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Tax evasion, tax avoidance and development finance

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Domestic revenue mobilisation is key to sustainable development finance – only self-sufficiency will allow the development of fully-functioning states with flourishing systems of political representation and economies reflecting societies' expressed preferences in regard to, for example, inequality. Tax evasion and tax avoidance are important insofar as they affect both the volume and nature of government finances. This paper estimates the total cost to developing countries of these leakages as US\$385 billion annually, dwarfing any potential increase in aid. An additional result suggests that doubling aid to low income countries may have little positive revenue effect but damage the strength of political representation, if full trade liberalisation is simultaneously required.

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1. INTRODUCTION

This paper considers the effects of tax avoidance and evasion on the financing of development. Although funding for new aid commitments is important, it is argued that (i) sustainable development requires developing states to approach fiscal independence, and (ii) that the annual revenue cost of tax leakages is well in excess of aid flows.

The paper proceeds as follows: first it surveys the structure of tax systems in rich and poor regions of the world and developments during the last three decades (section 2); then it sets out a simple model of all leakages, and uses existing work and new data to generate the first comprehensive estimate of the cost to developing countries in revenues foregone (section 3). Finally, section 4 concludes with a call for a new agenda. It is useful first to assess the context – both political and ethical – in which tax evasion and avoidance feature, and in which sources of development finance are considered.

Meet the ‘new’ sources, same as the old

In the light of recent commitments to increase official development assistance (ODA) to poorer countries, there has been renewed focus on identifying the most promising potential sources of new revenues which OECD country governments can allocate to development assistance. In this context, amid discussion of environmental taxes (including the airline tax backed by French President Jacques Chirac), global lotteries and the proposed International Financing Facility (IFF), the topic of tax avoidance seems somewhat out of place. Arguably however it is both the most promising long-term source of new funds for development, and also a politically attractive medium-term option.

The context of seeking ‘new’ funds for development finance is the commitment (finally achieved) to a timetable to increase aid budgets to 0.7% of GNI by 2015, and to 0.51% by 2010. In the context of high-income OECD countries with revenues typically in the range of 20-30% of GDP, there is clearly no binding fiscal constraint preventing greater allocation. The problem that does exist however is political and two-fold: first, the simple question of *obtaining* sufficient political will to carry out the commitment, even in the face of pressing domestic fiscal demands; and second, the related issue of *maintaining* that will (and that level of funding) in a future of domestic economic and political uncertainty.² Various studies have demonstrated the instability and even pro-cyclicality of aid flows, and the extent to which these undermine the benefits of aid.³

Given these problems, the criteria on which potential new sources of funds should be judged are these: will they make the problem of obtaining political support easier, and will they provide a reliable stream of funds into the future? It is clear, for example, that the IFF addresses the first criteria well, but potentially at the expense of the second: that is, while using future aid budgets to increase ODA now is politically easy since current

² Note that the conference was held in Frankfurt, with the keynote address given by a development minister whose party is widely expected to lose elections within two months. Germany is also a good example of a revenue-rich OECD country facing pressing budgetary concerns.

³ Lensink and Morrissey (2000) find that uncertainty about aid receipts has a robust negative impact on the benefits to recipient countries; Pallage and Robe (2001) find aid to be pro-cyclical and a source of macroeconomic volatility; Bulir and Hamann (2005) find ‘that the main factors underlying the volatility and unpredictability of aid have not been addressed, a situation that does not bode well for the success of the new initiatives and lending facilities that are being proposed’ (p.1).

budgets are unaffected, the possibility of maintaining aid flows after 2015 – when base levels of aid budgets are to be used to make payments on the IFF – makes the sustainability questionable at best.

The widely-recognised political difficulty of introducing new taxes has coloured the agenda in this aspect, leading to a focus on taxes in areas that are either thought to seem relatively remote to the public (e.g. on currency transactions) or can be justified by a wider appeal to public concerns (e.g. on airplane fuel). In this respect, the criteria of obtaining political will is likely to be met most easily for an alternative measure – the more effective application of *existing* taxes, forcing more agents to pay the existing (publicly-agreed) level of social contribution. As such, the best ‘new’ source for the shorter-term increase of aid budgets may be an old one.⁴

The oldest – and ultimately, the only sustainable – source of development finance is taxation in poor countries themselves.⁵ No view of a sustainable future equilibrium for these countries – however optimistic or pessimistic about the levels of human development and economic wellbeing that are likely – can rest on the assumption of permanent aid dependence. As such, the longer-term goal must be to put government revenues on a sustainable footing, consistent with the levels of expenditure demanded.

With these goals of varying time horizon, the importance of tax evasion and tax avoidance for development are evident. Tax evasion and tax avoidance have moved swiftly up the development agenda in recent years. Following Oxfam’s influential 2000 report on the “billions” in revenues lost to developing country governments through corporate use of tax havens, NGOs have become increasingly focused on the issue. The cases of Enron and WorldCom among others have brought a range of tax practices into the general public domain for the first time. The Tax Justice Network, an umbrella group reflecting wider interest among NGOs, has been increasingly successful in generating media interest and provoking a response from business.

It is not however possible to make a simple connection between taxes paid and the availability of funds with which to finance development. To begin to address the question of how tax evasion and avoidance impact on development, significant analysis is required. This can be seen by considering the following questions: Imagine a poor country in which 40% of economic activity is completely untaxed: what would be the impact (on economic activity, growth, investment and employment; on government revenues and social spending; on poverty, inequality and development) if government was suddenly able to make such avoidance completely impossible? Or imagine a rich country offering corporate subsidies in the form of tax loopholes regarding offshore business registration: who would gain and who would lose if this was declared illegal?

To consider policy to combat tax evasion and tax avoidance it is first necessary to establish the underlying objectives. Policymakers cannot be motivated by a simple moral position (e.g. that certain behaviour is ‘bad’) without exploring the implications

⁴ The speed with which anti-avoidance measures can be made effective is not clear; but it is not unreasonable to consider substantial returns over the period 2007-2015 – even if this year’s revenues may not be simply increased.

⁵ It goes without saying that the ability to raise this finance depends on taxable economic activity occurring, and that both domestic and international trade are important components of economic growth.

more fully. It is not clear on the face of it, for example, what the moral distinction should be between the following:

- tax minimisation strategies ranging from transfer pricing to the creation of special purpose vehicles or nominal transfer of headquarters;
- under-reporting;
- bribery of tax officials;
- refusal to pay;
- lobbying of governments to reduce tax liability or effective incidence of tax system;
- lobbying by multinationals of 'home' country governments to pressure 'host' country governments to the same effect; or
- lobbying via international institutions (IMF, World Bank, WTO) to achieve similar effects.

