MOBILIZING ADDITIONAL DOMESTIC RESOURCES FOR HEALTH THROUGH TAXATION.

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How much do Countries Raise by Taxation and Could they Raise More to Spend on Health?

There is no simple answer to the question, "What should countries raise by taxation?" Tax theory does not provide any clear advice as to how much revenue a country should raise through taxation, much less how much should be spent on health. Theory can suggest the optimal structure of taxes to raise a given tax burden *(1)*; more elaborate attempts to integrate expenditure and taxation sides of the budget are too abstract to be useful for policy advice. *(2)*

Tax Effort Studies.

In the absence of a strong theoretical base, commentators have fallen back on statistical comparisons of tax revenue to GDP as a dependant variable, against independent variables that might influence the tax ratio, such as, income per capita, the openess of the economy, the shares of agriculture, industrial and service sectors. The regression equation provides a hypothetical tax ratio for a country which, when compared to the actual tax ratio, indicates whether a country is raising as much, or more, than might be expected, given its circumstances. *(3)* The most recent examination of these figures *(4)* for 1985-95 is summarised in Tables 1 and 2.

Table 1. Tax Effort Indicies: Low Income Countries.

Countries	Tax Ratio Actual	Tax Ratio Fitted	Tax Effort
Fiji	20.5	9.0	2.3
Kenya	20.0	10.5	1.9
Ethiopia	11.7	7.5	1.6
Ghana	11.8	7.8	1.5
India	10.7	7.3	1.5

Lesotho	23.4	16.1	1.5
Zimbabwe	21.5	15.1	1.4
Morocco	22.5	16.0	1.4
Namibia	27.6	20.0	1.4
Egypt	20.7	15.1	1.4
Tunisia	24.2	18.2	1.3
Sri Lanka	17.9	14.4	1.2
Pakistan	13.0	10.6	1.2
Zambia	18.3	15.1	1.2
PN Guniea	18.8	15.8	1.2
Camroon	12.8	11.0	1.2
Belise	21.7	18.7	1.2
Syria	16.3	14.6	1.1
Thailand	15.6	16.5	1.0

Equador	14.8	16.8	0.9
Jordan	17.7	20.9	0.9
Panama	17.9	20.9	0.9
Madagascar	9.2	11.6	0.8
R. Dominican	12.7	16.4	0.8
El Salvador	12.3	16.0	0.8
Congo R.D.	6.9	9.4	0.7
Nepal	7.2	10.4	0.7
Bolivia	9.5	14.6	0.7
Sierra Leone	6.8	10.8	0.6
Guatemala	8.0	14.3	0.6

Adapted from M. Piancastelli, op cit.

Table 2. Tax Effort Indices for Middle Income Countries.

Countries	Tax ratio Actual	Tax ratio Fitted	Tax effort
South Africa	25.2	15.3	1.7
Uruguay	25.5	18.1	1.4
Botswana	26.8	22.2	1.2

Costa Rica	20.9	17.9	1.2
Indonesia	15.7	14.5	1.1
Brazil	17.1	16.3	1.1
Malaysia	20.0	20.4	1.0
Chile	18.8	19.5	1.0
Mauritius	19.7	20.7	1.0
Malta	25.7	27.7	0.9
Peru	10.7	12.2	0.9
Philippines	13.2	17.2	0.8
Colombia	11.9	15.4	0.8
Mexico	13.8	18.4	0.8
Turkey	12.5	16.9	0.7
Venzuela	16.1	23.7	0.7
Argentina	11.4	17.4	0.7
Paraguay	9.1	15.7	0.6
Iran	7.4	13.7	0.5

Adapted from M. Piancastelli, op.cit.

Table 1 shows that over half the low income countries achieve a tax effort above 1.00, indicating that they are actually collecting more revenue than might be expected given their economic indicators. On the other hand Table 2 shows that of the middle income countries, only half achieve a tax effort figure of 1.00 (indeed, if taken to three decimal places, only the first six countries actually show a tax effort figure of 1.00 or over). If the figures are divided geographically, they show that for Latin America most countries have a tax effort ratio below 1.00 (when actual tax revenue equals the hypothetical revenue possibility), only Uruguay, Costa Rica, Belise, and Dominica show ratios above 1.00. For Asia, half the sample shows ratios below 1.00 but for Africa only three countries (Cameroon, Sierra Leone, and Congo RD).

