

INTERNATIONAL TAX COOPERATION AND INTERNATIONAL DEVELOPMENT FINANCE

Valpy FitzGerald, Oxford University

Paper commissioned by the United Nations Department of Economic and Social Affairs (UN/DESA) in preparation for the *2010 World Economic and Social Survey*

First draft, March 2010; revised September 2010.

Abstract

For poor countries globalization means that direct taxation has become an issue of international development cooperation rather than one of domestic economic policy. This paper examines the underlying issues which make effective taxation of foreign companies and their own residents' overseas assets so problematic for developing countries. Conservative estimates of the scale of the resources potentially available from the taxation of illicit capital flows out of developing countries turn out to be very large in both absolute and relative terms. A comparison between these potential tax resources and the existing levels of fiscal income and aid has potentially fundamental implications for cooperation between rich and poor countries. These resources could be realised if the emerging network of information exchange between OECD countries were extended worldwide and made automatic; and could form the basis for a new model of development finance derived from the principles of fiscal federalism rather than those of humanitarian charity.

1. Introduction

There is no doubt that public resources are required to fund the provision of the economic infrastructure necessary for economic development, the social expenditure necessary to eliminate poverty, and the effective states capable of ensuring citizen security and the rule of law. Many poor countries have relied, moreover, on a combination of debt and aid rather than progressive tax reform in order to fund this public provision, with serious implications for sustainability. What tax reform has taken place has mainly involved the substitution of consumer taxes for import duties; while the increased mobility of capital and access to international financial services has made it more difficult to tax profits effectively – whether those of foreign investors or indeed those of domestic wealth holders.

This paper is about tax *cooperation* rather than tax *coordination* – in other words, it is about the collection of tax presently evaded and the allocation of the resulting funds, and not about the results of international tax differentials. Although tax competition is a serious issue for developing countries (United Nations Conference on Trade and Development, 1995; Organization for Economic Co-operation and Development, 1998; FitzGerald, 2002), current international taxation arrangements pose an even greater threat to development finance for two reasons: first, the difficulties in acquiring the potential fiscal resources generated by both foreign and domestic trans-border firms; and second, the consequences of the inability to tax residents' overseas assets on both capital flight and social equity.

The effective taxation of illicit capital flows (i.e. resident and non-resident transactions that are not reported to, or recorded by, the national authorities) would provide a major resource to support necessary public provisions, increase incentives for the private sector to invest locally, and reduce the “protection” afforded to international criminal transactions by the “cloud” of tax evasion transactions going through offshore financial centres (Barrett, 1997; FitzGerald, 2004; Slemrod and Wilson, 2009). However, while developed countries in general (and the OECD in particular) have made considerable progress in tackling this problem of tax coordination between themselves over the last decade, developing countries have achieved little – even though they stand to gain more (at least in proportion to their own resources) from such an initiative.

The idea that tax cooperation is a strategic objective for developing countries within the global financial architecture is not new. It is a decade since the UN High-level Panel on Financing for Development (the “Zedillo Commission”) argued that the international community should

“... address (the) many needs that have arisen as globalization has progressively undermined the territoriality principle on which traditional tax codes are based. Developing countries would stand to benefit especially from technical assistance in tax administration, tax information sharing that permits the taxation of flight capital, unitary taxation to thwart the misuse of transfer pricing, and taxation of emigrant income.” (High-Level Panel on Financing for Development, 2001).

What is new however in this paper is (a) the argument that tax information exchange should be a key component of international development cooperation; (ii) a robust estimate of the scale of the fiscal resources that might be generated by this cooperation; and (iii) a consideration of how fiscal cooperation might transform the traditional development cooperation mechanism.

This paper does not consider “new” taxes that have been suggested, such as global levies on financial transactions or on carbon emissions. Whatever the merits of these suggestions, the administrative structure required for their implementation is still far from clear (or agreed), while the benefits to poor countries would depend upon the willingness of developed countries (who would generate the revenues) to reassign them in the form of development assistance. In contrast, what is proposed in this paper is clearly feasible: to the extent that it is already becoming best practice between developed countries themselves, it does not require new principles to be agreed and it can build on existing administrative systems and experience. It proposes no new taxes and no changes in tax rates. Instead, it is based on the effective collection of what is legally established and is already due to developing countries as of right, rather than a donation.

This paper is structured as follows. Section 2 examines the underlying issues that make effective taxation of foreign companies as well as residents’ overseas assets so problematic for developing countries. Effective income taxation thus becomes an issue of international development cooperation rather than one of domestic economic policy. Section 3 examines the scale of the resources potentially available from the taxation of illicit capital flows out of developing countries. Despite the tentative nature of such estimates, the order of magnitude is clearly large in both absolute and relative terms (although as we discuss below the regional distribution corresponds to levels of economic activity, as might be expected). Section 4 discusses the governance implications of tax cooperation on this scale between rich and poor countries, which could become the basis for a new model of development cooperation derived from the principles of fiscal federalism rather than those of humanitarian charity. Section 5 concludes by arguing that tax cooperation could be realised if the emerging network of information exchange between OECD countries were extended worldwide and became automatic.

