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Sierra Leone’s Experience in Estimating GST Gap

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Outline

- Overview of Sierra Leone's Tax System
- Revenue Streams Share of Total Collection 2013-2022
- Sierra Leone's GST Regime
- Tax Gap Definition and Framework
- Approaches to Estimating the Tax Gap
- Methodology and Data Source: 2016 and 2018 Studies
- Results
- Challenges
- Utilising GST Gap Findings for Designing Effective Compliance Strategies

Overview of Sierra Leone's Tax system

The National Revenue Authority (NRA) was established in 2002 by an Act of Parliament (the Nation al Revenue Authority Act, 2002) as part of government's initiative to reform the tax system.

It's primary responsibility is to assess and collect all domestic revenues on behalf of government.

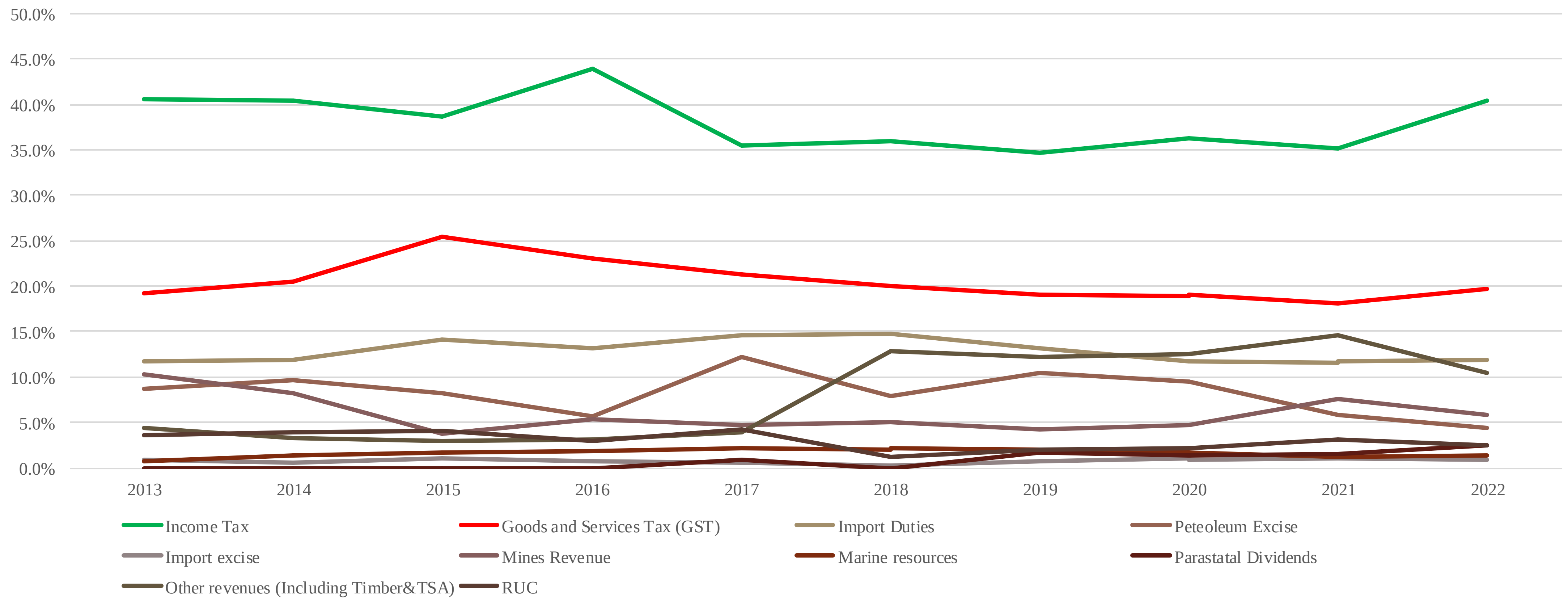
The Ministry of Finance, in collaboration with the NRA formulates tax policies and legislations, with the NRA responsible for their implementation.

The NRA has three operation departments (Domestic Tax, Customs Services and Non-Tax Revenue departments) and several support departments.