What is it that makes some or all of these either good or bad or indifferent? One can conceive of moralities which might place, for example, bribery and refusal to pay at the top of a list of bad behaviour – and who would condemn legitimate business lobbying?

Where the ultimate concern is with development however, an argument can be made that the important distinguishing factor should be the extent to which development opportunities are restricted by actual reductions in tax paid. It could be this – rather than any desire to pass judgment, nor yet any perspective on the relative power of state and the private sector – which should motivate analysis of tax evasion and tax avoidance. Any form of cosmopolitanism directed towards human development objectives could then point towards moral equivalence among the above list.

However, this approach – at least, as stated baldly here - ignores the underlying political processes. While it may be argued that such a brand of cosmopolitanism should normatively inform the views of the voting public, it is presumably the settled view of the latter on the extent of official development assistance and relative levels of contribution that must set the necessary boundaries in rich countries. Bob Geldof recognised this in leading the Live 8 concerts this summer to raise awareness and hence change those views.

Within rich countries then, the moral approach increasingly favoured by the tax justice movement is one of targeting and shaming those who appear to be shouldering a tax burden much smaller than the public might think 'fair': 'In the US, 60 per cent of corporations with at least US\$250 million in assets reported no federal tax liability for any of the years between 1996 and 2000' (p.15, Christian Aid, 2005). An example from the UK is the 2nd October 2005 article in The Observer titled 'Uproar at BAT's tiny UK tax bill' (£13m of tax paid on £9 billion of pre-tax profit over the last five years).

Within poor countries, the approach of assessing whether the tax contributions of different actors meet the settled view of citizens is often complicated by greater doubts over the effective representation achieved by political systems. Moreover, different forms of tax-reducing behaviour will have different social and political implications. This paper focuses on direct economic impacts however, and in this view the importance for developing countries of tax evasion (or any other form of tax-reducing behaviour) lies not in the form it takes but rather in its effects. The key is to consider existing tax structures in terms of their human development impact. This occurs through

both revenue and non-revenue channels, driving differing outcomes in (a) growth, (b) poverty, (c) inequality and (d) political representation. These in turn set the parameters for the human development opportunities of the population of individual developing countries.⁶ While there are then important reasons to analyse the tax behaviour of multinational companies, and the effects of tax havens, these are increasingly the subject of attention from both campaigners and researchers.⁷

Here a broader approach is taken, with a view to considering how evasion and avoidance affect the ultimate prospects for sustainable development and its financing. The paper proceeds from this basis to analyse the implications of tax behaviour and policy for development prospects. Section 3 sets out a simple model of an economy and taxation, identifying the main leakages and drawing on existing research to evaluate the costs of each in revenues foregone. It then uses a straightforward methodology to calculate, for each region of the world, the potential tax foregone through a previously under-researched channel: evasion and avoidance in the shadow economy. In this way it is able to provide an overall estimate for the total lost tax revenue in developing countries.

Section 4 then draws some preliminary conclusions on the extent to which policymakers can support development finance through changes in these areas, and makes some suggestions for an agenda for future research – an agenda which is clearly lacking. First, section 2 outlines the main differences in tax structures in different regions of the world, and highlights some significant facts.

2. COMPARATIVE TAX STRUCTURES AND DEVELOPMENTS

Figure 1 shows the main differences in tax structure between regions of the world, showing average revenues from different taxes as a share of GDP in each of the last three decades. ‘Direct tax’ includes all taxes on personal and corporate income, ‘Sales tax’ those on the sale of goods and services (including but not limited to VAT) and ‘Trade tax’ those levied on exports and imports of goods and services.

The richer countries of the world have grown their overall tax revenues since the 1970s. The EU-15 (see panel a) are characterised by total central government revenues of around one-third of GDP. The direct tax take increased from the 1970s to 1980s, but overall growth was primarily due to increases in the revenue from sales taxes. In contrast, panel (b) sees the US exhibit lower overall revenues and shows continuing growth in direct taxation only. Recall the data are for central government only; though not shown here, reliance on sales taxes at state level has increased over the same period, broadly in line with the EU experience. Japan (panel c) shows some sales tax growth, but overwhelmingly it is an increase in direct tax revenues that occurred concurrently with the country’s massive economic development during the period.

⁶ There are of course many different views of the components of human development and their relative importance – Alkire (2002) provides a useful survey of list-based approaches. I do not enter this debate here, but proceed on the basis that the main elements are sufficiently widely agreed as to be uncontroversial. Note that growth is instrumental in achieving human development goals, rather than an objective in itself. Cobham (2005) sets out the goals of taxation structures in more detail.

⁷ Tax competition is not discussed further here, though its importance should not be underestimated as a vehicle of reducing tax revenues in both rich and poor countries.

Panels (d)-(i) show the development of tax revenues in the poorer regions of the world. A number of trends are evident:

- as in the richer countries, reliance on sales tax grew consistently;
- revenues from trade taxes fell, with widespread liberalisation; and
- revenues from direct taxes typically rose from the 1970s to the 1980s, but then fell back again in the 1990s.

Latin America and the Caribbean saw fairly stable direct tax revenues, falling trade tax (with trade liberalisation taking hold) and increasing reliance on sales tax. East Asia, at roughly similar levels of per capita income, exhibited a similar pattern, albeit with lower trade tax and hence overall revenues (around 2% and 14% of GDP respectively in East Asia, compared to around 4% and 17% in the former). Aggregates for the broad CEEWA region show increases driven by a convergence of direct tax revenues towards western European levels, and great increases in the 1990s in sales tax receipts.

The Middle East and North Africa is a general exception, showing a significant and sustained reduction in each tax component, most notably in direct tax. This is driven by those countries whose vast resource wealth eases revenue mobilisation. South Asia exhibits by far the lowest contribution from direct taxation of any region, and by far the lowest total tax revenue. Despite managing notable increases in sales taxes during the period, the overall growth has been constrained by a fall in the (originally dominant) share of trade tax. Sub-Saharan Africa also increased sales tax revenues, but a fall in already low direct tax revenue from the 1980s to 1990s has restricted the overall growth here. In both these poorest regions of the world, trade taxes are responsible for more than a third of total tax revenue.

