outcome. Across East Asian cities, governments were able to capture these rising land values and use the proceeds to fund much-needed public investments. In Hong Kong for example, public ownership and taxation of urban land meant that the government was able to recoup an estimated 80% of infrastructure investments between 1970 and 1991.[2] Public investment was able to finance itself through rising land values.

There are two ways in which a city can capture rising land values: owning land or taxing it. In many developing cities, the government does not own much land and large-scale acquisition is a political impossibility. Taxing land and the properties built on land is therefore an attractive alternative - and typically represents the largest source of untapped municipal revenue for city authorities. Land and property taxes also **fairer and more efficient** than other forms of tax. They have limited effects on urban investment, and allow governments to capture increases in land and property prices that result from forces outside of the owner's control and are in part **the direct result of public investment** such as road upgrading. Those individuals who gain more from public services and population growth can be taxed for the benefit of the wider community.

Yet current land and property tax systems in developing countries have limited capacity to raise revenues. Incomplete land and property cadasters, alongside significant exemptions, limit the tax base for land and properties. In many developing cities, such as Kigali, current valuation methods are unable to capture a significant proportion of the variation in land/and property values. At the same time, attempts at more complex valuation methods in Ghana, Liberia and The Gambia without necessary investment in data collection and technical capacity have proved extremely difficult to implement[3]. Poor administration of tax collection alongside strong political resistance to payment in countries such as Tanzania, Kenya and Uganda result in extremely low collection rates.

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[1] M. Smolka, 'Implementing Value Capture in Latin America: Policies and Tools for Urban Development', Policy Focus Report Series (Lincoln Institute for Land Policy, 2013).
[2] Hong, Y. (1996). "Can Leasing Public Land Be an Alternative Source of Local Public Finance?" Working Paper. Lincoln Institute of Land Policy.
[3] Nara Monkam and Mick Moore, 'How Property Tax Would Benefit Africa' (Africa Research Institute, 2015).

However, success stories have shown that relatively minor reforms to land and property taxes that address **political** and **administrative** challenges can dramatically expand municipal revenues:

✓ Local government in Hargeisa, Somaliland, for example, significantly expanded the registered tax base in 2005 using satellite data and surveys to collect data on physical characteristics of properties and the occupiers of those properties. Over eight months between 2004 and 2005, properties registered for taxation increased from 15,850 to 59,000. Alongside automated property tax billing, this new system of taxation increased revenue by 248 percent[43].

✓ After the civil war in Sierra Leone, Bo, Makeni and Kenema city councils implemented simplified points based valuation systems. A transparent system of property valuation based on observable construction type, structure, location and access to services enhanced the legitimacy of new local government structures whilst allowing these local authorities to increase local revenues by 200-450% between 2007 and 2011[5].

✓ In Lagos, reforms to broaden the tax base and enforce collection of property taxes under governors Tinubu and Fashola that have been implemented since 1999 have helped the state to increase public revenues from taxes five-fold to over $1 billion in 2011[6]. This provided the government with much needed funds to provide the public services and infrastructure being demanded of them by the public. By reinvesting these revenues into public services and infrastructure for refuse collection, sanitation and urban transportation, Tinubu and Fashola also maintained strong political support for their reforms (and for their re-elections).

In Section 1, this document briefly outlines the benefits of importance of land and property tax as a source of municipal finance, before exploring the trade-offs that face policymakers in setting land and property tax policy in Section 2. In Section 3 the document then discusses three areas of land and property tax implementation in detail, before considering cross-cutting advice for limited political and administrative challenges to land and property tax reform.

[4] Samuel S. Jibao and Wilson Prichard, 'The Political Economy of Property Tax in Africa: Explaining Reform Outcomes in Sierra Leone', *African Affairs* 114, no. 456 (1 July 2015): 404–31; Samuel Jibao and Wilson Prichard, 'Rebuilding Local Government Finances After Conflict: Lessons from a Property Tax Reform Programme in Post-Conflict Sierra Leone', *The Journal of Development Studies* 52, no. 12 (1 December 2016): 1759–75.
[5] Edward Paice, 'Lagos Proves Africa's Property Tax Potential', *The Africa Report*, 2015.
[6] Liam Taylor, 'How One African City Is Flipping the Script on Urban Development', *ICTD*, 2016.

1. The importance of land and property tax as a source of municipal finance

The need for alternative sources of municipal finance

For cities to become engines of growth and structural transformation in developing countries, coordinated public policy is needed, both to enable productive clusters of firms to form, and to tackle the potential downsides of density. But implementing these policies is expensive. Large public investments are needed in infrastructure, public services, affordable housing and directed support for urban firms to fuel competitive growth.

The problem for many cities is that the necessary public investments that enable urbanisation to become a force for sustained economic growth are constrained by limited revenues of local governments tasked with carrying out urban policies. These financial constraints are often an even bigger problem for secondary cities.

As a result, in many developing cities fast paced urbanisation has outstripped public investment, resulting in the emergence of **widespread slums, congestion, crime, contagious disease and growing informal employment** based on uncompetitive service provision. Poor infrastructure and low quality housing makes cities **less attractive to foreign investment**, further harming job creation in cities.

The Kibera slum in Nairobi, one of Africa's largest slums (Photograph: Trocaire, 2012)

As urban populations in sub-Saharan Africa and South Asia rapidly grow, demands on public investment will only continue to rise.

> In this context, land and physical properties represent the **largest source of untapped municipal revenue.**

In cities such as Kampala, taxes on property currently raise little more than taxi and parking fees for municipal governments[7]. Land and property fees only account for 0.5% of GDP across sub-Saharan African countries, as compared to around 2% in OECD countries[8].

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[7] Odd-Helge Fjeldstad and Kari Heggstad, 'Local Government Revenue Mobilisation in Anglophone Africa' (Institute of Development Studies, 2012); Mihaly Kopanyi and Sally Murray, 'An Effective Property Tax Regime for Rwanda (Draft Report)' (IGC, 2016); Riel Franzsen and William McCluskey, *Property Tax in Africa: Status, Challenges and Prospects* (Lincoln Institute of Land Policy, 2017).
[8] Paice, "Lagos Proves Africa's Property Tax Potential."

Even **modest investments in reform to Land and Property Tax systems** can help dramatically expand municipal revenues to enhance public service and infrastructure provision.

In **Lagos**, for example, reforms to property taxes under governors Tinubu and Fashola that have been implemented since 1999 have helped the state to increase public revenues from taxes five-fold to over $1 billion in 2011[9]. This provided the government with much needed funds to provide the public services and infrastructure being demanded of them by the public.

Highly visible and popular investments in infrastructure such as road improvements funded by property taxes have transformed Lagos City (Photograph: Clara Sanchiz, 2015)

Headline sources: http://www.theafricareport.com/Columns/lagos-proves-africas-property-tax-potential.html, http://www.vanguardngr.com/2011/05/lagos-generates-n3bn-from-property-tax-in-2010/, http://guardian.ng/business-services/business/lagos-edo-turn-to-land-property-tax-to-shore-up-revenue/

By reinvesting these revenues into public services and infrastructure for refuse collection, sanitation and urban transportation, Tinubu and Fashola also maintained strong political support for their reforms (and for their re-elections).

Land and property taxes are the **largest untapped source of municipal revenues** for many cities. It is estimated that a 1% tax on land and property in Kigali, for example, could generate over USD$60 million per year under full tax compliance[10].

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[9] Sally Murray, Mihaly Kopanyi, and Patrick McSharry, 'A Land Value Tax for Kigali: Analysis and Policy Considerations' (IGC, 2016).
[10] Kopanyi and Murray, 'An Effective Property Tax Regime for Rwanda (Draft Report)'.

Land and property taxes also have a number of additional benefits:

1) Taxing land, or land and property together, is often *fairer* **than other forms of tax**. When local governments invest in building a road, or a school near a property, the price of these assets significantly increase. At the same time, the value of land in a city is increasing all the time due to urban population growth that places higher demand on land. These increases are not small – in Kigali, for example, peri-urban land has appreciated 1000-fold in the last ten years[11]. Taxing land and properties allows governments to capture some of these increases in land and property prices that result from forces outside of the owner's control and are in part **the direct result of public investment.** If designed appropriately (see below on valuation of the tax base), those individuals who gain more from public services and population growth can be taxed for the benefit of the wider community.

2) Related to this, land and property taxes can allow governments to obtain **returns on their investments into public services and infrastructure** that raise the value of nearby land, or land and property. In cities in Brazil, providing an adequate water supply to plots increases land prices by up to 10 times the cost of investment[12]. This means that implementing these taxes provides governments with higher projected future income streams, on the basis of which it may be possible to **finance current projects through capital markets**^.