Sierra Leone relies on a variety of taxes, categorized as follows:

- Direct taxes: CIT, PAYE, CGT, withholding taxes on a wide range of incomes.
- Indirect taxes: GST on domestic and imported goods, import duty, excise tax.
- Non-tax revenues: fees, charges levies, and royalties.

Revenue Streams Share of Total Collection 2013-2022



Sierra Leone’s GST Regime

The GST Act of 2009 replaced several acts that described the imposition of taxes on goods and services in Sierra Leone.

The GST standard tax rate is set at 15% for both domestic and import GST.

GST Act classified four categories of goods and services collectively known as ‘supplies’. These are:

1. Standard-rated supplies – 15%
2. Zero-rated supplies – GST charged at the rate of 0%. Input GST can be claimed. Example exports.
3. Exempt supplies – Not part of GST chargeable supply. No input GST claim.
4. Supplies outside the scope of GST. E.g. sale of business, mergers and acquisitions.

Initial registration threshold was a yearly turnover of NLe 200,000 (GST Act 2009) and later increased to NLe 350,000 (FA 2013), later to NLe 100,000 (FA 2022) and now NLe 500,000 (FA 2024).

Tax Gap Definition and Framework

The tax gap is defined as the amount of revenue that would be collected if all taxpayers were fully compliant minus the amount of revenue that was actually collected.

Tax gap = Theoretical Tax Liability – Actual Revenue Collection

Revenue Potential = Actual Revenue Collection + Tax Gap

Tax gap can be viewed as revenue loss to the Government through tax evasion and tax base erosion.

The tax gap consists of the compliance gap and the policy gap.

- ❖Compliance gap is the difference between taxes paid and all taxes that should be paid based on the current legislation or additional revenues raised if tax legislation perfectly enforced.
- ❖Policy gap consists mainly of tax exemptions and non-taxable transactions or revenue that could be obtained if the base were taxed at the current standard tax rate.

Approaches to Estimating the Tax Gap

There are two approaches to measuring the tax gap namely the Top-down approach and the Bottom-up approach.

1. Top-down Approach uses external aggregated data (e.g. national accounts) or macro model to estimate tax base & theoretical tax liability.
2. Bottom-up Approach uses data sources e.g. tax returns, audit results, risk registers or third-party data-matching information to determine extent of noncompliance.

Methodology: 2016 and 2018 Studies

Study Titled Domestic Good and Service Tax Gap Analysis: Changes from 2014 to 2017

The scope of study is to provide an updated estimate of the domestic GST gap, which was last performed in 2016 by Adam Smith International (ASI) relying on data from 2015. The domestic GST gap has been, similarly to the ASI study, estimated with a Top-down approach, which is indicated when the subject of the analysis is an indirect tax, such as GST.

The Top-down estimation involves, firstly estimating the tax base, that is the share of the economy which is likely to be subjected to the application of the GST tax rate once registration threshold and informality are considered. The standard rate of 15% is applied to it in order to calculate the overall revenue potential. The tax gap is then the difference between the revenue potential and the actual collection.

Methodology: 2016 and 2018 Studies Cont.

A crude approach to estimating the GST gap is to estimate the c-efficiency, defined as "the ratio of the actual GST revenue to the theoretical revenue derived from the product of aggregate final consumption and the GST standard rate" (Ueda 2017).

c-efficiency= ***GST revenue/(Final Private Consumption * 15%)***

C-efficiency in Sierra Leone, 2014 and 2017

	2014	2017
Final Private Consumption	21,750,771	26,645,948
GST revenue	465,289	713,965
C-Efficiency	14.26%	17.86%

The C-Efficiency above does however suffer from a number of limitations, as it does not account for potential GST exemptions nor for other characteristics of GST, which can be accounted for in the Top-down analysis.

Methodology: 2016 and 2018 Studies Cont.

