

From Insight to Impact: Harnessing Research Collaboration to Build Better Tax Systems

FIBES 2, Room 12 | July 3 | 8:30 - 10:00 am



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Tax research collaboration in practice

- **Presentations will cover 3 short case studies**
- **These reflect the use of rigorous evidence at different stages in the policy process – policy design, administration, and enforcement**
- **Underpinning each organization's work is strong focus on long-term partnership:**
 - Collaborative, demand-driven approach to formulating policy & research questions
 - Use of diverse admin & survey datasets – supporting research & operational use
 - Focus on skills sharing and development – through co-production, co-authorship
 - Supporting increased transparency through effective dissemination & engagement with taxpayers

Case study 1: Distributional analysis for more equitable tax policies in Rwanda and Ghana

Yani Tyskerud – Programme Director (TaxDev)



What is the issue?

- **A combination of low growth, high inflation, and a tight fiscal context have placed pressure on tax and transfer systems**
- **Maintaining and raising domestic revenue is vital – but so is protecting lower income workers and households**
- **Policymakers are keen to undertake rigorous analysis of the distributional effects of policy, to:**
 - Understand effects of tax & transfer policies on different individuals, households & businesses
 - Compare impacts of different policy options with similar yields/costs and identify trade-offs
 - Refine policies and design mitigations to achieve their distributional objectives
 - Provide evidence and information on policy impacts to stakeholders
- **Moving beyond revenue impacts requires new tools, data, and approaches**

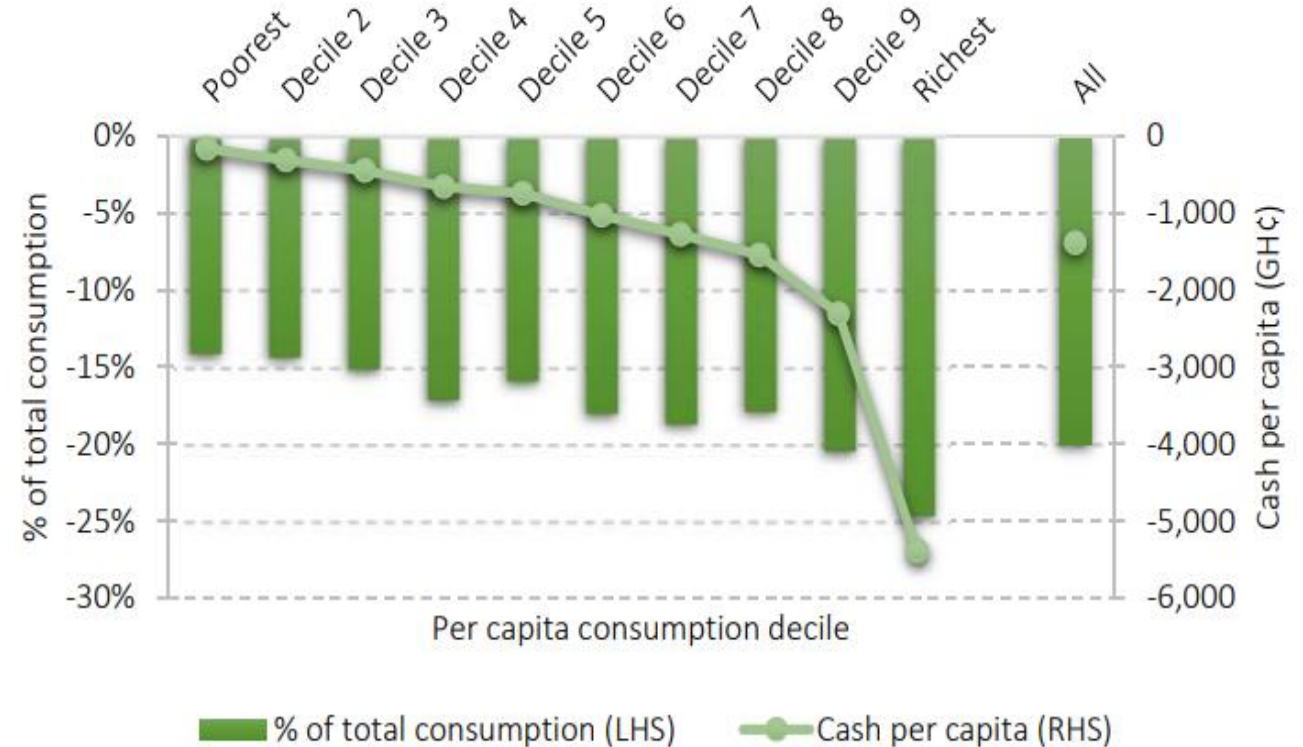
What did research do to help?