All this highlights a major problem with the tax effort approach; we know that most tax systems in Africa are far from perfect, then why should the average of these unsatisfactory structures be used as a standard? Just because more African countries,in the context of their peer group, have a ratio above 1.00 does not mean their tax systems or their ratio of taxation to GDP are acceptable, or that they could not do much more to improve their systems and increase revenue. The same question can be asked about the figures for the low and high income countries. We know that the revenue collection in many of the countries shown as having tax effort indicies over 1.00 is deficient in structure, equity and administration; merely because they have a tax effort index over 1.00 does not mean they should be copied, used for an average, or indeed, that it should allow them to rest on their laurels.

Indeed, there are many problems with the tax effort approach. There is an identification problem in that income can be both a demand and a supply factor, the data (often bad data) are cross sectional and “few exercises are more questionable than drawing inferences about

changes from data on *differences*" *(5)*. Probably the best that might be said is that countries with low tax effort ratios in comparison to their peers might be expected to raise more revenue, given their circumstances.

Tax Revenues and GDP.
An alternative approach is simply to examine the raw data of tax revenues as a percentage of GDP.As countries grow richer they typically raise a larger share of GDP by taxation to finance public sector spending, including spending on health. As Table 3 shows low income countries raise, on average, 14 percent of GDP through taxation, lower middle income countries 19 percent, upper middle 22 percent, and high income countries 31 percent.

Table 3 Taxation as a percentage of GDP

Countries	Total Tax Revenue	Taxes on international Trade	Excises	General Sales Taxes	Social Security
Low income (31) Under $760 pc.	14.0	4.5	1.6	2.7	1.1
Lower middle (36) $761-$3,030 pc.	19.4	4.2	2.3	4.8	4.0
Upper middle (27) $3,631-$9,360 pc.	22.3	3.7	2.0	5.7	5.6
High income (23) Over $9,360 pc.	30.9	0.3	3.1	6.2	8.8

Source: Abstracted from Annex I, Tables 1-4.

These averages conceal that, within each group (except for taxes on international trade), the variances are large. (See Annex II, Scatter diagrams). A low income country can raise as little as 4 percent of GDP in taxation (Myanmar) or as much as 36 percent (Lesotho); in the lower middle income group as little as 9 percent (Guatemala) or as high as 30 percent (Ecuador). An inspection of the data for each group (see Annex I) shows no convincing correlation--all that can be said is that, broadly speaking, there appears to be capacity, and in many cases a substantial capacity, to raise more money for the public sector through taxation. The reasons why countries choose not to do so are, of course, deeply rooted in the social, economic and political structures unique to each country.

So, in principle, it is reasonable to argue that most countries could raise at least 1-2 percent of GDP more public sector revenue through taxation to spend on public expenditure, including government spending on health. Countries choose not to do this for reasons that apply across the board to raising taxes at all.

Consider briefly some of the macroeconomic considerations that affect decisions to increase taxation whether to finance health or any other expenditure. (There is a large literature on this subject e.g. *(5),(6),(7).*)

- **The Budget Constraint.** All governments work within a budget constraint. It is the job of politicians to find the social consensus that can raise sufficient tax revenue to finance the numerous demands for government expenditure. They must also allocate the budget between the different claimants for public funding. If there could be agreement to raise tax revenue by 1-2 percent of GDP, there is no guarantee that this amount would, or even should, be spent on health. Moreover, the decision on whether to raise and spend more public revenue is not likely to be decided with reference only to a single sector such as health. Macroeconomic budgetary considerations are also an important factor in deciding on the amount and timing of changes in taxation and expenditure. Governments must decide on the borrowing requirement appropriate to the economic situation in which they find themselves. Trade-offs must be decided between price stability, employment, and growth; between savings and investment; and between the relative demands of the public and private sectors. Whether or not it is appropriate to increase taxation and even more, whether it is correct to spend that increased revenue on health, is clearly more complicated than the straightforward emotional plea that spending more on health must necessarily be right. It is a matter for each country to decide in the circumstances peculiar to each country at a particular time.