Land value appreciation

...funds the public investments

...that makes the city more productive

Land and property taxes enable a virtuous cycle where appreciating urban land and property values finance the public investments which make the city more productive.
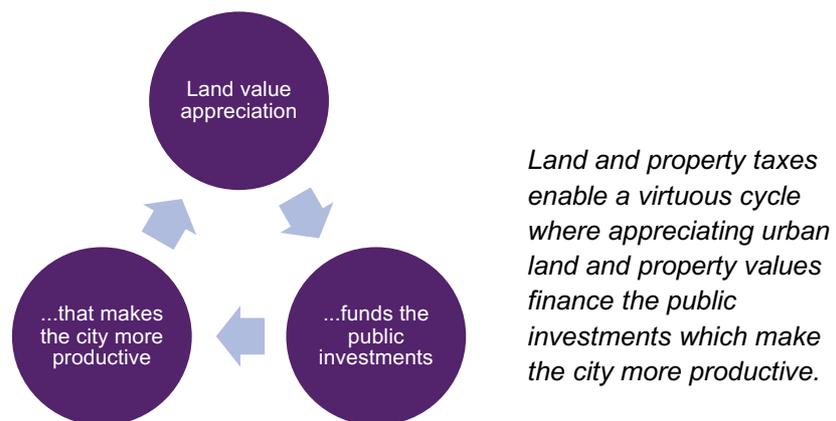
3) The fixed supply of land in a city means that taxing this asset **does not negatively affect urban investment** and instead **encourages efficient land use**, unlike taxation on work or savings that can incentivize individuals to work or save less (see below on the benefits of land tax in defining the tax base for more on this). Taxing land and property, though less efficient than taxing land alone, has been found to be less harmful to investment and growth than other taxes such as income and corporate tax[13].

4) Because land, and the properties on this land, are immovable and highly visible assets, it is **easier to identify and monitor them for the purposes of taxation**. People who do not pay tax on their land or property can more easily be identified and penalized than those who do not pay tax on their incomes, for example.

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[11] Smolka, 'Implementing Value Capture in Latin America: Policies and Tools for Urban Development'.
^ For more on this, see see forthcoming *Cities that Work* paper on Asset and Debt Management for Cities.
[13] OECD, *Tax Policy Reform and Economic Growth* (OECD Publishing, 2010).

Annual taxes on land and property can be particularly promising

Annual taxation on land and property, rather than more **irregular forms** of taxation such as transfer taxes (levied on the market value of land and/or property when sold) or capital gains tax, can be particularly valuable:

- ✓ Unlike irregular forms of taxation on land and property that are only paid if certain events occur, such as sale or inheritance (both of which are usually more likely to occur during economic booms), annual taxation can provide a **regular, long term** stream of revenue.

- ✓ Because annual taxation of land and property is not only applied when these assets are sold, these types of taxes do not **impede the transfer of land and property** towards their most efficient use.

- ✗ There is one key disadvantage of annual taxes when compared to taxes at the point of sale/inheritance – these taxes may be more strongly resisted by homeowners who are not getting a lump sum of money from which to pay these taxes. However, there are ways in which this 'stock' vs 'flow' challenge can be overcome:

Asset rich but cash poor?

One issue with land and property taxes is that they are inherently a tax on assets, rather than incomes. As such, these taxes may be difficult to pay for certain groups that own high value assets but do not earn commensurately high incomes, such as retired seniors or low income earners. This can prevent mixed-income neighborhoods from emerging in more central urban areas. If low income households are forced off their land without adequate and well-connected alternative housing, this can have extremely adverse effects on these individuals and thus may not be politically feasible or desirable. In order to address this, policymakers can employ:

- **Tax deferral schemes**, which limit the amount of tax current land/property owners pay, with the outstanding amount (possible with interest) taken as a transfer tax on the asset when it is sold or inherited.
- **Time bound exemptions** for low income households until alternative, well connected housing arrangements can be provided, whilst encouraging long term efficiency of land use.
- **Longer term exemptions** can also be used to allow for long term low-income housing in central areas of cities

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This policy brief will therefore be focusing on the implementation and reform of **annual taxation of land and property.**

The challenges of land and property tax reform

Given the potential for large increases in municipal revenues, why have land and property taxes gained little traction in developing countries? In addition to challenges in policy design, there are two main obstacles to reforms to create effective land and property tax systems:

1) **Political challenges.** Land and property taxes are likely to face significant political resistance from land and property owners (or occupiers, if they are liable for these taxes). This is both when attempting to implement a new land and/or property tax, and in attempts to reform of land and property tax that increase tax liabilities. Individuals who currently enjoy the benefits of population growth and public investment often oppose reforms that allow local government to capture a greater proportion of the value of these assets. The fact that these assets are highly visible, and that taxation has to be paid directly by taxpayers (rather than withheld at source) makes taxing them even more likely to face resistance.

2) **Administrative difficulties**. In addition, there are a number of significant administrative challenges to be faced when designing or reforming land and property tax systems that can require substantial investment in technical and staffing capacity.

At each stage of the design of a land and property tax system, policymakers can make decisions to harness the benefits of land and/or property taxation whilst addressing these associated challenges.

In introducing or reforming a land and property tax system, it is helpful to keep in mind the elements of the system that each play a part in raising revenues:

Tax revenue = (**registered tax base** – **exemptions**) x taxable value determined by **valuation** x legally defined **tax rate** x **tax collection**

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2. Policy decisions for land and property tax reform in cities

There are four main decisions policymakers will need to take in reforming or introducing a land and/or property tax system:

1) What exactly to tax?
2) Who to tax?
3) What assets are exempt from taxation?
4) How to set land and property tax rates?

What exactly to tax?

A first step in designing policies for taxing land and property tax is to decide what types of assets are going to form the tax base.

When a property is sold on the market, the value of this property is usually the sum of **value of land** and the **value of the (immovable) property** on this land. Similarly, when a plot of land is sold, the value placed on this land will usually take into account the added value of its immovable properties.

Policymakers can choose to tax:

1) Land but not immovable properties
2) The composite value of land and immovable properties
3) Immovable properties

Or some combination of these.

There are a range of different land and property tax systems in developing countries. In Tanzania, for example, the value of immovable properties is isolated

Land and Property in Kampala, Uganda (Photograph: Simisa, 2009)

and only this is taxed, whilst in Rwanda, Malawi, Zambia and Botswana, the value of land and property are isolated but both taxed separately. In Kenya, the value of land without immovable properties is isolated and taxed. In Lagos, three different rates on land and property have been consolidated into one land use charge.

Taxing immovable properties alone can act as a wealth tax, but doesn't capture public investments

Taxing the value of immovable properties isolated from land – for example, by taxing the construction value of a house - lacks some of the benefits of taxing land, or land and property together, outlined above. The value of a building itself is not affected by public

investments or population growth, but only on the cost of construction and years of depreciation. As such:

- ✗ Taxing these assets cannot be justified as the legitimate price paid by owners for value added from public investments and population growth

- ✗ Taxing property alone can finance public investment, but since these investments do not raise the value of property, they cannot facilitate further government financing on capital markets from higher projected revenues in future

- ✓ However, as these taxes on immovable properties are a tax on asset wealth, they can be extremely progressive in **redistributing wealth.**

Taxing property alone can of course be implemented *alongside* taxes on the isolated value of land. If policymakers want to harness the benefits of a tax that incorporates the value of land, they will still need to decide **whether to tax land on its own, or to tax land and property together.**

Land taxation is more efficient than taxing land and property…

There are a number of potential benefits of taxing land alone:

- ✓ Whilst taxing land and property can discourage investment in properties to some extent, taxing land alone does not have this effect. The fixed supply of land means that this kind of tax **will not affect urban investment in building and improving land.**

- ✓ At the same time, taxing land **strongly discourages inefficient land use**, with individuals much less likely to hold under-developed land if they are taxed on this asset. Taxing land at a high enough rate can therefore reduce urban sprawl and speculation, making land more affordable for productive uses. High levels of land taxation, alongside lower taxes on productive sectors, have reduced land speculation and encouraged manufacturing investment in many East Asian countries[14].

It is important to note, however, that in practice there is very limited evidence to compare the effects of these two types of taxes.

…But other considerations may mean taxing land and property together is advisable

However, two main factors may mean that <u>taxing land and properties together</u> is the best option for policymakers:

- ✗ **Taxing wealth as well as benefits.** If policymakers wish to use taxes on land not only to capture the benefits of public investments, but also to redistribute wealth, then a tax base that combines land and property may be more appropriate. Taxing land on its own can increase inequality in cities if land-owners own land of similar value

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[14] Kopanyi and Murray (2016) "An Effective Property Tax Regime for Rwanda (Draft Report)."

but with very different structures on the land. In order to avoid this, policymakers can choose to implement a tax on the composite value of land and property.

- ✗ **Lack of data to isolate land values**. As discussed above, most transactions of land or property involve transacting both of these together; there is therefore likely to be greater availability of market valuations of land and property together. If similar pieces of land are sold with different types of buildings on them, or vice versa, it is possible to isolate the values of different types of land or property. However, if there is **insufficient data on transactions of land and property, or on the current value of buildings alone, to isolate the separate value of land or property**, it may be easier to value and tax land and property together than try and isolate the impact of the two in sales.

