The Data Agenda

Jukka Pirttilä (University of Tampere and UNU-WIDER)

Tax and development - setting the agenda (Helsinki 1 Nov 2016)

Outline

This presentation

- Gives an overview about our understanding at UNU-WIDER on
  - what kind of research should be conducted to help policymakers improve the tax systems in developing countries
  - what kind of data would be required to succesfully carry out such research
- Approach: utilize methods from current best practices in applied tax research in economics to study key policy problems in the taxation area in poor countries

Outline

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Background

- Much emphasis in tax and development debates on the potential losses of tax revenues that is due to capital flight
- Capital flight (sudden outflow of cash and securities) can partly be illicit / at least in the gray area
- Such activities can be undertaken by both individuals (not reporting capital income they hold offshore) or firms (by transfer pricing)
- How severe are the revenue losses due to such activities?
- A recent UNU-WIDER study (Johannesen and Pirttilä, 2016) offers a critical review of current estimates

Some well-known estimates

- Estimates by Global Financial Integrity (2015) have attracted much attention
- Their method
  - hot-money-narrow + trade misinvoicing = total illicit flows
  - 200 billion USD + 800 billion USD = 1 trillion USD
- The former is based on errors and omissions in the balance of payments
- It is the trade misinvoicing part that is responsible for the great majority of flows
  - whether this part is right is decisive

Trade misinvoicing channel

- If rich country imports exceed exports from developing country + trade costs (10%) = seen as evidence of export underinvoicing = illicit outflow
- Similarly overinvoiced imports lead to unreported outflows
- Some problems
  - estimates can be sensitive to what is assumed of trade costs
  - all false claims are assumed to be made by developing countries
  - estimates very fragile (fluctuate a lot from year to year)
  - products differently categorized in origin and destination countries (that is why product-level analysis often misleading)

Trade misinvoicing channel II

- Perhaps most puzzling is that if one estimates also illicit inflows using the same method (but a mirror image), they exceed illicit outflows. So on average, developing countries benefit from these flows
- Bottom line: it is hard to use their numbers to come up with convincing estimates (see also Nitsch 2016)
- Even if numbers were correct, one needs to remember that the greatest outflows are from large middle-income countries, meaning that public finance issues in poorest countries would not be solved if these flows were curtailed

Estimates of hidden wealth by individuals

- Zucman (2013, 2015) estimates the extent of financial wealth held by private individuals offshore
- The method relies on discrepancies in assets and liabilities positions of countries
  - worldwide total liabilities exceed total assets as not all assets are reported
  - there is also a systematic pattern that tax havens feature the largest discrepancies
- He estimates that 8% of financial wealth is hidden in tax havens
- Using assumptions on rates of return and effective capital income tax rates, the stock can be changed into a flow of revenue losses, summing up to around 200 billion USD annually

Estimates of income shifting by MNEs

- While not necessarily illicit, income shifting by deliberate manipulation of transfer pricing by multinational companies is also quite obviously problematic
- A recent UNU-WIDER study (Johannesen, Tørsløv, and Wier, 2016) utilizing firm-level data indicates that the problem is a more severe one for countries outside of EU
- Estimates by the OECD (2015) and the IMF (Crivelli, de Mooij, and Keen, 2015) suggest that revenue losses would be in the range of 100-240 billion globally or 200 billion from the non-OECD countries

What do the numbers mean for Africa?

- Zucman (2015) calculates that Africa loses tax revenues amounting to 14 billion USD due to capital held offshore by individuals
- Applying the estimates of Crivelli, de Mooij, and Keen (2015) implies that the revenue loss from income-shifting by MNEs is approximately 20 billion USD
- At the same time, ODA to Africa (50 billion USD) exceeds the revenue loss due to illegal capital flight in Africa
  - the revenue loss is around 10% of their tax revenues
- To sum up: illicit capital flight is a serious problem but unlikely to solve African revenue issues. Domestic sources must continue to be responsible for the bulk of tax collection