- **TaxDev researchers worked with M oFs in Ghana & Rwanda to undertake research & integrate distributional analysis into policymaking processes:**
 - **Ghana:** Co-developed the GHATAX microsimulation model to analyse distributional effects of PIT and indirect tax system as a whole, and to model impacts of specific policy reforms
 - **Rwanda:** Built on an existing IMF model for income tax, tailored it to Rwanda & improved richness of underlying data
- **How was this achieved?**
 - Through collaborative analysis, training & co-authorship of research/analytical reports; and long-term focus on sustainability
 - Underpinned by shared objectives; iterative & flexible approach; regular consolidation & integration into core policy appraisal processes e.g. for budgets & large policy reforms
 - Built support & ensured sustained demand from senior policymakers.

Key findings from GHATAX report (M oF Ghana & IFS, 2023)

- Ghana's tax system overall progressive, driven largely by PIT and fuel taxes
- VAT not regressive – slightly progressive de jure due to exemptions on basic food items
 - De facto, likely even more progressive due to home-production and informal purchases (Bachas et al, 2024)

Figure 4.8. Distributional effect of the total tax system



Note: Households are ranked by consumption per equivalent adult indicator computed by the GSS.

Source: Authors' computation based on GHATAX model; underlying data are GLSS7 and 2015 SAM.

What is the policy impact?

Ghana:

- **Worked with policymakers to improve revenue performance, efficiency & equity of VAT:**
 - Analysis demonstrated increase in VAT rate would be progressive, raising revenue predominantly from better off households – 2.5% increase raised 3 bil. Cedis, avoiding regressive spending cuts
 - Identified distributional effects of different exemptions – MoF now conducting an in-depth review

Rwanda:

- **Helped policymakers improve progressivity of PIT system in context of high inflation**
 - Lack of uprating of thresholds increases tax burden on low-income workers (McNabb and Granger, 2023) and exacerbates cost-of-living pressures
 - Analysis supported removal of approx. 136,000 (21%) formal workers from tax; further 108,000 (17%) earning less than \$100 a month saw fall in ATR of up to 10%
 - Reforms staggered so that alongside other tax reforms, revenues were maintained, and progressivity gradually improved

Why does this matter?

- **Distributional analysis is a vital input into decision-making**
 - Building support for reforms in the current context requires nuanced, holistic understanding of impact & ability to balance different (competing) objectives & communicate effectively
 - Important to consider alongside other evidence/impacts – e.g. on behaviour & efficiency
 - Persuasive evidence of policy impacts can challenge perceptions and received wisdom e.g. on the regressivity of the VAT
- **With careful analysis, there is scope to improve the progressivity of tax systems while improving efficiency & protecting revenues**
- **Integrating distributional analysis into policymaking can happen iteratively:**
 - Formal quant. analysis is useful, but approach can be tailored to time & data available, and does not need not be excessively technical
 - Collaborations with local & international researchers can support the embedding of core dist. analysis policy function over time

Case study 2: Boosting mining revenues in Africa: Data analysis for risk assessment

Ali Readhead – Director, Tax and Sovereign Debt (IISD)



What was the issue?

- **Mining sector paying limited corporate income tax (CIT) despite declaring profits**
 - Between 2014 and 2019, the number of mining companies declaring profits increased from 5 to 11. In 2019, they paid approx. USD 84 million in CIT, despite exporting approx. USD 5 billion.
- **Corporate tax avoidance is common in other low-income resource rich countries:**
 - [IMF research](#) shows that African countries are losing between USD 470 million and USD 730 million per year in CIT on average from MNE tax avoidance.
 - The sector is also [a major driver of illicit financial flows](#). This issue was clearly identified in the [Addis Ababa Action Agenda](#), the outcome of the previous FfD conference.
- **Understanding the source of the revenue leakage is critical to effective tax audit:**
 - Taxpayer data can help to benchmark related party transactions to inform risk assessment and case selection, along with private databases (Orbis, London Metals Exchange, Asian Metals etc).

What did data analysis do to help?

