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An assessment of presumptive tax in Uganda

Evaluating the 2020 reform and four alternative reform scenarios using UGAMOD, a tax-benefit microsimulation model for Uganda

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Abstract: Presumptive tax, a final tax on business income, was introduced in Uganda in 1997. The latest reform to the regime in July 2020 sought to make the system more progressive, simpler and fairer to small firms. In this work, we evaluate the reform, focusing on its revenue implications based on simulations using UGAMOD, a tax-benefit microsimulation model for Uganda. Our findings suggest that, assuming full compliance, the reform reduces tax revenue potential by between 48–72 per cent from the previous rules. Interviews with staff at the Uganda Revenue Authority point to further challenges with the new rules, including slow implementation, ineffective enforcement and enduring complexity. To address these concerns, we modelled a number of hypothetical reform scenarios, including a 1 per cent and 1.5 per cent flat tax regimes for small businesses with turnover between UGX10–150 million. A low flat tax rate would be a major improvement to the existing presumptive tax regime, as it satisfies the calls for further simplification, is estimated to generate more short-term revenue than the current regime based on the modelling, and has realistic potential to attract more presumptive taxpayers over time.

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1   Introduction

Taxing small businesses remains a major challenge for most tax administrations in Africa. This is mainly because of the informal nature of their economies, characterized by poor record keeping, rapid changes among businesses, and generally poor tax-paying culture. Different countries have designed simplified tax regimes commonly known as 'presumptive tax', levied on small businesses with the objective of addressing the compliance challenges of these 'hard-to-tax' taxpayers.

Presumptive tax is a form of income tax charged on the gross income (turnover) of small businesses (whether individuals or small companies). Taxpayers under the presumptive regime are not allowed to deduct expenses incurred in generating the income, and tax payable is only reduced by provisional tax paid during the year of income. To compensate for the lack of expense reductions, businesses are charged relatively low tax rates under a presumptive tax regime.

Presumptive taxes are designed to replace the traditionally more complicated profit or income taxes to reduce the compliance burden of small businesses, along with the corresponding administrative burden (see Best et al. 2015 and Joshi et al. 2013). Despite its simple objective, and as noted by Mirrlees (2011: 469) 'small business taxation is inherently complex, involving the boundaries between personal and corporate taxes and between the taxation of labour income and capital income. This is an area where it is essential to have an integrated view of the tax system as a whole, and where design flaws in particular components are readily exposed.'

The most recent presumptive tax reform in Uganda was implemented in July 2020 in response to several challenges with the previous presumptive tax policy. These included concerns about complexity, high tax rates and regressivity. The new regime is simpler and lowers the tax burden on small businesses but, as a result, also reduces tax revenue. There is also a concern that the new policy still places too large a burden on some taxpayers, especially those with low turnovers.

In order to explore these issues empirically, this study has two main objectives: First, we analyse the implications of the July 2020 reform to presumptive tax on government revenue, poverty, and inequality. Second, and informed by this analysis, we explore four alternative scenarios that could generate higher estimated tax revenues than the 2020 presumptive tax policy and also address the remaining challenges with complexity and low compliance.

Our research suggests that the current regime (despite not being fully implemented and enforced in 2020) reduces tax revenue potential by 48–72 per cent from the previous rules. Firms that do not keep records also face a regressive tax schedule, and the new rules continue to suffer from excessive complexity, especially in regards to the definition of a business record.

To address these concerns, we modelled a number of hypothetical reform scenarios. The alternative proposals included two systems with simplified tax schedules that exclude the record keeping distinction, along with two simple flat tax proposals.

A low-rate flat tax system, in particular, would be a major improvement to the current tax scheme in terms of simplicity and transparency. It would also increase the estimated (short-run) tax revenue compared to the current regime and have realistic potential to increase future revenue generation potential from presumptive tax. As for past concerns with regressivity, a flat presumptive tax would ensure that both effective tax rates and absolute liabilities increase gradually with turnover. Finally, a flat tax would be favourable when considering the overall alignment of presumptive tax with other taxes and payments to small firms.

This study is structured as follows. Section 2 sets the scene by summarising how the presumptive tax policy in Uganda has changed over the past 25 years. Section 3 describes the methodology and data used in the study. Section 4 presents results, and Section 5 contains the conclusions and recommendations.

2 Background: presumptive tax in Uganda

Presumptive tax was introduced in Uganda in 1997 with the enactment of the Income Tax Act (the Income Tax Act of 1 July 1997, Cap 340 of the Laws of Uganda 2000). Since then, there have been various revisions to the presumptive tax policy in an effort to simplify it further, improve compliance, and increase revenue collections.

The recent changes in the tax policy have coincided with several administrative reforms targeted at presumptive taxpayers, notably, the introduction of a simplified e-filing system and a taxpayer register expansion project (see Jouste et al. 2021 for further information).

In this section, we describe how presumptive taxation has changed from its conception in 1997 to the recent reform in July 2020, along with the past challenges that led to the July 2020 reform.

2.1 Presumptive tax 1997–2020

Table 1 summarises the different presumptive tax policies between 1997–98 and 2019–20.

The initial rules in 1997 set the upper threshold of annual turnover for presumptive tax at UGX50 million, and the tax payable ranged between UGX100,000–450,000 per year, or 1 per cent of the turnover, whichever was lower.

The first reform to the regime came into effect on 1st July 2002 and was in force until 30th June 2014. The only difference from the original rules is that those with turnover below UGX5 million were exempted. The second reform was only in force for tax year 2014–15. The exemption threshold was raised to UGX10 million and the tax payable was increased to range between UGX450,000 and UGX1,350,000, or 3 per cent of the turnover, whichever was lower.

The third reform came into effect on 1st July 2015 and was in force until 30th June 2020. It expanded the upper threshold from 50 million to 150 million. Presumptive taxpayers with turnover between UGX10–50 million were charged lump sum amounts based on the sector, size and location of business (see Table A1 in Appendix A). Businesses with annual turnover between UGX50–150 million were charged either a fixed amount or at a rate of 1.5 per cent of turnover, whichever was lower.

As part of the third reform, and also applying to the current regime, presumptive tax is not applied to resident taxpayers who provide medical, dental, architectural, engineering, accounting, legal, or other professional services; public entertainment services; public utility services; or construction services. Their exclusion was based on the assumption that these professionals are capable of keeping proper books of account. Taxpayers could also apply to the Uganda Revenue Authority (URA) to be taxed under the income tax regime if they can demonstrate that they are able to maintain proper records.

Table 1: Tax rates for small business taxpayers in Uganda, 1997–98 to 2017–18

Fiscal year	Effective from (reform)	Turnover in UGX millions	Tax rate in UGX or %
1997–98 to 2001–02	1 July 1997	0–20	100,000
	(initial policy)	20–30	250,000 or 1 %
		30–40	350,000 or 1 %
		40–50	450,000 or 1 %
2002–03 to 2013–14	1 July 2002	0–5	0 %
	(first reform)	5–20	100,000
		20–30	250,000 or 1 %
		30–40	350,000 or 1 %
		40–50	450,000 or 1 %
2014–15	1 July 2014	0–10	0 %
	(second reform)	10–20	450,000 or 3 %
		20–30	750,000 or 3 %
		30–40	1,050,000 or 3 %
		40–50	1,350,000 or 3 %
2015–16 to 2019–20	1 July 2015	0–10	0 %
	(third reform)	10–50	See table note
		50–75	937,500 or 1.5 %
		75–100	1,312,500 or 1.5 %
		100–125	1,687,500 or 1.5 %
		125–150	2,062,500 or 1.5 %

Note: in the third regime (1 July 2015), tax rates for turnover between UGX10 million and UGX50 million are lump sum amounts, presented in Table A1 in the appendix. These tax rates depend on the sector, size and location of business. Across the regimes, effective tax rates are either a lump sum or percentage amount, whichever is lower. The upper value of a tax bracket is included in the given bracket; when it is exceeded, the taxpayer is switched to the next tax bracket.

Source: authors' interpretation of the Income Tax Act (of 1 July 1997, including Income Tax (Amendment) Acts 2003, 2014, 2015, 2016, all of 1 July).

2.2 Challenges that led to the 2020 reform

The presumptive tax policy in place between 2015–16 and 2019–20 suffered from a number of challenges. First, complexity was identified as a major issue by several organizations. As part of the Uganda Domestic Resource Mobilization for Development (DRM4D) programme, a review of the presumptive tax regime by Nathan Associates (2018) indicated that the regime was overly complex and thus counterintuitive to the idea of a simplified tax system for small firms. In particular, the system was comprised of a large number of tax brackets and rates (nearly 80 different rates), leading to an overly-complicated scheme especially when compared to other African countries with similar regimes, such as Tanzania, Kenya, Rwanda, and South Africa.

Second, civil society activists — notably the Centre for Development Alternatives, Enterprise Uganda, and SEATINI-Uganda — raised concerns that the regime was regressive and unfair especially to women who tended to be over-represented in small firms. More generally, the high tax rates were considered to place an excessive financial burden on small companies.

Past research, including Jouste et al. (2021) using pre-2019 data, has also revealed that presumptive taxpayers tend to bunch at threshold values, with the vast majority concentrating around the lowest threshold. Under the 2015–16 rules, very few presumptive taxpayers declared turnover above 50 million UGX, and most declared 10 million UGX, the lowest threshold (see also Uganda Revenue Authority 2020; Waiswa et al. 2020).

More generally, revenue from presumptive tax has contributed less than one per cent of tax collections by URA over the past several years. The collections fall far below the set targets (Table 2), indicating significant compliance challenges.

Table 2: Actual and target revenue from presumptive tax in Uganda, 2016–17 to 2019–20

Fiscal year	Actual collections in billions	Target revenue in billions	Actual collections as a share of target, %
2016–17	4.5	60.0	7
2017–18	5.3	28.4	19
2018–19	7.2	16.2	44
2019–20	5.2	25.2	21

Note: all monetary values are in UGX billions.

