

TAXES AND TRADE REFORM¹

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Outline

- The issue
- Revenue recovery—in principle
- Revenue recovery—in practice
- Conclusions

THE ISSUE

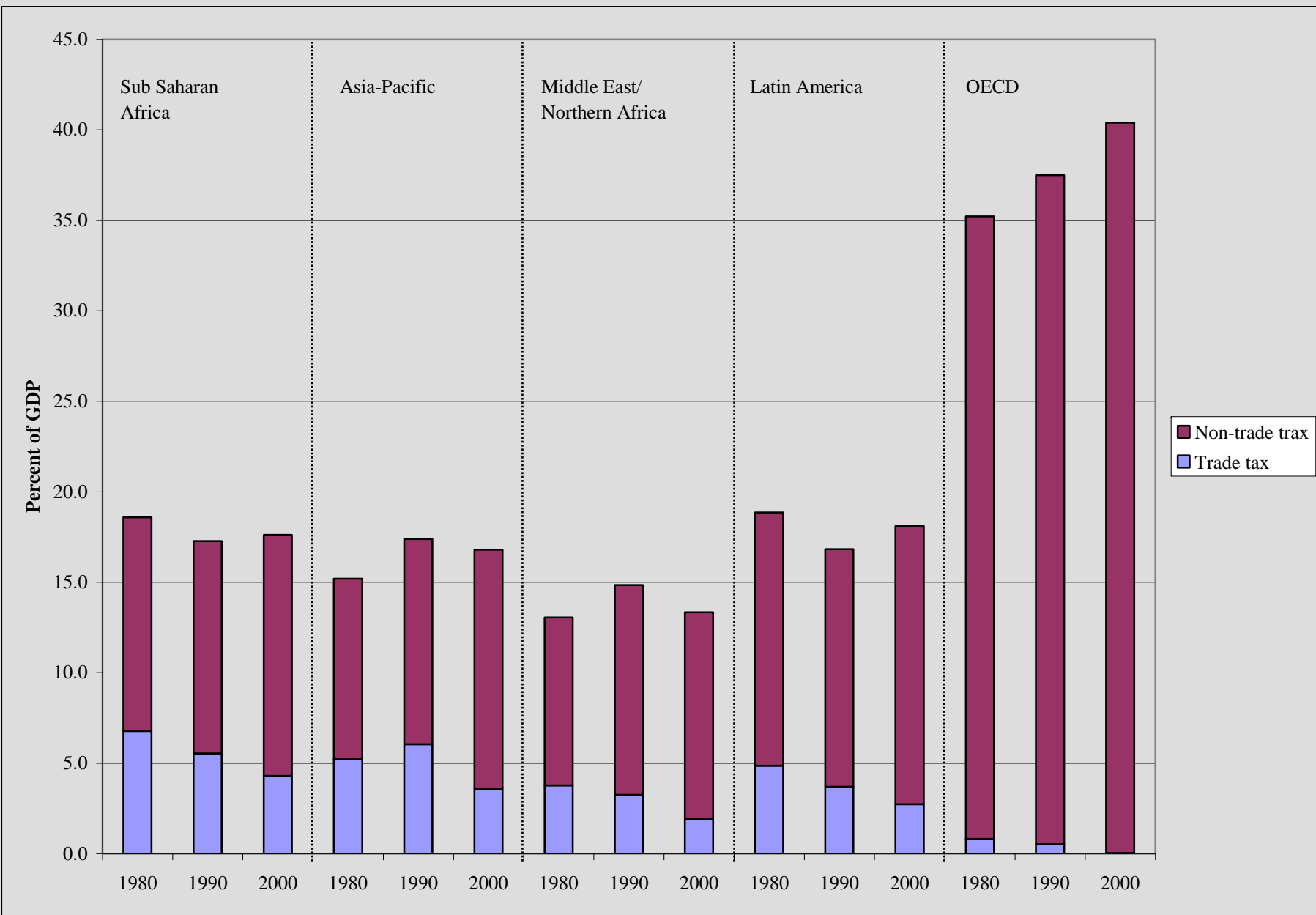
Trade taxes are declining in importance....

