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

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Research question

• Have ‘Taxpayer Register Expansion’ project (TREP) and simpler e-filing form increased tax compliance of small enterprises?
  – We investigate all TREP phases and the change in e-filing of presumptive taxpayers
• This paper
  – Uses administrative presumptive tax and non-individual (corporate income tax) return data from URA
  – Examines the impact of TREP and e-filing on the number of taxpayers
What explains this?

Figure. Development of number of presumptive taxpayers
TREP and new e-filing form

• TREP is a collaborative project of different authorities
  – The objectives are to improve tax compliance and formalization of small and medium sized businesses by simplifying the business and tax register processes and thus reducing compliance costs
  – Different methods include for example door-to-door visits, establishment of one-stop-shops and providing tax education
  – TREP was implemented in three phases in FY 2013/14-2016/17
• The new e-filing form for presumptive tax return simplified filing
  – 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
Timeline of different reforms for small businesses in Uganda

Administrative:
- E-filing, Excel form
- E-tax implementation
- E-tax fully operating

Presumptive Tax:
- Tax increase
- Tax decrease
- Minor tax changes

Other Taxes:
- Corporate income tax 30%
- VAT threshold increase

Years:
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
Data

• We use tax administrative data from URA for years 2012/13-17/18:
  1. presumptive tax returns in two separate data sets
  2. corporate income tax returns
  3. tax registration data

Table 1. Average turnover and tax payable for presumptive and CIT return.

<table>
<thead>
<tr>
<th>Year</th>
<th>Presumptive</th>
<th></th>
<th>CIT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Turnover</td>
<td>Tax payable</td>
<td>Turnover</td>
<td>Tax payable</td>
</tr>
<tr>
<td>2012/13</td>
<td>13,709,442</td>
<td>118,765</td>
<td>68,029,973</td>
<td>3,225,070</td>
</tr>
<tr>
<td>2013/14</td>
<td>16,617,642</td>
<td>148,750</td>
<td>64,120,527</td>
<td>2,190,842</td>
</tr>
<tr>
<td>2014/15</td>
<td>11,282,286</td>
<td>257,547</td>
<td>62,647,449</td>
<td>2,086,218</td>
</tr>
<tr>
<td>2015/16</td>
<td>6,761,215</td>
<td>212,515</td>
<td>57,042,328</td>
<td>2,163,511</td>
</tr>
<tr>
<td>2016/17</td>
<td>16,929,217</td>
<td>224,513</td>
<td>53,655,654</td>
<td>1,948,385</td>
</tr>
</tbody>
</table>

Notes: All monetary values are in local currency (UGX). CIT includes only firms which have turnover equal or less than 400 million.
Methods

- We use a simple **impact evaluation method** to analyse both TREP and new e-filing system separately
  - Difference-in-differences approach
  - Compare number of taxpayers before and after the reforms in treatment and control group
- In **TREP**, both treatment and control groups are presumptive taxpayers in different locations in Uganda
- In **E-filing**, the treatment group is presumptive taxpayers and the control group is corporate income taxpayers 150-400 million turnover
- Separate results for different types of the TREP intervention are reported
Estimation results: TREP

<table>
<thead>
<tr>
<th>TREP I - Kampala</th>
<th>TREP II - Wakiso</th>
<th>TREP III – Other municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>After</td>
</tr>
<tr>
<td>DD</td>
<td>0.737***</td>
<td>0.473***</td>
</tr>
<tr>
<td></td>
<td>(0.233)</td>
<td>(0.188)</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Group dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.836</td>
<td>0.923</td>
</tr>
<tr>
<td>N</td>
<td>3,009</td>
<td>377</td>
</tr>
<tr>
<td></td>
<td>172 taxpayers in 2012/13</td>
<td>1,780 taxpayers in 2013/14</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- The outcome variable is log number of taxpayers using industry*location level aggregated data
- Kampala: After 1: 2013/14-14/15, After 2: 2015/16-17/18
- Municipalities: After: 2016/17-17/18
Visual evidence: E-filing

The graph illustrates the number of taxpayers using e-filing over three fiscal years: 2012/13, 2014/15, and 2016/17. The graph shows two lines:

- Blue line: CIT (Corporate Income Tax)
- Red line: Presumptive e-filing

The number of taxpayers using e-filing for CIT has remained relatively stable over the three fiscal years. In contrast, the number of taxpayers using presumptive e-filing shows a significant increase from 2014/15 to 2016/17.
Estimation results: E-filing

<table>
<thead>
<tr>
<th></th>
<th>(1) After</th>
<th>(2) After</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD</td>
<td>1.314***</td>
<td>1.427***</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.085)</td>
</tr>
<tr>
<td>Presumptive*Year2014/15</td>
<td></td>
<td>0.275***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.079)</td>
</tr>
<tr>
<td>TREP&lt;sub&gt;active&lt;/sub&gt;</td>
<td></td>
<td>0.301***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0526)</td>
</tr>
<tr>
<td>TREP&lt;sub&gt;presumptive&lt;/sub&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Group dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.862</td>
<td>0.866</td>
</tr>
<tr>
<td>N</td>
<td>3,906</td>
<td>3,906</td>
</tr>
</tbody>
</table>

1,668 presumptive taxpayers in 2014/15

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

- The outcome variable is log number of taxpayers using industry*location level aggregated data
- Treatment group: presumptive taxpayers under 50 million turnover
- Control group: corporate income taxpayers 150-400 million turnover
Distribution of presumptive taxpayers

2017/18

Number of taxpayers in bin

Turnover in millions
About the estimation results

- The number of taxpayers almost doubled because of TREP, in particular one-stop-shops
- The number of taxpayers more than doubled because of e-filing change, but some of the effect was maybe due to TREP
- The effect of the new e-filing form is more prominent in the second year after the change
- Taxpayer register campaigns and simpler filing systems complement each other
- The new filers mostly file the lowest taxable income
Summary

• We analysed two tax administrative interventions which are targeted to small and medium-sized enterprises
  – We used Ugandan tax return data
  – Estimated using difference-in-differences approach and descriptive and graphical analysis

• Main findings:
  – Both reforms increased the number of taxpayers
  – Reforms complementing each other
Thank you for listening!