Source: Uganda Revenue Authority.

2.3 Presumptive tax since July 2020: the '2020 reform'

Most recently, in July 2020, the presumptive regime was once again amended. The rules were simplified considerably, with all variations by area or sector of business being removed. The amount of presumptive tax payable now depends on whether the taxpayer keeps records, with those not keeping records being required to pay a fixed amount based on how much turnover they have (see Table 3). Note that the fixed amount levied on firms without records leads to a higher payment when compared to those with the same turnover who do keep records.

Table 3: Tax rates for small business taxpayers in Uganda, 2020–21 onwards

Fiscal year	Effective from *(reform)*	Turnover in millions	Tax rate	
			Without records	With records
2020–21	1 July 2020 *(fourth reform)*	0–10	0	0 %
		10–30	80,000	0.4 % of annual turnover in excess of 10M
		30–50	200,000	80,000 + 0.5 % of annual turnover in excess of 30M
		50–80	400,000	180,000 + 0.6 % of annual turnover in excess of 50M
		80–150	900,000	360,000 + 0.7 % of annual turnover in excess of 80M

Note: the upper value of a tax bracket is included in that tax bracket; when it is exceeded, the taxpayer is switched to the next bracket. All monetary values are in UGX.

Source: authors' interpretation of the Income Tax Act Amendment of 1 July 2020.

On the face of it, this latest reform is a significant improvement over the previous set of presumptive tax rules, most notably due to the reduced complexity. On closer scrutiny, however, many important challenges remain. URA (2020) points to four major concerns:

First, the new tax rates are lower than they were under the rules from 2015–16 to 2019–20. They are also lower than in other countries in the region, such as Tanzania, Kenya, Rwanda.

Second, the above-mentioned bunching of taxpayers around the lowest thresholds in the lowest brackets remains a major concern. With substantially reduced rates especially for those keeping records, many taxpayers who do so are likely to declare between UGX10–11 million and pay very little in presumptive tax. The same logic applies to those declaring annual turnover just above the lower threshold in the second band (UGX30 million).

Third, the new rates are still regressive, particularly for taxpayers who do not keep records. Taxpayers with low annual turnover still pay a higher proportion of their income in presumptive taxes than those with higher turnover. The authors in URA (2020: 7) conclude that the

amendments 'have substantial negative implications ranging from huge revenue loss, more corruption and failure to cultivate responsible taxpayers.'

Finally, several open questions remain with respect to the practical meaning of record keeping. It is largely unclear to both the authorities and the taxpayers what constitutes a business record, how should taxpayers declare records to the URA, and whether or not taxpayers with receipt books qualify for the reduced rates. Furthermore, if and when taxpayers do keep records, could they not file a standard income tax return in order to benefit from the allowable deductions? In essence, the provision allows tax collectors to decide what constitutes an acceptable business record, which at best adds to the complexity of the system and at worst spurs corruption.

On the positive side, the authors do suggest that electronic tax payment, implemented alongside with the 2020 reform, considerably simplifies payments in practice. Compared to those filing normal income tax returns, which rely on a complicated Excel template, presumptive taxpayers have access to a simple online form on the URA webpage. The taxpayer is only required to specify their TIN details, business location (prepopulated) and estimated turnover. The e-tax system automatically computes the tax.

3. Data and methods

In light of the concerns raised about the most recent reform to the presumptive tax policy, this study addresses three research questions. First, what are the main challenges with the July 2020 reform both for small firms and the Uganda Revenue Authority (URA) and how could these issues be addressed? Second, what are the implications of the 2020 reform on government revenue, poverty and inequality? Third, which alternative presumptive tax configurations could mitigate any outstanding challenges with the regime and how do they compare with the 2020 system in terms of projected revenue and distributional outcomes?

To answer the first research question, we analyse relevant literature and interviews with staff at the URA. To answer the other two research questions, we use UGAMOD, the tax-benefit microsimulation model for Uganda. The modelling scenarios rely on the Uganda National Household Survey (UNHS 2016–17) and anonymized data on presumptive taxpayers from URA. Our four alternative reform proposals were developed based on data analysis, interviews and comments raised at two research seminars in 2021. This section describes the methods and data.

3.1 Interviews

The national team at the URA conducted interviews with URA staff members concerning small business taxpayers (namely, presumptive taxpayers). The objective of the interviews, in line with our first research question, was to analyse how taxpayers are identified by the URA and the various challenges that URA faces regarding presumptive tax collection. The latter involves concerns related to the identification and registration process of taxpayers, reasons behind the poor compliance behaviour of small taxpayers, and opinions of the tax officials about the 2020 presumptive tax policy reform. The intentions were that these interviews would add texture to the concerns raised in the URA (2020) paper, and that they would also help inform the design of the microsimulation analysis of the 2020 policy and alternative reform proposals.

The team interviewed eight URA staff members. The interviewees included two people in the business policy division in charge of tax law amendments, one in process management in charge of implementing tax policy amendments in the e-tax system, three in the compliance division, and

two responsible for the expansion of the taxpayer register. The main findings are presented in the body of the text, with a fuller account in Appendix B.

3.2   Descriptive data analysis

The microsimulation modelling, discussed in Section 3.3, is also informed by descriptive analysis of data on presumptive tax revenues and compliant presumptive taxpayers from URA's data warehouse. The analysis explores the profile of current presumptive taxpayers and how it compares with small firms that pay corporate income tax. Our main outcomes of interest are the number of taxpayers, tax payable and sales of presumptive and corporate taxpayers across Ugandan industries.

3.3   Tax-benefit microsimulation modelling

The tax and benefit microsimulation model for Uganda, UGAMOD, was used for most of the microsimulation analysis. UGAMOD is underpinned by the Uganda National Household Survey (UNHS), 2016–17. As with all SOUTHMOD microsimulation models, the modelling and analysis was implemented using the EUROMOD microsimulation software. In addition, STATA was used to analyse model output data.

In addition to microsimulation modelling using UGAMOD, a further microsimulation modelling exercise was undertaken using a full set of URA's anonymized administrative data of presumptive taxpayers for financial years 2019–20 and 2020–21. The analysis of the administrative data records was undertaken fully in STATA.

The following subsections discuss our modelling scenarios and assumptions in greater detail.

Overview of modelled scenarios

The scenarios modelled in the study are listed in Table 4. The table also illustrates which scenarios are modelled assuming full compliance (column a), partial compliance where the number of presumptive payers is downscaled to match actual revenue (column b), and partial compliance based on administrative data records (column c). The assumptions are described in separate subsections. All scenarios use as their starting point the standard 2020 tax and benefit system (or set of policy rules) in UGAMOD Version 1.6 (Waiswa et al. 2021).

Scenario 1. The primary objective of this study is to assess the policy design impact of the transition from the previous presumptive tax rules to the new (July 2020) presumptive tax rules. Therefore a baseline scenario was constructed, comprising all 2020 tax-benefit policies apart from the presumptive tax policy, which was instead set to the rules that had previously been in place (Scenario 1). The pre-July 2020 rules (as set out in Table 1) were simulated in UGAMOD as closely as possible.

Table 4: Modelling scenarios

Scenario	Presumptive tax regime (policy rules)	Full compliance scenarios using UGAMOD	Partial compliance scenarios using UGAMOD, rescaled to match actual revenue	Partial compliance scenarios, using administrative data from 2019–20 and 2020–21
		(a)	(b)	(c)
1	2019 regime in place in 2020	✓ (baseline)		
2	2020 regime without records	✓		✓
3	2020 regime with records	✓	✓ (baseline)	✓ (baseline)
4	Reform 1: Simplified 4 bands	✓	✓	✓
5	Reform 2: Simplified 3 bands	✓	✓	✓
6	Reform 3: Flat rate 1.0 %	✓	✓	✓
7	Reform 4: Flat rate 1.5 %	✓	✓	✓

Note: the scenarios in columns (a) and (b) use UGAMOD v1.6 and the dataset derived from the UNHS 2016–17 uprated to July 2020 using the CPI. Scenarios in column (b) are identical to scenarios in column (a) apart from the use of a rescaling technique which constrains simulated presumptive tax revenue totals to a specified amount from external data. Scenarios in column (c) are also identical in those in column (a) but modelled using individual presumptive taxpayer records derived from administrative data for tax years 2019–20 and 2020–21.

Source: authors' elaboration.

Scenarios 2 and 3. Scenarios 2 and 3 simulate the new (July 2020) presumptive tax rules under two different assumptions. Scenario 2 assumes that all payers of presumptive tax do not keep records, whereas Scenario 3 assumes that all presumptive tax payers do keep records. These reflect two extremes of the policy design, as the new 2020 rules differ depending on whether people keep records or not (see Table 3).[1] It is recognised that the reality will fall somewhere between these two extremes, as some taxpayers will keep records and some will not, but by simulating Scenarios 2 and 3, the policy design can be assessed in terms of the potential revenue under each situation.

Scenarios 4 and 5. Scenarios 4 and 5 in Table 4 simulate two hypothetical alternative reforms (Reforms 1 and 2). These comprise two examples of rules that would address some of the concerns raised at the end of the previous section and which are explored further later in this report. After extensive consultation within URA and interviews with the staff (see Section 4.1), it was decided that the reform scenarios should be based on three premises:

No record-keeping distinction. No distinction should be made between those who keep and those who do not keep records. The only requirement should be to report the annual turnover amount to the URA. This circumvents the lack of clarity as to what constitutes acceptable record keeping, and adheres to the principle that presumptive tax should be straightforward and easy for the URA to administer and for prospective taxpayers to understand.