The following discussion largely applies to taxation of land, land and property, and property taxes. We shall refer to these taxes as "land and/or property taxes" and indicate where discussion is specific to one of these.

Who pays land and property taxes?

Policymakers will also need to decide whether to **tax owners of land and property, or occupiers**. In most developing cities, owners are liable for land and/or property tax payment, but this can be extremely difficult if there are unclear ownership rights over these assets.

The end result of taxing owners or occupiers should be the same: the fixed supply of land means that the tax is **fully passed on to the owner** in the form of reduced rent payments from occupiers. However, there are practical considerations which may favour taxing owners or occupiers

Taxing owners is perceived as fairer

People who own land and property are typically wealthier, and if they rent out these assets, they can use rent payments to pay the tax.

…But levying the tax on occupiers can be administratively easier

However, where registration of formal land and/or property rights is seriously incomplete and there are several competing claims over these assets, it may be **easier to identify and assign tax liability to occupiers** of land or property than to owners. Assigning tax liability to occupiers in these circumstances can avoid a costly and complex process of identifying legal ownership. Occupiers can then deduct this payment from their rental payments to the owner. Levying taxes on occupiers was instrumental to increasing revenues from property taxes in Hargeisa, Somaliland in 2005[15].

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[15] Lawrence Walters, 'Land and Property Tax: A Policy Guide' (UN-HABITAT, 2011).

What assets are exempt from taxation?

A major factor affecting revenues from land and/or property taxes is whether or not *exemptions* are introduced, based on land or property use, value or ownership. Exemptions can be partial, total, or in the form of deferred payments.

In a number of developing cities, exemptions to land and/or property tax systems are a significant source of revenue loss. Liberal allowances for local governments to implement exemptions across many Tanzanian cities have significantly reduced potential local revenues[16], while in Kampala, owner-occupancy exemptions have severed limited the tax base.

Exemptions to land and/or property tax can be divided into five main groups:

1) Those based on **socially desirable land and/or property use**, such as schools and hospitals
2) Those targeting **owners with lower value assets** in order to reduce inequality, based on the value of land or properties
3) Those targeting **owners who would not be able to afford to remain on their land/property** if taxed based on its value e.g. low income households or retired individuals on central land without sufficient income
4) Those given for political reasons, such as **owner-occupancy exemptions** to garner political support from homeowners
5) Exemptions for **government-owned properties and nonprofit enterprises**

Land used for schools are often exempted - School in Kigali, Rwanda (Photograph: Brian Dolinger, 2009)

There are benefits to implementing land and/or property tax exemptions:

✓ The first three types of exemptions outlined above can be useful in achieving different goals for urban development.

✓ At the same time, exemptions to low value land/and property may be sensible if the cost of collection outweighs the revenues that could be gained.

✓ Exemptions may also be deemed necessary to reduce displacement of low-income groups or the elderly who do not have the liquid assets needed to pay this tax.

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[16] Washington H A Olima, 'Property Tax Regimes in East Africa' (UN-HABITAT, 2013).

Low-income exemptions

Exemptions to property taxes based on occupation or income are common in the UK and US. However, it is important to note that significant investment may be necessary to implement systematic exemptions based on income levels at a central level, as this would require linkage of land ownership and income level registries.

In countries like Rwanda, where as part of a national "Vision 2020 Umurenge" poverty reduction strategy individuals are classified into one of six poverty categories, this may be relatively straightforward.

Such exemptions may also be possible through local or informal leader implementation; in Tanzania, for example, local governments implement individual exemptions on the basis of age or current income levels of those liable for taxes. In cases where it is not possible to obtain this data, exemptions based on income for *renters* can still be established, using the rental value they pay to estimate income levels (see below on assessing affordability of tax rates).

However, there are also downsides, as experienced in many developing cities:

- ✘ A well-functioning tax system is one that applies a low tax rate across a broad tax base. Exempting some properties some the tax base does not reduce overall demand for public investment in services and infrastructure, and therefore **either reduces tax intake or places a higher tax burden on all other individuals.**

- ✘ In addition, exemptions based on owner-occupancy, or based on ownership by government or nonprofit entities, are not advisable on grounds of efficiency or equity. Whilst unfairly imposing higher costs on those who are subject to exemptions or limiting tax revenues, differential treatment means that **competition between businesses is distorted** and land in a city may not be put to its most efficient use.

- ✘ By introducing any kind of exemption, land and property tax systems are made more complex. This creates the opportunity for **fraudulent behavior**. Exemptions for owner-occupancy are often exploited by owners of multiple plots of land, who divide ownership titles among family member to avoid taxation. With greater complexity comes greater administrative burdens on local governments to monitor and evaluate requirements for exemptions. As such, any attempts to increase the range of exemptions should be carefully weighed against administrative capacity to monitor qualification for such exemptions.

How to set land and/or property tax rates?

In determining land and/or property tax rates, policymakers will first have to determine whether to apply different rates of tax to different land and/or properties. In many developing cities, different rates are often applied to land and property based on whether they are used for residential, commercial or industrial purposes. At the same time, tax rates are sometimes differentiated by area if there are certain public services that only benefit particular areas in a city[17].

Variable rates may make sense but increase complexity of the system

Variable tax rates can be beneficial in certain cases:

- ✓ Higher tax rates on vacant or underdeveloped land alone can be key to **reducing land speculation**, where land is bought by investors as a short-term investment with no intentions to develop it. In Gaborone City in Botswana, for example, land tax rates on underdeveloped plots are four times higher than on developed plots, in order to discourage speculation and encourage rapid development[18].

- ✓ If different types of property or land **benefit from public services and infrastructure to different extents**, policymakers may want to adjust tax rates accordingly. For example, policymakers may want to capture a greater proportion of the value of residential properties, that generally make greater use of local services than non-residential properties.

- ✓ Applying different tax rates to particular types of properties or different uses of land in particular areas could **help achieve urban land use master plans**. For example, land and property tax rates are reduced in particular localities by state and local governments in the United States to encourage businesses to locate in particular areas[19].

- ✓ Applying higher tax rates to higher value land and property can also help in **wealth redistribution.** Stamp duty in the UK, for example, follows a progressive system, with tax percentages increasing as the purchase price bracket of property increases. Similar systems are seen in Brazil and Singapore.

However:

- ✗ Introducing variable tax rates can, like exemptions, **increase complexity** of the tax system, and raise associated administrative costs in its implementation. For example, progressive tax rates are likely to result in higher levels of assessment appeals to get into lower bands, and resistance from taxpayers on the border of value classes. Differentiating between types of land/property or their values

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[17] Richard M. Bird and Enid Slack, 'Land and Property Taxation: A Review.', in *Paper Presented at the World Bank Land Workshop, April 3–6, Budapest, Hungary.*, vol. 19 (Citeseer, 2002),
[18] Alosyus Mosha, *Challenges of Municipal Finance in Africa: With Special Reference to Gaborone City, Botswana*, Human Settlements Finance Systems Series (Nairobi: UN-HABITAT, 2010).
[19] Daphne A. Kenyon, Adam H. Langley, and Bethany P. Paquin, 'Rethinking Property Tax Incentives for Business', Policy Focus Report (Lincoln Institute of Land Policy, 2012)

substantially increases the data requirements, increases the opportunity for error in judgement, and face similar administrative challenges as implementing exemptions.

- ✗ In addition, the more complex the system of tax rates, the more difficult it is to **communicate** the system transparently to taxpayers. If individuals do not understand why they are being taxed at a certain rate, they are less likely to comply with their tax obligations. Progressive land and property taxation, for example, though good for wealth distribution, breaks down the clear links between these taxes and the benefits they finance in terms of public services and infrastructure (which are often be more beneficial for lower income households).

If administrative capacity is low, a single rate may be the best option for policymakers.

Tax rates depend on the tax base, tax revenue aims and affordability considerations

Whether single or variable tax rates apply, decisions over tax rate(s) on land and property must take into account the tax base, revenue collection aims, and affordability for taxpayers.

Tax rates across the world

Land and property taxes across Europe and in the USA are typically set somewhere between 0.5-1% of market value[20]. In East Asian countries such as China and the Philippines, property tax rates are approximately 1-2%[21] whilst annual property taxation in South Korea is levied between 0.15 and 0.5% of property values[22].

In many sub-Saharan African countries, high tax rates are applied to outdated asset values. In Kenya, for example, land taxes can reach over 30%[23] - but because some valuation rolls date back to the 1980s and current values are around 20-30 times these, the 'real' rate property tax is around 1%[24].

Given the tax base, and how much a government aims to raise from land or property tax, a tax rate can be established – as long as it satisfies affordability constraints for taxed individuals. Using computer simulations, it is possible to examine how different tax rates on a particular tax base can raise different levels of municipal revenue. Revenue targets or tax base exemptions can therefore be revised if the tax rates simulated are found to be unaffordable.