- **The benchmarking exercise combined analysis of sales contracts + databases :**
 - Build a systematic view of 'industry practice' regarding mineral sales (related/ unrelated).
 - Furthered capacity to identify international tax risks to inform case selection.
 - Identify loopholes in government policy and potential reforms.
- **It uncovered several transfer pricing risks:**
 - Copper sales to associated marketing or trading hubs, often located in a low- or no tax country.
 - Low recovery rates and failure to disclose other payable metals (gold, silver, and cobalt).
 - Manipulation of quotational period, in order to choose the lowest price point.
 - Inflated transport, and insurance costs.

What is the revenue and policy impact?

- **ZRA has undertaken several transfer pricing audits in the copper mining sector:**
 - It has collected an additional USD 58 million in mining CIT revenue between 2020 and 2022.
 - This is approx. 10% of average annual mining CIT in recent years.
 - Several audits are ongoing and have revealed that potentially millions more dollars are at risk.
- **It has refined the 'sixth method' based on a better understanding of risk:**
 - It can substitute the third-party sales price for the publicly quoted price where it is higher.
 - It can request third-party sales agreements from foreign related parties.
 - Draft schedules for pricing of copper and manganese, setting out how to determine the correct adjustments for tax purposes to the quoted prices.
 - Clarifying interactions with double tax treaties.

Why does this matter?

- Huge demand for copper because of **energy transition**, making even more important that Zambia is paid a fair price.
- **Other countries explore similar responses:**
 - In 2022, Colombia maintained the European coal price index rather than adopt an Asian benchmark, after IISD analysis showed the government would forgo USD 783 million in royalties if it switched.
 - In 2024, Guinea introduced a safe harbour for bauxite sales after IISD analysis showed it was losing USD 200 million p/yr due to under-pricing.

Determining the Price of Minerals

A transfer pricing framework



Case study 3:

Improving taxpayer registration and approaches to the informal economy

Giulia Mascagni – Executive Director (ICTD)



What was the issue?

- **Tax ghosts:** nil filers are registered and declare, but 0 income, 0 expenses, and 0 tax
- **Nil-filing is widespread in Rwanda and in other lower income countries:**
 - In Rwanda: Over 50% of CIT and 25% of PIT declarations were nil
 - Other countries: similar numbers in Uganda, Ethiopia, Eswatini, Nigeria, Malawi
- **Nil filing results in:**
 - Administrative costs for the revenue authority, but no revenue or information
 - Compliance costs for taxpayers, potentially fueling perceptions of unfairness

What did research do to help?

- **The research project combined an RCT + interviews with tax officials and taxpayers to:**
 - Test two hypotheses on why nil-filing exists: 1) evasion; and 2) de-registration
 - Identify effective solutions to improve compliance
- **It uncovered some unexpected facts:**
 - Although evasion and deregistration were part of the problem, they did not play a major role
 - Mass registration campaigns by the RRA increased the numbers of registered taxpayers, but they registered unnecessarily or prematurely – hence no revenue gain
 - Once registered, they file nil to avoid penalties and navigate a complex system

What is the policy impact?

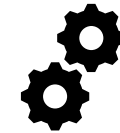
- **In 2024, Rwanda's Revenue Authority and the Ministry of Finance announced a major plan to de-register about 40,000 taxpayers that had been filing nil. This change:**
 - Boosted efficiency: declarations not due, lowered administrative and compliance costs
 - Improved equity: most nil filers are small or micro firms below the minimum threshold
 - Enhanced trust and satisfaction with the RRA as a service-oriented organization
 - Did not result in any foregone revenue
- **Other countries were encouraged to look carefully at their registration campaigns:**
 - **Sierra Leone**: one third of taxpayers identified through a new registration initiative were below the tax threshold – limited revenue potential
 - **Uganda**: paused and reviewed its new registration programme after ICTD analysis showed that new registrations were bloating the register without producing any revenue

Why does this matter for development?

- **Conventional approach:** formalising the informal sector to tap an (illusionary) goldmine
 - Often means registering thousands of small and micro firms
- This approach has **serious risks** and **unintended consequences**
 - It failed to raise revenue, deteriorated equity, and increased costs for both tax admin and firms
 - It fueled citizen discontent and distrust in the tax system and the states that implements it
 - It undermined longer-term financing prospects by closing space for further reform
- **Other reform options** to improve revenue and equity – smart and efficient thing to do
 - For example: taxing the wealthy, reviewing tax incentives

Research is the key for taxing smarter, not just harder

- Boosts **efficiency** in tax collection
- Improves tax **equity**
- Identifies **opportunities** for reform



Taxing smarter has broader benefits for development: shapes citizens' and firms' behaviour, builds resilient and accountable institutions, and enables growth and entrepreneurship.

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