Research brief:

Tax compliance of small enterprises: TREP and simpler e-filing form[1]

Maria Jouste[1,2], Milly I. Nalukwago[3], and Ronald Waiswa[3]

[1]Department of Economics, University of Turku, Turku, Finland
[2]UNU-WIDER, Helsinki, Finland
[3]Uganda Revenue Authority, Kampala, Uganda

Summary

This study evaluates the impacts of two recent policy interventions, the 'Taxpayer Register Expansion' project (TREP) and a simple internet based filing of presumptive tax (e-filing), on the number of small firm taxpayers in Uganda. Using administrative data from the Uganda Revenue Authority (URA) information system covering both presumptive taxpayers and comparable small corporate income tax (CIT) payers, the paper compares the number of firms in different geographical areas and firm types to uncover the impact of these new compliance interventions, whose introduction varied across region and time. The results show that both TREP and e-filing had a large positive impact on the number of presumptive tax payers.

Background

The TREP intervention is a collaborative project of different authorities. Its objectives are to improve tax compliance and to encourage the formalization of small and medium sized businesses by simplifying business and tax register processes, thus reducing compliance costs. The methods include for example door-to-door visits, the establishment of one-stop-shops, and providing tax education. TREP was implemented in some regions during the fiscal years 2013/14 to 2016/17. It was rolled out in phases, starting in July 2013 in Kampala, expanding to Wakiso district in July 2014, and to another 30 municipalities in July 2016.

The new e-filing form for the presumptive tax return simplified filing considerably. Before July 2015 presumptive returns were declared using an Excel form which was submitted online to URA. After July 2015 presumptive returns are declared directly using a simple online tax form on URA's webpage.

Data and methods

The goal of the paper is to investigate the impact of TREP and e-filing on the number of presumptive tax paying firms. In other words, the idea is to evaluate whether the reforms have increased the formalization of businesses and made taxpaying easier.

---

[1] This research brief is based on a research paper by the same authors. The full paper is available from the authors upon request.

The data include all presumptive taxpayers and CIT returns of firms with turnover less than UGX 400 million for 2012/13-2017/18. In addition, information from the Taxpayer identification register (TIN register) is used.

The analysis pertaining to TREP utilizes the fact that TREP was implemented in phases (TREP I: Kampala, TREP II: Wakiso, TREP III: thirty additional municipalities). The number of firms in a group determined on the basis of a county and industry where TREP was active (the treatment group) is compared to areas where TREP had not yet been implemented (the control group) in a so-called difference-in-differences (DiD) manner. The DiD type regression analyses control for permanent differences between regions and industries as well as year effects which are common across all firms.

In the case of e-filing, all presumptive taxpayers were subject to the intervention starting from 2015/16, and hence presumptive taxpayers who have turnover less than 50 million are the treatment group in that analysis. The control group includes smaller firms paying the CIT, i.e. those whose turnover is between 150 and 400 million. The e-filing analysis is also conducted at a group level; this time groups are constructed using districts and industries.

Results

Figure 1 depicts the number of firms paying either the presumptive tax or the corporate income tax in the analysis sample. The Figure documents the marked increase for the presumptive taxpayers during the time. Figure 2 indicates, however, that the large majority of presumptive taxpayers have a very low turnover.

In the analysis regarding TREP (Table 1), the impact is measured differently for when TREP was started (After1 columns) and when one-stop shops were present (After 2 columns)[2]. The results suggest that TREP, especially when one-stop shops were introduced, was effective in increasing the number of firms. The impacts are large, approximately 50 per cent or more, with the exception of the first year under TREP II.

The analysis of the impact of e-filing was conducted using two variants (Table 2). Column (1) presents the results of a straightforward DiD, whereas in Column (2) we control for the tax change in 2014/15 and whether TREP was active in an area. Again, the results suggest that the intervention was successful: the number of presumptive tax paying firms after the introduction of e-filing more than doubled. Further analysis shows that the impact was more pronounced during the second year of e-filing. In addition, it is important to control for the presence of TREP, because it also had a modest impact on the control group, i.e. CIT firms.

Because e-filing took place during the same time as part of the TREP expansion, it is likely that their impacts were complementary. Both types of interventions are needed.

---

[2] In TREP III; one stop shops were introduced during the first year, and that is why only one result is presented.