The difference in the ability of rich countries to obtain direct tax revenues (around 12-18% of GDP) and that of poor countries (typically 2-6%) is stark. A possible implication is that much more economic activity in the latter takes place outwith the scope of direct tax structures – in the informal economy. This is addressed in the following section.

There are important differences between the different regions of poorer countries, which drive important differences in ultimate policy recommendations. Cobham (2005) deals with these in more detail, but two main points can be noted:

- Low-income countries (primarily in sub-Saharan Africa and south Asia) face a critical constraint to their development in the form of low overall revenues; no successful development path can be envisaged which does not eventually lead to sufficient domestic revenue mobilisation to ensure fiscal independence;
- Middle-income countries are less revenue-constrained but face other problems – in the Middle East of weak political representation linked (at least in part) to ‘resource curse’ effects of oil wealth,⁸ and in Latin America of poverty resulting not so much from low absolute incomes as from high inequality in the distribution of income. In both cases, increasing direct tax revenues is likely to be important.

⁸ Ross (2004) finds robust evidence for the importance of taxation: ‘The tests I carry out above find no evidence to support the hypothesis that higher taxes *relative to income* lead to democratization [...] The tests are, however, consistent with the hypothesis that higher taxes *relative to government services* tend to make states more democratic’ (p.28). The implication is that states where government services are paid for through non-tax sources are less likely to enjoy democratic development.

Almost every region increased the contribution of direct taxes during the 1980s, but then saw this reversed during the 1990s. This was the period, as Emran and Stiglitz (2002) detail, during which the orthodoxy of switching to VAT-type taxation emerged. This orthodox view states that since these taxes impose a lower administrative burden on governments than systems of direct taxation, and since models show they can be relatively undistortionary, they represent the easiest option for developing countries to increase their tax revenues – not least when they are already losing trade tax revenues through liberalisation.

However, Emran and Stiglitz show that once models are adapted to allow the existence of an informal sector, the results no longer hold. In fact, ‘the standard revenue-neutral selective reform of trade taxes and VAT reduces welfare under plausible conditions. Moreover, a VAT base broadening with a revenue-neutral reduction in trade taxes may also reduce welfare’ (p.1).

More recently, empirical analysis by IMF researchers has shown that most low-income countries were completely unable to achieve even such a (welfare-reducing) compensation for lost trade tax revenue. Baunsgaard and Keen (2005) show that on average, low-income countries replaced less than 30% of the lost revenues. In other words, trade liberalisation systematically undermined the attempts of low-income country governments to mobilise domestic revenues – it increased, in fact, their dependence on relatively volatile external (aid) finance.

Some simple calculations illustrating the potential scale of these effects are shown in Table 1. Data for trade tax revenues and aid flows are scaled up on a per capita basis, to show the relative size. These turn out to be exactly equal in low-income countries, making it clear that even a doubling of aid flows to low-income countries by 2015 – as called for at the Gleneagles G8 meeting – would only allow a revenue increase at best less than a third this size, if current trade liberalisation positions are carried through the Doha round of negotiations.

A stronger effect would be to greatly increase the revenue dependence of those countries on the donors, while weakening the political representation link outlined above. At best there is a much smaller increase in revenues than doubling aid might provide, and some undermining of the taxation-representation link.

This brief analysis strongly suggests that unthinking removal of this important revenue source can do significant damage. In the low income countries for example, trade taxes represent almost 20% of non-grant government revenues. Even if the more optimistic Baunsgaard & Keen (2005) result is used, that 30% of the lost revenue can be replaced, the growth effects of liberalisation would have to be large indeed to justify the policy if revenue sustainability is treated as a serious goal. Progress in the Doha round negotiations must take the costs of liberalisation in poorer countries into account if further damage to that goal is not to result.

Direct taxation improvements may then be the best remaining option for many developing countries facing with a range of goals: greater revenue independence, lower income inequality and clearer channels of political representation.

3. A SIMPLE MODEL OF TAX: CHANNELS OF LOST REVENUES

Let all income (Y) generated by economic activity (Ω) within an economy be denoted $Y(\Omega)$. Let the country's tax system have an effective average tax rate of t %. In the absence of any leakages, the total tax revenue would be

$$T_0 = tY(\Omega) \quad \dots(1)$$

However, a number of leakages do occur.

1. Income derived from shadow economy. First, much economic activity is not reported to the authorities. This activity ranges from that of unregistered businesses, to undeclared profits of registered businesses, to profits from criminal activity (e.g. drug-trafficking), to work performed 'off the books'. The share of total economic activity is denoted s , and tax revenue will be diminished as s is larger (the shadow economy accounts for a larger share of all activity):

$$T_1 = tY(\Omega(1-s)) \quad \dots(2)$$

Much income from officially-recognised activity is also not (fully) taxed. Two main categories can be distinguished.

2. Income accruing to assets which are held offshore (typically by wealthy individuals) and are therefore untaxed. Let this share of total national income be denoted h .

This channel of tax leakage has been researched by the Tax Justice Network (2005), using various estimates of offshore assets (from the BIS and various industry sources). These are used to generate a conservative central estimate of total assets held offshore by high net-worth individuals of \$11.5 trillion across various financial asset types and property. The implied annual income is estimated at \$860 billion.

$$T_2 = t[Y(\Omega(1-s))-h] \quad \dots(3)$$

3. Corporate profits which are shifted to other jurisdictions (e.g. by transfer pricing) where lower tax rates apply. Let this share of national income be denoted p .

Multinational enterprises (MNEs) are often singled out for their ability to obtain favourable tax treatment in poorer countries, and to transfer taxable profits elsewhere. In response to recent pressure, many large companies now provide illustrative examples of their tax contribution, for example the Royal Bank of Scotland (RBS):

The UK exchequer received £2,200 million in tax directly from RBS and our staff in 2004.

This included £110 million in business rates alone. This is equivalent to:

- Working for the government alone from January through March
- Funding for nearly 600,000 school places
- A half-pence off income tax
- The salaries of 121,000 staff nurses
- The cost of building 270 brand new secondary schools
- Nearly 1.5 times the entire budget of the Foreign and Commonwealth Office
- Just under the total revenues taken from Spirit Duties

- RBS 2005, p.2.

