

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

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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

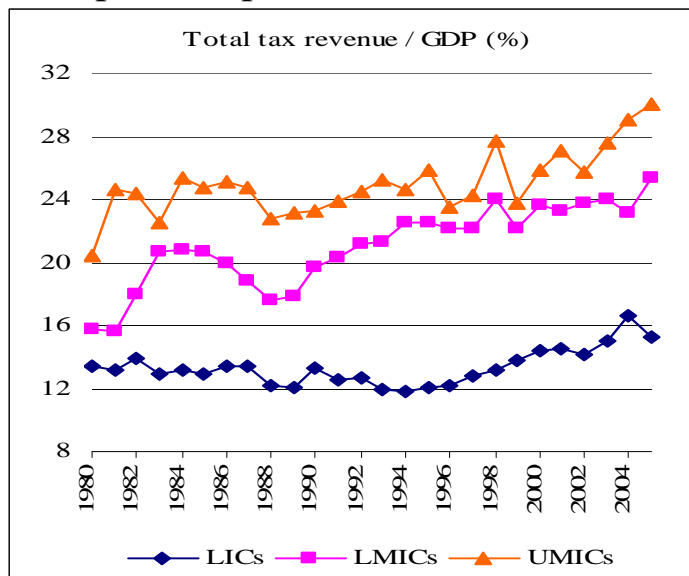
Outline

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

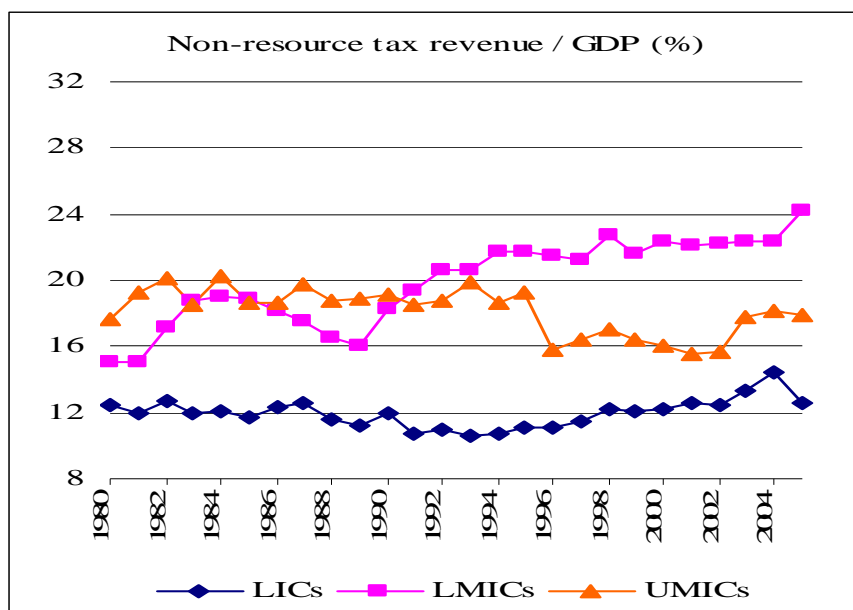
SOME TRENDS

Tax ratios have picked up...

For SSA:



...but mainly because of resources



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

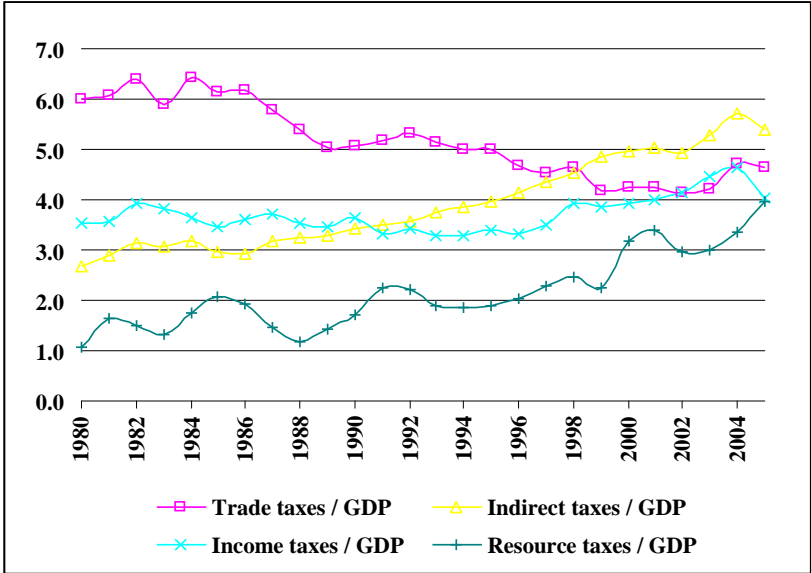
- Average tax ratio unchanged at 15 percent
- Proportion of LICs with ratios less than 15 percent *rose*, from 42 to 60 percent