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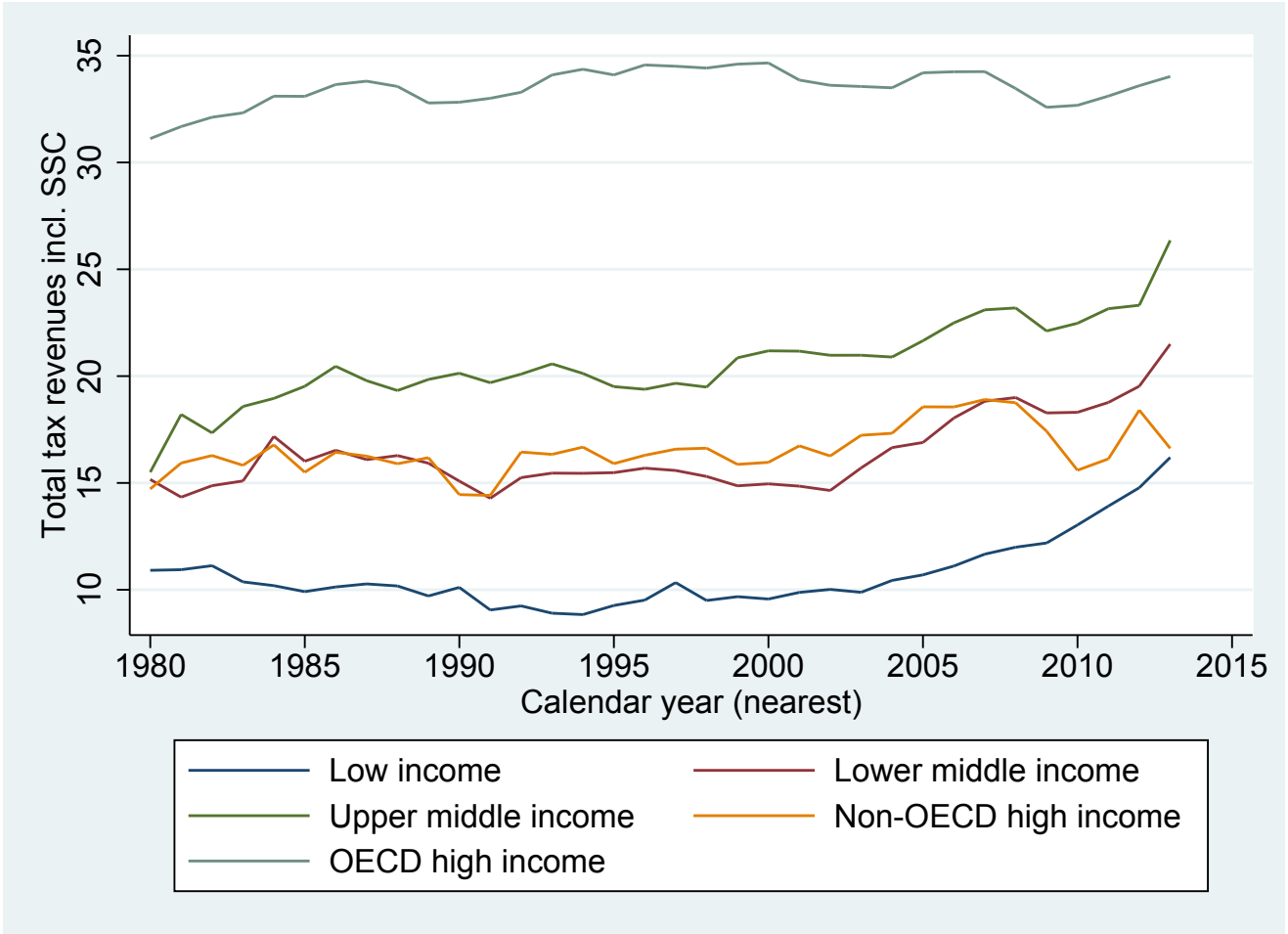
The broad research question