One alternative presentation is to calculate an effective tax rate by taking tax paid as a share of profits.⁹ This yields for RBS a value of 26.6% in 2004, 26.7% in 2003 and 24.2% in 2002; somewhat below the UK's main corporate tax rate of 30%. This type of unflattering simplistic calculation has led accountants PwC to release a suggestion of how companies should report their "Total Tax Contribution", since using 'companies' published financial statements and [making] a calculation of current year tax payments to profits... may not produce a meaningful result, since, for example, profits are adjusted for tax purposes and due to timing of tax payments' (PwC, 2005, p.5).

Unfortunately systematic and comparable data on actual profits and tax behaviour of MNEs are not yet easily available. The most complete series is that of the US Department of Commerce on the accounts of US MNEs abroad. A similar calculation to that above allows effective tax rates to be calculated, and these are shown in figure 2.

While the majority of tax rates in each period is less than 30%, it is clear is that there is considerable variation. In some jurisdictions – notably Nigeria, where oil payments are the main factor – the rates are significantly higher. While there are exceptions, the rates paid are consistently lower during 1993-97 than the earliest period, 1983-86.

Tax revenues are then shrunk via each of these (offshore asset-holding and corporate profit-shifting) channels:

$$T_3 = t[Y(\Omega(1-s))-h-p] \quad \dots(4)$$

4. Tax competition. A further type of leakage occurs through downward pressure on the effective tax rate t (leading to a new rate, denoted t_c). Tax competition from competing investment locations, lobbying from wealthy individuals and corporates, international pressures and the trade liberalisation agenda may all contribute to reduce the tax rates paid by high-income individuals, large companies and importers. Even allowing for some shifting of tax burden to less mobile targets (labour and consumption), average t may fall nonetheless (as has been seen with trade liberalisation). The implications for poverty, inequality, growth, the size of the shadow economy and ultimately for development – of both a fall in revenues and the shift in incidence – are largely left for other work, but should be recognised as potentially damaging at least.

$$T_4 = t_c[Y(\Omega(1-s))-h-p] \quad \text{where } t_c < t \quad \dots(5)$$

5. Non-payment. A final leakage which may be significant is that of taxes which are due but not paid, for various reasons. The value of unpaid taxes in Kenya is calculated by the Kenyan Revenue Authority at US\$1.32 billion, in the region of 50% of all revenues (Christian Aid, 2005) – little is thought likely to be recovered. The sum of unpaid taxes each year may be denoted U :

$$T_5 = t_c[Y(\Omega(1-s))-h-p] - U \quad \dots(6)$$

Figure 3 summarises all the above leakages in an economy. In the remainder of this section the last two are ignored. The extent of tax competition's impact on revenues is of course disputed, and in fact more complicated than as modelled here since lower

⁹ Note this calculation refers to profits pre tax, goodwill amortisation and integration costs (PPTGAI).

effective tax rates *may* – depending on tax incidence and a range of economic and political conditions – lead to higher investment levels, perhaps temporarily. The extent of unpaid tax differs widely across countries, and will depend not only on administrative effectiveness but a range of factors from firm mortality rates to standard accounting practice. This is left for other work.

Focusing on leakages 1-3 within the model, since in any known economy $s, h, p > 0$:

$$T_2 < T_1 < T_0.$$

The difference $T_1 - T_2$ has been investigated in Oxfam (2000) and TJN (2005). The former found the cost of corporate tax evasion to developing countries to be of the order of \$50 billion annually (not far short of the total ODA budget). The latter provide a conservative estimate for the *global* revenue cost of offshore asset-holding by wealthy individuals of \$255 billion. A rough calculation¹⁰ suggests that around \$50 billion of this tax burden is likely to fall on developing countries, giving them a total bill for these leakages of \$100 billion per year.

This paper uses existing shadow economy data to offer the first estimates¹¹ for tax losses through the shadow economy channel ($T_0 - T_1$). The most recent, consistent data on the informal sector across each region of the world is that provided by Schneider (2005). After consideration of various approaches to estimating the size of shadow economies (including the use of surveys, of indirect approaches based on national statistics on income, labour force, transactions, currency demand or electricity consumption), Schneider favours the use of latent estimation using a dynamic multiple-indicators multiple-causes (DYMIMIC) model. This generates a comparable set of plausible results across 145 countries, expressed as percentages of the officially reported GDP statistics.

The methodology is simple. First, I assume a one-to-one relationship between economic activity and income generated: that is, reducing Ω by a factor of e.g. $(1-s)$ has the same effect on Y . This allows the tax effects of income generated in the shadow economy to be modelled. I then take data on the existing share of tax revenue in official GDP and on the shadow economy as a share of official GDP. The implied potential revenue impact is obtained by simply taking the product of the two – that is, by assuming it were possible for governments to bring the shadow economy completely into the formal sector and then tax it at current standard rates.

¹⁰ High-income countries accounted for 80% of world GDP in 2003 (WDI data). If offshore asset-holding by high net wealth individuals is assumed to be as likely in developing countries as elsewhere, then we can allocate 20% of the lost revenue to the former: or \$51bn. Two contradictory arguments can be considered in regard to this assumption: on the one hand, since tax systems are more likely to be effective in high-income countries, then individuals have greater incentives to go offshore; but on the other hand, if wealthy individuals in poorer countries are more likely to invest overseas (due to worse investment opportunities domestically), going offshore is a more natural part of the investment process (than for e.g. a US individual holding NYSE stocks). Baker (2005) estimates that *half* of the estimated \$1 trillion dollars a year of ‘dirty’ money flowing into the world banking system stems from developing and transition economies.

¹¹ To the best of my knowledge – but please contact me if this is inaccurate. A problem associated with the lack of a critical mass of research on this and related topics (see later discussion) is the somewhat scattered nature of the literature.

This inevitably overestimates the actual potential tax effect, since economic theory dictates that some activities which are worthwhile at zero tax rates and with zero administrative burden will become infeasible when these conditions are less favourable. Moreover, a law change would be required to 'formalise' illegal activities. The key potential tax gain is from the section of shadow activity relating to tax evasion on legal activities. At least anecdotally, the share of this section is likely to be much higher in developing countries than their OECD counterparts – e.g. the main or even only subjects of income tax in many sub-Saharan African countries are said to be government employees. The potential revenue increases are then likely to be most realistic in the developing countries in the sample.