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

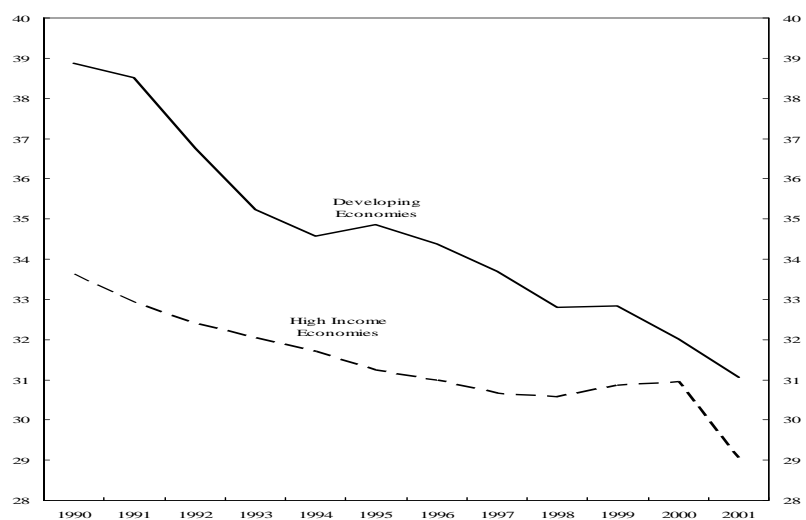
Composition though has changed substantially:



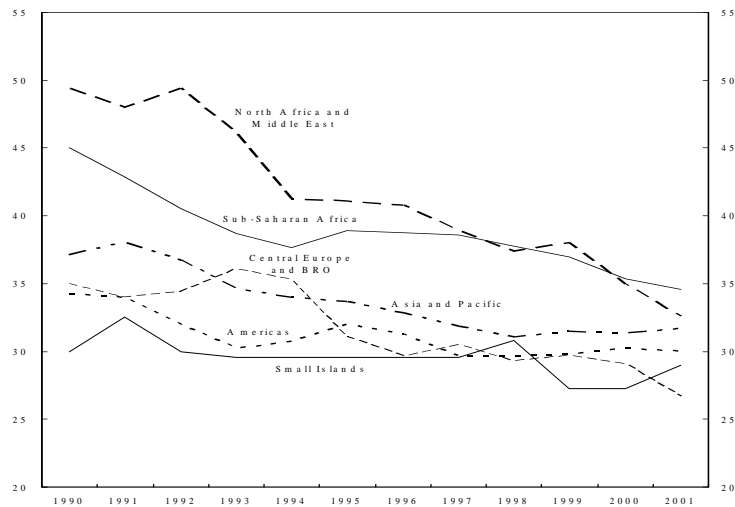
TAX COMPETITION

- 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’:

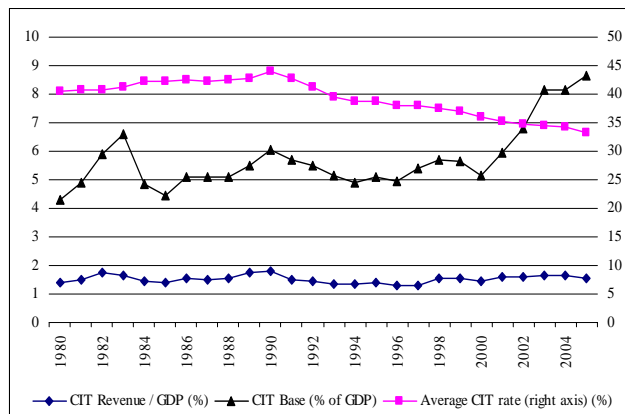


By region:



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

- 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

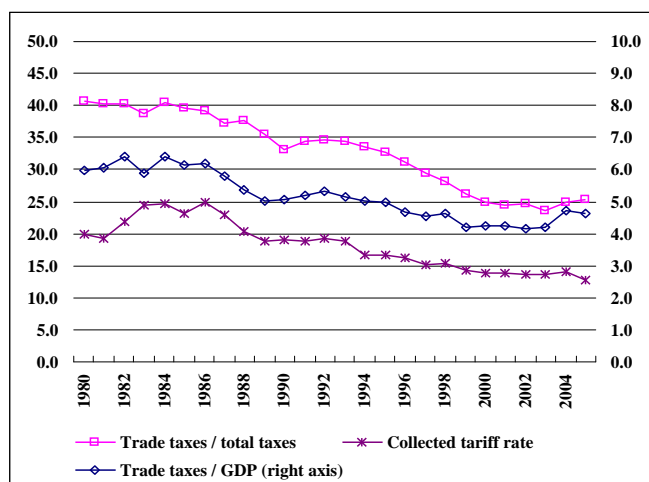
In early stages, trade liberalization (TL) may *increase* revenue from trade taxes

—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...



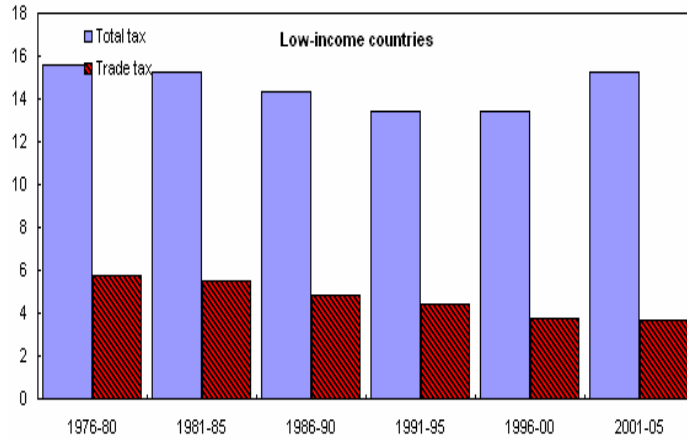
...but are still more than 30 percent of non-resource tax revenue in SSA

- 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:

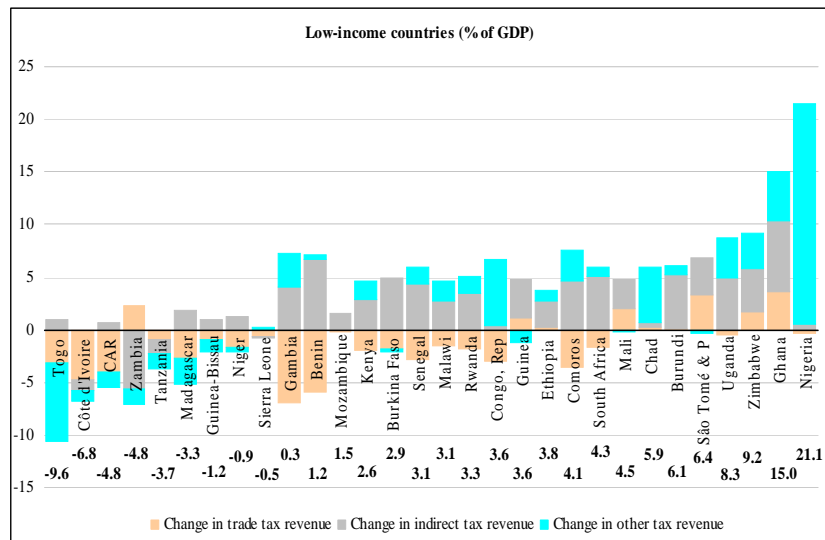
Have countries recovered lost trade tax revenue *in practice*?

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 $\theta=1$ meaning full replacement, and $\theta=0$ 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