

# Simplifying Property Tax Administration in Africa: Piloting a Points-Based Valuation in Freetown, Sierra Leone

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## Introduction

Economists generally consider property taxes to be good taxes, and many countries are encouraged to increase and improve revenue collection from property taxes (Slack and Bird 2014). Beyond the economic efficiency of property taxation, research suggests that the political salience of both property taxes and municipal services may lend itself to the development of a fiscal social contract between citizens and the state (Jibao and Prichard 2015; McCluskey 2016; Slack 2011). The intrinsic reciprocity of the fiscal social contract in turn enables the growth of a 'civic culture' that encourages voluntary tax compliance (Besley 2019).

At the centre of reforms to improve the overall effectiveness of property taxation

is property valuation. Effective property taxation is impossible without efficient property valuation (Zebong, Fish and Prichard 2017). Freetown, Sierra Leone, like many municipal jurisdictions in Africa, continues to operate an obsolete manual valuation technique inherited from the colonial era (Jibao 2017). The Freetown City Council (FCC) Valuation Department currently employs an adjusted area-based method in which the effective floor area is combined with the property category to determine the rateable value of a property. The whole valuation process is carried out entirely manually, and is consequently very time-consuming (Jibao 2017). As a result, the FCC has not revalued its property tax base for the past two decades, although the Local Government Act of 2004 stipulates that this process be carried out every five years (Jibao 2017).

Although the current method of valuation in Freetown is relatively simple, it is highly inaccurate and generally regressive, as it does not take subjective property characteristics that are major determinants of value, such as location and building quality, into account (Jibao 2017). Additionally, the face-to-face nature of the current manual valuation system provides ample opportunities for collusion between Valuation Department staff and property owners, which has been identified as a significant problem in other jurisdictions throughout sub-Saharan Africa and elsewhere (Prichard 2019). Since the reintroduction of decentralisation in Sierra Leone in 2004, there have been repeated efforts to increase own-source revenue from property taxation in Freetown. Reform efforts, however, have been repeatedly stymied, largely because of a lack of committed political leadership (Jibao and Prichard 2015).

With the election of Mayor Yvonne Aki-Sawyer in March 2018, there now appears to be political leadership in place with a strong commitment to making reforms successful (IGC 2019). Following her election, the mayor immediately made revenue mobilisation a central pillar of her 'Transform Freetown' agenda, with a target of increasing tax revenue fivefold from SLL 7 billion to SLL 35 billion by 2020 (FCC 2019). As a means of achieving this, the mayor and her advisors began to reach out internationally for reform advice. An initial discussion with the members of the African Property Tax Initiative (APTI) of the International Centre for Tax and Development (ICTD) paved the way for the mayor to convene a dedicated technical working group on revenue mobilisation in September 2018. The mayor invited the International Growth Centre (IGC) and APTI (ICTD) to pilot a new approach to property valuation in Freetown. Building on earlier ICTD-supported research and reform programmes in Sierra Leone and elsewhere, the IGC and ICTD developed a plan intended to not only pilot a simplified property tax system, but to also identify potential strategies

to enhance voluntary compliance once the new system is fully deployed. The full roll-out of the new property tax system will provide novel opportunities to experimentally study the effectiveness of these strategies.

## Introducing a points-based property valuation

Typical methods of property valuation seek to estimate the price that a willing and informed buyer (or renter) would pay to a willing and informed seller (or landlord) of a given property (Fish 2018). Such methods have the benefit of placing the highest tax burden on the most valuable properties and, where property markets are active, they also provide a naturally buoyant tax base (Franzsen and McCluskey 2017). The main challenges with such methodologies in Freetown, as in many other African jurisdictions, are that the real estate market is relatively underdeveloped, and data on comparable transactions is often not available (Jibao 2017; Zebong, Fish and Prichard 2018). The primary alternatives to market-based methodologies are surface area-based approaches that use the area of land or buildings to assess the property tax base. The principle advantage of surface area-based approaches is their highly transparent and easy-to-update nature. Their shortcoming, however, is that they fail to adequately incorporate qualitative aspects of properties such as location and building quality, which can significantly impact their fairness (Zebong et al. 2017).