...but continue to be an important source of revenue in middle and lower income countries:

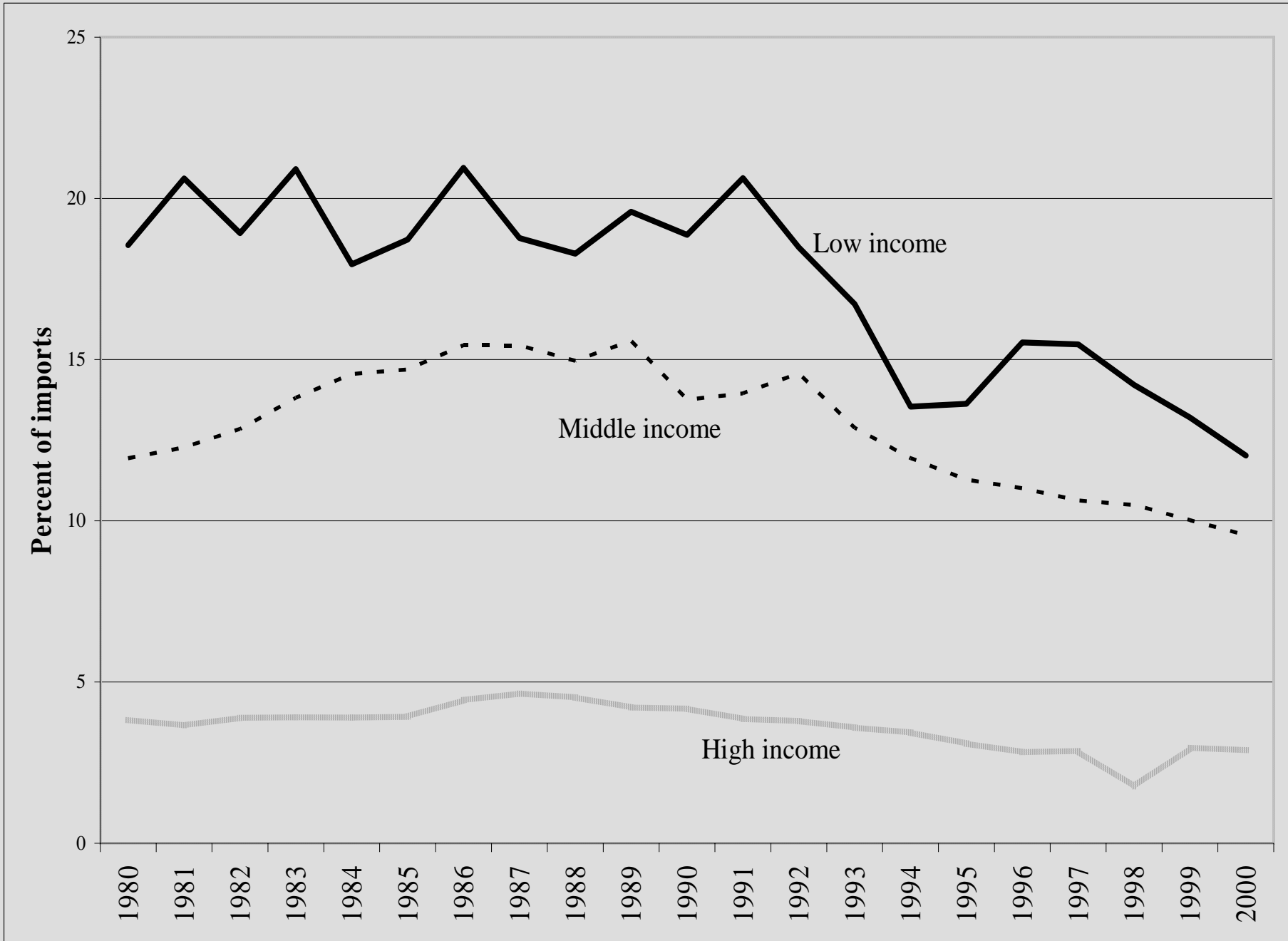


(...where, note, some sign of less than full recovery in low income countries)

Similar trends by region, with Asia-Pacific broadly similar to others:



This declining importance of trade tax revenues reflects reduction in 'collected' tariff rates (= tariff revenue as a share of import value) over last fifteen years or so:



Pressures on trade tax revenues are likely to increase in the coming years:

- Regional/bilateral agreements
- Unilateral liberalization
- Doha...

