Tax challenges for developing countries. (Some of them).

Michael Keen
IIPF, Capetown
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Views should not be attributed to the IMF

Taking it as axiomatic that most developing countries need more tax revenue, focus on:

- Two aspects of globalization that may make this even harder:
  - Tax competition
  - Trade liberalization
- And
  - Controversies in tax administration

Data—A big problem

Here use two new datasets compiled from IMF staff reports:

- Both have extensive coverage have VAT on imports recorded as VAT revenue (not trade tax), and predate the crisis
- One is for 37 countries in SSA (1980-2005), and identifies upstream resource tax revenue
- The other covers all countries (1975-2006), but with less fine breakdown of taxes

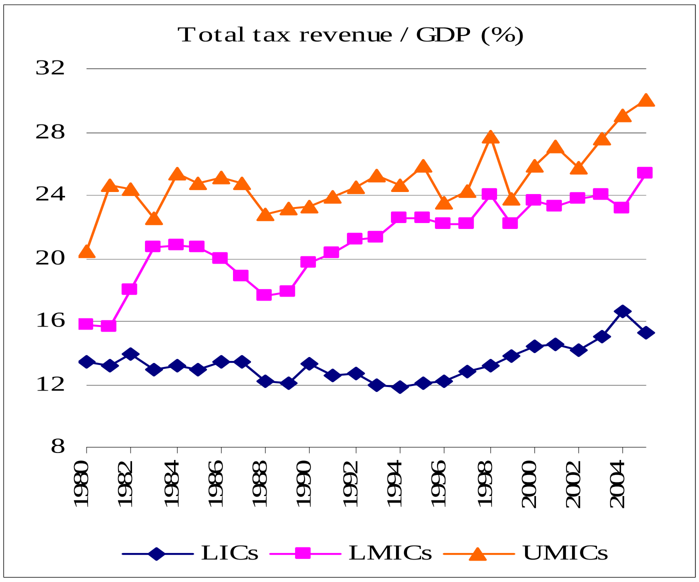
Outline

- Some trends—setting the scene
- Tax competition—with special resource issues
- Trade liberalization—is there a problem?
- Tax administration—issues and controversies
- Conclusions

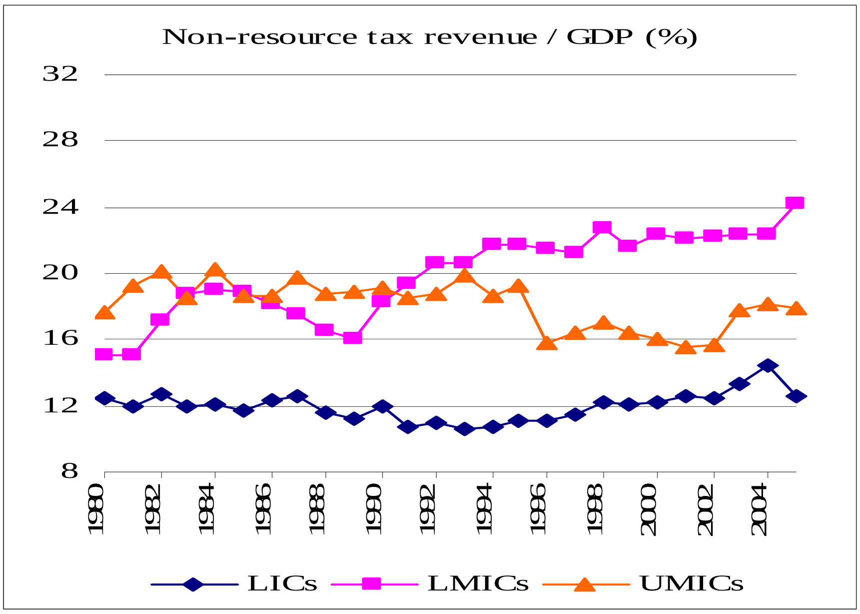
SOME TRENDS

Tax ratios have picked up...