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[20] Kopanyi and Murray (2016) "An Effective Property Tax Regime for Rwanda (Draft Report)."
[21] Global Property Guide, 'China Capital Gains Tax Rates, and Property Income Tax', Text, Global Property Guide, 2013; Global Property Guide, 'Philippines Capital Gains Tax Rates, and Property Income Tax', Text, Global Property Guide, 2016.
[22] Global Property Guide, 'South Korea Capital Gains Tax Rates, and Property Income Tax', Text, Global Property Guide, 2016
[23] Kopanyi and Murray, "An Effective Property Tax Regime for Rwanda (Draft Report)."
[24] Kopanyi and Murray (2016) "An Effective Property Tax Regime for Rwanda (Draft Report)."

What constitutes an "affordable" land and/or property tax?

The affordability of land and/or property taxes for those liable is depends on a range of factors, but some factors to keep in mind include:

1) **Taxpayer incomes.** Given that a house is typically seen as "affordable" if it is 2-3 times the owner's annual income[25], it is possible to roughly estimate landowner incomes using data on property values and calculate what percentage of incomes would go towards any particular tax rate. Where this data is not available, income and consumption data can provide rough estimates of household incomes.

2) **Other taxed levied on land and/or property**, such as Capital Gains Taxes

3) **Other taxes levied on taxpayers**, such as corporate taxes and income tax. In many East Asian countries, a key aspect of the success of land and property taxes was accompanied reforms that lowered business and income taxes faced by citizens, making land and property taxes more affordable.

4) **Current annual land and/or property tax rates**. Though this does not affect what people *can* pay, it is likely to strongly determine people's willingness to comply with reforms that raise land/and property tax rates.

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[25] Murray, Kopanyi, and McSharry, "A Land Value Tax for Kigali: Analysis and Policy Considerations."

3. Implementing land and property tax systems

Once policy is in place, how can revenues from land and property tax systems be expanded? There are three main areas of focus in implementing land and property tax systems:

1) Broadening the tax base
2) Valuing the tax base
3) Land and property tax appeals and collection

How can taxes on land and/or property taxes include more of these assets?

A good tax system is one that applies a low tax rate across a broad tax base. Without a wide range of land/ and property to tax, very high tax rates become necessary to yield sufficient revenues, and these revenues are more unstable.

Broadening the tax base requires up-to-date information both on characteristics of land and properties, and on those liable for taxation: physical and legal 'cadasters' that are often developed by local authorities when undergoing a process of land right formalization.

In many developing cities, land and property cadasters are seriously incomplete, resulting in a **significant loss of municipal revenue** from land and property taxes due.

Land and property in Kigali
(Photograph: oledoe (CC) via Flickr http://bit.ly/1IYbTyb)

This highlights **the importance of land and property right registration** in implementing land/and property taxes. Formal land and property ownership registers create a legal basis for taxation and reduce the cost and time associated with identifying those who can be held liable for such taxes. The process of registering land rights can also be used to raise awareness of tax payment obligations among owners. As a consequence of formal land

registration in Kigali City, nominal land-related government revenues increased **five-fold** from approximately RwF 2bn ($3.3m) in 2011 to over RwF10bn ($15m) in 2013[26].

The challenge for many governments is that land and property registration can come at very high costs. In Tanzania, for example, complex surveying processes inflate titling costs to over $6,000 for an individual land parcel – more than double per capita incomes[27]. At the same time, the same piece of land is often contested by a number of occupants and owners, making registration subject to strong resistance from those who stand to lose out.

Successful registration in countries like Rwanda, where all land in the country was registered at only $6 per parcel between 2009 and 2013, highlights some ways in which these challenges can be overcome:

1) **Large scale registration.** Mapping and surveying can be up to 20 times cheaper if carried out at scale, avoiding repeated site visits[28].

2) **Appropriate, low cost technologies.** Instead of using highly trained professional cadastral surveyors, local para-surveyors demarcated plot boundaries using simple methods of boundary demarcation in the presence of the whole community, and recorded plots using satellite and aerial photographs. Such low-cost programmes may be less precise in establishing exact plot boundaries, but can provide a decent basis for taxation, planning, and land sales.

3) **Local parasurveyors.** The use of local parasurveyors, alongside localized dispute-resolution systems, was not only highly cost-effective, but also but also meant that those responsible for demarcating the land were known to the claimants. By encouraging entire communities to participate in resolving boundary disputes, competing claims were resolved openly and cost-effectively.

Local governments are usually best placed to develop such physical cadasters, as they have the local knowledge of land use and changes necessary to augment satellite mapping of land and property^.

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[26] Fidele Masengo, Thierry Hoza Ngoga, and Enid Ingabire, 'Land Tenure Reform and Local Government Revenues in Rwanda', LAND Project Policy Research Brief No.3 (Kigali, Rwanda: USAID LAND Project, 2014). Revenue figures include land lease fees, property tax, rental income tax, transaction fees including notary fees and issuance of building permits.
[27] Ali, D. A., Collin, M, Deininger, K., Dercon, S. and Sandefur, J., 'The Price of Empowerment Experimental Evidence on Land Titling in Tanzania', *CSAE Working Paper, WPS-2014/23*, 2014.
[28] Ibid
^For more information on land rights and registration, see *Cities that Work* policy paper and brief on Land Rights.

In addition to registration programmes, there are some minor reforms that can significantly expand the registered tax base:

1) **Collecting occupancy data on land/property.** Where legal cadastral surveying identifying land ownership is not possible, data collection on occupancy can form the basis of a land/ and property tax base.

Case study: Land registration in Hargeisa, Somaliland

In Hargeisa, Somaliland, for example, land ownership registration was virtually nonexistent in 2005 after years of conflict. Limited revenues from property taxation were insufficient to cover even essential municipal services. With assistance from UN-HABITAT that included on-the-job training for local staff, local government in Hargeisa developed basic cadasters using **satellite data and surveys to collect data on physical characteristics of properties and the occupier(s) of those properties**.

Over eight months between 2004 and 2005, properties registered for taxation increased from 15,850 to 59,000. Alongside automated property tax billing, this new system of taxation **increased revenue by 248 percent**[29].

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2) **Digitising and combining existing property ownership records**. The amount of land and property that can be covered by tax can be significantly increased (and made more accurate) by digitising and harmonising existing records of property ownership, as well as by combining local and national land ownership registries. These can also be merged with data from utility companies and other sources of ownership information. By digitizing data on assets liable to tax, ownership records can also be easily maintained over time.

These reforms can be most successful in enhancing property tax revenues when combined with **street addressing programmes,** to make identification of taxpayers and collection of taxes easier. In Senegal and Burkina Faso, taxpayer rolls have been combined with address information to allow officials to more easily identify taxpayers and collection gaps[30]. In the Nigerien capital of Niamey in the early 2000s, local and national government officials worked with surveyors as well as state water and electricity companies to rapidly reconcile property registers with street address data[31].

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[29] Walters, "Land and Property Tax: A Policy Guide."
[30] For more information on street addressing, see Catherine Farvacque-Vitkovic et al., 'Street Addressing and the Management of Cities' (World Bank, 2005).
[31] Monkam and Moore, "How Property Tax Would Benefit Africa."

How can governments reform land and/or property valuation to raise revenues?

One of the greatest challenges in implementing a land and/or property tax is valuation of these assets. In many developing cities, such as Kigali, current valuation methods are unable to capture a significant proportion of the variation in land/and property values. At the same time, attempts at more complex valuation methods that exceed capacity in Ghana, Liberia and the Gambia have proven extremely difficult to implement[32].

There are four main methods of land and/or property valuation:

1) Capital Market Value Assessment
2) Rental Value Assessment
3) Area-based assessment
4) Points/Proxy-based assessment

Capital market value assessment

Capital market value assessment is based on the value of land and/or properties on the market. This type of valuation can be based on **sales of similar pieces of land or properties** or, in the case of immovable properties in isolation, on the **cost of construction of buildings**. This is how land and property is valued in countries such as Canada, Japan, Colombia, South Africa and the UK (for residential properties). Capturing the value of land and/or property through comparable sales requires **data on land and property sales** as well as data on land and property **attributes**. Using these, regression analysis can estimate current capital market values of property and land.

Capital market valuation is more accurate the more data there is on land and property transactions, the homogenous land or property is across a city, and the slower land and property uses and values change over time.

✓ With sufficient data, this method of land/and property taxation is the most accurate way of **capturing the true taxable value of land and property.** A well-designed computer-aided mass appraisal (CAMA) model based on comparable sales can predict values of land within 90% of true plot value[33]. This is not only fairer (and therefore more acceptable) for taxpayers, but can also allow for greater revenue collection from high value assets.

Capital market valuation in South Africa has meant that approximately a quarter of annual budgets across the eight metropolitan councils are raised through property tax[34].

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[32] Monkam and Moore, "How Property Tax Would Benefit Africa."
[33] Murray, Kopanyi, and McSharry, 'A Land Value Tax for Kigali: Analysis and Policy Considerations'.
[34] Monkam and Moore, "How Property Tax Would Benefit Africa."