No fixed taxed amounts. The reforms should use a tax schedule similar to the current 2020 'with records' rules (shown in Table 3). This is better than applying fixed amounts of tax for bands (as occurs with the current 2020 'no records' rules, also shown in Table 3). Fixed amounts of tax are problematic as they result in situations where turnover that just crosses a band threshold results in a large increase in tax payable which remains constant for the remainder of that band. This is regressive and promotes bunching just below each tax band threshold.

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[1] For Scenario 2 (no records), taxpayers pay a fixed amount of presumptive tax depending on the size of their turnover. For Scenario 3 (with records), taxpayers pay a percentage of their annual turnover, which is derived using a tax schedule with five bands (four with positive rates). UGAMOD's 2020 system contains a switch for presumptive tax, enabling the assumption to be applied that no-one keeps records ('records off') or that everyone keeps records ('records on').

Sufficient potential revenue. The target revenue should be brought more into line with versions of the presumptive tax policy prior to the July 2020 reform.

The two reform scenarios place no obligation on taxpayers to keep records (except as regards their turnover) and are both contoured around a progressive tax schedule in the same way as is the case with personal income tax. Both reform scenarios are therefore less complex than the current (July 2020) rules and yet, as will be shown, they have the potential to generate higher revenue. It was deemed preferable to aim for lower or equivalent target revenues compared to the target revenues prior to July 2020, but with more transparent rules that should be easier to comply with — even if the impact on compliance cannot be directly qualified.

The rules for the two alternative reforms (Scenarios 4 and 5, or reforms 1 and 2) are illustrated in Table 5, along with two additional reform systems also discussed. The first reform has four bands with positive rates, which vary slightly from the bands currently used in the 2020 'with records' policy (see Table 3). The band rates are increased to bring simulated revenue collection more into line with the 2019 rules. The second reform is further simplified by having just three bands with positive rates.

Table 5: Tax rates for hypothetical alternative reform scenarios

Scenario *(reform)*	Turnover in millions	Tax rate
4	0–10	0 %
(Reform 1:	10–30	1 % of annual turnover in excess of 10M
Simplified 4 bands)	30–60	200,000 UGX + 1.5 % of annual turnover in excess of 30M
	60–100	650,000 UGX + 2 % of annual turnover in excess of 60M
	100–150	1,450,000 UGX + 3 % of annual turnover in excess of 100M
5	0–10	0 %
(Reform 2:	10–50	1 %
Simplified 3 bands)	50–100	400,000 + 2 % of annual turnover in excess of 50M
	100–150	1,400,000 + 3 % of annual turnover in excess of 100M
6	0–10	0 %
(Reform 3: Flat 1 %)	10–150	1 % flat rate on annual turnover in excess of 10M
7	0–10	0 %
(Reform 4: Flat 1.5 %)	10–150	1.5 % flat rate on annual turnover in excess of 10M

Note: the table illustrates the rules for four hypothetical scenarios simulated in UGAMOD v1.6, under different compliance assumptions outlined in Table 4.

Source: authors' elaboration.

Scenarios 6 and 7. Following discussions at a seminar held on 26th August 2021 with a wide range of stakeholders in Uganda (including representatives from the URA and the Ugandan Ministry of Finance,) suggestions were made to further simplify the regime. One proposal was to streamline the tax to a single rate after applying an exemption for the first UGX10 million of turnover. Accordingly, two additional reform scenarios with varying flat-tax rates were explored. Those are Scenarios 6 and 7 (reforms 3 and 4) in Table 4 and Table 5.

In reform 3, tax is levied at a flat rate of 1 per cent on turnover between UGX10 and 150 million per annum, while reform 4 adopts a 1.5 per cent flat rate for the same turnover band. These scenarios satisfy the three premises outlined above, albeit with a substantially simplified regime that eliminates separate tax bands. Further analysis on their merits is provided later in the report.

Full and partial compliance simulations using UGAMOD and UNHS

The modelled scenarios in columns (a) and (b) in Table 4 use as their starting point the standard 2020 tax-benefit system (or set of rules) and standard input dataset in UGAMOD v1.6 (Waiswa et al. 2021). The monetary variables in the underpinning dataset, derived from the UNHS 2016–17, are uprated 'on model' to a 2020 timepoint using the Consumer Price Index. This means that the simulated results reflect the economic situation for households in the 2020–21 tax year, starting in July 2020, excluding the impact of the COVID-19 pandemic (which is addressed below).

The modelled scenarios in column (b) in Table 4 are identical to scenarios in column (a) apart from the use of a rescaling technique that constrains simulated presumptive tax revenue totals to a specified amount. The downscaling strategy is likely to provide a more realistic quantification of revenue generated when applying different tax rules.

More specifically, further compliance assumptions are tested because UGAMOD simulates far more presumptive taxpayers and presumptive tax revenue than seen in the administrative records. To illustrate this, Table 6 shows the annual tax revenue from presumptive tax in 2016–2019 based on the UGAMOD simulations ('Model'), actual collections ('External') and URA's annual targets ('Target'). The table also compares the number of presumptive taxpayers based on the model and from external data. For 2019, UGAMOD simulates around 60 times the actual revenue received for that year and also around 60 times the number of presumptive taxpayers.

Table 6: Presumptive tax and taxpayers simulated in UGAMOD compared with external data on actual and target revenues as well as compliant taxpayers in administrative data, 2016–19

UGAMOD year	Model, revenue	Actual revenue, billions	Target revenue, billions	Model/actual revenue, ratio	Model/target revenue, ratio	Model, payers	Actual payers	Model/actual payers, ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2016	274.1	4.5	60.0	60.9	4.6	850,174	13,651	62.3
2017	290.2	5.3	28.4	54.8	10.2	904,680	20,387	44.4
2018	302.1	7.2	16.2	42.0	18.6	946,858	24,461	38.7
2019	303.5	5.2	25.2	58.4	12.0	970,964	16,245	59.8

Note: columns 1 and 6 show estimates based on UGAMOD, while columns 2, 3 and 7 are based on external data. Columns 4 and 5 show the ratio between revenue produced by the model (full compliance) and actual and target revenue, respectively. Column 8 shows the ratio between presumptive taxpayers in the model (full compliance) and presumptive taxpayers based on external data.

Source: authors' elaboration based on UGAMOD v1.6 (columns 1 and 6) and data provided by the URA (columns 2, 3 and 7).

Over-simulation of taxes (or benefits) can be adjusted in UGAMOD by scaling down the results. This is achieved by randomly allocating the tax liability 'on model' to a subset of taxpayers. This can be undertaken in two possible ways. Either each particular scenario is scaled down to actual receipt in, say, 2020–21, or the downscaling is undertaken just once and the random subset of individuals is then followed through subsequent reforms. The latter approach is followed in this analysis, as the former method would make it impossible to assess the design impact of the reforms on revenue.

In order to hold the (downscaled) number of taxpayers constant while testing the reforms, the random subset of taxpayers that was identified in the scaling of Scenario 3 to 2020–21 revenue amounts was also used for the downscaled Scenarios 4–7.[2] This means that the four reform scenarios when downscaled use the same subset of taxpayers as in Scenario 3.[3]

All down-scaled scenarios were run using the UGAMOD model, and then compared, in order to develop estimates of the effects of the 2020 reform and alternative reforms. For example, comparing Scenario 4 (Reform 1) to Scenario 3 (2020 rules with records) reveals the impact of the first alternative reform, using the 2020 regime with full record keeping as a counterfactual.

Partial compliance simulations using administrative tax records

In addition to the modelling in UGAMOD with survey data from the UNHS, it is possible to model certain scenarios using individual presumptive taxpayer records derived from administrative data for tax years 2019–20 and 2020–21. As shown in Table 4 earlier, the following scenarios (policy rules) were modelled using administrative data: the 2020 rules without records (Scenario 2), the 2020 rules with records (Scenario 3), and alternative reforms 1–4 (Scenarios 4–7).

There are three reasons why this exercise is worthwhile. First, it enables estimates of revenue to be generated under different assumptions using URA's registered presumptive taxpayers, i.e., the compliant subset of potential presumptive taxpayers. Second, the analysis directly reflects the impact of the pandemic on presumptive taxpayers as the two years of data used cover the pandemic from when it began through to the end of June 2021 when it was ongoing. Third, it is possible to compare the distribution of compliant taxpayers between the various tax bands in the scenarios to the distribution of UGAMOD modelled taxpayers.

A note about the COVID-19 pandemic

This study was written during the first 18 months of the COVID-19 pandemic. The pandemic is taken into account in three different ways. First, the interviews were conducted during the pandemic and participants highlighted the way in which the lockdown measures were impeding enforcement and monitoring of tax registration and compliance. Second, in the scenarios assuming partial compliance (where simulated presumptive tax revenue is constrained to administrative totals), the revenue target that was used was the 2020–21 tax year; this was during the pandemic and so the downscaled results reflect the pandemic situation. Third, the administrative records used in the analysis are of compliant presumptive taxpayers during the 2020–21 tax year. A separate

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[2] A decision needed to be made about the collection year used for scaling purposes. The three candidates were the tax year 2018–19, the tax year 2019–20 or the recently ended tax year 2020–21. The tax years in Uganda run from 1 July each year to 30 June in the following year. The actual collections in 2018–19 were UGX7.2 billion. This was the last year completely unaffected by the pandemic. The following year, 2019–20, included the first wave of the pandemic and saw revenues reduce to UGX5.2 billion. However, in the year just ended (2020–21), revenue had risen again to UGX6.6 billion. After due consideration, and, given that the pandemic is unlikely to end in the near future, it was decided that scaling to the 2020–21 figure of UGX6.6 billion was most appropriate. As indicated, downscaling is achieved on model by randomly excluding cases from the presumptive tax calculation. Because of the fact that in the household survey each presumptive taxpayer represents a large number of taxpayers in the population, it is difficult to precisely adjust simulations to the scaled target. In practice, the 2020 system with 2020 rules for the presumptive tax (with records) was downscaled to UGX6.5 billion rather than the target 6.6 billion.