REVENUE RECOVERY — IN PRINCIPLE

Two questions to ask when considering trade reform:

- Must trade liberalization reduce trade tax revenues?
- If it does, how should that lost revenue be replaced?

On the first question:

Important to recognize that that some measures of trade liberalization (reducing distortions from trade policies) can increase revenue:

- Tariffying
- Eliminating NTBs
- Removing exemptions on imported inputs (reducing effective protection)

- Modernizing customs administration
- Cutting tariffs set, for protectionist reasons, above revenue-maximizing level
- Reducing tariff dispersion (discourages misclassification)
- Cutting bound rates has no (direct) effect

Is indeed evidence that several episodes of trade liberalization have been associated with enhanced revenue

—collected rate has fallen but trade tax revenues have risen relative to GDP

More generally, trade liberalization is expected to have beneficial growth effects that will tend to increase tax revenue

But we will ignore these in what follows: for reasons of prudence, we may not wish to rely on revenue recovery through such indirect effects (especially in the short run)

On the second question (How should one recover lost trade tax revenues?):

There is key role for consumption taxes (a broad-based sales tax (such as a VAT) plus excises on particular commodities

Suppose that we increase the consumption tax on some good by exactly same amount as tariff is reduced. Then...

...assuming the economy to be small in world markets, that there is perfect competition, and no informal sector:

- Consumer prices—hence consumers—are unaffected
- We still have the improvement in production efficiency that was purpose of the trade reform
- Since consumption exceeds imports, revenue increases

Or...

Increase consumption tax by slightly less than tariff falls: then consumers as well as governments will gain

Some issues:

- Isn't moving to sales tax/VAT regressive?
 - no, shift above has no effect on progressivity
- Imperfect competition domestically can overturn the results

- Informality also overturns the result ...since then we cannot tax all final consumption. But:
 - Claim that tariffs preferable to VAT because they tax informal sector imports...
...is wrong: VAT does exactly the same
 - May, nevertheless, be a case for particular taxes—e.g. income tax withholding on imports—that differentially tax inputs of informal sector

This is not to say that only indirect taxes have a role in revenue recovery

— will see later that other taxes have played an important role in successful countries—

but they are the natural first place to look

REVENUE RECOVERY
— IN PRACTICE

Three types of evidence:

- Compare changes in total revenue and trade tax revenue alone
- Econometrics — same relationship but control for other effects on total revenue
- Case studies