However, this approach is extremely demanding:

- ✗ Capital market valuation based on comparable sales requires **significant data on market transactions of land and property.** This requires:

  a) *Extensive **market transactions** of land and property,* which themselves require financial institutions that can provide loans for land and building purchases, marketable land and property rights, real estate professionals to facilitate this process, and valuation experts to convey valuation to parties selling or buying land or property.

  b) *Accurate **sales valuation**,* that requires a sufficient stock of well-trained valuation experts and communication between different groups involved in valuation of these assets e.g. estate agents and bankers.

  c) *The maintenance of **up-to-date, accurate and accessible records** of property and land transfer.* This is a substantial challenge for many cities where property records are manually recorded and unsystematically maintained. In cities such as Kigali, prices recorded by buyers and sellers are often not verified, resulting in intentional and unintentional errors in the data[35]. Substantial administrative investment may be required to improve records by digitising existing, historical and future transaction records and by expanding sources of value data to include, for example, data from estate agents and mortgage records.

- ✗ Value assessment based on comparable sales are most accurate when they incorporate substantial **data on the contents and characteristics of plots** to compare "similar" assets. Collecting some basic data on land use, building height, roof materials and quality of nearby roads can be done effectively and relatively quickly as part of a physical cadaster process – but further data requires additional investment to collect.


Using satellite imagery for valuation data

Satellite imagery can be particularly cost effective in obtaining data on building characteristics for valuation. A recent World Bank project used satellite data to estimate building footprints and heights to get an estimate of building volumes. This data was then complemented with household and establishment census data as well as spatial data on nearby schools and roads. The total cost of undertaking this data collection and processing for the 360km^2 study area that covered most od urban Kigali was approximately $40,000.

This data was then included in a CAMA model to predict land and property values in the city. According to the results of this model, a 1% property tax in Kigali would be significantly more progressive than the current lease fee system, and increase revenues tenfold to about $19.3 million[36].

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[35] Murray, Kopanyi, and McSharry (2016) "A Land Value Tax for Kigali: Analysis and Policy Considerations."
[36] Daniel Ayalew Ali, Klaus Deininger, and Michael Wild, 'Using Satellite Imagery to Revolutionize Creation of Tax Maps and Local Revenue Collection', SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, 11 May 2018),

Estimated building heights using satellite data in Central Kigali (Source: Ali et al., 2018[37])
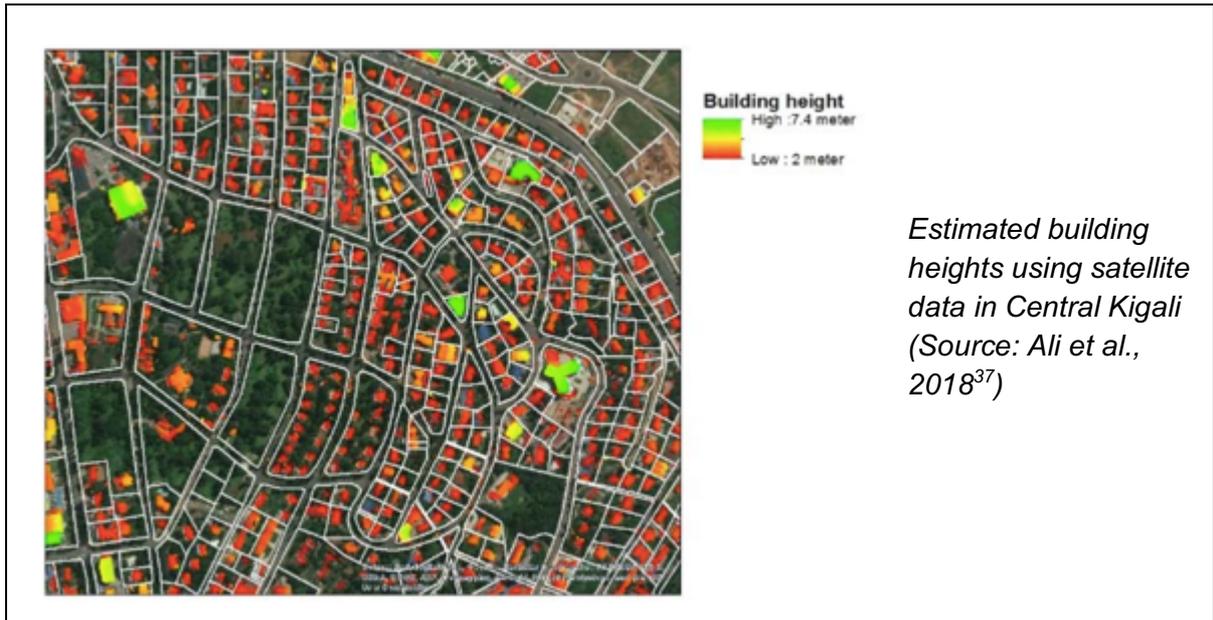
✗ This valuation approach also requires the capacity to **estimate land and property values** based on existing data. The most accurate and consistent way to do this is using a **computer-aided mass appraisal (CAMA)** that models the impact of land characteristics and contents on land values over time. This model is applied, tested and calibrated over a piloting period of 1-2 years and adjusted when found to be inaccurate through tax appeals. Accurate estimation requires significant investment in both **software and model development**, as well as **staff training and investment** in new staff to gain the necessary technical expertise for this process. The investment required is likely to be substantial in countries such as Sierra Leone and Liberia, where there are currently only 50 valuers for a combined population of 10 million[38].

✗ By valuing assets based on capital market value using complex regressions, this method of assessment is inherently less transparent than more indirect measures of land and/or property value. This makes it more likely that valuation estimates will be **contested by taxpayers, particularly when taxing the value of land alone** (as urban land is rarely sold on its own, as a vacant plot, comparisons for valuation are even less clear).

As a result, **significant investment may be necessary to raise public awareness of how the valuation system works**, to prevent public resistance to what may seem to be arbitrary valuations. Without this, attempts to reform valuation can result in the assessment process being tied up in costly legal processes. In certain cases, a large amount of the variation in capital market assessment can be easily communicated to the public – a significant percentage of the variation captured by a CAMA model of land prices in Kigali, for example, can be explained by a few key variables[39].

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[37] Ali, Deininger, and Wild.
[38] Monkam and Moore, 'How Property Tax Would Benefit Africa'.
[39] Murray, Kopanyi, and McSharry, 'A Land Value Tax for Kigali: Analysis and Policy Considerations'.

All of these issues may be particularly difficult to address sustainably over time, and without regular revaluation, this system loses credibility as an accurate measure of relative land and/or property values. The success of more complex value assessment across local governments in South Africa and Namibia has been largely based on mature real estate markets, adequate local resources and substantial valuation assistance and training from provincial authorities[40].

Rental value assessment

Rental value assessment values land and/or property for taxation based on an estimated value of the **typical rent required to occupy a particular land or property.** This system of assessment is used in a number of countries such as Australia, the UK (for non-residential property), China, India and Tunisia.

- ✓ By taxing estimated rental values, this approach more **accurately reflects market values of land/and property** (that depend on their productivity and desirability) than less sophisticated valuation methods

- ✓ When a high proportion of properties in a city are rented, data on rental values may be easier to obtain and use for estimation

- ✗ This approach has similar challenges to capital market value assessment – it has similar stringent data requirements, on both **rental transactions** and **on the contents and characteristics of plots** to compare "similar" assets, significant requirements on estimation capacity, and is less transparent than indirect measures of land/and property value.

- ✗ Because this type of value assessment is based on **current use of the land**, unlike Capital Market Value assessment, this system will not necessarily lead to sale of land for more efficient use.

- ✗ In addition, rental based assessment may be difficult for certain types of properties that are **rarely on rental markets**, such as industrial properties.

- ✗ Where **rent controls** are widely applied, rental value assessment fails to capture the true value of land and property. This is seen on older rent-controlled properties in India[41].

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[40] Monkam and Moore, "How Property Tax Would Benefit Africa."
[41] Bird and Slack (2002) "Land and Property Taxation."

> **Capital market or rental value banding**
>
> If estimation capacity is a significant barrier to valuation, it is possible to implement valuation **banding**. This both **reduces expertise (and thus expense)** required to precisely calculate and maintain value systems, and provides fewer grounds for dispute as a result of lower precision in valuation.
>
> However, banding by its nature **reduces the accuracy** of valuation and there are issues of fairness here for those properties on the border of bands. Policymakers face a trade-off here between greater accuracy and administrative simplicity when choosing the number of tax bands.