[3] This can be achieved 'on model' by keeping the same random number seed and using the same fraction of the random cases to identify taxpayers. Note that it is not possible to meaningfully rescale Scenario 2 ('2020 regime without records') using this approach; this is addressed by modelling the scenario using administrative tax records.

study has been published that seeks to quantify the impact of the pandemic and associated lockdown measures on poverty in Uganda (Lastunen et al. 2021a, 2021b).

4 Results

This section presents results from the interviews with URA employees (Section 4.1), descriptive data (4.2), and microsimulation modelling (4.3).

4.1 Interviews

The results of the interviews are summarized here, with the full report provided in Appendix B.

The first part of the interviews concerned methods of identifying presumptive taxpayers. Three distinct methods were identified:

TREP and door-to-door activities. Most small business owners have registered as taxpayers through the Taxpayer Register Expansion Programme (TREP). After obtaining a certificate of registration from the Uganda Registration Service Bureau (URSB), they apply for a tax identification number (TIN) from the URA and then for a business license from Kampala Capital City Authority (KCCA) or the relevant local authority. URA officials also travel with officials from other organizations to carry out door-to-door registration of taxpayers, which based on the interviews is generally needed in order to ensure that taxpayers are registered and pay presumptive tax. Door-to-door activities have however been limited due to Covid-19 restrictions.

Other taxpayer information. URA also identifies taxpayers through information they submit, such as withholding tax (WHT) returns, rental tax returns and income tax returns, which can all help to identify people who are liable to pay presumptive tax.

Direct registration requirements. Some taxpayers are required to register directly, including employees for government agencies that mandate their employees to have TINs as well as those registering or transferring a motor vehicle. These requirements can also help to identify those liable to pay presumptive tax.

The second part of the interviews covered reasons behind poor compliance among presumptive taxpayers. Several causes for limited compliance were identified:

First, limited tax compliance can be explained by the shortage of URA officials to enforce tax collection by auditing payments. Given that the majority of the individuals who are required to pay presumptive tax have very low turnovers, the URA prioritizes compliance promotion among larger taxpayers. Additional resources would be required to audit more taxpayers.

Second, the COVID-19 pandemic has made the tax enforcement of small businesses more difficult. Door-to-door visits have not been possible during the pandemic. Furthermore, many businesses have limited their operations and this made enforcement less relevant.

Third, there are challenges in the registration process. In an effort to expand the taxpayer register under the TREP, it was mentioned that tax officials have at times registered individuals who should not be on the register in order to meet registration targets. Furthermore, tax officials have at times negotiated with taxpayers to have them pay 'something' rather than the full, correct amount, allowing the officials to meet their collection targets. This may explain

part of the observation that presumptive taxpayers tend to bunch at threshold values with the majority concentrating around the lowest threshold. Finally, it was reported that some small taxpayers paid a perfunctory amount simply to fend off URA officials.

In the third part of the interviews, staff members were asked about their subjective views about the 2020 reform. The main observations include the following:

The 2020 reform was thought to significantly simplify the presumptive regime by eliminating varying rates depending on the location and type of business. There was, however, still a concern that the reform would reduce revenues from presumptive tax due to lower tax rates.

Furthermore, the 2020 regime applies different rates to taxpayers based on whether or not they keep records, which was consistently regarded as impractical. Namely, as tax payment involves self-assessment, it was suggested that payers generally state that they do keep records regardless of whether it is true, as it leads to lower tax liability.

While the presumptive reform was to be implemented and effective from 1st July 2020, it took the URA a full year to implement the relevant changes in the e-tax system. People who paid presumptive tax during the financial year 2020–21 therefore paid according to the old regime. The interviews also covered reasons behind the slow implementation. First, the e-tax system is not entirely in the control of URA, but managed by original, external system developers. The process of initiating the necessary changes with this external party simply takes time. Second, the Business Process Unit at the URA is under-staffed, and smaller taxpayers (e.g., those paying presumptive tax) are not prioritized.

As a conclusion, the URA staff that were interviewed generally felt that the July 2020 presumptive tax policy is more favorable and straightforward for small taxpayers but also poses risks to revenue collections. They highlighted the structural challenges that URA faced to achieving compliance and that these have been compounded by the pandemic. In terms of ways in which the 2020 reform could be refined, they suggested that rates could be adjusted to augment revenue potential, and that the distinction about keeping records should be removed as it is not practical. As discussed, these lessons were used to develop alternative reform systems (Scenarios 4–7).

4.2 Descriptive data analysis

This section provides further details about compliant presumptive taxpayers in URA's data warehouse for the years from 2016–17 to 2020–21, including how their profiles compare with small firms that pay corporate income tax (CIT).

First, Table 7 illustrates how revenue from presumptive tax has compared to other taxes in Uganda since tax year 2016–17. Presumptive tax makes up a very small part of overall net revenue, between 0.03 and 0.04 per cent of the total depending on the tax year. Nevertheless (as shown in Table 6), based on the UGAMOD estimates, the *potential* contributors to this tax comprise nearly a million taxpayers.

Presumptive taxpayers can be compared to firms paying corporate income tax, which also involves small companies in Uganda. The average presumptive taxpayer is however substantially smaller, with an average turnover of UGX16.9 million, compared to UGX53.7 million of firms that pay CIT (based on 2016–17 data of firms with sales less than UGX500 million per year, from Jouste et al. 2021). In order to explore in greater detail the profile of current presumptive taxpayers compared to corporate taxpayers, analysis was undertaken of administrative tax data for small

firms. Figure 1, using data from 2016–17, shows comparisons of the number of taxpayers, total sales and tax payable across industries for both taxes.[4]
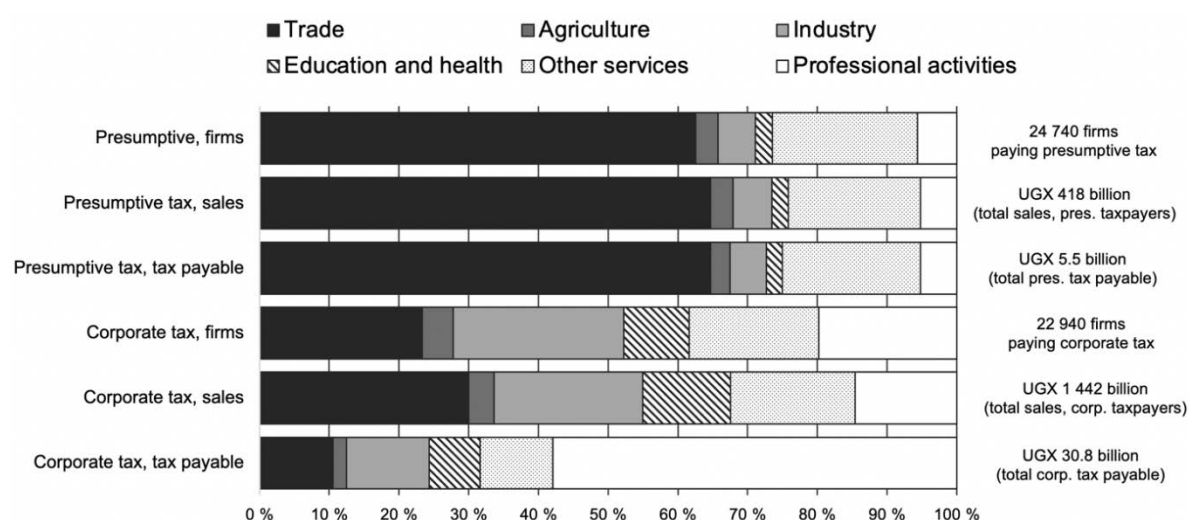
Table 7: Percentage shares of overall net tax revenue by different tax types, 2016–17 to 2020–21

	2016–17, %	2017–18, %	2018–19, %	2019–20, %	2020–21, %
Overall net revenue	*100*	*100*	*100*	*100*	*100*
Domestic taxes	*59*	*58*	*61*	*64*	*63*
Direct taxes	33	32	33	35	34
Corporate income tax	6	6	7	8	8
Presumptive tax	0.04	0.04	0.04	0.03	0.03
PAYE	17	17	17	18	16
Indirect taxes	*22*	*22*	*23*	*23*	*23*
VAT	16	15	15	16	16
Excise duty	6	7	8	8	8

Note: percentage shares are calculated using net revenue. Presumptive tax is reported separately only after 2015–16 when the new e-filing form came into effect.

Source: authors' calculations based on URA revenue statistics.

Figure 1: Shares of firms paying presumptive and corporate tax and the shares of sales and tax payable for presumptive and corporate taxpayers across aggregate industries, 2016–17

Note: rows 1 and 4 show the shares of firms in six industry categories that pay presumptive tax and corporate income tax, respectively. Rows 2 and 5 show the corresponding shares of overall sales of these firms, while rows 3 and 6 show the industry shares of tax payable by these firms, again both for presumptive tax and corporate income tax. The totals of the number of firms, sales and tax payable are shown on the right. Corporate tax statistics relate to firms with sales between UGX150–500 million per year. The upper threshold is arbitrary and based on firms in the available data; in reality, some firms that pay CIT have larger annual sales. The lower threshold comes from legislation; only firms with sales exceeding UGX150 million are required to file for CIT. Industries are specified as follows. 'Trade' refers to wholesale and retail trade and the repair of motor vehicles and motorcycles. 'Agriculture' also includes forestry and fishing. 'Industry' involves construction, transportation, manufacturing, mining, and utilities. Education and health also incorporate social services and public administration. 'Other services' include accommodation and food services, administrative and support services, arts and enterntainment, household activities, and other services. 'Professional activities' include finance, insurance, professional and scientific activities, information and communication, and real estate.