Figure 1: The number of presumptive tax paying firms and CIT firms with turnover less than 400 million.
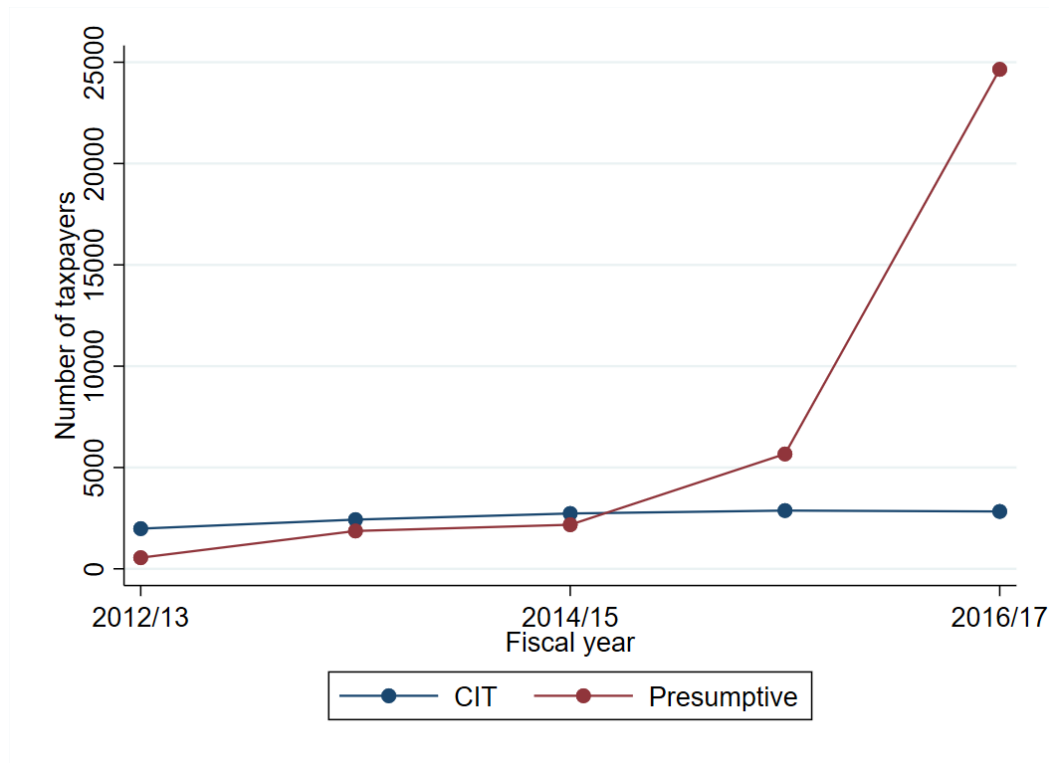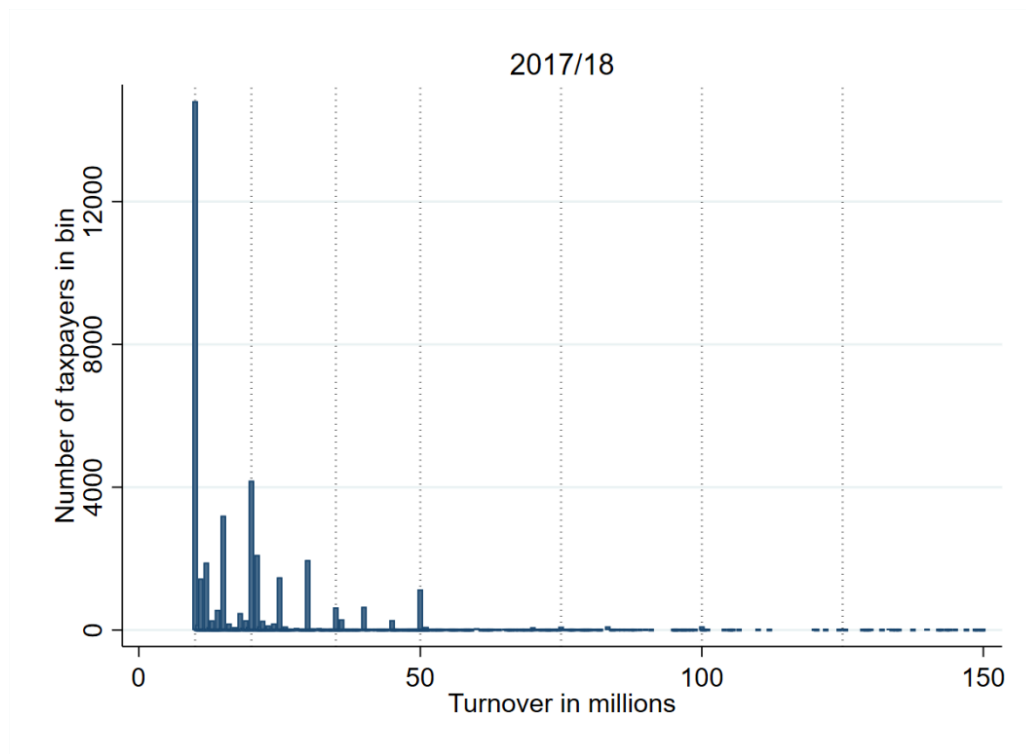

Figure 2: The distribution of taxable sales of turnover tax payers, 2017/18.

Table 1: Difference-in-differences (DiD) regression results regarding TREP

	TREP I - Kampala			TREP II - Wakiso			TREP III – Other municipalities
	(1) After	(2) $After_1$	(3) $After_2$	(4) After	(5) $After_1$	(6) $After_2$	(7) After
DiD estimate	0.737*** (0.233)	0.473*** (0.188)	0.820*** (0.284)	0.484*** (0.217)	0.095 (0.179)	0.746** (0.290)	0.788*** (0.089)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Group dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.836	0.923	0.849	0.764	0.790	0.821	0.799
N	3,009	377	2,717	2,826	659	2,311	3,747
	172 taxpayers in 2012/13			1,780 taxpayers in 2013/14			4,275 taxpayers in 2015/16

Notes: Dependent variable: log number of firms in a group constructed using counties and industries. Robust standard errors in parentheses.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Kampala: After 1: 2013/14-14/15, After 2: 2015/16-17/18
Wakiso: After 1: 2014/15-15/16 After 2: 2016/17-17/18
Other municipalities: After: 2016/17-17/18

Table 2: Difference-in-differences (DiD) regression results regarding e-filing

	(1) After	(2) After
DiD estimate	1.314*** (0.073)	1.427*** (0.085)
Presumptive*$Year_{2014/15}$		0.275*** (0.079)
$TREP_{active}$		0.301*** (0.0526)
Year dummies	Yes	Yes
Group dummies	Yes	Yes
R-squared	0.862	0.866
N	3,906	3,906

Nr of presumptive tax payers in 2014/15: 1,868.

Notes: Dependent variable: log number of firms in a group constructed using districts and industries. Robust standard errors in parentheses.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$