Significant investment is required for a well-functioning capital-market or rental valuation system. Where these investments are possible, it is likely they will be recouped from resultant increases in revenue collection in the medium run. However, where these investments are prohibitive, governments can adopt simpler measures of valuation:

Area and location-based assessment

Area and location-based assessment offer the simplest form of standardized assessment of land and/or property. Land tax values under this system are usually assessed based on land area, location (and possibly also land use), and property tax assessed on the basis of building area or volume.
Area (and location)-based assessment can be designed in such a way that:

- ✓ It **does not require land and property transaction data nor data on the contents and characteristics of plots**
- ✓ It requires **limited estimation capacity**
- ✓ It is **easy to communicate** to the public.
- ✓ New or upgraded buildings can be immediately assessed and taxed upon completion

Many developing countries have adopted this system as a temporary method of valuation. In Ethiopia, Mozambique and in several states in Nigeria, municipal governments raise taxes based on the size and location of buildings. This system has increased transparency of the tax system and made it easier to administer for local governments[42].

> **Case study: Area and location-based assessment in Chile**
>
> In Chile, land used for non-agricultural purposes is assigned a **value per square meter** based on which zone it belongs to. Zones are determined by a national agency, the Chilean Internal Tax Service, and reflect **land use and location**. Taxable value is calculated by multiplied the square meterage of land by the base value per square meter in that zone. Buildings are divided into 'classes' depending on their construction type and building quality to establish base values per square meter for each category of building.

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[42] Monkam and Moore, "How Property Tax Would Benefit Africa."

> Taxable value is calculated by multiplying base values by the square meterage of a building and adjusted for factors such as location and age.

- ✖ However, valuing land/and property based on area and location (and sometimes also on basic land use) will not accurately reflect the actual value of land/and property that is affected by a range of other factors. As a result, this system can result in potentially reduced revenues and unequal distribution of tax. In Kigali, for example, there is often wide variety in the level of tax paid by individuals with similar plots of land and similar rates paid for very different value land (with similar problems for structures on this land).

- ✖ As new data on market values is not incorporated into area-based assessment, this approach is unable to capture differing effects of area and location over time between wholesale reassessments.

As a result, a points based system can offer a valuable **middle ground** between more complex value based assessment and area-based assessment:

Points-based assessment

A points based system is a hybrid between an area based and market based valuation system. It uses the surface area of land and/or properties, and makes qualitiative adjustments to this based on observable characteristics that are judged would affect relative values of land/property– such as access to paved roads or train stations, electricity access, or poor location. These **characteristics are given positive or negative 'points' based roughly on how they are judged to affect relative market values.** This acts as a proxy for market values, and comparing points between properties offers a useful approximation of relative market values – so that properties of similar value can be taxed at similar rates. The more relevant characteristics this system includes, the more closely this system reflects market values of land and property.

To improve accuracy, a city can be divided into "zones" where these characteristics are estimated to have the same effect on market values, with different "points" for characteristics across zones.

The results of a points based system of assessment can be compared with a sample of available data on land and property sales. Assessments can be harmonized and points recalibrated accordingly, using the market value sample as a guide. This process can be carried out each year, to more closely reflect market values with time. This can then be used to value properties that have not been valued for sale in the recent past. The graph below shows an example of the correlation process.

POINTS VALUE | MARKET VALUE
HARMONISATION RESULTS
MARKET VALUE/POINTS BASED VALUE

— Market Value
— Points Value
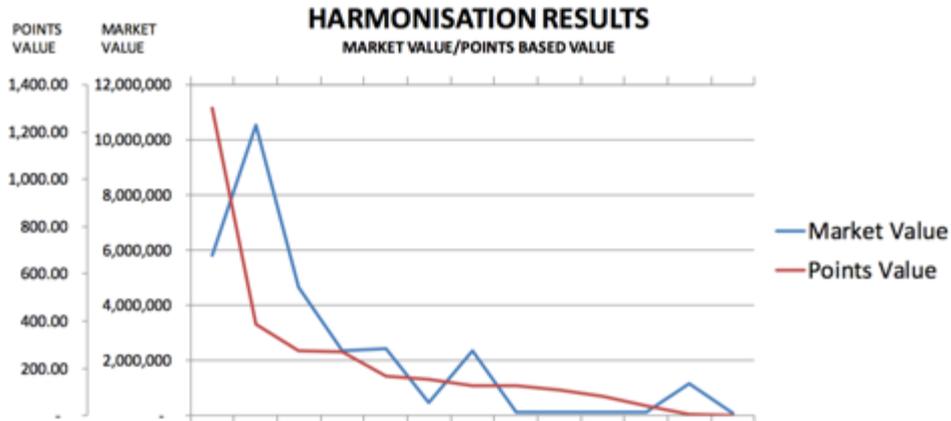
Recalibration of points based systems over time can bring them in line with market values

A points based system offers a number of benefits:

- ✓ This method does not require significant land and property transaction data, but can increasingly include this as it becomes available
- ✓ The method has relatively low administrative requirements, and can be automated to further reduce administrative burden – making it more sustainable over time
- ✓ It is relatively easy to communicate to the public, and can be more easily appealed by taxpayers to correct assessments of physical attributes of land and properties
- ✓ New or upgraded buildings can be immediately assessed and taxed upon completion
- ✓ It is more precise than using area alone, and therefore more accurately and fairly captures differences in value between land and properties

- ✗ However, as it less precisely captures market values than Capital Market or Rental Value based assessments, it may result in lower and more unfairly distributed tax revenues when compared to implementable market based assessments

A points based system can offer an extremely **valuable medium term solution** in moving towards more accurate valuation that is sustainable over time in the context of limited government capacity to sustainably apply market based valuations and/or CAMAs. Over time, as market value calibrations become more regular, the system can more closely reflect capital market value assessments.

Points based valuation in Sierra Leone and Malawi

As part of a Revenue Mobilisation Program in cities in Sierra Leone and Malawi between 2006 and 2015, points based valuation has been undertaken to assess property values. The 'points' assigned to any property are determined by:

- **Area of property** – measured in Sierra Leone and Malawi by surveyors using a tape measure (and surveys to determine the number of floors of a building. (More recently, in Dakar, where individual measuring is not possible, this is being measured using the roof area of buildings captured by drone images)

- This is multiplied by a 'base' number which is determined by relative **construction values**
- This is adjusted by a certain percentage, depending on how far different additional characteristics differ from the norm

This calculation is clearly outlined to taxpayers on their bill to enhance transparency of the system.

Base Measure:	Dwelling for residential use	
Base Value:	Square meters	77.70
Base Factor:	x	100.00 %
Initial Rateable Value:		77.70
	Expressed as points	
Sum of Value Adjustments:	19.00 %	14.76
Initial Rateable Value:	+	77.70
Annual Rateable Value:		92.46
Mill Rate:	x	300.00
Property Tax Payable:		27,738.90
Arrears:	+	0.00
Penalty: 0.00 %	+	0.00
Payment(s) Made:	-	0.00
Total Payable (rounded down to nearest 1,000)		27,000.00

Feature	Result	Adjustment
03 Road Surface	Earth	0.00 %
04 Accessibility	Moderate	-5.00 %
05 Expansion Potential	Some Potential	8.00 %
06 Drainage	Dry Soil	0.00 %
07 Sanitary	Septic Tank	2.00 %
08 Landscape	None	0.00 %
09 Special View	None	0.00 %
10 Fence	None	0.00 %
11 Electricity Mains	Yes	0.00 %
12 Water Supply	Mains Water	0.00 %
13 Water Tank	No	0.00 %
14 Type	House	0.00 %
15 External Wall	Fired Brick	5.00 %
16 Wall Finish	None	0.00 %
17 Wall Condition	B	0.00 %
18 Servants / Boys Quarters	No	0.00 %
19 Roof Cover	CIS	0.00 %
20 Roof Guttering	No	0.00 %
21 Roof Condition	C	-20.00 %
22 Air Conditioning	No	0.00 %
23 Garage	None	0.00 %
24 Verandah	Open	2.00 %
25 Windows	Metal / Glazed	7.00 %
Location Band	B	10.00 %
Road Frontage	Yes	10.00 %
Sum of Value Adjustments:		19.00 %

Points based property tax bill (Chirambo and Fish, 2018)[43]

Implementing a simplified and transparent system of property valuation, rather than the value based model outlined in national legislation, enhanced the legitimacy of new local government structures in Sierra Leone whilst allowing local authorities in Bo, Kenema and Makeni to increase local revenues by 200-450% between 2007 and 2011[44].

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[43] For more information on points based valuation in Sierra Leone and Malawi, see Paul Fish, 'Practical Aspects of Mobilising Property Tax: Experience in Sierra Leone and Malawi', *Commonwealth Journal of Local Governance*, no. 16/17 (2015) and Paul Fish, 'Practical Guidance Note: Training Manual for Implementing Property Tax Reform with a Points-Based Valuation' (ICTD, 2018).
[44] Jibao and Prichard, 'The Political Economy of Property Tax in Africa'; Jibao and Prichard, 'Rebuilding Local Government Finances After Conflict'.

