The University of Nottingham

Tax Incidence in sub-Saharan Africa

Presentation for *Taxation & Developing Countries*
16 Sept 2013 at ODI

Oliver Morrissey
CREDIT, School of Economics, University of Nottingham
Network member of ICTD

The University of Nottingham

Outline

- Incidence Concepts
  - i) Economic Incidence
  - ii) Distribution of Tax Burden
- Evidence based on Indirect Taxes
- (Scattered) Country evidence
- Conclusions: Who Bears Tax Burdens?

Economic Incidence

- Who is expected to pay the tax - the ‘statutory incidence’ (the legal liability to pay the tax) - and who actually pays the tax - the economic incidence, in practice is a belief regarding who ultimately bears the burden of the tax

- One wants to identify which agent or individual suffers a reduction in real purchasing power when a tax is imposed

- Assumptions are made regarding the ‘passing of the burden’

- E.g. The conventional assumption is that consumption taxes (VAT, sales, excises and import taxes) are fully shifted forward to consumers

Distribution of Tax Burdens

- Estimated from household surveys (indirect taxes)

- At the aggregate level (usually income taxes):

- Degree of progressivity measured as the ratio of the marginal tax rate (*MTR*) to the average tax rate (*ATR*) ≈ the elasticity of the tax function (e_{tb}), the proportional change in tax revenue (t) relative to the proportional change in the tax base (b):

$$e_{tb} = (\mathrm{d}t/t)/(\mathrm{d}b/b) = (\mathrm{d}t/\mathrm{d}b)/(t/b) \approx MTR/ATR \qquad (1)$$

- A tax is progressive if $e_{tb} > 1$, proportional if $e_{tb} = 1$ and regressive otherwise.

The University of Nottingham

‘Consensus View’ on Taxes

- Personal income taxes: *progressive (but evasion generally ignored)*
- Corporate taxes: *U-shaped (regressive then progressive)*
- Property Taxes: *progressive (but generally a low revenue share)*
- Indirect taxes: *often regressive (Excises, food)*
- Overall tax system: *varied, often regressive at low incomes*

Indirect Taxes

- More likely to be found to be regressive if tax burdens are expressed as proportions of income rather than expenditure
- Poorer households spend more of their income on products that are likely to be taxed (unless zero-rated)
- Goods may be bought from traders who do not pay the taxes (depends on where they source, and whether they adjust prices)
- Surveys cannot indicate if domestic or imported varieties are purchased so studies typically assume full pass through of tariffs - prices of domestically produced goods increase by the tariff

Ghana

- Late 1980s: excise on tobacco quite regressive, on alcoholic beverages slightly regressive, but progressive for non-alcoholic;

- Tax on gasoline highly progressive for direct spending but almost proportional allowing for transportation costs; tax on kerosene is regressive

- In 2005/06, indirect taxes represented 7.8% of income for the first quintile (poorest households) then fell but rose again to 6.8% for the fourth quintile and 7.7% for the top quintile of households

- VAT is generally weakly progressive but excise taxes were found to be regressive

Mauritius

- Evidence of Income Tax progressivity: as the *MTR* was about 30%, progressivity was roughly 4 in 1990s
- There is generally buoyancy in the income tax: as incomes rise, tax revenue increases at least proportionally, because in general allowances and bands do not adjust in line with incomes
- However, income tax has limited coverage (small base) in SSA – low formal employment constrains revenue generation

Senegal and Burkina Faso

- VAT and tariff harmonisation in **Senegal** (1995 data) and **Burkina Faso** (1998)
- made the distribution of the tax burden more progressive
- More so for Burkina Faso because the main goods consumed by the poor are zero-rated (in Senegal they face a reduced rate)
- Tax burden estimated as about 20% for Senegal (19% for Burkina Faso) of pre-tax income for the poorest quintile rising to almost 25% (24%) for the richest quintile
- For after tax incomes, the respective burdens were 20% (18%) and almost 25% (both countries)

Tanzania

- Significant tariff reductions 1991 to 2001 increased household welfare by 3.3% on average in real terms. The tariff reductions benefit the poor relative to the non-poor, and the rural poor benefit more than urban poor
- In 2001-2007, tariff reductions were minor and did not offset food price increases in 2007
- From 1991 to 2007, all gain from tariff reductions but overall food price changes mean the urban poor benefit most and the rural poor least
- What matters for welfare is household ability to mitigate the costs of food price increases

Who Bears Tax Burdens?

- Despite a number of studies on particular taxes, and a few country studies, there is very little evidence on distribution of tax burdens in SSA

- Likely to have become less regressive since 1980s

- The availability of household surveys, in conjunction with information on tax rates (indirect and income), permits estimating the distribution (by quintile; poor/non-poor)

- Information on the distribution of tax burdens is a basic requirement for economic analysis of tax reform options