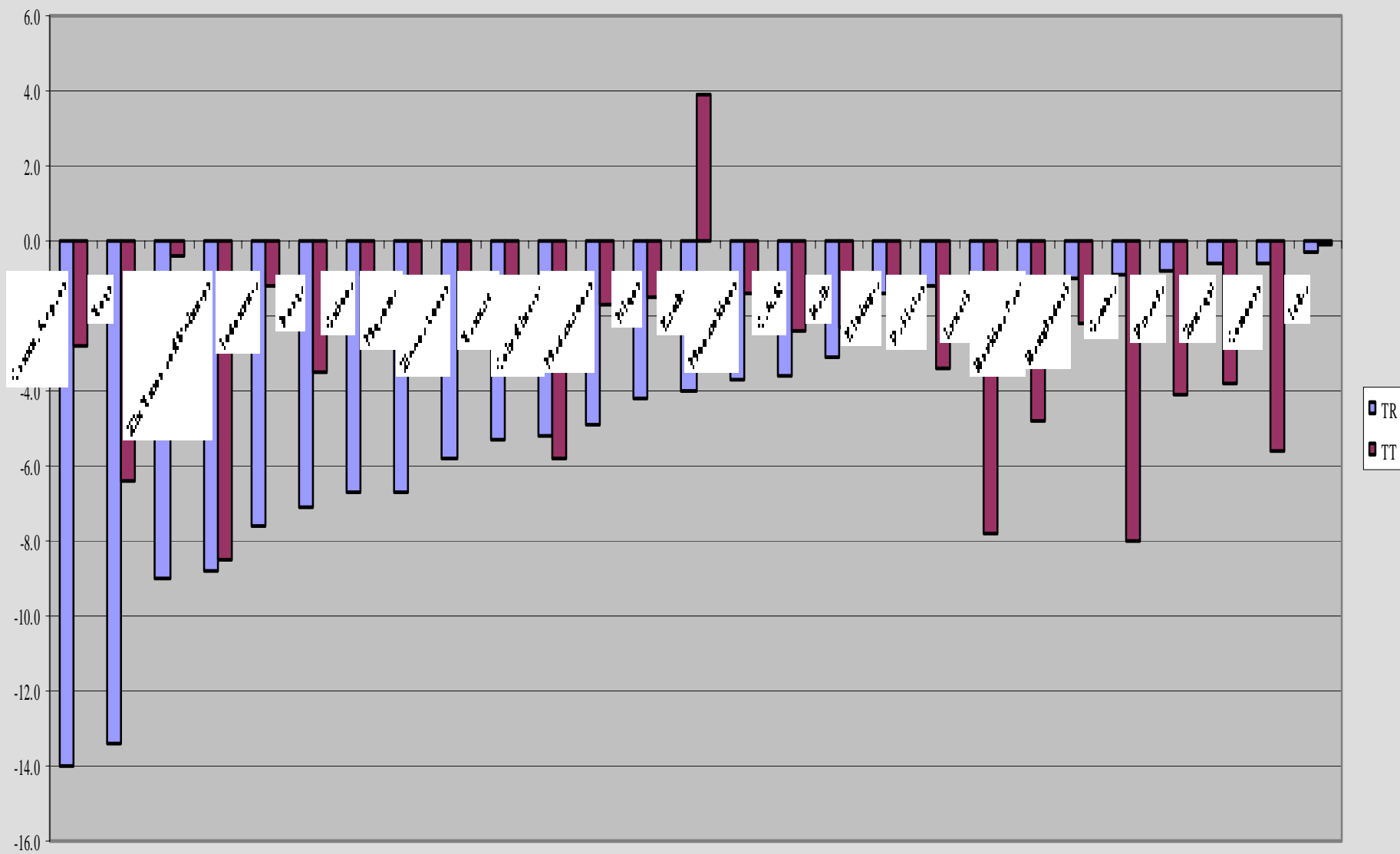
Comparing changes in total and trade tax revenue

Country experience varies widely

For low income countries, between 1980 and 2000 (and ranked by increase in total revenue)...