A taxonomy of valuation systems

Type of assessment	Accuracy	Data requirements on transactions	Data requirements on land contents/ characteristics	Estimation capacity required	Transparency
Capital Market Value	High – though requires regular reassessments	Significant (on assets transactions)	High for greater accuracy	Significant	Can be low
Rental Value	High (where rental values are available and rent controls are not applied)	Significant (on rental transactions)	High for greater accuracy	Significant	Can be low
Points/Proxy	Medium (depending on calibration to market values and number of proxies included)	None needed – though helps in accuracy	Depends on number of proxies	Medium	Relatively high
Area-based	Low	None	Very limited	Limited	High

Key to effective valuation is **matching valuation to current or projected capacity**. In cities such as Kigali, where land registration levels are high and land market transactions are recorded, evidence suggests that a computer aided mass appraisal based valuation that would increase accuracy of valuation by over 40% compared with less accurate methods could be developed within a year of investment[45]. By contrast, in cities in Sierra Leone, implementing simpler systems to match capacity have yielded higher revenues and greater public acceptability of these taxes.

It is important to keep in mind that **different valuation approaches can be used in different regions of a country,** with Capital Market Value assessment introduced in cities where land market sales are more active.

Regardless of the valuation technique used, valuation experts can **help avoid the possibility of resistance and legal appeal** to valuation due to overestimation of property prices by setting valuations for tax at a fraction of estimated market value. In the United States, tax assessment valuation is approximately 33 percent lower than market value, and in Bogotá, Colombia, tax assessment values are between 20 and 30% lower than estimated market values[46].

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[45] Murray, Kopanyi, and McSharry, 'A Land Value Tax for Kigali: Analysis and Policy Considerations'.
[46] Nancy Lozano-Gracia et al., 'Leveraging Land to Enable Urban Transformation: Lessons from Global Experience', *World Bank Policy Research Working Paper*, no. 6312 (2013).

> **Land values rise faster than incomes**
>
> One thing to keep in mind is that land values in a rapidly urbanising city are likely to rise far more rapidly than incomes. As such, any system of valuation that aims to reflect market values, if combined with a fixed tax rate over time, would quickly become unaffordable to most people unless they sold their valuable land/and property.
>
> As such, policymakers face two options:
>
> 1) **Fix land and property values** and increase tax rates over time according to growth in income levels, rather than the growth in value of land/property. Between wholesale revaluations to readjust this system, the value of new properties can be deflated to estimate their value at the benchmark year for valuation. Similarly, major changes to land or properties such as extensions or public investments in roads can be incorporated. A similar system is seen in the UK, where "Council Tax" on residential property is based on estimated nominal 1991 property values.
>
> However, this method is unable to capture changes in relative values of land and properties in cities. As such, this kind of system can be seen as unfair because people are paying increased taxes based on average income increases, rather than increases in their own property value.
>
> 2) Update land and property values and **reduce rates over time**. This can allow for relative valuations to remain accurate and affordable to taxpayers.

Which government agency will undertake the valuation process?

Which government agency undertakes the process of valuation and which valuation system is chosen are interrelated:

- Central government agencies are **more likely to have the expertise and the administrative capacity to evaluate and maintain data** necessary for more complex forms of valuation such as Capital Market Value Assessment, and are less likely to **collude with taxpayers** to reduce taxable values.
- However, transparently administered local government valuation is likely to increase **accountability and legitimacy** of valuations and appeals among citizens.
- Even in the case of more complex value assessment, local government are likely to play a key role in **collecting data** on attributes of land and buildings.

An additional consideration is whether a physical cadaster already exists, as integrating fiscal and physical data may be most effective if done by the same agency.

Where valuation is undertaken at the local level, central or state-level authorities can play a key role in providing support, training and monitoring of valuation processes at the local level and/or in providing private contract reviews.

How can land and property tax collection be improved?

Efficient and effective tax collection is of course **key to raising revenues from land and property tax.** At the same time, however, effective tax collection is also important in preventing unfair distribution of the tax burden and therefore **making such taxes more legitimate** and acceptable to the public at large. The percentage of tax actually collected under land/and property tax systems varies widely across cities – whilst 90 percent of land and property liabilities in Bogota are collected, only 55 percent are collected in Mumbai[47]. Poor administration of tax collection alongside strong political resistance to payment in countries such as Tanzania, Kenya and Uganda result in extremely low collection rates.

Without effective tax collection systems, attempts to improve valuation or expand the tax base may prove ineffective.

Efforts to improve tax collection can also prove **instrumental to further reforms** to land and property taxes. In Lagos, the first Tinibu administration focused their initial efforts on enforcement and efficiency of tax collection, increasing revenues substantially and allowing them the necessary additional finance for investment in public goods. This is turn eased the way for public acceptance of wider reforms to raise revenues.

> In order to improve tax collection, policymakers must **increase administrative efficiency of tax collection**, whilst also **increase incentives for compliance** by taxpayers.

Encouraging efficient collection

There are two main ways in which governments can improve efficiency of tax collection:

1) **Automation of billing** and **computerised payment systems**, to allow for efficient monitoring and collection of payments, and to reduce opportunities for corruption.
In Arusha, property tax collection is done through an electronic revenue collection system that updates to show compliance when taxes are paid and a receipt is generated.

   This updated revenue collection system, launched in December 2013, has allowed the city to expand its revenues significantly, raising Sh174.5million in its first three months, as compared to Sh84 million in the five months before the system became operational[49].

> **"The computerization has made the tax system more transparent and credible for payers and it gives them confidence that they are paying for something genuine as opposed to concocted"**
>
> Burno Mlacha, Revenue Accountant, Arusha City Council[48]

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[47] Roy Bahl, 'Property Tax Reform in Developing and Transition Countries', Fiscal Reform and Economic Governance Project (USAID, 2009).
[48] Loy Nabeta, 'Building Arusha: One City's Journey to Better Urban Services, Access and Quality of Life', World Bank, 2014.
[49] Nabeta.

2) **Decentralisation** of tax billing and collection to the local level, where it is likely to be most effective given the localized knowledge and interaction required. Though there may be reduced incentives at the local level to enforce collections on politically powerful individuals, strict monitoring of collection at a central level can mitigate this effect.

Can private contracting improve collection?

In many developing cities, local governments are increasingly looking to outsourcing tax collection to private companies to improve the efficiency of tax collection. However, whilst private companies may in some cases be better resourced and incentivised to expand tax revenues, there are significant risks associated with outsourcing collection. Private firms can charge overinflated costs and high premiums, and farming out collection may undermine the legitimacy of local government.

Private outsourcing of collection is only likely to be successful under **very specific conditions** – local governments will need to implement competitive and transparent tendering processes to reduce opportunities for corruption, invest in detailed revenue projections, effective design and enforcement of contracts, and implement systems to reduce overzealous collection, inefficiency and corruption of private collection. Without these, local government collection is likely to be a more sustainable option for expanding revenues[50].

Enhancing compliance

Increasing payment compliance can be done by enhancing the convenience of paying taxes, by improving enforcement of tax payments, and by enhancing motivations for compliance.

Enhancing convenience

In order to make tax payments easier for those liable, local governments can provide a range of methods for tax payment that include payment at bank branches, payment by post, via the internet, or by mobile phone. In Arusha, residents will soon be able to pay taxes online or through mobile banking in an effort to further raise revenues.

Enforcement of tax payment

Tax compliance is likely to be enhanced if there are effective ways of identifying, resolving and punishing tax delinquency – particularly for wealthy economic and political elites who are most affected by land and/or property taxes. The threat of seizure of land and property in the case of non-payment is extremely difficult and costly, both financially and politically, to enforce.

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[50] For more information on this, see *Cities that Work* policy brief on *'Private vs. public collection in enhancing local tax revenues'*

Enforcement therefore involves the **establishment and effective administration of realistic sanctions** for late and non-payment:

1) **Fines** based on a percentage of the tax due plus interest are commonly used, though these come with administrative and political hurdles, particularly when levied against politically powerful land/and property owners.

2) The publication of lists of individuals who have not paid their taxes can use social pressure and the effect of peer recognition to enhance compliance. Local authorities in Kenya, such as Nairobi and Mombasa, occasionally publish names of those have not paid land taxes in newspapers.

3) Combining tax liabilities with utility payments. In cities such as Cape Town, property tax bills are combined with other utility bills into one consolidated debt. As such, property owners have to pay property taxes in order to also pay for the continued supply of electricity and other services, incentivising compliance.

4) Governments could also consider prohibiting formal authorization of development or sale of land/properties without up-to-date tax payment – though this could instead simply stop people from formally registering these processes. On leasehold land, government could also prevent renewals of leases without up-to-date tax payment.

Case study: Increasing tax compliance by communicating detection and sanctions in Liberia

In Liberia, different types of information notices were sent to property owners in 2017 regarding real estate registration and taxes. While notices that simply communicated the need to pay taxes had limited effect on tax payment, notices that were personalised to address the owner by name, including a photograph of the property (to highlight the potential for **detection**) and that included details of **legal sanctions** for noncompliance were far more successful – increasing tax payment from 1% to 5%[51].