Based on these considerations, ICTD researchers have studied and sought to popularise a simplified hybrid methodology that uses both surface area and easily observable characteristics to arrive at an estimated market value.<sup>1</sup> This hybrid methodology has been termed a 'points-based method' of property valuation, as it assigns a standard number of points based on the surface area of the building, while additional points are awarded for positive features or deducted for negative features of

<sup>1</sup> The earlier origins of this methodology are described in greater detail in Jibao and Prichard (2015).

the property (e.g. location, construction type and materials, access to services, and quality of finishing) (Fish 2018). The appeal of the points-based methodology is that it combines relative simplicity of implementation, significant accuracy and progressivity, and a very high level of transparency in order to both curb potential for revenue leakages and encourage voluntary compliance by taxpayers (ibid.). Historical experience also demonstrates that the relative nature of the points assigned (as opposed to assigning absolute monetary values for various property characteristics) makes the valuation process more intuitive and accessible to property owners, and thereby more amenable to civic engagement and the development of a fiscal social contract.

The most technically challenging aspect of the points-based valuation methodology is the need to develop a formula for translating information about the observable external characteristics of properties into estimated market values. This is achieved by collecting detailed rental value information for a sub-sample of properties within the city, which is then used to harmonise the formula through econometric analysis.

### Methodology of the pilot project

The pilot project carried out jointly by the IGC and ICTD between January and August 2019 provided an extensive proof of concept for the points-based valuation methodology in the Freetown context. The pilot covered over 11,000 properties in two wards in Freetown, representing a diverse range of property types and values. Additionally, the FCC Valuation Department was engaged to enumerate and collect rental value data for an additional 2,000 properties to assist with calibrating the points-based system. The selection of these 2,000 reference properties was randomised both at the ward level and by estimated value.<sup>2</sup>

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The full scope of the pilot project was to:

- Enumerate the buildings;
- Identify each building by geo-reference;
- Identify each building by a logical street addressing system;
- Photograph each building;
- Measure a representation of the floor area for each building;
- Independently backcheck the information for consistency;
- Conduct an automated and simplified points-based valuation and assess properties using a computer-aided mass appraisal (CAMA) technique; and
- Calibrate the results with a sample of market indicators using valuation experts.

<sup>2</sup> Experienced FCC valuers were asked to divide each of their wards into high-, medium-, and low-value zones, and a representative sample of properties was randomly selected from each of these zones

In addition to each of these steps, a series of qualitative interviews were carried out with members of the reform team, the FCC, and property owners and tenants in the field to capture key lessons, both for the city-wide scale-up and for other jurisdictions interested in pursuing similar reforms. These qualitative interviews also explored the potential drivers of voluntary tax compliance to inform the research design for subsequent phases of the project.

## Summary of key lessons

**High-level political leadership, as represented by the mayor's Transform Freetown agenda, was essential for residents' acceptance of and cooperation with the enumeration process.**

Based on interviews with the valuation team, and informal discussions that occurred with owners and tenants in the field, the mayor's Transform Freetown agenda was a major enabler of the pilot project's success. Residents frequently cited their support for the mayor's agenda when interacting with enumerators, and expressed the hope that they would see tangible benefits in their communities. The enumerators also used the Transform Freetown agenda as part of their introduction to residents, which they believe made residents more amenable to sharing information that would have been difficult to access otherwise. For instance, the enumerators met someone at 75 per cent of their property visits; most often the owner (34 per cent) or tenant (31 per cent) at commercial properties, and the owner (51 per cent) or a family member of the owner (22 per cent) at domestic properties. Of those individuals with whom the enumerators spoke, 87 per cent provided their contact details.

In the conversations that followed, property owners often stated that they would more willingly contribute their property rates if the targets of the Transform Freetown agenda can be achieved. Based on these anecdotal experiences, it appears that situating the property tax reform in a broader narrative of transformation and service provision makes it more palatable to residents, and may soften

potential resistance to (1) accessing important information, and (2) voluntarily paying assessed property rates. The mayor's popularity, coupled with the Transform Freetown agenda, seems to provide a crucial window of opportunity during which residents are willing to give her administration 'the benefit of the doubt' that expanded property taxation will contribute to service expansion.

**Subjectivity inherent to some of the indicators presented significant challenges, and required extensive field testing to refine.**

Although the majority of indicators in the valuation survey were based on objectively observable characteristics, there was initially a substantial amount of variation between individual enumerators and between the enumerators and backcheckers. Some backcheckers, for instance, found up to 60 per cent error in the values entered by enumerators. Most of this noise in the data can likely be attributed to the subjectivity inherent to some of the indicators. For instance, the definition of a street in good condition, or a roof in a poor state of repair, differed between individual valuers and between valuers and backcheckers. Ensuring that all participating enumerators and backcheckers agreed on similar definitions for the more subjective indicators required extensive field testing and refinement. Additionally, these discrepancies led to some problems with version proliferation as, for instance, at one point it was found that the backcheckers were working with slightly different definitions to the enumerators whose work they were auditing. Arriving at common definitions, even for seemingly objective characteristics like window type, required extensive field testing and open communication between the various stakeholders involved. While the subjectivity of key features of properties was a key challenge to successful data gathering, this lesson learned also speaks to the value of employing a simplified valuation system, based on criteria that are as objective as possible, given the inherent subjectivity of property assessments.