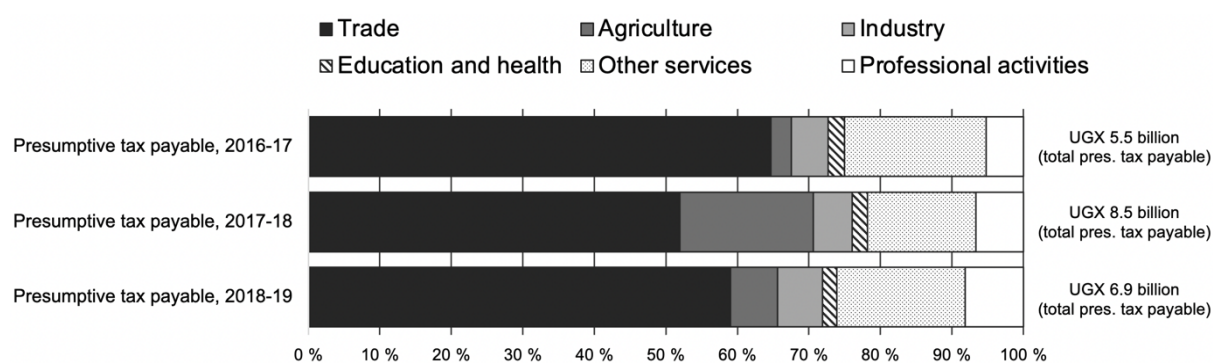Source: authors' calculations based on URA administrative tax returns data.

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[4] CIT data are limited to firms with sales less than 500 million per year. Note also that this data is missing some presumptive taxpayers. As shown in figure notes, industry categories, apart from trade and agriculture, consist of several smaller industries. Finally, 'tax payable' is an in-house calculcation of tax due, not actual collections.

For presumptive tax, the taxpayers, sales and payable taxes are concentrated on wholesale and retail trade as well as other services, whereas for CIT, taxpayers and their sales are much more evenly distributed across sectors. For CIT, tax payable is concentrated in professional activities, which account for 58 per cent of the tax burden in Uganda. Given that CIT payable is calculated from profits, the large share can be partly explained by limited sales costs and related deductions in the sectors falling under professional activities, as opposed to, for instance, the trade industry.

Figure 1 also shows the total number of firms paying either presumptive tax or corporate income tax, along with total sales and tax payable (on the right hand side). From here it can be calculated that, in 2016–17, average tax payable was 2.1 per cent of sales for CIT (for firms with sales less than 500 million) and 1.3 per cent of sales for the presumptive tax. In this same year, the average tax paid by a firm was 224 thousands for presumptive taxpayers, and 1,341 thousands for CIT (in this category where the upper threshold for sales is 500 million).

Figure 2 shows total presumptive tax payable of firms paying presumptive tax across industries for a three-year period between 2016–17 and 2018–19, using the same industry categories as Figure 1. Total tax payable for different years is also shown for the different tax years.

Figure 2: Shares of presumptive tax payable across industries, from 2016–17 to 2018–19

Note: bars along rows 1-3 show the shares of presumptive tax payable by firms in six industry categories (see notes under figure 1) between tax years 2016–17 and 2018–19. The total tax payable for each tax year is shown on the right. Note that data from 2018–19 is missing information from months at the end of the year.

Source: authors' calculations based on URA administrative tax returns data.

Industry shares have remained largely the same, with the exception of 2017–18, when agriculture accounted for a larger share of the total tax payable (which was also larger than in the other two tax years). Further analysis also suggests that, despite overall growth in sales for presumptive taxpayers, payable tax per company and sales decreased between 2016–17 and 2017–18, with the exception of a few sectors, namely services, where payable tax per firm has increased.

The main conclusions of this analysis are that (i) in recent years, presumptive tax has only accounted for a small share of overall tax revenue, far below its full potential that requires larger compliance; (ii) presumptive taxpayers (and also sales and payable taxes) are heavily concentrated in wholesale and retail trade as well as other services such as the accommodation and food sector; and (iii) this industry distribution has remained relatively stable for the years where data is available.

4.3 Tax-benefit microsimulation modelling

In this section, the results of the modelling are presented using both the UGAMOD output dataset (based on UNHS) and administrative data records on presumptive taxpayers.

Revenue implications of the 2020 reform and alternative reforms

Table 8 shows estimated revenues from presumptive tax with each of the seven scenarios under different assumptions of compliance (full compliance, and partial compliance using either downscaling 'on model' or administrative records from 2019–20 and 2020–21).

Table 8: Revenue estimates from presumptive tax scenarios, all scenarios

Sc.	Presumptive tax regime (policy rules)	Full compliance scenarios using UGAMOD	Partial compliance scenarios using UGAMOD, rescaled to match actual revenues	Partial compliance scenarios, using administrative data	
				2019–20	2020–21
		(a)	(b)	(c)	(d)
1	2019 regime	320.0 *(baseline)*	-	-	-
2	2020 regime without records	167.1 *(-48 %)*	-	4.7 *(+150 %)*	4.4 *(+157 %)*
3	2020 regime with records	90.0 *(-72 %)*	6.5 *(baseline)*	1.9 *(baseline)*	1.7 *(baseline)*
4	Reform 1: Simplified 4 bands	252.6 *(-21 %)*	18.7 *(+189 %)*	5.1 *(+174 %)*	4.6 *(+171 %)*
5	Reform 2: Simplified 3 bands	237.5 *(-26 %)*	17.9 *(+176 %)*	4.8 *(+155 %)*	4.3 *(+153 %)*
6	Reform 3: Flat rate 1.0 %	190.3 *(-41 %)*	12.9 *(+99 %)*	4.1 *(+121 %)*	3.9 *(+126 %)*
7	Reform 4: Flat rate 1.5 %	285.5 *(-11 %)*	19.4 *(+199 %)*	6.2 *(+231 %)*	5.8 *(+239 %)*
	Actual revenue	-	-	*5.2*	*6.6*

Note: the levels of revenue from scenarios in columns (a) and (b) use UGAMOD v1.6 and the dataset derived from the UNHS 2016–17, uprated to July 2020 using the CPI. Scenarios in column (b) are identical to scenarios in column (a) apart from rescaling that constrains simulated presumptive tax revenue totals to 2020–21 revenue. Specifically, individuals retained as presumptive taxpayers in UGAMOD's dataset after downscaling revenues to 2020–21 were retained and the reform system rules were then applied to these individuals to generate results for the four reform scenarios under column (b). Scenarios in columns (c) and (d) are also identical to those in column (a) but modelled using individual presumptive taxpayer records derived from administrative data for tax years 2019–20 and 2020–21, respectively. All revenue figures are in UGX billions.

Source: authors' elaboration of simulation output using UGAMOD v1.6. and administrative records of anonymized presumptive taxpayers from the URA.

Full compliance scenarios, column (a). From the table, it is clear that the change in presumptive tax rules in 2020 resulted in a large reduction in potential revenue, assuming full compliance (column a). In Scenario 1 (the 2020 system with 2019 rules applied), potential revenue was estimated at UGX320 billion. The new 2020 rules, both 'without records' (Scenario 2) and 'with records' (Scenario 3), resulted in much lower amounts of potential tax revenue (UGX167 billion and 90 billion, respectively). The four reform systems simulated tax amounts greater than the 2020 rules but lower than the 2019 rules. In other words, the rules of the reform systems generated theoretical revenues closer to the 2019 rules but without the complex rules that were present in the 2019 regime. See also Appendix C for the effects of the different policy systems on overall government revenue and indirect taxes.

Similar outcomes emerge from simulations assuming partial compliance (columns b, c and d) which are used here primarily to evaluate the effects of the hypothetical alternative reforms compared to current rules. The baseline used is the 2020 regime where presumptive taxpayers are assumed to keep records (Scenario 3). More details are provided below.

Partial compliance scenarios using UGAMOD, column (b). In scenarios under column (b), where a subset of potential taxpayers are randomly selected to generate the presumptive tax revenue received in 2020–21, the reforms increase revenue by around 100–200 per cent when

compared to the 2020 regime with records.[5] The reforms should generate between UGX12.9 and 19.4 billion with compliance at current levels. Moreover, if the simplification of the rules ended up resulting in higher levels of compliance, then the level of revenue collected would rise further, up to a maximum of the amounts shown in column (a).

Partial compliance scenarios using administrative data, columns (c) and (d). In scenarios under columns (c) and (d), anonymized administrative data records on presumptive taxpayers in the financial years 2019–20 and 2020–21 are examined to explore the profile of compliant taxpayers. As demonstrated earlier, these comprise a very small subset of potential payers of presumptive tax. In line with estimates in columns (a) and (b), administrative data suggests the alternative reforms would increase revenue by between 120–240 per cent when compared to the 2020 regime with records. Reform System 4 (Scenario 7) generates the highest revenue for both years, which also corresponds to alternative estimates in columns (a) and (b).

Note that the 2020 rules, if fully enforced, would have yielded lower revenue than was actually received by the URA in 2020–21. In practice, the URA's digitised portals were not updated to reflect the new 2020 rules until the end of the tax year. Had they been updated, revenue would have fallen to between UGX1.7–4.4 billion, depending on whether payers reported that they kept records or not, while the realized presumptive tax revenue for 2020–21 was UGX6.6 billion.

The taxpayers on the URA system for 2019–20 and 2020–21 are unlikely to be a random sample of all potential presumptive taxpayers. However, it is instructive to compare the distribution of taxpayers between the various tax bands when using either the administrative data or the full compliance results from UGAMOD.[6]

Table 9 shows that the administrative data of presumptive taxpayers have a slightly higher proportion of cases in low-turnover Band 1 as compared to the full UGAMOD data. Conversely, high-turnover Bands 3 and 4 have larger proportions of taxpayers simulated in UGAMOD. The same general principle prevails when examining the reform Systems 1 and 2 (Scenarios 4 and 5[7]). In both cases, there are higher proportions of simulated taxpayers in the higher bands when using UGAMOD compared to administrative data.