Table 2 shows the key results by region, the third column the potential tax revenue increase. The results are broadly in line with the view that if most developing countries had tax administrations with the capacity (and will) to minimise evasion and avoidance, their potential revenues are not dissimilar to those of OECD countries. The outlier in this relationship is south Asia, where even this 'potential' revenue level is well below that of any other region. Sub-Saharan Africa however is in line, and even above East Asia.

Referring back to Table 1, the implied percentage changes would lead to government revenues of \$83 per capita in low income countries, as against \$54 now, and aid flows of \$10. It is evident that the potential effects of 'formalising' the shadow economy dwarf those of even doubling aid.

Finally, it is useful to express the value of foregone tax, as in the Oxfam (2000) and TJN (2005) studies, as a current dollar value. Table 3 shows this, by region. While these numbers are currently preliminary (a more thorough study will update them), they provide a strong indicator as to the approximate size of the revenues foregone. The maximum value for developing countries is \$285 billion. As noted above however, the breadth of activity within the shadow economy make such a complete 'formalisation' quite impossible. The persistence and size of a shadow economy in the world's richest countries (around 16-18% of official GDP) underline this.

A more realistic goal for developing countries would be over to reduce by, say, two thirds, the difference between the size of their current shadow economies and the OECD level. The effects of achieving such a goal are also shown in table 3, as 'feasible formalisation', and generate a value which remains in excess of that identified for other leakages: \$110 billion, for the year 2003.

4. CONCLUSIONS

The importance of being evasive

Domestic revenue mobilisation is key to sustainable development finance – only self-sufficiency will allow the development of fully-functioning states with flourishing systems of political representation and economies reflecting society's expressed preferences in regard to, for example, inequality. Tax evasion and tax avoidance are important insofar as they affect both the volume and nature of government finances.

This paper has

- surveyed the tax structures of different regions of the world, and examined changes over the last three decades;
- set up a simple model of tax revenues, and identified the three key leakages –
 - i. the income earned on assets held offshore by wealthy individuals;
 - ii. profits earned by the corporate sector and then shifted to lower-tax jurisdictions; and
 - iii. income from ‘shadow’ economic activity, carried out within the economy but not recognised by tax authorities; and
- brought together existing assessments of the first two leakages with a new calculation for the third, to arrive at an overall estimate for the potential revenue cost to developing countries of leakages from the tax system. This total is approximately \$385 billion each year:

Shadow economy:	\$285bn
<i>Of which ‘feasible’:</i>	<i>\$110bn</i>
Offshore asset-holding:	\$50bn
Corporate profit-shifting:	\$50bn

The relative size of these leakages does not provide a rationale for addressing one at the expense of other. It is important that the interrelation of attempts to minimise leakages is recognised. An attempt, for example, to address the shadow economy of Kenya without examining offshore assets and corporate profit-shifting, would have a number of unhelpful implications. First, the relative tax burden would be further shifted onto those least able to evade it. Politically this is likely to cause difficulties, and all the more so if no action is taken in regard to the other leakages. The implications for inequality and hence poverty are also potentially damaging. Second, more effective taxation in the shadow economy will push more individuals and companies into the other forms of evasion; only a concerted attempt to address each together is likely to yield real gains.

The overall absolute size of the leakages is however significant. Standing at more than twice any planned official development assistance, the results reinforce a point made in the introduction: that ultimately the best ‘new’ source of development finance will be the oldest. This is not to dismiss current efforts to finance the recent pledges of new aid, from the International Finance Facility to the France-led tax on air travel, but simply to recognise both the difference in scale compared to tax leakages and the ultimate need for sustainable (domestic) development finance. This is not however to say that development finance must be left to the poor countries of the world. The role for the richer in dealing with tax leakages is crucial, and urgent.

While serious work does exist on specific country systems (e.g. Martinez-Vazquez, 2001) or particular taxes (e.g. Bird, 2005 and Zee, 2005), the challenge faced is greater than the attention given thus far. The lack of knowledge, and lack of a critical mass of work on the future of tax policies, reflects the lack of focus that this critical issue has received.¹²

¹² See Cobham (2005) for some discussion of the reasons behind the apparent lack of attention given to taxation issues.

What is required is a new agenda for taxation and development – and one in which academics, policymakers and campaigners from all regions must play their roles. While such a new agenda must be built by the range of involved actors, it is possible to outline some features here. Putting a long-term emphasis on fiscally independent, effective states facilitating sustainable human development gives rise to a number of recommendations. First and foremost, it demands that much greater value be placed on the fiscal independence of poor country governments. It remains to be seen whether such an emphasis changes the priority given to policies such as trade liberalisation.

A second implication is that reconsideration of direct taxation is called for. As figure 1 illustrated, this has been allowed to drift since the 1980s. The increase in its importance prior to this point suggests that such a recovery may be achievable with sufficient political commitment and international support. Re-evaluation of the movement towards potentially regressive indirect taxation is also needed.

A third and related implication is that the degree of progressiveness in distribution of fiscal policy must be readdressed. In rich countries, redistribution typically occurs through income tax and cash transfers (the latter especially in the US – see Cobham, 2005). If the latter are too expensive given revenue levels, or too administratively demanding given capacity constraints, it may make little sense for poor countries to be encouraged to remodel their tax systems on those in rich countries. Alternatively, if the existence of easy evasion measures for the earners of high income and profits makes more progressive direct taxation ineffective, it suggests that the focus of any redistribution must be through transfers – with resulting implications for revenue levels and administrative capacity.

Emphasis should also of course be put on obtaining access to some of the lost tax revenues identified here. For strictly domestic evasion and avoidance, this requires greater research into countermeasures and their potential effectiveness. The development of tax bases in western European countries during the last century is proof, if it were needed, of the possibility of progress. Given current patterns of shadow economic activity, South-South cooperation may be particularly valuable in this area.

The other strand of the agenda is that which campaigners are currently most focused on: the international nature of a great deal of the leakages suffered. From automatic information exchange between OECD countries,¹³ to differential reserve requirements for dealings with businesses registered offshore, greater pressure on those jurisdictions to cooperate (including pledges of international assistance to convert economic structures into less damaging alternatives), there are a great number of proposed measures likely to produce immediate gains. Giegold (2005) articulates a number of demands that deserve serious consideration at least, including eventually an international convention on tax cooperation.