### **There is an important trade-off between precision and simplicity in the valuation survey indicators.**

Once testing of the valuation survey began, there was a tendency to expand the set of indicators to capture unique configurations found in the field. For instance, some buildings were found to have walls of more than one construction type (wood and zinc, for instance). A number of buildings (especially in the downtown core) were identified as being used for both domestic and commercial purposes. Including these new categories in the enumeration survey allows for more precision in the results, but also increases the complexity of the analysis and lengthens the survey. Striking a balance between precision and simplicity required extended and sometimes contentious discussions between the reform team and the FCC Valuation Department. The professional valuers, in line with their current manual valuation technique, frequently argued for the inclusion of more precise categories, while the reform team emphasised the need for simplicity in the survey design. Being clear about this trade-off, and striking a balance that all parties could accept, was thus an important element of refining the indicators. For the examples given above, it was ultimately decided to ask enumerators to categorise buildings by their dominant material (given that a building constructed exactly 50/50 from two different materials is exceptionally rare), and the survey was redesigned to allow enumerators to enter information for mixed commercial and domestic properties. While some of these trade-offs could be anticipated prior to fieldwork, many of them did not surface until the survey was tested by local valuation experts.

### **Separating the concepts of valuation and taxation proved difficult, and may present legal challenges to the scale-up.**

Through the process of refining the survey indicators, a number of the FCC valuers expressed concerns about using indicators not explicitly connected to buildings. These include, for instance, the 'potential to build' around a property, and for the type of drainage (open,

closed, or non-existent) from the property. While the valuation officers agreed that these indicators could reasonably be expected to influence the value of a building, they objected to their use for taxation purposes. This objection was rooted in the Local Government Act of 2004, which states that only 'buildings' (as opposed to 'properties') are liable to be assessed for property tax purposes (Local Government Act 2004, SL, s70). In their objections, the valuation officers seemed to be pre-empting the possibility of legal challenges to the reform efforts. The reform team was able to convince the valuers to include these indicators in the survey for the econometric analysis with collected rental values. The use of these variables in the points-based system may need to be discussed by management (the FCC) prior to the city-wide scale-up.

### **Contextual expertise of the FCC Valuation Department was essential to the success of the data collection process.**

The FCC Valuation Department faced a number of challenges to being fully engaged in the reform process. Based on discussions with the valuers and the reform team, these challenges likely stemmed from a latent suspicion that the reform, which promises to automate much of the valuers' current workload, may put their livelihoods at risk. Additionally, full implementation of the points-based valuation methodology requires a high degree of familiarity with IT platforms that some senior members of the Valuation Department currently lack. Overcoming these challenges required an extensive period of training and relationship building between the reform team and the Valuation Department to reach the level of trust necessary to proceed with the pilot project.

Despite these challenges, the contextual expertise of the Valuation Department was essential to the success of the pilot. In the initial phase of the pilot that ran from January to June 2019, the survey was tested primarily by a team of external enumerators. While this team of enumerators was able to successfully collect data on easily observable building

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characteristics, a large degree of noise remained in the data because of subjective interpretations of the indicators. It was not until the relationship with the Valuation Department had been sufficiently cultivated that the reform team succeeded in refining the indicator definitions to minimise subjectivity in their interpretation. Additionally, the engagement of the Valuation Department was essential in securing a sub-sample of property rental values to harmonise the points-based system. Because of their deep contextual knowledge of the wards, the valuers were able to contribute more reliable rental value estimates than the team of external enumerators. In sum, the contextual expertise of the Valuation Department contributed to the pilot's success by (a) helping to refine the more subjective indicators, and (b) securing more reliable estimates of market value for a representative sub-sample of properties.