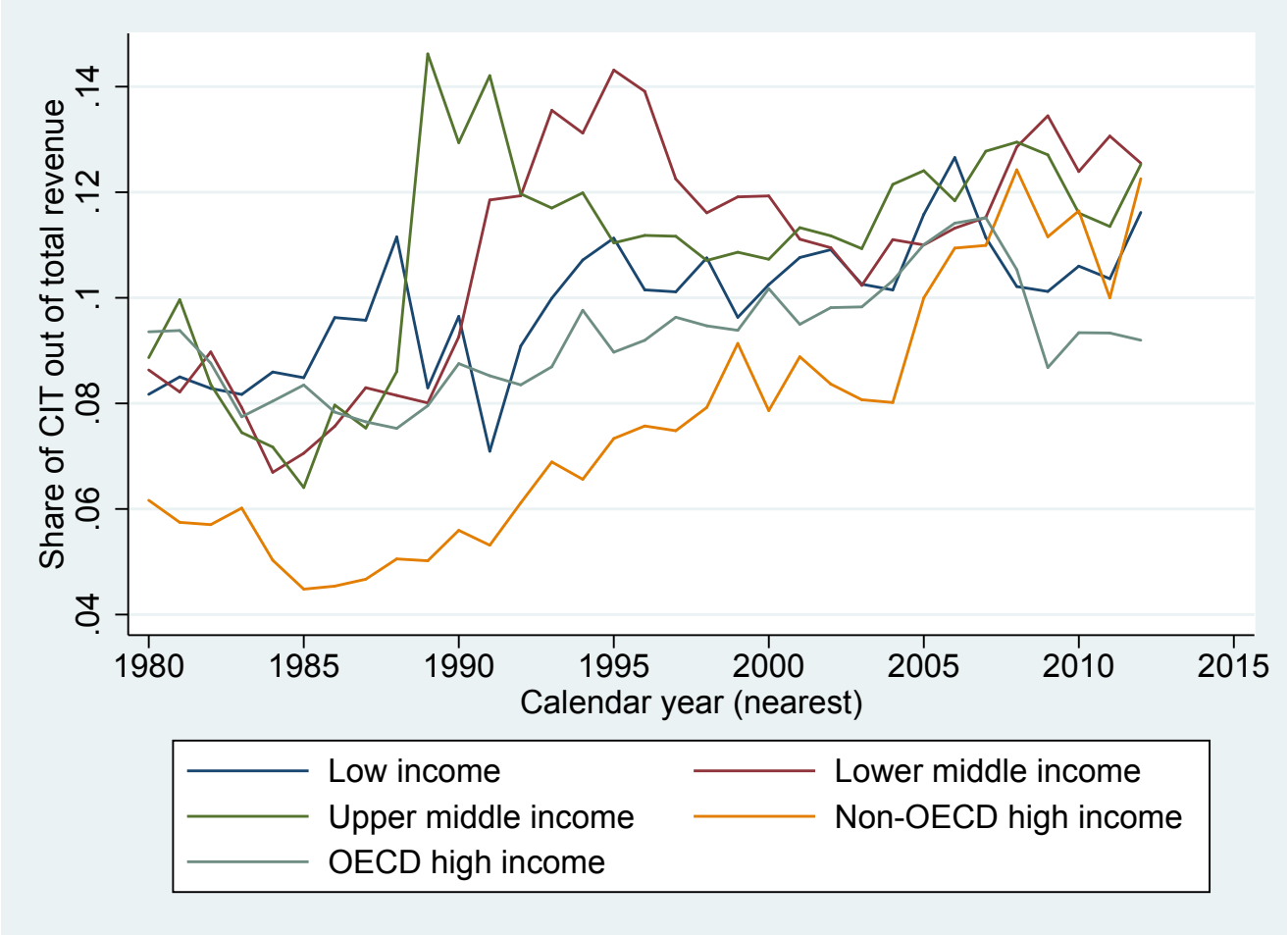
- The tax take of developing countries, although gradually rising, is still low
- These countries would need to increase tax revenues to finance necessary public spending on poverty-reducing activities
  - in other words, fiscal capacity needs to be improved
- But increasing the tax burden can come with a cost
  - higher effective tax rates (broadening the base or increasing the rates) can lower the incentives for firm growth and generation formal sector jobs
- This gives rise to potential trade offs
  - one needs to quantify what the actual impacts of tax incentives are on behavior to be able to make the right choices