¹³ At first, the role of OECD countries is stressed. Any immediate attempts to enforce such exchange across all countries could be damaging. The benefits are likely to accrue primarily to the richer countries, where tax systems' capacity to respond to new information (and use it to obtain revenues) is likely to be higher. The costs are likely to be disproportionately borne by the poorer countries, where tax systems have less capacity to deal with additional requirements. First steps could usefully involve provide appropriate (and compatible) IT systems to developing countries' tax offices, as suggested by Kenyan Tax Commissioner Jack Ranguma at the Frankfurt conference.

In regard to corporate profit-shifting, there may be limits on the gains to be had from tightening scrutiny. Instead, transparency may be the best weapon – to bring increasing attention to the actual taxes paid. Rather than expressing shock at the avoidance of collapsed companies like Enron after the fact, NGOs and journalists might usefully focus on effective tax rates paid by existing businesses. The recent proposal by accountants PriceWaterhouseCoopers for an alternative (more complete) measure of the tax contribution of companies, to be reported in accounts, is a positive development (although of course care is required with any final outcome, that it is sufficiently precise to be meaningful – including, for example, tax contributions of employees may be unhelpful).

The specific data required to see the development of corporate tax contributions may be no more than these:

- i. gross profits in each jurisdiction
- ii. gross turnover in each jurisdiction
- iii. income tax paid in each jurisdiction
- iv. statutory tax rate in each jurisdiction

If these were typically provided for each of the last three-five years, then anomalies would be very clear. For example, if 10% of turnover but 50% of profits are reported in a low-tax jurisdiction, one might expect questions to be posed of the actual extent of value-adding economic activity occurring there.

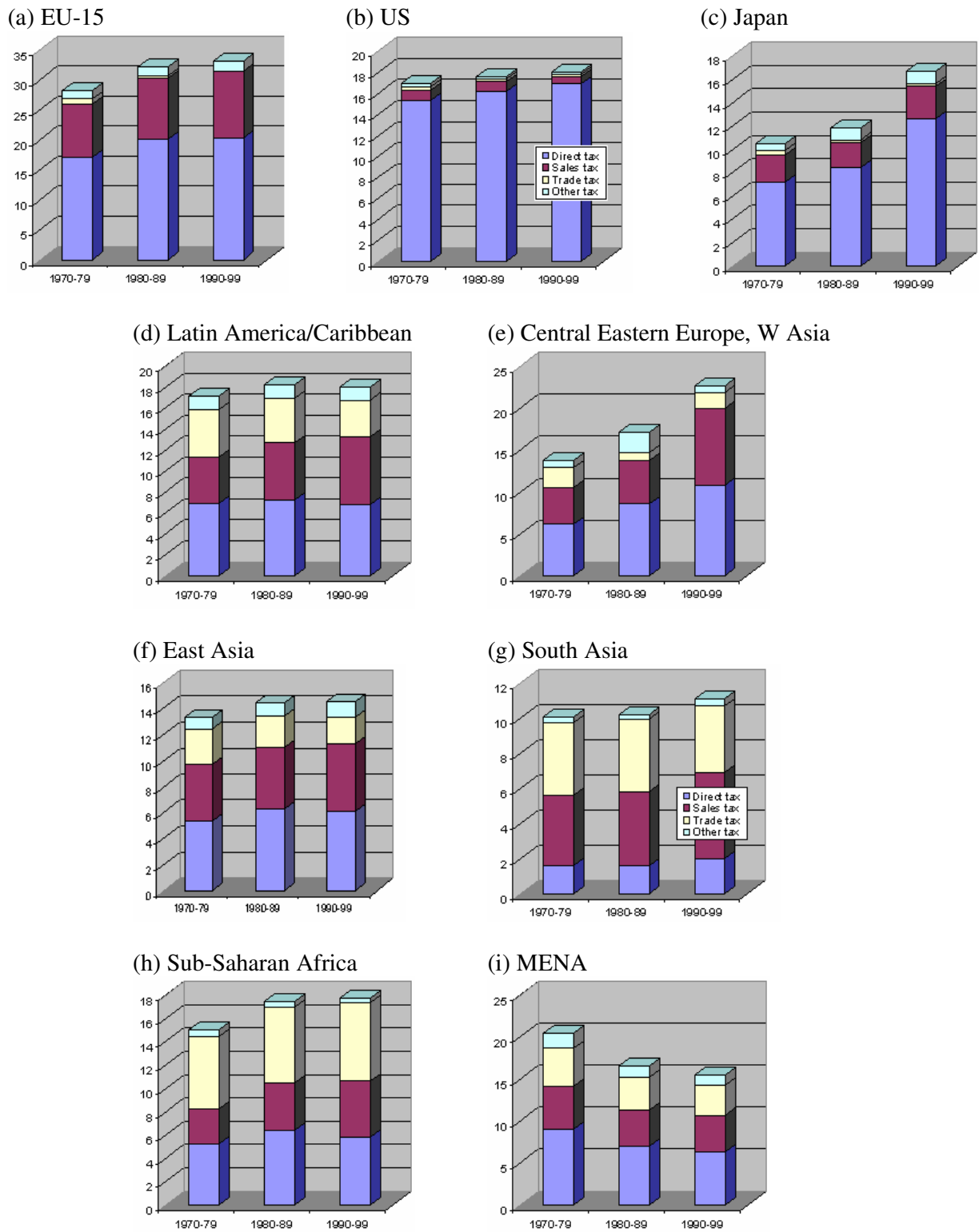
It would also be a simple matter to calculate industry benchmarks for comparison; extractive industries, for example, typically face higher tax rates, and hence it may be unfair to compare directly the performances of Shell with HSBC. Where companies feel these (easily and cheaply reported) numbers do not do their actual position justice, they would of course be able to add as much *additional* explanatory information as they wished. While questions alone will not change behaviour, they can contribute to a differing climate in which companies are under pressure not solely to maximise profits for shareholders, but also to make an appropriate level of contribution to the societies in which they operate.¹⁴

A detailed proposal for an international accounting standard to report turnover and tax by location already exists, namely that of Murphy (2003). Additional reporting requirements make both parent and intermediate companies responsible also for disclosing turnover and tax information of each related party, thereby making the obscuring of e.g. transfer pricing anomalies much more difficult. Engaging policymakers and industry bodies with such a proposal, even at a time when existing international standards are raising problems, is an important next step.

This section has set out only the broadest suggestions, such is the range of research and policy questions raised. Moving towards a more defined agenda is the next step. There may be few easy answers to the question of how best to progress long-term fiscal sustainability – but the goal is too important for the development community to throw its hands up and talk of the futility of chasing shadows.

