Information, Fiscal Capacity, and Tax Enforcement: an Experimental Evaluation in Uganda

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Outline

1 Introduction

2 Background: the VAT in Uganda

3 Analysis of discrepancies and revenue consequences

4 Randomized Compliance Program

5 Conclusions
Introduction

Figure: Increasing adoption of the VAT...now existing in 40 African countries

“Has it enabled countries to increase their tax revenues? (...)
Only in Sub-Saharan Africa is the weight of evidence mixed. (...)
Significant work remains to be done in improving the functioning of the VAT in much of the region.”
- Michael Keen and Ben Lockwood (2010)
Introduction

- A key argument instrumental for the widespread adoption of VAT in LICs: **the VAT’s revenue efficiency**
  - The VAT generates **opposite incentives** for the seller and the buyer: this limits **collusive evasion**
  - The **information trails** the VAT generates - transaction records on the seller and buyer side - limit **unilateral evasion**

- But the enforcement power of information trails relies on:
  - The revenue authority’s (RA) **resources and capacity** to make use of them
  - Taxpayers **expectations** about that capacity

→ **How effective can information trails be to curb VAT evasion in a developing-country context where the RA is resource-constrained?**
Timeline of collaboration between researchers and the URA:

- **First MoU signed in 2013**
- **Full-time research assistant within URA since May 2015 onwards**
- **Two research reports (2015 and 2017)**
- **May and September 2017: Pilots for a Randomized Compliance Program**
- **February-March 2018: Full-scale Randomized Compliance Program**
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• VAT: a third of total tax revenue, divided almost equally between domestic and import VAT
  ▶ Standard rate of 18%
  ▶ Registration threshold: 30,000 USD annual turnover.
  ▶ Around 16,000 VAT active firms (2015).

• 85% of net VAT revenue from largest 10% firms

• 30% of VAT firms report a total value added for 2015 that is non-positive

• Firms file monthly VAT declarations electronically, plus transaction-level records required including trading partner TIN (Schedules)
Analysis of discrepancies

- Analysis: we sum up domestic transactions at the firm-pair X month level
  - Let $S$ be the amounts reported by the seller
  - Let $B$ be the amounts reported by the buyer

- Basic framework of VAT reporting:
  - Seller wants to underreport $S$, buyer wants to overreport $B$
  - At the pair level, we can observe:
    - $S = B$ $\iff$ Truthful reporting or Collusive evasion
    - $S < B$ $\iff$ Misreporting by seller or buyer or both
    - $S > B$ $\iff$ Underreporting by buyer
- **Total VAT misreported** very large: for 2015, USD 213 mn, or **67% of total net VAT due**. Up to 60% of sellers misreport \((S < B)\).

- **Underreporting also widespread**: 68% of firms underreport purchases \((S > B)\). But amounts involved smaller: 44% of total net VAT due.
  - “Looking small” hypothesis: are firms underreporting both sales and purchases?

- **Correcting all identified cases** of misreporting and underreporting → increase in total net VAT due of UGX 128 mn USD, or **40% of total net VAT due**.
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Randomized Compliance Program

→ Can the URA make a systematic use of the paper trails to improve VAT compliance and change firm behavior in the long run?

VAT Monitoring letter sent to 1,325 firms in pairs with misreporting in previous months.

- Randomization at the firm-pair level (1,301 pairs).
  - the different firm-pairs are not connected with each other
- The letter can be sent to the Seller, the Buyer, or both
- Physical letter (Feb. 28th to April 17th) and email (April 6th)
- 91% of targeted firms received the communication.
Randomized Compliance Program

- Analyzing impact of treatment on:
  - Amendments
  - Misreporting and underreporting
  - Overall VAT liability

- Results currently being analyzed as more data comes in. Stay tuned!
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Conclusions

Further analysis before drawing policy conclusions:

- Treatment effect on firms actually treated (who received communication)
- Longer-term effects
- Spillovers to trading partners
- Digging in firm responses; URA decisions on the way to follow up
- Heterogeneities by firm size
- Heterogeneities by share of sales to final consumers
- Heterogeneities between pairs receiving one vs two letters
Conclusions

THANK YOU!
Analysis of discrepancies

Figure: Analysis of discrepancies over time.

- Total VAT Misreported
- Total VAT Underreported
- Total Revenue Consequences