

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

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July 18, 2018

# 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

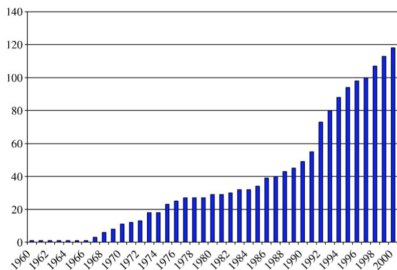


Fig. 1. The number of countries with a VAT.



*"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?**

# Introduction

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)



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# 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**. ▶ Over time

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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. [▶ Back](#)