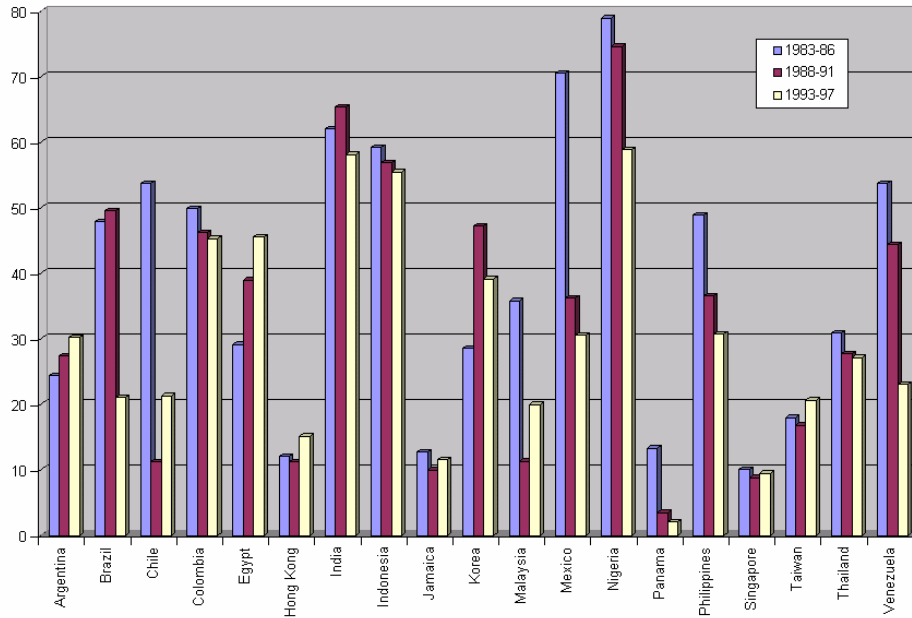
¹⁴ For example, Google's Annual Report for 2004 states: 'Our effective tax rate beginning in first quarter of 2005, and for the foreseeable future thereafter, is expected to be significantly lower than our effective tax rate of 39% in 2004. This is primarily because proportionately more of earnings in 2005 compared to 2004 are expected to be recognised by our Irish subsidiary, and such earnings are taxed at a lower statutory tax rate (12.5%) than in the US (35.0%)' (p.34).

Figure 1: Central government tax revenues (% of GDP), 1970s-1990s



Source: Cobham (2005).

Figure 2: Effective tax rates paid by US multinationals



Source: calculations on US Department of Commerce data.

Figure 3: Channels of tax leakages

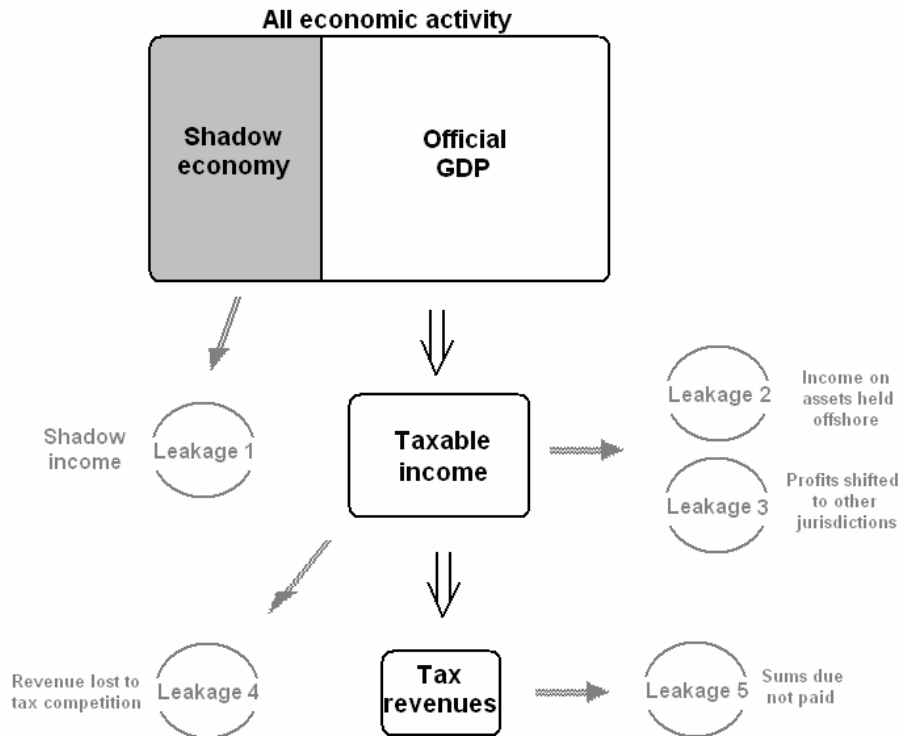


Table 1: Some simple aid economics

	GDP	Revenue, ex. grants	Trade tax	Aid	Health (public)	Education (public)	Trade tax
	US\$ per capita						% of revenues
Developing countries							
<i>By income level</i>							
Low income countries	409	54	10	10	6	16	18.2
Lower-middle income countries	1304	184	16	8	35	43	8.4
Upper-middle income countries	5463	1055	56	10	190	251	5.3
<i>By region</i>							
East Asia and Pacific	924	95	8	4	17	25	8.7
Europe and Central Asia	2094	651	35	20	84	88	5.4
Latin America and Caribbean	3646	649	48	9	123	165	7.5
Middle East and North Africa	2164	437	44	17	57	87	10.1
South Asia	460	55	10	4	6	17	17.4
Sub-Saharan Africa	495	148	14	20	13	29	9.6
High income countries							
OECD members	27210	7083	58	0	1712	1382	0.8
<i>Of which: EMU members</i>	20945	7757	12	0	1438	1042	0.2
Non-OECD	18605	4835	85	58	621	916	1.8
Memorando							
Highly indebted poor countries	294	41	9	27	6	11	22.1

Notes: Calculated from World Development Indicators (2005). Data are averages for 1999-2002.