Tax take is lower



Source: Own calculations based on the GRD of the ICTD (see Prichard, Cobham, and Goodall (2014)

The importance of CIT is limited



Source: Own calculations based on the GRD of the ICTD (see Prichard, Cobham, and Goodall (2014)

Getting more focused: taxes and SME behaviour

- To mitigate the impact of distortive taxes on small and medium sized firm birth, growth and employment, many countries have special tax incentives targeted to these firms
- These include
  - a threshold for mandatory registration to the VAT system
  - offering small firms lower CIT rates
- On the other hand, governments want to curb tax evasion
  - small firms are subject to presumptive turnover tax instead of the normal CIT system
- We know very little about how these incentives work
  - To what extent taxes (or tax allowances) impact firm behaviour (their taxable income)
  - If we detect responses, do they stem from changes in real economic activity (sales, employment, investment) or is it just evasion?

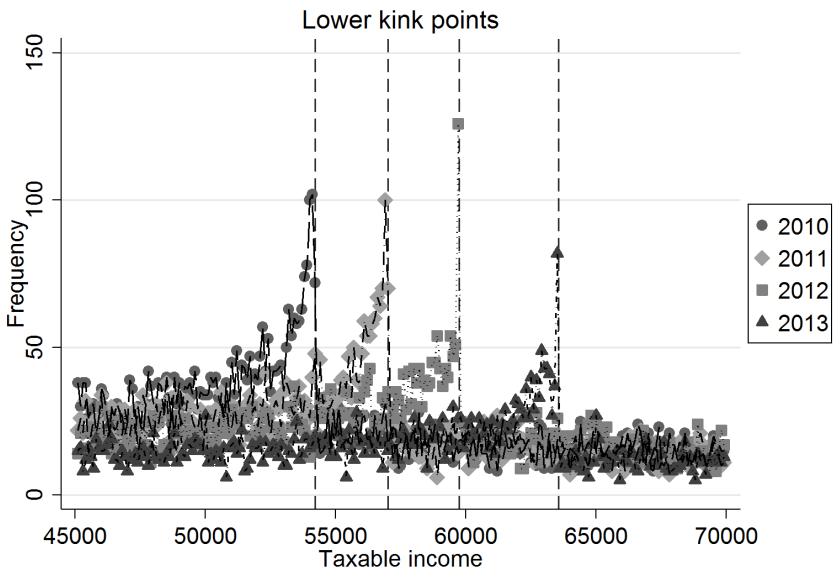
Data needed for research about this topic

- Current research from developed countries uses large (often population wide) panel data available directly from administrative sources (revenue authorities)
- Using such data to examine cases where some taxpayers face different tax incentives than others opens up a way for credible identification of causal impacts of taxes on individual and firm behaviour
- For a long time, there were no studies from developing countries based on similar data
- The situation has changed in the most recent years in some countries