This suggests that — in addition to high levels of non-compliance overall — compliance may be lower among potential taxpayers in the higher bands or, alternatively, that there is underreporting of turnover by those in the higher bands (causing them to feature in the lower bands in the administrative data). In parallel, it is possible that the UGAMOD dataset is over-representative of presumptive taxpayers, particularly in the upper bands. This highlights the importance of having familiarity with the strengths and weaknesses of different datasets, whether administrative or survey-based.

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[5] Note that, when using the 2020 regime with records as the baseline in the full compliance scenarios (column a), the corresponding revenue gains from the reform would be approximately in line with those in the partial compliance scenarios (column b); the reforms increase potential revenue by a similar amount, between 112–217%. Also note that it is not possible to meaningfully rescale and model Scenario 2 ('2020 regime without records') using this approach. This is addressed by modelling the scenario using administrative tax records; see columns (c) and (d).

[6] The rescaling process distorts the true distribution between bands in the modelled presumptive tax and so is not used for this comparison.

[7] Reform Systems 3 and 4 (Scenarios 6 and 7) have only one band each and so this analysis is not appropriate for those scenarios.

Table 9: Distribution of presumptive taxpayers between bands using administrative tax data and UGAMOD output data, for Scenarios 2 and 3 (the 2020 systems, with and without records), Scenario 4 (Reform 1), and Scenario 5 (Reform 2)

Scenario (rules)	Turnover in millions	Administrative data, %		UGAMOD, %
		2019–20	2020–21	2020
2 and 3	10–30 (band 1)	75.1	75.7	70.1
(2020 rules with	30–50 (band 2)	16.4	16.7	16.4
and without	50–80 (band 3)	6.4	5.9	8.4
records)	80–150 (band 4)	2.1	1.5	5.1
	Total	100	100	100
4	10–30 (band 1)	75.1	75.7	70.1
(Reform 1)	30–60 (band 2)	20.6	20.5	19.6
	60–100 (band 3)	3.0	2.9	7.4
	100–150 (band 4)	1.3	0.8	3.0
	Total	100	100	100
5	10–50 (band 1)	91.5	92.4	86.5
(Reform 2)	50–100 (band 2)	7.2	6.6	10.5
	100–150 (band 3)	1.3	0.8	3.0
	Total	100	100	100

Note: the lowest band ('band 0') is not included in the table as no presumptive tax is payable.

Source: authors' elaboration of output from UGAMOD v1.6 and anonymized presumptive URA taxpayer records.

Distributional effects of the 2020 reform and alternative reforms

Table 10 shows the effects of the 2020 reform and alternative reforms on consumption-based poverty and inequality, compared to the baseline with 2019 rules still applied in 2020 (Scenario 1). Both the enacted 2020 system and the four reform systems have very little impact on both poverty or inequality (columns 1-3). While not shown here, the corresponding partial compliance scenarios also had virtually no impact on these outcomes.

Table 10: Effects of the 2020 reform and alternative reforms on poverty and inequality, full compliance scenarios using UGAMOD

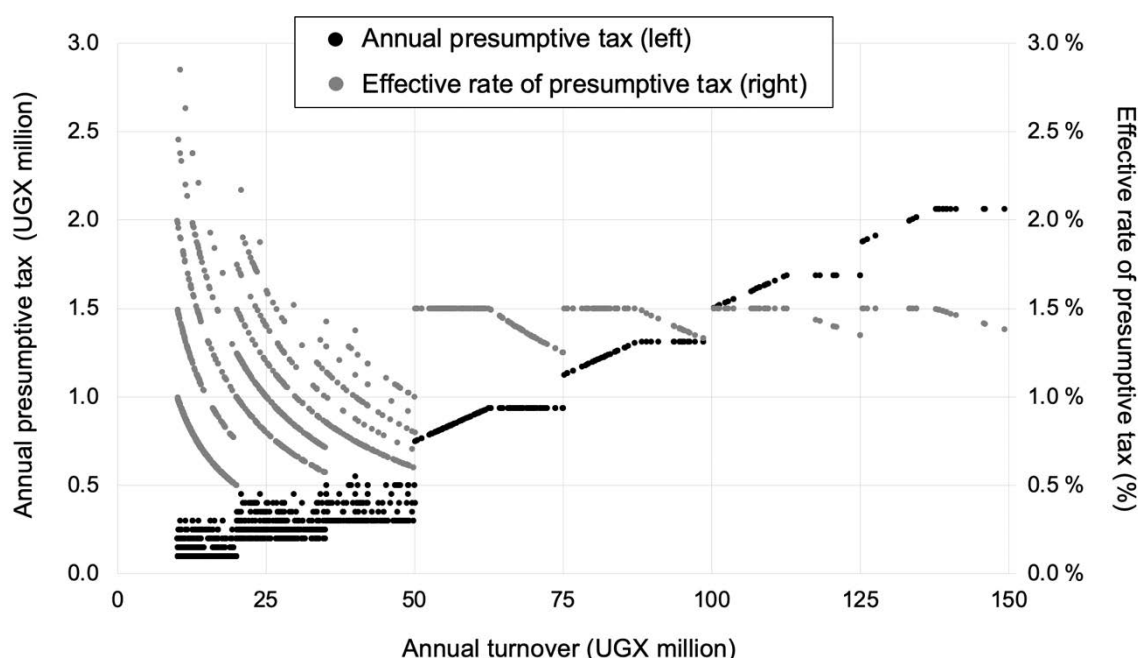| Sc.	Presumptive tax regime	Full compliance scenarios using UGAMOD		
		Poverty rate (%) (1)	Gini coefficient (2)	P80/P20 ratio (3)
1	2019 regime	21.87 *(baseline)*	39.6 *(baseline)*	2.96 *(baseline)*
2	2020 regime without records	21.83 *(-0.2 %)*	39.7 *(+0.2 %)*	2.97 *(+0.4 %)*
3	2020 regime with records	21.72 *(-0.7 %)*	39.7 *(+0.3 %)*	2.98 *(+0.8 %)*
4	Reform 1: Simplified 4 bands	21.81 *(-0.3 %)*	39.6 *(+0.0 %)*	2.98 *(+0.5 %)*
5	Reform 2: Simplified 3 bands	21.81 *(-0.3 %)*	39.6 *(+0.1 %)*	2.98 *(+0.5 %)*
6	Reform 3: Flat rate 1.0 %	21.80 *(-0.3 %)*	39.7 *(+0.1 %)*	2.98 *(+0.5 %)*
7	Reform 4: Flat rate 1.5 %	21.85 *(-0.1 %)*	39.6 *(+0.0 %)*	2.97 *(+0.3 %)*

Note: all outcomes come from simulations using UGAMOD v1.6 and the dataset derived from the UNHS 2016–17 uprated to July 2020 using the CPI, assuming full compliance. Column (1) shows the headcount poverty rate, or the share of population under the national poverty line. Column (2) shows the Gini coefficient (scaled to 0-100). Column (3) shows the P80/P20 ratio. Percentage changes from the baseline, where 2019 presumptive rules are applied to year 2020, are shown in brackets.

Source: authors' elaboration of simulation output using UGAMOD v1.6.

Progressivity of the 2020 reform and alternative reforms

To what extent are the different scenarios progressive? To illustrate this, the figures in this section plot the annual amount of presumptive tax payable and the effective presumptive tax rate by annual turnover.

The 2019 rules. For Scenario 1 (2019 rules applied in 2020), Figure 3 shows these outcomes using output from UGAMOD (simulated payers, assuming full compliance). The black dots form a scatter plot of the annual amount of presumptive tax simulated (scale on left-hand y-axis) and annual turnover (x-axis). The grey dots form a scatter plot of effective presumptive tax rate (right-hand y-axis) and annual turnover (x-axis). The high complexity of the 2019 is evident from the graph. The effective rate of tax (grey dots) is not progressive as it does not increase with turnover, partly the opposite. In particular, the effective rates can be very large for payers with turnover between UGX10 and 50 million.

Figure 3: Scatter plot of presumptive tax liability and effective tax rate by annual turnover, Scenario 1
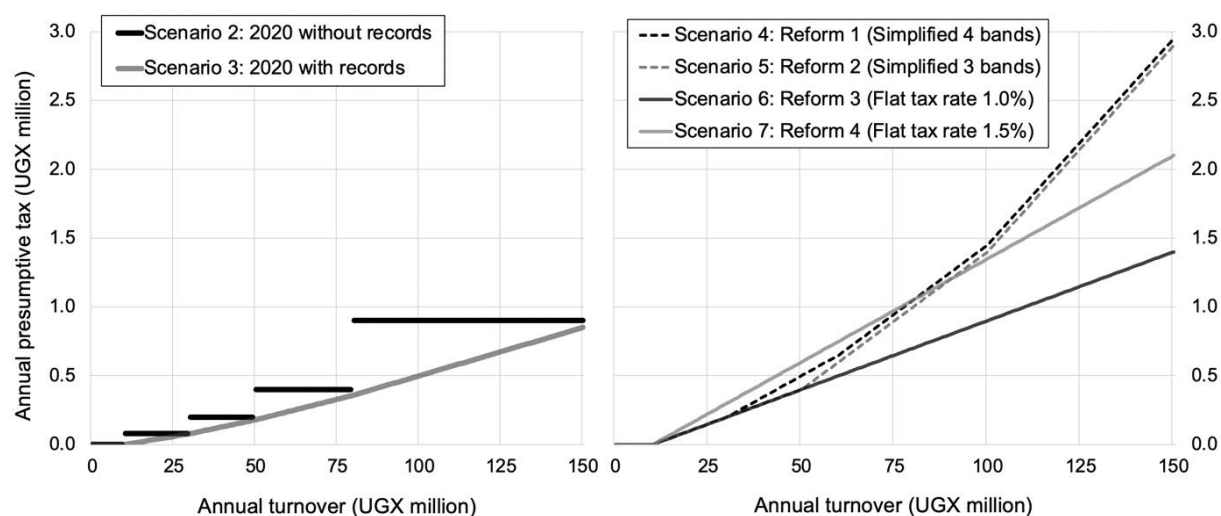

Source: authors' elaboration of output from UGAMOD v1.6.