**Public goods and services are largely insufficient in Freetown, creating many potential opportunities to improve voluntary property tax compliance.**

Data on property characteristics collected for the pilot project indicate major gaps in service provision across Freetown. For instance, of all properties visited only 35 per cent were located on paved streets, and out of all streets 51 per cent were of 'poor' condition (as defined, with pictures, in the training manual provided to enumerators). Street lighting was found to

be almost totally absent across the city, with only 4 per cent of properties benefiting. Of the properties visited, 39 per cent were found to have no direct access to water, while 14 per cent had access to well water, and 45 per cent were connected to the piped water system provided by the Guma Valley Water Company (the remaining 2 per cent of properties access water from tanks filled by private providers). Drainage is also a major concern for residents in Freetown, especially during the rainy season (when the pilot project took place). Based on data gathered by the enumerators, 44 per cent of properties visited had no type of drainage on their street at all, while 32 per cent had open drainage and 24 per cent had covered drainage.

Based on initial anecdotal evidence from the pilot project, the provision of salient public goods and services is a major driver of voluntary property tax compliance. This evidence aligns with the experience of other jurisdictions in sub-Saharan Africa, where the provision of salient public goods and services is an important contributor to the development of an effective social fiscal contract (Ali, Fjeldstad and Sjørusen 2013; Bodea and LeBas 2014; Cheeseman and de Gramont 2017; Besley 2019). The current general lack of public goods and services thus provides ample opportunities to improve voluntary tax compliance, the effect of which can be evaluated as part of the research phase of the city-wide scale-up.

## Directions for future research

To go beyond anecdotal evidence that citizens are more willing to provide information and to comply with tax demands when embedded in a credible narrative of expanded service provision, the research team will use the city-wide scale-up to causally identify which strategies are most effective in inducing voluntary compliance. The research team is currently working on a diverse set of interventions, including randomising the provision of sanitation services, input opportunities for citizens (i.e. different types of

town halls), and various rate notice designs, to be implemented in early 2020, pending approval by the mayor. To our knowledge, analysing the extent to which the provision of sanitation services induces higher levels of voluntary tax compliance will be only the second effectively randomised test of the well-known 'fiscal exchange hypothesis' (see Gonzalez-Navarro and Quintana-Domeque 2016, who randomised the allocation of paved streets in Mexico). Regarding the design of rate notices, the research team will examine how altering perceptions of the transparency of the tax calculation, of the procedural fairness of the appeals process, and of previous levels of service provision at the ward level shape compliance behaviour. Through intensive dialogue with FCC representatives, the research team can feed its findings directly into the mayor's broader reform activities, thus providing guidance on how best to further increase tax compliance with the goal of obtaining the revenue needed to finance the mayor's ambitious service delivery goals.

### Policy considerations

- The pilot was primarily focused on two wards in the city (405 and 442). While the two wards selected were relatively good representations of the east and west areas of Freetown, they did not provide a representative sample of property characteristics and urban environments. During the scale-up it will therefore be important to regularly check-in that the selected indicators are precise enough to capture the full range of properties without sacrificing too much simplicity.
- The enumerators encountered significant logistical challenges in certain parts of the city, especially on the steep hills during the rainy season and in some of the low-income slum areas. These logistical challenges should be incorporated into the planning for the city-wide scale-up.
- Property tax reform seems more likely to be accepted by residents when it is situated within a credible narrative of expanded service provision. While the Transform Freetown agenda is a powerful enabler now, only one year into the mayor's tenure, it will likely need to be accompanied by tangible results in the coming years if it is to maintain its credibility.
- Sustainability of the reform requires the close involvement of the existing bureaucratic structure, even if that slows down the reform process and interrupts the timeline of the project. The need to capitalise on a potentially short-lived political window of opportunity must be balanced against the need to ensure that local contextual expertise is included in the process and that all crucial stakeholders have fully endorsed the reform effort.
- The reform team needs to be flexible regarding the necessity to update the more subjective indicator definitions with local knowledge. All stakeholders require clarity that the reform effort is a living process, and that sometimes compromises between the needs for precision and simplicity must be made. Additionally, the full scale-up calls for some mechanism for version control of the definitions in use, and to ensure that all enumerators and backcheckers in the field are aware of any updates and are working from a common set of definitions.
- Fully operationalising the points-based system at city scale may require small changes to legislation or a flexible interpretation of existing legislation to include important characteristics (such as the land area around a building or the type of drainage available to a property) in valuations.
- Randomising the delivery of key public services that contribute to property value will allow the research team to evaluate the function of the fiscal exchange hypothesis in Freetown. These findings can subsequently be used to inform the mayor's service delivery strategy to maximise the city's own-source revenue through voluntary compliance.

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