- **Economic Efficiency**. Nearly all taxes distort. Decisions that households make about purchasing goods and services or about saving and investing are skewed by taxation. Firms change their decisions about production, investment, location, and trade because of taxation. Taxes at low rates and on commodities with little price responsiveness distort decisions less*(8)*. Clearly, the more a government raises revenue by taxes, the more distortion it introduces into the system and politicians might decide (although they are unlikely to think in these precise terms) that the economic cost of such distortions outweighs the advantages of the expenditure financed, including even spending on health.

- **Equity and Administration**. An argument against increasing taxation is that it is likely to be regressive until the majority of tax revenue is collected from taxes on income and wealth. As Table III.3 shows, poorer countries collect more of their government revenue from taxes on goods and services than from income taxes. Also in poorer countries, even the incidence of personal and corporate taxes can be heavily distorted by bad administration (see below) and poor compliance.

  Equity is about the net effect of government taxation and spending on households. Some taxes can be regressive, some proportional (e.g. VAT's that exempt food), and some can become regressive (e.g. social security payments that are capped). Often, more pro-poor equity can be achieved by well targeted expenditure programs than by over-complicated tax systems. For example, cash and in-kind transfers targeted towards the poor are strongly progressive as can be government expenditures on rural health care and primary education. *(9)* The more complicated the tax law, the more difficult it is to administer. Countries may have elegant and well drafted corporate and personal income taxes, but such taxes create opportunities for delay, procrastination, mistakes, and just plain incompetence, apart from corruption. Much of these finely calculated concerns over tax equity are vitiated by corruption and poor tax administration. Measures aimed at achieving distributional objectives also have an efficiency cost so there is a trade-off between equity and efficiency. *(10)*

  If, given these various constraints, a country decides to increase the amount of GDP it takes in taxation to finance increased spending on health care, what are the better ways to

do it? To illustrate, let us touch briefly on the major arguments for each potential source of extra revenue.

Taxation.

The basic job of the tax system is to raise revenue in a secure and reliable fashion. If poorer countries are to increase tax revenue they are probably best advised to do so through straightforward, simple, and well administered taxes (usually on goods and services), which are likely to be a better base for good governance than complicated "progressive" systems. As already explained, equity considerations may be dealt with through the expenditure side of the budget.

Table III.3, Annex I and the detailed data and diagrams in the background papers show that as countries grow richer, they rely less on taxes on international trade and switch instead to excises and general sales taxes.

- **Import duties** are often used by countries with a weak tax administration and a lack of taxpayer sophistication. The literature on optimal taxation *(11)* favors a tariff rate structure that taxes final goods at a higher rate than intermediate goods and reserves the lowest rates for tariffs on inputs and raw materials. In practice, the information needed to construct an optimal tariff structure is usually unavailable and the advice has been to lower average tariffs, curtail the dispertion of rates and remove non-tariff barriers. In general, import duties are distortionary, are often corroded through politically motivated exemptions, and should, through membership of the WTO, be negotiated down to very low levels. Usually, they should not be the base for raising new revenue for health or anything else.

- **Excises**, typically levied on some five products (alcohol, tobacco, petroleum products, vehicles and spare parts) have the great advantage that they can raise huge amounts of revenue at a low administrative cost. Clearly they should be an important part of the basic revenue for most countries, including most poorer countries. However, many poor countries raise under 2 percent of GDP from excises compared to 2-4 percent in high income countries; given that their tax bases are altogether a lower percentage of GDP one could expect that the poorer countries should be raising more from this potentially buoyant tax base. This is expecially so if the link is made between consumption of exciseable products and poor health (smoking, drinking and driving). See below for further discussion of "earmarking".