Figure 4 shows annual presumptive tax liabilities by turnover, and Figure 5 the effective rates of presumptive tax by turnover, for Scenarios 2–7. These plots illustrate the policy rules as they are set in the legislation (i.e., tax rates and amounts by turnover) instead of visualizing available payers in the UGAMOD data as in Figure 3. The interpretation is the same.
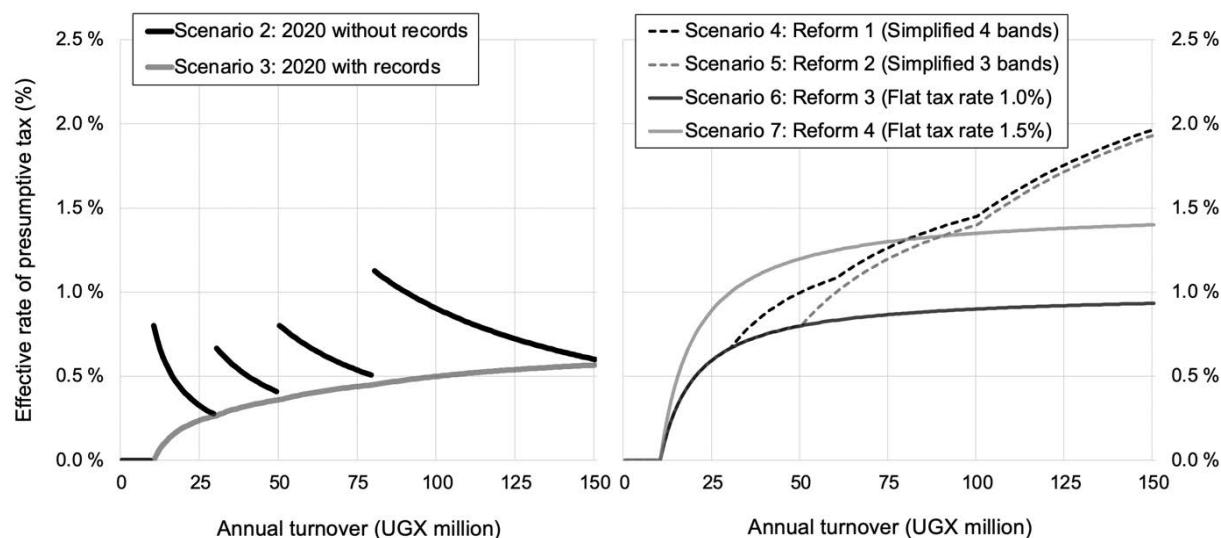
The 2020 reform. The illustration for Scenario 2 (2020 rules for people who do not keep records) shows how the flat payment by band results in taxpayers paying the same amount across a large spectrum of turnover (Figure 4, left, black lines). The effective tax rate thus decreases within each band as turnover increases, starting from a high level (Figure 5, left, black lines). Scenario 2 is not at large progressive. As an example, a presumptive taxpayer with annual turnover of UGX10 million who does not keep records is taxed at 0.8 per cent, yet one with 30 million is taxed at 0.3 per cent and one with 150 million at 0.6 per cent. The 2020 rules for people with records are much more progressive (Scenario 3, grey lines on the left-hand side figures).

Figure 4: Presumptive tax liability by annual turnover, Scenarios 2–3 (left) and Scenarios 4–7 (right).

Source: authors' illustration of policy rules in Scenarios 2-7.

Figure 5: Effective presumptive tax rates by annual turnover, Scenarios 2–3 (left) and Scenarios 4–7 (right).

Source: authors' illustration of policy rules in Scenarios 2–7.

Alternative reforms. Scenarios 4 and 5 (Reforms 1 and 2) shown on the right-hand side have a similar profile to Scenario 3, but with higher presumptive tax liabilities (Figure 4, dashed lines) and effective rates (Figure 5, dashed lines). The first reform, with four positive-rate bands, is slightly smoother than the second reform with three bands.

Scenarios 6 and 7 (Reforms 3 and 4) on the right would lead to linear increases of tax liability with turnover (Figure 4) and thereby smooth increases of effective tax rate with turnover (Figure 5). Compared to other alternative reforms, the 1 per cent flat rate (Scenario 6) is more economical for presumptive taxpayers when turnover is higher than UGX50 million. The 1.5 per cent flat rate (Scenario 7) becomes cheaper than Reforms 1 and 2 when turnover reaches UGX100 million. Tax levied and effective tax rate for the 1.5 per cent flat rate are however higher compared to other

alternative reforms when turnover is below 75 million.[8] Overall, the first two reforms are more progressive than the flat rate proposals as those with higher turnovers pay tax at higher marginal and effective tax rates. Flat tax does however guarantee that both effective tax rates and absolute liabilities increase with turnover.

Further advantages of the flat tax proposals. In addition to 'smooth' progressivity and large short-run revenue generation potential,[9] the flat tax proposals have many other advantages. Most notably, a single tax rate would be a major improvement over the current tax scheme — and over all multi-band regimes — in terms of simplicity and transparency.

In particular, a low-rate flat tax could promote taxpayer morale and compliance by encouraging more small firms to pay some tax to begin with. Such a presumptive tax regime would work as a stepping stone for small firms to become familiarized with the tax system, allowing them to grow further and eventually pay more taxes, either corporate or individual business tax depending on the payer.

Relatedly, a low flat rate (such as the 1 per cent proposal) would be favorable when considering the overall alignment of presumptive tax with other taxes and payments levied on small companies. The presumptive tax scheme does not operate in isolation. A firm may consider paying corporate tax if effective tax rates are lower under that scheme, and presumptive tax also sits alongside various other payments to government that firms may have to pay either at the national or local level. Presumptive tax regimes with several tax band would make it more difficult for firms to maneuver in this space, which is a lesser problem with a well-designed single-rate presumptive tax. The expectation is that a low-rate presumptive tax regime would enhance long-run revenue potential from not just presumptive tax but other business taxes as well.

5   Conclusion

In this work, tax-benefit microsimulation is used to evaluate the July 2020 reform to presumptive tax policy in Uganda and to simulate a number of alternative reform proposals. In addition to its partial regressivity, the 2020 reform is estimated to significantly reduce the revenue generation potential from presumptive tax. While the system is progressive for firms that keep records, the rates are pegged at too low a level in that the policy yields much lower revenue than earlier versions of the policy. For firms without records, the rules do produce more revenue but the system is far from progressive.

The existing rules also suffer from excessive complexity, including a lack of clarity as to what constitutes acceptable record keeping, a key determinant of tax liability. This is at odds with the principle that presumptive tax should be simple and straightforward both for tax authorities to administer and for prospective taxpayers to understand. The complexity of the rules, together with ineffective enforcement due to limited resources and the COVID-19 pandemic, has also contributed to low compliance among liable taxpayers.

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[8] Had the flat rates of tax in Reforms Systems 3 and 4 been levied without an exemption for the first 10 million UGX per annum the effective tax rate would be equal to the tax rate and there would be a straight horizontal line for effective tax rate at 1% and 1.5%, respectively. Because of the exemption, the effective tax rate approaches the tax rate levied for higher rates of turnover. The amount of tax paid is linear.

[9] As shown in Table 8, the flat tax regimes are estimated to generate 2 to 3 times more revenue than the 2020 system, assuming complete record keeping. Compared to the 2020 rules without records, the 1% flat tax would lead to similar but slightly lower revenues, and the 1.5% flat tax would increase them by around 30%.

Considering the hypothetical reform scenarios developed to address these challenges, a low-rate flat tax regime would be a major improvement to the existing policy. A single rate between 1 and 1.5 per cent for firms with turnover between UGX10–150 million (with or without records) would satisfy the calls for further simplification and generate more revenue than the current regime assuming taxpayers keep records. The 1.5 per cent option would also increase revenues compared to the current system assuming no record keeping. Both flat rate regimes would guarantee that both effective tax rates and absolute liabilities increase gradually with turnover. Most importantly, a low-rate flat tax has the potential to promote taxpayer compliance by encouraging more small firms to pay some tax to begin with, introducing them to the tax system and thus enhancing the long-run revenue potential from presumptive tax and ultimately from other taxes as well.

At the same time, compliance will not be enhanced by the modelled reform changes alone. Important initiatives are underway, including a simplified e-filing system and a taxpayer register expansion project, which are likely to contribute to better compliance. If these registration and compliance initiatives are retained and an appropriate flat tax regime is implemented, then this would enable the target revenue sights to be set considerably higher than the current policy.

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Appendix A: Presumptive tax rates for the UGX10–50 million bracket, 2015–16 reform

Table A1 shows tax rates for presumptive taxpayers for different for different turnover brackets (between UGX10 million and 50 million), locations, and business sectors between financial years 2015–16 and 2019–20.