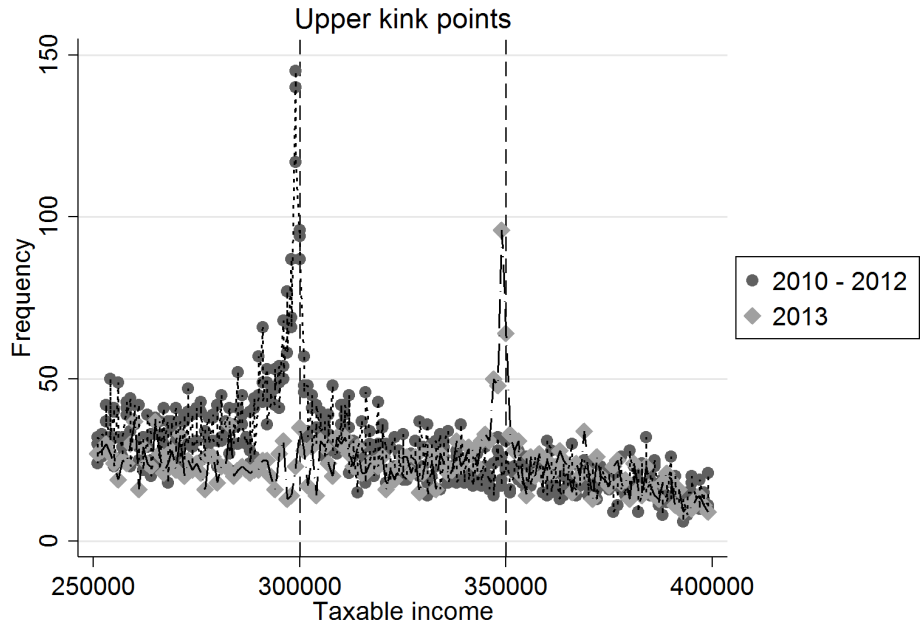
UNU-WIDER work in this area

- Research is currently being done using data from the South African Revenue Service
- Data include for example tax returns (directly from e-filing systems) of all S-A corporations
- In my paper with colleagues (Boonzaaier, Harju, Matikka, and Pirttilä, 2016)we use these data to examine how S-A firms react to special SME corporate income tax system
  - the marginal tax rate jumps at around 60,000 rand and 300,000 rand from 0 to 10 and from 10 to 28, respectively

An example



Bin width: 100
Kink points: 2010 = 54,200; 2011 = 57,000; 2012 = 59,740; 2013 = 63,556; 2014 = 63,556



Bin width: 1000
Kink points: 2010 - 2012 = 300,000; 2013 = 350,000

Way forward

- Discussion ongoing to get access to similar data elsewhere
  - Tanzania, Mozambique, other African countries
- Liaise with researchers at the revenue authorities and other local researchers
- Match revenue authorities and researchers from e.g. Nordic countries with colleagues from African countries to work together for improving data access and conducting policy-relevant research

Outline

What is tax-benefit microsimulation?

- Models that combine
  - representative household-level data on incomes and expenditures
  - detailed coding of the tax and benefit legislation in a country
- "Simulation" – because the user can design alternative social policies or tax structures and examine their impacts on
  - income distribution
  - government budget
  - work incentives etc.
- These models in everyday use in developed countries by ministries but also by researchers
  - econometric tax analysis often requires information on (effective) marginal tax rates. These can be obtained from a microsimulation model

Why essential for developing countries?

- Many developing countries are (or should be) moving away from scattered individual social protection programs to actual systems of protection
- At the same time, they need to find ways to increase tax revenues
- Microsimulation is a tool that is needed to understand the economy-wide impacts of such changes
- Yet, very few developing countries have access to such models

Our work on microsimulation

- Joint undertaking with the EUROMOD team at the University of Essex and SASPRI (Cape Town)
- EUROMOD
  - both a microsimulation model for European countries
  - a software for building new microsimulation models
- SASPRI has successfully built models for Namibia and South Africa based on the EUROMOD structure
- The three institutions together will build models for selected developing countries, educate local stakeholders to use the models, and prepare research papers utilizing the new tools

Outline

Some concluding thoughts

- Research on illicit financial flows would benefit from shifting attention to more credible micro-data based estimates
  - also studies evaluating the effectiveness of policies designed to combat these flows
- We know extremely little on the perhaps more important topic of tax responsiveness of domestic firms and individuals in developing countries
  - crucial to understand how to build tax incentives
  - optimistic that progress can be made since data have / will become available
- Studes that combine the entire tax/benefit system are key for being able to build effective social protection systems
- Technical assistance to tax authorities in developing countries, and evaluating its effectiveness, is one promising way forward

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