- **General Sales Taxes**. Undoubtedly the greatest potential for generating a substantial amount of revenue for governments is a truly general sales tax. The spread of the value added tax (VAT) is a testament to the revenue raising power of this tax. The VAT is now used in over a hundred countries world wide at standard rates from 3 to 23 percent. To try to achieve some equity, countries will often used multiple rates of VAT (sometimes as many as five eg. Colombia), this complicates the administration of the tax, offers scope for evasion, and does not usually do much for equity. Certainly any country running the VAT at under 10 percent is probably not getting value for money. The reasons are simple. It is the most complicated sales tax to set up and administer and its yield is maximised and evasion minimised when levied as a truly general tax on all goods and services. Countries need to ensure that its base is broad and its rate structure simple (a single rate preferred) to reap its principal advantages. *(12)* Many countries could do more to get

higher and more secure revenue out of their VAT's. They should solve their equity problems in other ways (see above).

- The **corporate income tax** (CIT) is often seen as a convenient and politically less controversial source of revenue than sales taxes or personal income taxes. By its very nature, CIT legislation cannot be simple and depends on sophisticated, internationally acceptable, accounting practices that are often difficult to implement and to monitor. *(13)*. Too often the CIT in poorer countries can mean principally, the taxation of large international concerns with more difficulties in application to indigenous firms. It can also involve complex issues of transfer pricing and is sometimes eroded by concessions designed to encourage exports, locations, employment and investment. Finally, firms can always choose to locate where the CIT is lowest *(14)* and such tax competition is bringing down corporate tax rates worldwide. It is unlikely that the CIT will be the basis for large increases in the revenue base in most countries.

- The **personal income tax** (PIT) is potentially the best tax from which to obtain revenue in a progressive way. Exemptions at the bottom end of the income tax scale exempt the poorest from paying any PIT and rates can rise to high levels (historically to 90 percent). However, most countries today adopt a top rate of 40-50 percent and again, international mobility of the most talented people (including doctors and specialists) should put some upper limit to top rates of PIT. Regrettably, widespread under-reporting of income, poor tax administration, and corruption often means that this tax is paid mainly by those in the well documented employment area (typically civil servants and employees of larger corporations). Although the potential is there for greater revenue for the PIT, the reality is that, in most countries, it is unlikely to be a major way to mobilize extra resources from the domestic sector in the short to medium term *(15)*.

- **Social security** is a tax where the revenue rises as countries get richer (see Table III.3 and Annex I). Surprising amounts of revenue can be raised through social security—witness the Netherlands at 18.5 percent of GDP, France at 18 percent, or Sweden at 16.6 percent. The averages for high income countries is 8.8 percent but the capacity for expanding revenue from this source is limited by its association with the personal income tax. Social security is collected as a payroll tax and as such is often viewed by the electorate as part of the income tax. Where it is capped at a certain income level, it becomes a regressive income tax. In lower income countries, it suffers from the same limitations as the income tax, levied principally on workers in the well recorded formal sectors of the economy. (See the discussion in the Chapter on the Formal Sector, below, for more discussion on this)

  Social security payments were originally, and in many countries can still be, seen as an insurance payment directly linked to the benefits to be drawn (unemployment pay, health, and pensions). In this respect they are perceived as an earmarked tax to be spent specifically on those goods and services. To many people this, in a sense, validates or justifies these taxes. It also raises the issue of whether there is a wider role for earmarked taxes to be directly linked to spending on health. The obvious candidates are taxes on activities likely to be injurious to health such as using alcohol and tobacco, but others could be considered, for example taxes on vehicles and petroleum, or carbon taxes.

- **Carbon taxes.** In a similar way to excises on alcohol and tobacco it could be argued that carbon emissions harm health and, could they be taxed, the revenue should appropriately be earmarked, at least partially, for health. The carbon tax is usually thought of as an excise on producers of fossil fuels levied when the fuel is extracted or imported. It would be levied on the carbon content and would therefore penalise coal more than oil, and oil more than gas. As these relative values change and as their values alter relative to the costs of labor and capital**,** major changes in production costs and output would take place. *(16) (17)* There would also be distributional and regional effects. If the revenue was retained in the country levying the tax, then studies show *(18) (19)* that it could be used to offset some of the distributional and regional effects and, with reductions in other taxes, could improve efficiency overall. To the extent the carbon tax revenue is used for these purposes the less will be available for other purposes, including public spending on health. Given the controversial nature of the carbon tax the claims on its revenue to compensate losers, whether from industries, regions, or employees would probably make it difficult to release its revenue for other purposes. This is simply another aspect of the overall budget constraint mentioned above.