Table A1: Tax rates as lump sum amounts for small business taxpayers for different turnover brackets, locations, and business sectors, 2015–16 to 2019–20

Location	Business sector	Turnover 10–20 million	Turnover 20–35 million	Turnover 35–50 million
Kampala city and divisions of Kampala	General trade	250,000	400,000	500,000
	Carpentry/metal workshops	250,000	400,000	500,000
	Garages	300,000	450,000	550,000
	Hair and beauty salons	300,000	400,000	550,000
	Restaurants or bars	300,000	450,000	550,000
	Drug shops (=pharmacies)	250,000	350,000	500,000
	Others	200,000	300,000	450,000
Municipalities	General trade	150,000	300,000	400,000
	Carpentry/metal workshops	150,000	300,000	400,000
	Garages	200,000	350,000	450,000
	Hair and beauty salons	200,000	350,000	450,000
	Restaurants or bars	200,000	350,000	450,000
	Drug shops	150,000	300,000	400,000
	Others	150,000	350,000	400,000
Towns and trading centres	General trade	100,000	200,000	300,000
	Carpentry/metal workshops	100,000	200,000	300,000
	Garages	100,000	250,000	350,000
	Hair and beauty salons	100,000	250,000	350,000
	Restaurants or bars	100,000	250,000	350,000
	Drug shops	100,000	200,000	300,000
	Others	100,000	250,000	300,000

Note: the upper value of a tax brackets is included in that tax bracket; when it is exceeded, the taxpayer is switched to the next tax bracket. All monetary values are in UGX.

Source: authors' interpretation of the Income Tax (Amendment) Acts (2015, 2016, both 1 July).

Appendix B: Analysis of interviews with URA employees

This appendix summarizes findings from the interview conducted with in URA concerning small business taxpayers (presumptive taxpayers). It discusses (a) how taxpayers are identified by the URA and the challenges that URA faces in the identification and registration process of taxpayers, (b) justifications for the poor compliance behavior of small taxpayers, and (c) opinions of the tax officials on the 2020 presumptive policy reform.

We interviewed eight URA staff, including two in business policy division that are in charge of tax law amendments, one in process management that are in charge of implementing tax policy amendments in the e-tax system, three in compliance division, and two officials responsible for taxpayer register expansion.

Identification of taxpayers

There are various methods of identifying taxpayers

a)   For the business community especially the small business traders, most of them have been registered through the Taxpayer Register Expansion Programme (TREP).

> Majority of small taxpayers only comply when URA reaches out to them. If you don't go to look for them they don't register and pay taxes – *interview response*

TREP brings together three main services: business registration, taxpayer registration and the issuing of trading licenses. As a first step, new business owners are required to register for a business name with the Uganda Registration Services Bureau (URSB). After obtaining a certificate of registration, they apply for a TIN from the URA. Once the tax identification number (TIN) is issued, they apply for a business license from Kampala Capital City Authority (KCCA) or the relevant local authority (upon paying the assessed license fee).[10] Under TREP, one-stop shop was established so that all these services could be provided under one roof. In addition to the one-stop shop,[11] URA officials move with officials from the other organizations for door-to-door registration of taxpayers. Door-to-door activities have however been limited because of COVID-19 restrictions.

b)   URA also identifies taxpayers through information submitted by taxpayers such as withholding tax (WHT) returns, rental tax returns and income tax returns. For instance, in WHT returns, taxpayers are required to declare their suppliers. Similarly, tenants are required to declare contact details of their land lords. URA uses this information to identify potential taxpayers.

c)   Some taxpayers are forced to register such as employees for some organizations (mainly government agencies and large and medium companies) that require their employees to have TINs. Similarly, to register or transfer a motor vehicle, one is required to have a TIN.

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[10] Firms in Uganda have to register with local authorities to obtain trading licenses or other relevant licenses. In the district of Kampala, the Kampala Capital City Authority (KCCA) has the mandate to govern the capital city and issue such licenses. Other districts have district or municipality offices that are responsible for governing their jurisdictions and issuing trading licenses.

[11] As of July 2021, there are 44 one-stop shops across Uganda; 10 in Kampala and 34 in other parts of the country.

Justification for the poor compliance among small taxpayers

First, the low levels of tax compliance can be explained by the shortage of URA officials to enforce payment. Given that the majority of these individuals fall in the lower tax bracket, the limited resources are spent on bigger taxpayers. Since it's a self-assessment model, no one can assess him/herself high taxes, it's up to URA to audit the taxpayers but the resources are not enough to audit all taxpayers.

> Presumptive tax should be a field assessment model and not this self-assessment. We have a constraint of resources. If you don't move there, they will never pay. We are not even in it. How can I chase for taxpayers of 50,000 when I have other taxpayers that have large amounts. We have very little focus on such taxpayers – *response from compliance officers*

Second, COVID-19 has made tax enforcement of small businesses more difficult. Moving from door to door is now not possible but also many businesses have slowed down. Aggressive enforcement on such businesses is therefore not realistic.

Third, there are hiccups in the registration process. Specifically, in a bid to expand the taxpayer register under the Taxpayer Registration Expansion Project (TREP), sometimes tax officials have registered individuals who should not be on the register in order to meet registration targets.

Fourth, sometimes, tax officials negotiate with taxpayers for the latter to pay 'something' so that the officials can at least meet collection targets. This may explain some of the payments that are below the threshold. Fifth, some of these taxpayers feel that they should not be on the register in the first place and so simply pay to fend off URA officials.

Staff opinions on the 2020 policy reform

a) The reform significantly simplified the presumptive regime.

> We had varying rates depending on turnover, location and type of business. It was not necessarily true that a business in a municipality makes more money than one outside a municipality. There were high chances of having taxpayers in the same economic position but one is made to pay high taxes because of being near an urban center. The whole system was surely very complicated – *response from the business policy division*

b) The reforms will significantly reduce presumptive revenue collections.

> During a sensitization [awareness campaigns on tax changes to citizens], I even felt shy to tell taxpayers that you can pay as low as UGX4,000 a year. I told them the lowest you can pay is UGX40,000. Taxpayers were very happy to hear that they can now pay only UGX40,000 – *response from a compliance officer[12]*

c) The requirement to have records is not practical.

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[12] For instance, reported annual turnover of UGX11 million results in one million of taxed turnover and thereby a payment of UGX4,000. (For those keeping books and turnover between UGX10–30 million, annual turnover in excess of 10M is taxed at a rate of 0.4 %)

It is not practical at all to distinguish between taxpayers with records and those without records. The person who came up with this reform forgot that we are in a self-assessment regime. It came from Ministry of Finance and they don't know how we collect taxes. If you are the one supposed to assess yourself, how will you select the option of not having records? Yes, the assumption is that we are supposed to audit taxpayers, but who in Domestic Taxes department is going to dedicate resources to auditing presumptive taxpayers. It's not practical to audit all of them – *response from the business policy division*

Reasons behind slow implementation

While the presumptive reform was to be implemented effective 1 July 2020, it took URA a full year to implement the changes in the e-tax system. As such taxpayers that paid during the financial years 2020–21, paid according to the old regime.

The changes were in effect in the last week of the financial year 2020–21. The system now has a requirement for taxpayers to specify whether they have records or not. There is however no requirement to upload the records in the system.

There were two reasons for the delay:

a)   Changes to e-tax system are not entirely in the control of URA. It's done by the original system developers who are not URA staff. The process of engaging this external process, agreeing on the terms and condition is longer.

When amending tax laws, we tend to ignore the fact that changing a system comes with a cost. So if there is a delay in getting the money you will have a delay in changing the system – *response from the business process team*

b)   The business process unit is under staffed.

I know there are many changes that have been passed in the law but not implemented in e-tax. Business process team is understaffed. As a result, staff have to prioritize. If there is a change that affects large taxpayers and another change that affects small taxpayers, definitely they have to prioritize the large taxpayers – *response from the business policy division*

Conclusions from the interviews

Staff interviewed generally feel the new regime is much better for small taxpayers but pose significant risks to revenue collections. They suggest that rates may be slightly adjusted and that the requirement to have a record be removed as it is not practical.

Appendix C: Effects on government revenue and indirect taxes

Table C1 shows the impact of the policy rules across scenarios on government revenue (column 1) and revenue from indirect taxes (column 2). In the extreme scenario where no presumptive taxpayers keep records (Scenario 2), government revenue falls by 1.7 per cent. If all presumptive taxpayers kept records (Scenario 3), revenue would fall by 2.6 per cent. Revenue losses would be lower using the alternative reforms, falling in between 0.4 and 1.5 per cent depending on the reform.

Table C1: Effects of the 2020 reform and alternative reforms on indirect taxes and government revenue, full compliance scenarios using UGAMOD

Sc.	Presumptive tax regime	Full compliance scenarios using UGAMOD	
		Government revenue (1)	Indirect taxes (2)
1	2019 regime	8,900 *(baseline)*	2,750 *(baseline)*
2	2020 regime without records	8,750 *(-1.7 %)*	2,600 *(-5.6 %)*
3	2020 regime with records	8,670 *(-2.6 %)*	2,520 *(-8.4 %)*
4	Reform 1: Simplified 4 bands	8,830 *(-0.8 %)*	2,680 *(-2.5 %)*
5	Reform 2: Simplified 3 bands	8,820 *(-0.9 %)*	2,670 *(-3.0 %)*
6	Reform 3: Flat rate 1.0 %	8,770 *(-1.5 %)*	2,620 *(-4.7 %)*
7	Reform 4: Flat rate 1.5 %	8,860 *(-0.4 %)*	2,720 *(-1.3 %)*

Note: all outcomes come from simulations using UGAMOD v1.6 and the dataset derived from the UNHS 2016–17, uprated to July 2020 using the CPI, assuming full compliance. Column (1) shows the total government revenue in billions UGX, rounded up to the tens place, while Column (2) shows the revenue from indirect taxes, also in billions of UGX and rounded up to the tens place. Changes from the baseline, where 2019 presumptive rules are applied to year 2020, are shown in brackets.

Source: authors' elaboration of simulation output using UGAMOD v1.6.