



The VAT in Practice: Equity, Enforcement and Complexity

Summary of ICTD Working Paper 117 by Giulia Mascagni, Roel Dom and Fabrizio Santoro

The Value Added Tax (VAT) is the single largest source of revenue in many countries, raising on average about a quarter of total tax collected and almost 40 per cent in African countries (Ebril *et al.* 2001; Keen 2012; ATAF 2019). The theoretical case for adopting a VAT, as opposed to other consumption taxes, is widely supported by tax experts and academics. However, even the VAT's strongest supporters acknowledge that its practical implementation is often problematic especially in low-income countries. This research examines how the VAT system functions in practice in Rwanda – highlighting important implications for equity and efficiency.

Mixed methods approach

This research adopts a mixed methods approach, based on the analysis of administrative data, focus group discussions (FGDs) and evidence from a nationally representative survey. This allows us to consider various dimensions that are relevant to evaluating the VAT's functioning in practice, such as the quality and usage of administrative data and taxpayer experiences.

Inconsistencies in administrative data

One of the key benefits of the VAT is the so-called self-enforcement mechanism, whereby the VAT is meant to discourage evasion by generating opposite incentives for sellers and buyers. The former would tend to under-report sales, to pay less tax, while the latter would tend to report correctly

or over-report, to reduce their tax burden through larger input claims. This mechanism only works if tax records from both parties can systematically be cross-checked by the revenue authority. But does that happen where there is weak administrative capacity? We find widespread inconsistencies in VAT data, suggesting that its potential for enforcement remains largely untapped.¹

We document two types of inconsistencies:

1. Inconsistencies in taxpayers' own reports, between the VAT declaration and the data recorded in electronic billing machines (EBMs). We find that just over half of all taxpayers reported consistent information to the Rwanda Revenue Authority through their declaration and their EBMs.
2. Inconsistencies across trading partners, i.e., buyer's and seller's reports for the same transaction. In these cases, inconsistencies are the norm, with only a quarter of all our pair-quarter observations showing consistent information. Surprisingly, the great majority of inconsistencies (67 per cent of observations) occur when buyers report less than sellers. In most of these cases, the buyer makes no input claim at all.

What is the impact on equity?

The widespread under-claiming of VAT inputs is the opposite of what one would expect based on the incentives embedded in the VAT system. Interestingly, it is also more common among small firms. Digging deeper

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¹ For a more detailed analysis of discrepancies, see Mascagni, Mukama and Santoro 2019

into the effects of the VAT across firm size distribution, we find that the smallest firms are more likely to forego input claims than larger ones: 42 per cent of those in the first decile do so, compared to 21 per cent in the rest of the distribution. As a result, the input ratio – input claims over total sales – is relatively lower for small firms compared with larger ones. Importantly, these differences translate into a higher tax burden for the smallest firms: those in the first decile experience an effective tax rate (ETR) of 8.3 per cent compared to 5.4 per cent in the rest of the distribution.

This difference persists even taking into account other firm characteristics, confirming that the effective tax burden is inversely associated with firm size.

Taxpayer experiences with the VAT: complexity and confusion

Why would firms, particularly small ones, leave money on the table by failing to report purchases that would allow them to reduce their VAT payments? And why do taxpayers report inconsistent information to the revenue authority, exposing themselves to the risk of being audited? The taxpayer experiences collected through FGDs point to four key explanations: 1) compliance costs and taxpayer confusion – the most common element; 2) complexity and uncertainty in administrative practices; 3) beliefs about enforcement and fear of audit; and 4) the usual suspect – tax evasion, which however does not appear to be the main explanation for inconsistencies.

We document how taxpayers' difficulties with the VAT system occur in practice, with examples of confusing administrative practices, deviations between the law and its implementation, and several practical difficulties, such as the operation of EBMs and mistakes in taxpayer records. These practical issues might appear to have little meaning for the bigger picture on the

VAT's functioning. However, they speak to the complexity of the interaction between taxpayers and the tax administration and have real impacts on foregone input claims and the use of EBMs, and on the VAT's potential for enforcement.

“Revenue administrations should make more of the wealth of administrative data available, both to improve enforcement and to flag equity concerns.”

Small firms' poor tax knowledge and weak business practices

Finally, we use a nationally representative survey of small and medium taxpayers to further test the hypothesis that small

taxpayers bear a relatively higher burden (ETR) and claim relatively less (input ratio) largely because they face high compliance costs, as emerged in our FGDs. The survey evidence supports this explanation, showing significantly lower tax knowledge and weaker business practices among small taxpayers compared to larger ones. These differences persist in a multivariate regression framework taking into account other firm characteristics.

Policy recommendations

While we know that the efficiency of the VAT is lower in low-income countries, the reasons for its underperformance are less clear. Our paper sheds light on the practical reasons, including weak administrative capacity, complexity, and compliance costs. Our evidence, however, does not amount to a case against the VAT. Still, it raises some serious questions about its equity and efficiency. To alleviate concerns, particularly over equity, policymakers might consider allowing for automatic input claims for small firms and setting the VAT registration threshold high enough to exclude firms that are too small to navigate the VAT system effectively. Revenue administrations should also make more of the wealth of administrative data available to them, both to improve enforcement and to flag equity concerns like those documented in this research.

Further reading

ATAF (2019) *African Tax Outlook 2019. Thematic Paper: Assessing VAT Revenue Performance in Selected ATO countries*, Pretoria: African Tax Administration Forum

Ebrill, L., Keen, M., Bodin, J. and Summers, V. (2001) *The Modern VAT*, Washington DC: International Monetary Fund

Keen, M. (2012) *Taxation and Development – Again*, IMF Working Paper 12-220, Washington DC: International Monetary Fund

Mascagni, G., Mukama, D. and Santoro, F. (2019) *An Analysis of Discrepancies in Taxpayers' VAT Declarations in Rwanda*, ICTD Working Paper 92, Brighton: IDS

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Credits

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