Steps in Top-Down Approach

1. Estimating the Tax Base:

- As the GDP figures include both domestic consumption and export, and GST is only applied to domestic consumption, we net out all exports.
- The high prevalence of informal activities in most economic sector needs to be accounted for as GST revenue is not collected from non-registered businesses (informal sector).
- Next is to consider all possible exemptions granted by different legal sources, as there are categories of good or specific sectors on which GST is not applied.
- Finally, we consider only businesses which reach the threshold of NLe350,000 (now NLe 500,000) of taxable supplies per year are registered for GST.

2. We then apply the 15% GST rate on the estimated tax base, and the GST gap is then defined as the difference between this potential GST and actual GST collection.

Methodology and Data Source

Data Source

- GDP figures are obtained from Statistics Sierra Leone.
- Exports figures from ASYCUDA and United Nations COMTRADE database to account for potential discrepancies in the data
- PAYE (proxy for share of GST registered businesses) from DITIS (Domestic Tax Information System)
- Registered businesses from VIPS (Value-added Tax Information System)

Results

Itis interesting to highlight how this figure is highly dependent on the assumed registration threshold and prevalence of formality.

Domestic GST gap 2014, various estimates

	2014 NLe (million)	% of potential collection
Central Estimates	95,801	32.51%
Using this study registration threshold (while maintain the assumption for the prevalence of informality in the ASI Study)	182,269	47.82%
Using this study formality rates (while maintaining the assumption of registration threshold in the ASI Study)	174,984	46.81%
Using this study registration threshold and formality rate	283,246	58.75%

Domestic GST gap 2017, various estimates

	2017 Le (million)	% of potential collection
Central Estimates	230,922	43.33%
Using ASI assumption on registration threshold(while maintaining the prevalence of formality assumption of this study)	360,761	54.43%
Using ASI assumption on formality rates (while maintaining the assumption of registration threshold in this Study)	125,214	29.31%
Using ASI registration threshold and formality rate assumptions	218,319	41.96%

Results Cont.

We also calculated what will happen in a series of alternative scenarios in our central estimates.

Domestic GST gap 2017, sensitivity checks.

	2017 NLe (million)	% of potential collection
Registration and formality +10%	3,639,078	92.34%
Registration and formality -10%	69,740	18.76%
No exemptions	387,691	56.21%
No informality	1,574,486	83.90%
No registration threshold	621,479	67.29%

We also estimated the breakdown of the 2017 tax gap by different sectors as obtained in the central estimate scenario (not reported in this presentation).

The breakdown figures should be treated with caution, as they are reliant on the specific assumption about formality and registration shares for the given sector, as well as on the reliability of the breakdown of overall payments contained in VIPS by taxpayers' sector.

Issues with some of these assumptions given rise to negative tax gap for some sub-sectors.

Challenges of Estimating the GST Gap

- **Data Availability and Quality**: lack of comprehensive, incomplete data and outliers makes it difficult to obtain reliable information on variables used in the estimation.

- **Informal Economy**: estimating the size and behavior of the informal economy is challenging, as it often operates outside formal tax systems.

- **Limited Analytical Capacity**: the lack of analytical capacity and expertise needed to conduct comprehensive gap analysis. This includes skills in econometric modeling, and policy evaluation.

- **Methodological Challenges**: the Top-bottom approach itself poses methodological challenges, such as defining the tax base, and accounting for external factors that influence compliance behavior.

- **Underreporting and Evasion**: non-compliance, including underreporting and evasion, due to weak enforcement mechanisms, complex tax structures, and attitudes towards taxation complicate the estimation of non-compliance, necessitating sophisticated methodologies and precise assumptions.

Utilising GST Gap Findings for Designing Effective Compliance Strategies

- ✓Monitoring changes in the GST gap over time allows revenue authorities to assess the effectiveness of their compliance efforts.
- ✓Revenue authorities can identify areas where non-compliance is most prevalent. This could be sectors, industries, regions that are prone to underreporting or evasion.
- ✓Revenue authorities can allocate their enforcement resources more effectively.
- ✓Insights from the GST gap can inform the design of policy interventions aimed at reducing non-compliance.
- ✓Understanding the reasons behind non-compliance can help revenue authorities design a more effective tax educational programmes.

THANK YOU FOR YOUR ATTENTION