  However, if the revenue from the carbon tax was to accrue as international revenue to be used globally for expenditures such as improving health in developing countries then countries would not be able to use the revenue to offset the domestic distributional and regional disturbances caused by the tax. This dimishes the liklihood of the carbon tax being adopted at all, never mind being used as an international tax to finance development goals, including health care.

  The potential revenues from a carbon tax are undoubtedly large. At a US$100 per ton the US might yield $165 billion a year and the European Union $110 billion *(20)*. A hint of the political difficulties involved is indicated in that for the tax to work, every country would have to levy it and that even at $10 per ton, China would have to pay three times more than Germany *(21)*. Even if the revenues were redistributed within the country substantial adjustment costs would be incurred.

  The obstacles in the way of getting a global carbon tax off the ground, before deciding whether the revenue should be used domestically or made available as an international tax, and even before getting the claims of health financing recognised, suggest that the carbon tax could only be thought of as medium to long run aid to health spending in developing countries.

- **Taxes on International Movements of Capital (The "Tobin" Tax).**

  Put forward originally as a way to reduce the volatility of short term international capital flows *(22)*, this tax has the potential to generate huge revenues and as such it is tempting to think of many worthy causes it could help finance, from the United Nations to health and education in developing countries.

  Leaving aside the discussions about whether the "Tobin Tax" would achieve the objective of dampening short term capital flows, there are some practical problems. In practice, it would have to be levied on all currency conversions because it is impossible to distinguish between, or fabricate water-tight definitions of, international capital movements, income and trade flows. It would be collected by each country at an identical rate but administered internationally. All countries would have to agree to levy

it because if some countries refused they could become a global bolt hole for international capital. It would be distortionary, as discussed above, and if the objective is shifted from dampening short term capital flows to raising revenue the question must be addressed as to whether the inefficiencies and distortions are worth the revenue or whether some other tax should be used. Its ability to provide supplementary finance for health looks like a fairly minor consideration compared to the hurdles to be surmounted to get the tax running at all. However, if it proves possible to enact then the revenue generated could certainly provide a large source of finance, including finance for health care, for developing countries.

Earmarking.

Earmarking a tax, or a proportion of a tax's revenue, to be spent on health is undoubtedly attractive to many involved in the provision of health care. It appears to guarantee a flow of money to the health budget and it circumvents the overall budget constraint and tedious debates vis-a-vis other spending ministries and their competing claims for resources. It appears to link the cost of an activity to the costs of providing the cure. It links sin and redemption.

However, national treasuries dislike earmarking as it limits the discretion of the government on the allocation of limited funds between unlimited demands. Taken to extremes, if each tax was tied to financing particular expenditures, little flexibility would be left to the government. Worse, there is little that tightly connects the expansion or contraction of revenue from any tax to the changing needs for government spending on any publically provided goods or services.

In poorer countries, the assumption that government revenues and expenditures are subject to periodic and rigorous review to establish equal preferences for marginal expenditures is even more subject to question that it is in well-off countries. It is even more unlikely that the political process leads to a well defined social preference function for public services. "Substantial differences often exist both in preferences for public services between different groups of the population and in the extent to which those preferences are reflected in the political budgeting process" *(23)* and this may be particularly true of health.

As countries grow richer earmarking is probably less and less appropriate. In poorer countries and in those political systems than cannot allow for a full reflection and resolution of social priorities, then earmarking may have a role to play in increasing the flow of funds to health. Excises on alcohol and tobacco would probably command popular support if clearly associated with public spending on health. In lower income countries, these policies should be considered as one way to gain access to a buoyant source of funds for public spending on health.

BOX III.1 Earmarking: For and Against:

For:

- Households associate the benefits of the government expenditure with the tax paid and are more prepared to pay.
- It may provide a more consistent source of funds for expenditures that yield high benefits but may not be high on the political agenda e.g. roads maintenance.
- Shields expenditures from the (messy) uncertainties of legislatures that may cut spending.