For SSA:



...but mainly because of resources



From 1976-80 to 2001-5, for full sample:

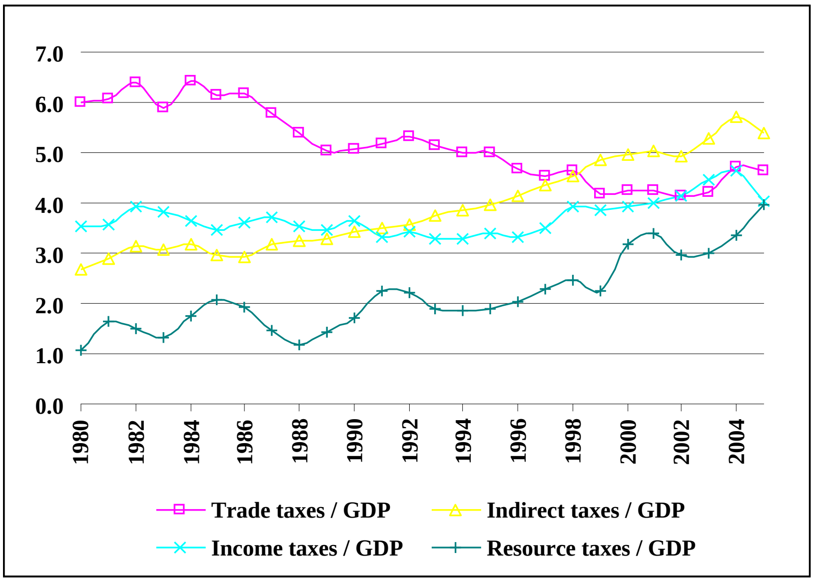
- Average tax ratio unchanged at 15 percent
- Proportion of LICs with ratios less than 15 percent *rose*, from 42 to 60 percent

SSA did better in that:

- Number of countries with ratios less than 15 percent fell (though only from 16 to 12)

Not a stellar record—so any additional pressures a worry

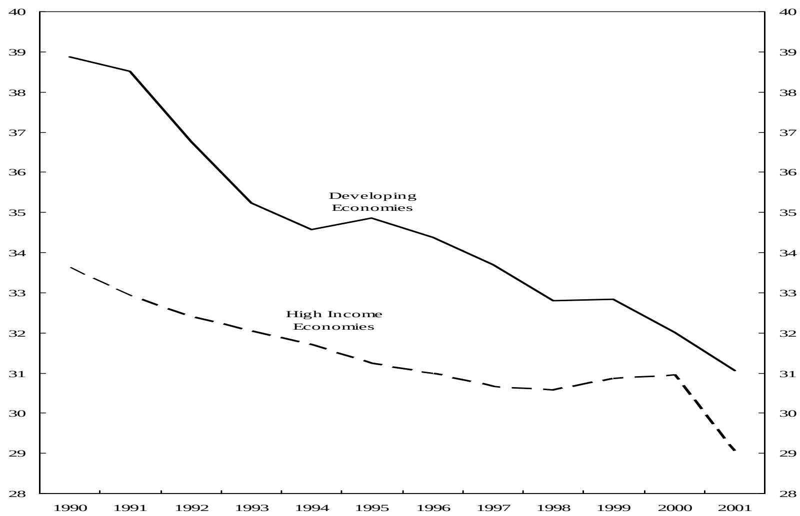
Composition though has changed substantially:



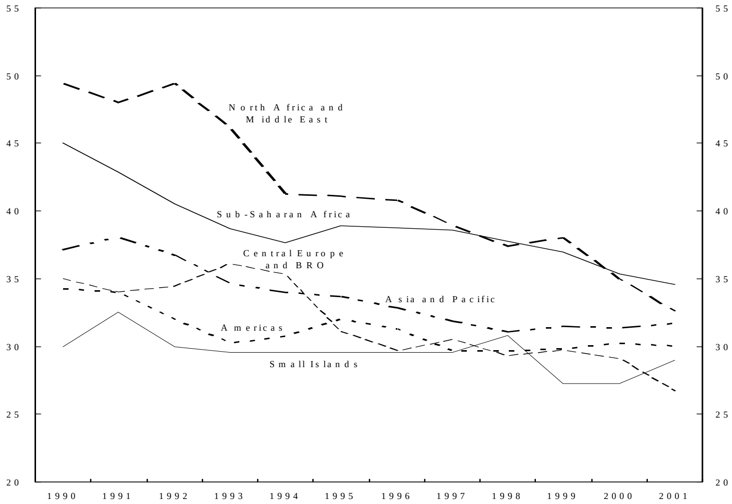
TAX COMPETITION

- Much studied for high income countries
  —Experience having been of a large reduction in statutory rates but buoyant revenues
- And much ignored for developing..
  —Even though CIT a more important source of revenue for them: 17 percent of total tax (less in SSA), not 10
- So: What has happened?