Enforcing tax payment by political elites in particular has proven instrumental in gaining the support of the wider public for of land and/or property tax reforms by raising their **legitimacy**. To maintain public support for land and/or property taxes, the public needs to believe that each citizen will pay their fair share of the tax burden. Under Fashola, for example, Lagos State pursued tax payments by all owners, including well connected economic elites – both significantly increasing tax revenues and demonstrating the strong political will behind reforms[52].

Further reducing political resistance to taxation

However, the most important factor affecting tax compliance (and affecting all other reforms to land and property tax) is the level of resistance from political and economic elites and the

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[51] Oyebola Okunogbe, 'Increasing Real Estate Tax Compliance in Liberia: The Impact and Limitations of Information on Detection and Penalties', Pilot Study Report (IGC, 2018).
[52] Paice, "Lagos Proves Africa's Property Tax Potential."

wider public to such taxation. Without addressing this, the administrative and political cost of enforcing tax collection would be extremely high. As seen in the above, this resistance can be mitigated to some extent in the design of land and tax policy. However, there are additional, **cross-cutting ways in which political resistance can be mitigated – see below.**

How can design and implementation of a land and property tax system further address political and administrative challenges?

Across policy design and implementation for land and property taxes, political and administrative challenges can be minimised in a number of ways.

Reducing political resistance to land and/or property tax

1) *Linking taxation to public investment (alongside awareness campaigns)*

> **"Tangible developments compel citizens to pay their taxes"**
>
> Bruno Mlacha, Revenue Accountant, Arusha City Council[53]

In the long run, public support for land and property tax is linked to the **tangible benefits** such taxation provides. If closely linked to public expenditure on things like roads and hospitals, land/and property taxes then become seen as the **price paid for public investment in services and infrastructure.**

Surveys in Lagos suggest that greater levels of tax compliance are linked to taxpayer beliefs that their taxes have been well spent – largely the result of visible, costly and popular infrastructure projects such as road improvements. In Fashola's first term in office, annual capital spending in Lagos rose from $600 million in 2006 to $1.7 billion in 2011 (in inflation adjusted 2012 figures)[54]. These investments has played an important part in maintaining Fashola's political popularity. Similarly, in Arusha, investment of land and property tax revenues in making visible improvements to infrastructure such as roads has motivated citizens to pay property taxes.

But to be successful, current or future investments must be matched with **efforts to raise awareness** among citizens as to the link between land and/or property tax, public investment and long term urban development.

- Key to the success of property tax reform in Hargeisa was an awareness-raising scheme that outlined the clear benefits of paying property taxes on time in the form of improved public services. This campaign was run for 5 months and used a number of mediums, including neighborhood meetings, television and radio debates and newspaper advertisements[55].

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[53] Nabeta, "Building Arusha."
[54] Diane de Gramont, 'Governing Lagos: Unlocking the Politics of Reform' (Carnegie Endowment for International Peace, 2015).
[55] Paul Mundy and Jean du Pleiss, eds., *Count Me in: Surveying for Tenure Security and Urban Land Management* (UN-HABITAT, 2010).

- In Rwanda, Tanzania, and Uganda, government officials host a taxpayers appreciation week, where the benefits of tax payment and its links to public investment are communicated to the public[56].

In Lagos, public outreach includes signs to educate citizens about the benefits of paying taxes.

These are placed at public works sites to foster a link between taxation and these investments.

- Under Fashola, a tax stakeholder forum was organized for representatives of local communities, private firms, religious leaders as well as formal and informal labour organisations to discuss their responsibilities towards a land and property tax. This coincided with a roll out of public investment in infrastructure and transport to give the impression of swift delivery of government promises in these discussions[57].

2) Linking taxation to land tenure

Similarly, there may be greater public acceptance of land taxation where land tenure is not yet formalised if these tax liabilites are linked to the **formalization of rights over land** that provide citizens with secure and legally enforceable ownership claims.

3) Phasing in reforms

Political resistance to land and/or property taxes can also be mitigated by **phasing in reforms** over time. One way of doing this is by introducing caps for tax increases in the short run.

4) Transparency, oversight and limited opportunities for discretion

Corruption at any stage of the administration of land and/or property tax is damaging not only because it limits revenue collection, but also because reducing actual or perceived opportunities for corruption is key in gaining legitimacy and public support for land and property taxation.

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[56] Monkam and Moore, "How Property Tax Would Benefit Africa."
[57] de Gramont, "Governing Lagos: Unlocking the Politics of Reform."

In order to deal with this:

- At each stage of the design and implementation of tax policy processes should be made as transparent as possible, through making these processes **publically accessible and understandable**. This includes making fiscal cadasters, tax bills and tax delinquency publicly available. These measures can enhance legitimacy and build public confidence in the effectiveness and fairness of land and property taxation by reducing the possibility of corruption in the system.
- The role of **central authorities in providing monitoring and oversight** can also act to reduce corrupt practices between tax collectors and taxpayers and enhance legitimacy of the process at a local level.
- Wherever possible, processes should be **automated and standardized** to reduce to potential for controversial or corrupt practices.

5) Involvement and communication with citizens and traditional authorities

Taxpayers are far more likely to comply with land and property tax reforms if they are **consulted and kept informed** in the process of developing any such reforms. Public meetings and advertisements allow for **awareness and understanding of the changes** being implemented.

At the same time, tax collection may be resisted by traditional authorities who do not want to legitimise government authority over these assets. Consultation with traditional leaders to involve them in the design of taxation and explain the benefits of land and/or property taxation have proven particularly important in **reducing resistance** to these taxes in Hargeisa. Including community leaders who express their support for land and/or property is also likely to be particularly effective in **gaining public support.**

Limiting administrative barriers to land and/or property tax

6) Digitising and consolidating databases for registration, valuation and collection

Consolidating digitised data used for registration, valuation, billing and collection **into the same system** can improve administrative efficiency at each stage, whilst reducing the potential for corruption and discretion in the tax system.

- In Arusha, GIS mapping has been integrated with the Local Government Revenue Collection Information System, electronically mapping all properties and their taxable values, allowing city authorities a clear understanding of potential tax earnings.
- In Lagos, an inventory of every property in Lagos State was undertaken which expanded the tax registry fourteen-fold between 2007 and 2010[58]. This data was stored on an electronic database that includes pictures of properties and has been integrated with systems for valuation and tax collection to include data on value assessments and history of payment. This digitization of property tax records has

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[58] Paice, "Lagos Proves Africa's Property Tax Potential."

enabled automated billing which has increase annual revenues from land and property tax from 1.72 billion naira in 2008 to 7.13 billion naira in 2013[59].

- Sharing inter-governmental knowledge by integrating tax collection systems with digitised physical and fiscal cadasters in the Philippines in 2006 allowed for successful strengthening of local revenues where previous attempts had failed[60].

7) *Incremental expansion of land and/or property taxation policy*

Where there is strong political support from strong leadership and from local taxpayers, it may be possible to introduce reforms in one city, and **expand the tax base under consideration as administrative capacities develop**. However, this requires high levels of buy in from taxpayers to prevent political backlash. This was seen in Somaliland, where the capital Hargeisa was taken as a starting point for the implementation of land tax and subsequently similar processes were developed in other regions with technical support from the capital.

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[59] Paice.

[60] Frank F. K. Byamugisha, *Securing Africa's Land for Shared Prosperity: A Program to Scale Up Reforms and Investments* (The World Bank, 2013).

Concluding remarks

Local governments in many developing cities are constrained by limited revenues to carry out the necessary public investments that make cities work. In this context, land and physical properties represent the largest source of untapped municipal revenue, allowing cities to capture the collectively generated land value appreciation associated with the urbanization process. Land and property taxes can allow governments to obtain **returns on their investments in public services and infrastructure** that raise the value of nearby land and/or property. These taxes enable a virtuous cycle where appreciating urban land and property values finance the public investments which make the city more productive.

Implementing these taxes requires policymakers to face difficult decisions in what to tax, who to make liable for this taxation, what to exempt from taxation, and how to set the tax rate for land and property. Though taxing land alone is more efficient, administrative constraints and concerns about wealth redistribution may mean that a combined tax on land and property is advisable. In a number of cases, exemptions to land and property taxes may be useful in allowing policymakers to achieve certain goals for urban development, but this needs to be weighed carefully against the added tax burden on all other citizens liable. Tax rates crucially depend on the tax base - a well-functioning tax system is one that applies a low tax rate across a broad tax base.

Experience from across developing cities suggest a number of ways in which land and property tax implementation can be improved. These range from technological advancements in GIS mapping that can allow for rapid expansion of the registered tax base, automation of billing and payment systems to improve tax collection, and the design of appropriate valuation processes and policies to match administrative capacity. Crucial to effective implementation of land and property tax policy is public support for these taxes. Clear and transparent linkages between taxation and pubic investment can alow these taxes to be they seen as the **legitimate price paid for public services and infrastructure.**

Recommended further reading

De Gramont (2015), "Governing Lagos: Unlocking the Politics of Reform", Carnegie Endowment for Peace

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