Against:

- Loss of control over total expenditure
- Circumvents the budgetary process and review and may distort and misallocate funds.
- Rights to earmarked revenues become entrenched with funding no longer based on agreed priorities
- Less transparency may lead to inefficiencies and misuse of funds
- Can facilitate rent seeking and abuse of monopoly power
- Could lead to cutbacks (or expansion) of services wholly unrelated to need.
- Leads to less flexibility at the margin to reallocate funds when the budget is under stress
- Is incompatible with good cash management

Adapted from Potter and Diamond 1999(?) p26

Other possible sources of revenues.

- **Lotteries.** Betting is often considered another sinful pursuit like burning fossil fuels or drinking and smoking. The proceeds from national lotteries have sometimes been earmarked for health. However, this has many of the disadvantages of earmarking already discussed, along with some particular problems. Lotteries can be seen by politicians as a way of avoiding the difficult spending allocation decisions needed for health; it is easy to indicate that the lottery will take care of any shortfalls. Moreover, lotteries can be notoriously fickle in generating revenue and there is no reason why health spending should be tied to the uncertain variation in people's betting habits. Although substantial sums can be raised through gambling levies, these are probably not best tied to health expenditures.

- **User Fees** .Extra money for publically provided health care might be sought from increased use of user fees. Of course, user fees are the norm in the private sector and might be expected to play a role in the public sector. *(24) (25) (26)* The major argument against user fees in all countries is that, given the hugely unequal distribution of income and wealth, they are always going to be regressive, restricting the access of the poor to health care. This is particularly so in the case of catastrophic illnesses where households may have been able to meet the occasional payments for day to day health problems but when disaster strikes the payments cripple the family and professional health care becomes impossible. There are additional considerations that make user fees more controversial. Fees must be collected and accounted for. They may not always be used to buy the drugs and equipment intended. The seasonal character of incomes in rural areas may make it difficult to pay and collect fees. Quality of service for fee paid may be difficult to monitor.

  Even when private sector fee driven health care accounts for the majority of health care, as it does in most countries, the ability to pay for modern medicine may be significantly lower than for traditional medicine *(27)* Traditional treatments allow alternatives to cash payments, such payments in kind, in work or in credit, and often invoke more kinship support.

  Given that out-of-pocket expenditures on health already often represent the majority of health spending (see Table III. X), the opportunity for user fees to generate significant extra revenue for health must be limited. *(28)* In richer countries it may be true that user fees could both raise extra finance and improve the allocation of health spending.

  Tax Incentives are often a major cost to the exchequer and their abolition or curtailment could increase revenue substantially. Tax incentives are granted to promote investment. Studies show that many factors influence decisions about where to make investments. While taxation and relief from taxation can affect the decision, political and economic stability, a skilled workforce, well functioning and impartial legal and regulatory systems,good banking and financial structures, and reliable communications, can all be more important than the tax system in influencing investment *(29) (30).*

  Tax holidays are the most pernicious form of incentive. They are expensive as the revenue is wholly forgone and the budgetary cost not made explicit, they encourage avoidance, and once given they are difficult to abolish. Many governments could get rid of tax holidays and use the extra revenue for social expenditures; regretably such devices are often enmeshed in domestic political considerations and are difficult to change. Nevertheless, a drive should be made to get rid of tax holidays and the extra revenue might certainly be used to improve health care.

  Investment allowances, tax credits and accelerated depreciation allowances, all reduce the flow of revenue. They each have more merit than tax holidays as ways to encourage investment, but all conceal the true budgetary cost. The least costly is likely to be accelerated depreciation, so that if tax holidays were to be abolished, their replacement by accelerated depreciation allowances would probably improve the allocation of investment and increase government revenue for other purposes, including spending on health.

So all countries should review their tax systems to improve their efficiency. They should consider especially improvements in tax administration. Better tax administration, including stronger, more visible political and legal backing, may be less glamorous than many government activities, but in most developing countries it should be recognised that tax administration, essentially, is tax policy, and that an efficient, respected and uncorrupted tax administration enables the government to carry out all its other responsibilities; Without such an administration everything else is suspect.

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