Statutory rates have fallen—but are still ‘high’:

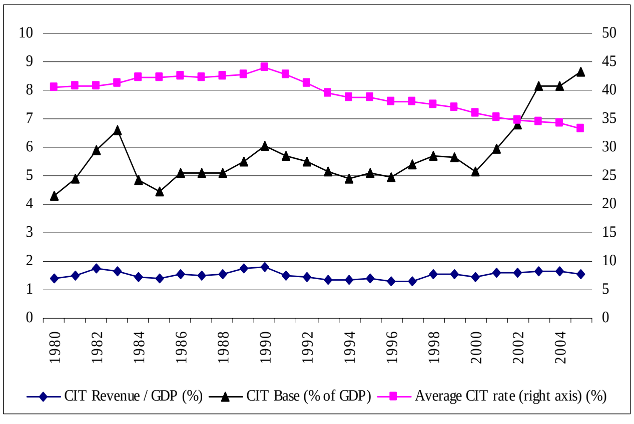


By region:



In SSA, cuts biggest in LICs, smallest in resource countries

- In SSA, (non-resource) CIT revenue has broadly held up:



- But
  - Only in resource countries has ratio increased since early 1990s
  - Developing countries elsewhere may not have fared so well

What explains this relative robustness?

- Factors identified for high income countries...
  —profitable financial sector; increases in volatility, profit share, and incorporation; base-broadening

- Doubtless had some role
  —maybe also reduced incentive to t-p out?

- But one notable by its absence:

A proliferation of incentives has narrowed base:

Proportion of LICs in SSA with:

	1980	2005
Tax holidays	38	82
Reduced CIT rate	14	50
Investment code	29	86
Free Zones	0	50

- Effectiveness of such incentives has long been doubted—with tax holidays seen as the worst

  —certainly other things (including governance) seen as more important for FDI

- Firm evidence of this now emerging

- Moreover, they increase the vulnerability of CIT revenues, because because hard to remove

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- Suggests—given primacy of revenue mobilization—a case for tax coordination

  —perhaps limit/scale back preferential treatment and set minimum rate

  —have indeed been efforts: EAC, SADC

- Difficulties of this well-known, so simply note:
  - Preferential regimes can make tax competition less bad...
    ...but profit shifting and 'slippery slope' may outweigh this
  - Forming custom unions strengthens case for coordination...
    ...learn from EU: Address CIT competition sooner rather than later

But one aspect deserves more thought:

Is there a case for coordinating resource taxes?—and if so, how?

- Some movement in this direction
  - E.g. WAEMU mining code and proposals in SADC
- At first sight puzzling—Resource rents often cited as the classic instance of location-specific rents that can be taxed at up to 100 percent
- But: Resources require huge sunk costs and so—evident recently—a potentially huge time consistency problem

To see the implications, suppose......

- Firm invests K for revenue of $s_L p(K)$ or $s_H p(K)$

- Govt. deploys royalty r and investment subsidy φ to maximize welfare $E[W(R)+\Pi]$ subject to a participation constraint (p.c.)

Optimal policy then:

- At second stage, set: (i) $r(s_L,K)= 1$; (ii) $r(s_H,K)$ such that $\Pi=\lambda$ (where $W'(\lambda)=1$)

- At first, use φ to manipulate K and meet p.c.