Table 2: Potential benefits of formalising the shadow economy (% of official GDP)

	Shadow economy	Tax revenue	Potential tax revenue
Developing countries			
<i>By income level</i>			
Low income countries	32.7	10.4	13.7
Lower-middle income countries	31.5	13.8	18.2
Upper-middle income countries	29.5	16.6	21.5
<i>By region</i>			
East Asia and Pacific	21.4	9.1	11.1
Europe and Central Asia	38.1	19.8	27.3
Latin America and Caribbean	37.7	15.5	21.4
Middle East and North Africa	26.3	16.3	20.5
South Asia	28.5	9.4	12.0
Sub-Saharan Africa	41.1	20.4	28.7
High income countries			
OECD members	12.9	22.2	25.1
<i>Of which: EMU members</i>	18.5	28.4	33.7
Non-OECD	21.7	18.4	22.4

Note: Data for shadow economy refer to 2002/3 (source: Schneider, 2005). Data for GDP weightings refer to 2003 (source: WDI, 2005). Data for tax revenues refer to latest year available, typically 2002/03 (source: WDI, 2004; 2005 edition where useful update possible). I am grateful to Brent Cloete for pointing out an anomaly in an earlier version of this table.

Table 3: Potential tax revenues lost to shadow economy

	<i>Effect of 'formalising' entire shadow economy</i>				<i>Effects of 'feasible formalisation'</i>	
	Shadow economy (% of official GDP)	Tax revenue (US\$, billions)	Remaining shadow (% of official GDP)	Potential tax increase (US\$, billions)	Remaining shadow (% of official GDP)	Potential tax increase (US\$, billions)
	(A)	(B)	(C)	(D) = A*B	(E)	(F) = (A-E)*B
Developing countries		920.8		285.8		111.2
<i>By income level</i>						
Low income countries	32.7	96.6	0.0	31.6	19.5	12.8
Lower-middle income countries	31.5	557.2	0.0	175.4	19.1	69.0
Upper-middle income countries	29.5	267.0	0.0	78.7	18.4	29.5
<i>By region</i>						
East Asia and Pacific	21.4	182.2	0.0	39.0	15.7	10.3
Europe and Central Asia	38.1	268.4	0.0	102.2	21.3	45.0
Latin America and Caribbean	37.7	265.5	0.0	100.2	21.2	43.9
Middle East and North Africa	26.3	70.9	0.0	18.6	17.4	6.3
South Asia	28.5	71.3	0.0	20.3	18.1	7.4
Sub-Saharan Africa	41.1	62.6	0.0	25.7	22.3	11.7
High income countries		6367.8		828.5		90.3¹
OECD members	12.9	6298.3	0.0	813.4	12.9	0.0
<i>Of which: EMU members</i>	18.5	2329.3	0.0	430.1	14.8	86.2
Non-OECD	21.7	69.5	0.0	15.1	15.8	4.1

Notes: Underlying data as per Table 2 above. 'Feasible formalisation' refers to each group of countries reducing the difference between the size of their own shadow economies and those of high income OECD countries.

1. The total tax revenue increase for high-income countries in the 'feasible formalisation' case is \$90.3 billion if EMU members address the excess of their shadow economies over the OECD average. Evidently however if the OECD average was to remain at 12.9% of official GDP, other members would have to see an expansion and hence a lower value would emerge. This would be a curious assumption to make.

REFERENCES

- Alkire, S., 2002, 'Dimensions of human development', *World Development* 30:2, pp. 181-205.
- Baker, R., 2005, *Capitalism's Achilles Heel: Dirty Money and How to Renew the Free-Market System*, Chichester: Wiley.
- Baumsgaard, T. & M. Keen, 2005, 'Tax revenue and (or?) trade liberalization', *IMF Working Paper* 05/112.
- Bird, R., 2005, 'Value-added taxes in developing and transitional countries: Lessons and questions', *International Studies Program (AYSPS -GSU) Working Paper* 05-05.
- Bulíř, A. and J. Hamann, 'Volatility of development aid: From the frying pan into the fire?', paper prepared for IMF seminar, Maputo, 14-15 March.
- Christian Aid, 2005, 'The shirts off their backs: How tax policies fleece the poor', *Christian Aid Briefing Paper*; available at <http://www.christian-aid.org.uk/indepth/509tax/>.
- Cobham, A., 2005, 'Taxation policy and development', *OCGG Economy Section Project Paper EPP 05-01*, Oxford: Oxford Council on Good Governance.
- Emran, S. and J. Stiglitz, 2002, 'On selective indirect tax reform in developing countries', *mimeo.*, University of Columbia.
- Giegold, S., 2005, 'Combating international tax evasion and competition', paper presented at International Policy Dialogue on *New Sources of Development Financing*, Frankfurt, 24th August.
- Google, 2004, *Annual Report*, Mountain View, California: Google.
- Lensink, R., and O. Morrissey, 2000, 'Aid instability as a measure of uncertainty and the positive impact of aid on growth', *Journal of Development Studies* 36:3, pp.30-48.
- Martinez-Vazques, J., 2001, 'Mexico: An evaluation of the main features of the tax system', *International Studies Program (AYSPS-GSU) Working Paper* 01-12.
- Murphy, R., 2003, *A Proposed International Accounting Standard: Reporting Turnover and Tax by Location*, Association for Accountancy and Business Affairs; available at <http://visar.csustan.edu/aaba/ProposedAccstd.pdf>.
- Oxfam, 2000, 'Tax havens: Releasing the hidden billions for poverty eradication', *Briefing Paper*, Oxford: Oxfam GB.
- Pallage, S. and M. Robe, 2001, 'Foreign aid and the business cycle,' *Review of International Economics* 9, pp. 636–67.
- PwC, 2005, 'Total Tax Contribution Framework: What is your company's overall tax contribution?', *PwC Discussion Paper*, London: PriceWaterhouseCoopers.
- RBS, 2005, 'Media Factsheet: Annual Report 2004', 24th February, Edinburgh: Royal Bank of Scotland.
- Ross, M., 2004, 'Does taxation lead to representation?', *mimeo.*, Dept of Political Science, University of California.
- Schneider, F., 2005, 'Shadow economies of 145 countries all over the world: What do we really know?', *mimeo.*, University of Linz.
- TJN, 2005, 'The price of offshore', *Briefing Paper*, London: Tax Justice Network; available at http://www.taxjustice.net/cms/upload/pdf/Price_of_Offshore.pdf.
- Zee, H., 2005, 'Personal income tax reform: Concepts, issues, and comparative country developments', *IMF Working Paper* 05/87.