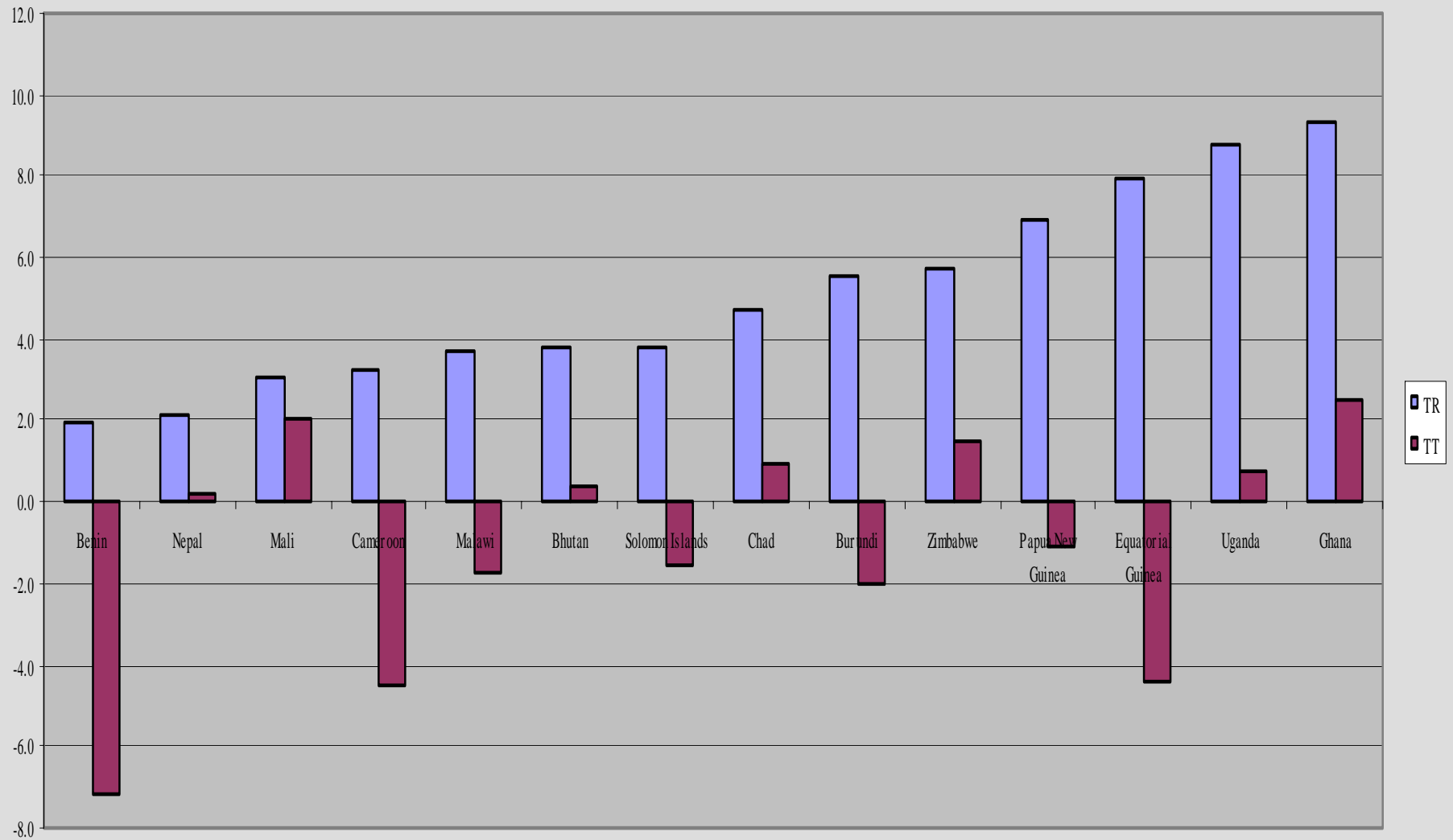
...starting with those in which total revenue fell:

Chart 1. Low income 80-2000

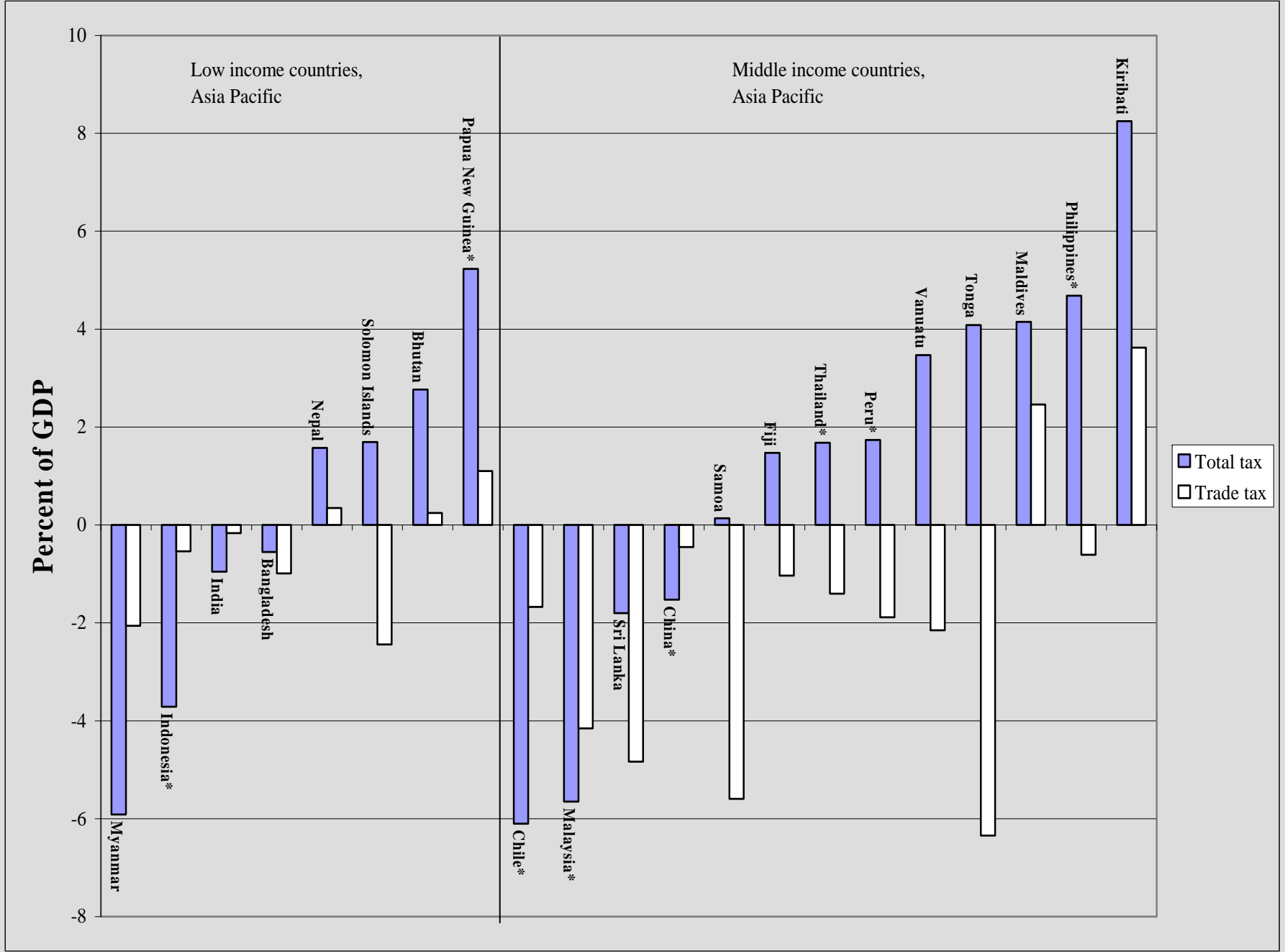


...while for those in which total revenue increased:

Chart 2. Low income 80-2000



And in the Asia-Pacific region:



Econometrics

Even if domestic revenue has increased by enough to offset reduction in trade tax revenues, it may not have increased by as much as other developments (e.g. general growth of economy) suggest it otherwise would have

An econometric approach allows one to control for this

Empirical question asked is:

For each \$1 of lost trade tax revenue, how much is recovered from domestic sources?

—controlling also for other influences on tax ratios

—and ask too whether replacement is higher, all else equal, when a VAT is in place

Estimating equation is of the form:

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

where:

- R is total revenue relative to GDP
- V is a dummy picking up presence of a VAT
- X includes GDP per capita, openness, aid, inflation, share of agriculture

Then a 1 point reduction in trade tax revenue is associated with a increase in revenue from non-trade taxes of:

$$\theta \equiv -\left(\frac{\beta_1 + \beta_3 V}{1 - \beta_0}\right)$$

θ is the focus of empirical interest:

$\theta=1$ means full replacement, and

$\theta=0$ means no replacement

For sub-samples by income level, estimated θ is:

	FE	IV	GMM1
Low	0.078	0.077	0.299**
Middle	0.450*	0.238	0.654**
	*		
High	1.833*	3.261**	1.529**
	*		

...and is no greater when a VAT is present

Distinguishing episodes in which trade taxes increase and decrease, find:

	θ	θ_V
Low	0.277	0.425
Middle	0.956**	1.143**

Case studies

Comparing experiences of 4 countries which recovered trade tax revenue and 4 that did not:

- The presence of a VAT in itself has little effect...
- ...but 'better' performers had better designed VATs (broad coverage, single rate) — compare, for instance, Uganda and Egypt
- Contrary to theoretical prediction, those that recovered did so in large part through the income tax

CONCLUSIONS

- Trade liberalization is likely to continue to place pressure on trade tax revenues
- Country experience in dealing with this varies substantially
- Middle and high income countries have in general coped well...
- ...But several (not all) low income countries, have had difficulty

- Even in low income countries, these pressures can be dealt with
- Key considerations in dealing with these challenges include:
 - Recognizing the issue
 - Strengthening domestic indirect taxes, notably the VAT—paying close attention to its design features
 - Looking too for additional income tax revenue