Can then show:

If (a) $\varphi > 0$, and (b) an increase in K is welfare - improving at the initial tax system, then welfare would be increased by:

- *Committing to a lower tax rate in the good outcome, and (consistent with any p.c.)*
- *Setting a lower investment subsidy*

- May be ways to achieve this other than by international agreement...
  - —e.g. fiscal stability agreements

  ...and less of an issue if expect more discoveries

- Nevertheless, there may be a case for international agreements involving both:
  – Upper limit to exploration and other up-front subsidies

  and

  – *Upper* bounds on royalties and other ex post tax rates

TRADE LIBERALIZATION

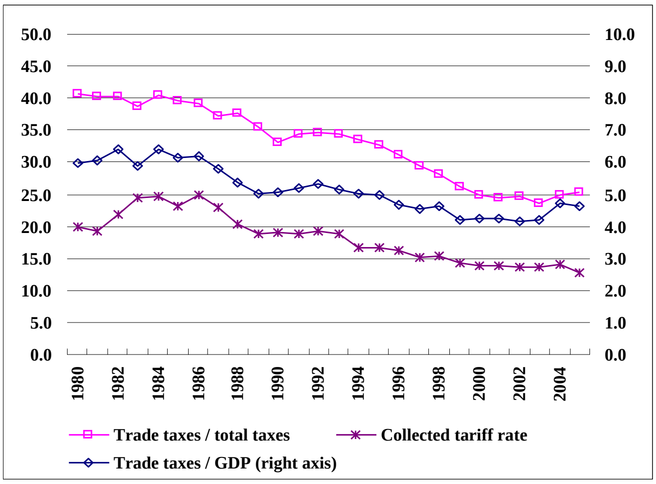
In early stages, trade liberalization (TL) may *increase* revenue from trade taxes

—Tariffication, cutting prohibitive tariffs, removal of exemptions...

But at some point further TL must reduce trade tax revenue

And in practice:

Tariff rates and revenues have fallen markedly...



...but are still more than 30 percent of non-resource tax revenue in SSA

- TL may be blocked/less beneficial, unless revenue can be recovered from domestic sources

- Conventional view has been that this is easy: match tariff cuts with increases in indirect taxes

- Many caveats, including Emran-Stiglitz argument: tariffs better than VAT at taxing informal sector

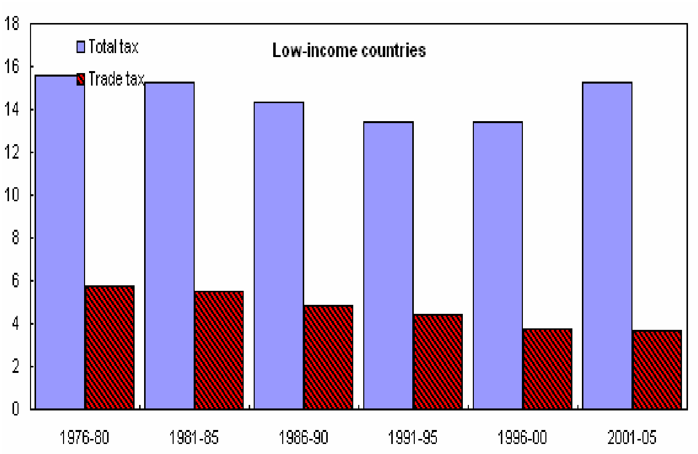
  ….but VAT is imposed at border, and if not credited then equivalent to a tariff

- May also be that loss of trade tax revenue illusory, with depreciation increasing real value of aid/resource revenues

But concern here is not with *principle* but fact:

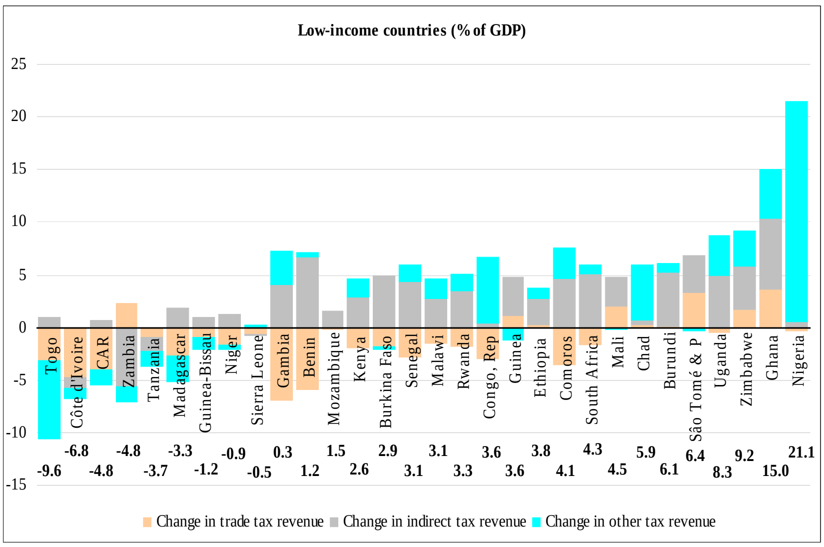
Have countries recovered lost trade tax revenue *in practice*?

For full sample:



...suggesting that recovery was a problem but may have improved more recently

For individual SSA, tabulations fairly reassuring:



But this does not control for other factors affecting revenue—to think about which, some theory helps:

Suppose government's maximand is

$$V(R,X)-\left(\frac{1}{2}\right)\delta^{T}(X)(R^{T})^{2}-\left(\frac{1}{2}\right)\delta^{D}(X)(R^{D})^{2}$$

where $R=R^D+R^T$. At unconstrained optimum:

$$\frac{R^{T}}{R}=\frac{\delta^{D}(X)}{\delta^{T}(X)+\delta^{D}(X)}$$

And optimal change in total revenue in response to a forced change in trade tax revenue is…

$$\frac{dR}{dR^{T}}=\left(\frac{\delta^{D}(X)}{\delta^{D}(X)-V_{RR}(R,X)}\right)\in[0,1]$$

…so that:

- Less than full recovery is optimal
- Extent of recovery greater:
  - —The less costly it is to raise domestic revenue
  - —The more rapidly the marginal value of public expenditure decreases with its level

This also suggests estimating equation:

$$R_{it}^{D} = \alpha_i + \beta_0 R_{i,t-1}^{D} + \beta_1 R_{it}^{T} + \beta_2 X_{it} + \beta_3 X_{it} R_{it}^{T} + \mu_t + \varepsilon_{it}$$

where X includes GDP per capita, openness, aid, inflation, share of agriculture and a VAT dummy

Interest focuses on short-run replacement $-\beta_1$ and long run replacement

$$\theta \equiv \frac{-\beta_1}{(1-\beta_0)}$$

with θ=1 meaning full replacement, and θ=0 none

Results for middle income countries...

	Difference GMM	System GMM
$-\beta_1$	-0.525** (0.263)	-0.333** (0.171)
θ	1.337*** (0.495)	1.114** (0.464)

...look like pretty full replacement

Results for low income countries, however...

	Difference GMM	System GMM
$-\beta_1$	-0.307 (0.193)	-0.171 (0.216)
θ	1.233* (0.646)	0.987 (1.552)

...are less reassuring

Also find:

- Distinguishing episodes in which trade tax revenue fell/increased, recovery significant and close to one for MICs—but not for LICs
- No sign that presence of a VAT associated with stronger recovery
  - —perhaps not too surprising, as VATs differ

- Some signs LIC recovery has increased over time
- Running country-specific regressions:
  - Immediate (resp., ultimate) replacement significantly positive in 6 (9) of 37 LICs
  - Of which 4 (7) are in SSA...

  ...tending to confirm that in this area SSA has done better than others

TAX ADMINISTRATION

Everyone agrees—need to "strengthen tax administration"

- But what does that actually mean?
- And what do we know about it?

Some issues:

Structural reforms

- Large taxpayer unit
  - Largest 1 percent may pay 90 percent of taxes
- Organizational reform
  - Revenue authorities
  - Tax-type versus functional/segmented?

  These are not such trivial exercises as may seem
- IT
- Audit capacity

Dealing with informality

- Strong case for a fairly high threshold for VAT and ‘real’ income tax
- But below that:
  - Why bother?
  - Externalities/paternalistic/political benefits from tax compliance?
  - Or should they be taxed more?
  - Is simplicity really possible?
    - Are we replacing income tax and/or VAT? Turnover or cash flow? What about employees’ social security?

What role for (non-final, non-standard) withholding?

- An incentive to become compliant...
- ...but a very weak one unless audit probability very high
- So is it just a revenue grab?
- If so, is it a Class A drug?

CONCLUSIONS

- Data
  - Be systematic about what there is, look for what there isn't
- Tax competition
  - May be more important for developing countries
  - Incentives: A losing battle for decades
  - Resource tax coordination: Is it different?
- Trade liberalization
  - A genuine issue for many countries
- Administration
  - Too important to be left to administrators