2. Tax Cooperation and Economic Development

Globalisation involves increasing freedom of capital movement: both for firms from industrialised countries investing in developing countries, and for financial asset owners in developing countries themselves. Standard principles of international taxation suggest that the tax burden should fall most heavily on those factors of production which are least mobile, in order to maximise government income and minimise the disincentives to economic growth. There has been a corresponding shift in the incidence of taxation from capital to labour as governments have tried to maintain levels of both fiscal revenue and private investment.

International capital mobility has transformed national tax policy. Present national tax systems were designed in a post-WWII environment of trade protection, capital and labour immobility when very different rates of direct and indirect tax were feasible – but this is no longer the case (Tanzi, 1996a). Free movement of capital and opportunities for the geographical dispersion of firms create fundamental challenges for tax authorities. Different national taxation norms and interstices between tax administrations create conflicts of interest. Lack of administrative co-ordination between tax jurisdictions supports capital flight and loss of vital tax revenue.

For developing countries, tax policy needs to address revenue needs as well as severe income distribution problems, which requires redistribution of wealth (and thus capital taxes) in order to reduce poverty and increase social cohesion. In addition, much of the most productive assets in the economy belong to non-residents, while much of residents' wealth is held abroad. So capital income taxation cannot be ignored as a central development policy issue.

The traditional view of capital income taxation in open developing economies is that “residence based” taxes, which reduce the after-tax return on domestic savings by driving a wedge between the rate of return on world financial markets and the after-tax rate of return received by residents, are a tax on the ownership of capital or ‘savings’. In contrast, “source-based” taxes, which raise the required rate of return on domestic investment above the rate of return in world financial markets amount to taxes on the location of capital, or investment.

In consequence, the traditional literature suggests that a small open economy should not apply any source-based capital income taxation at all, adopting only residence-based systems (Stern and Newbery (eds.), 1985; Burgess and Stern, 1993). However, if residence-based taxes cannot be collected effectively (due to lack of fiscal information, administrative capacity or international cooperation) then capital income taxes as a whole become undesirable. In sum, the traditional result from the optimal tax literature is that “that small open economies should adopt no source-based taxes and that capital income taxes should be eliminated altogether if countries cannot enforce residence-based taxes” (Bovenberg, 1994).

This counsel of despair for both residence based and source based taxation led a leading authority to argue that withholding taxes may be the only solution to the revenue problem: “It is unlikely that an efficient and complete system of exchange of information can be developed. This leaves the alternative of using withholding taxes applied at source as final taxes.” (Tanzi, 1998). Specifically, in order to tackle the income-shifting problem, a presumptive tax could be levied on corporations on the basis of their gross assets rather than reported profits (Sadka and Tanzi, 1992).

However, international tax cooperation *can* be used to address some of these issues. One form of such cooperation, bilateral tax treaties, is already widespread. Specifically, double taxation treaties are designed in effect to provide a direct transfer between fiscal authorities and thus not affect investment decisions (Frenkel, Razin and Sadka, 1991). In practice there are two models used in the design of taxes on non-residents' assets and residents' assets

abroad, which are similar in their general provisions but have very different implications for developing countries. The OECD Draft Taxation Convention/ Model Tax Conventions (Organization for Economic Co-operation and Development, 1997) is based on residence taxation; while the United Nations Model Double Taxation Convention between Developed and Developing Countries (United Nations, 1980; 2000) is based on source (or 'territorial') taxation.

Developed countries tend to adopt the residence principle, since they usually have a net positive foreign asset position and the residence principle maximises their tax take. However, the source principle is often also adopted because tax administrators have difficulty in discerning how much foreign income accrues to their residents. Moreover, to the extent that developed countries apply both the source *and* residence principles to their own residents, they claw back tax from their own investors in developing countries; while by not taxing non-residents' security holdings they stimulate capital flight from developing countries.

A number of emerging market countries, such as Mexico and Argentina have moved from source to residence taxation in order to stimulate foreign investment and capture income from their residents' overseas assets. However, the residence principle has proved to be of limited significance in countries whose residents do not have substantial (recorded) investments in other countries, and whose fiscal administration is not well equipped to ensure its application. For developing countries a further issue is how to balance maximising their share of revenues and maintaining a climate that attracts inward investment. This involves agreements on the sharing of revenues between host and home countries that imply a net transfer between the taxpayers of home and host countries.

By adopting a tax treaty, a host country also subscribes to international rules that promote stability, transparency and certainty of treatment. Since the tax systems of the major home (i.e. OECD) countries are based on worldwide income taxation principles, their multinational companies are frequently subject to some degree of double taxation. This fact not only deters international investment, but also provides incentives for the use of tax havens to channel crossborder capital flows through the incorporation of offshore holding companies. The use of these schemes is detrimental to both the home and host country through reduced tax revenues and distorted investment inflows.

The effect of tax treaties depends on the credits and exemptions included in them in order to eliminate or reduce double taxation. When countries are at a similar level of development (and there is roughly balanced two-way investment) the implicit redistribution is not a serious problem, but when the host country is a developing country and the home country is developed, the marginal revenue is of greater value to the host than to the home country. As the flow of income generated by the investments is generally from developing to developed countries, treaties that include tax credits tend to be the most attractive to developing countries. From the point of view of developing country revenue authorities, such treaties are the only way to cover intra-firm transactions and thus overcome the problem of transfer pricing (Organization for Economic Co-operation and Development, 1997).

There are, however, limitations in these treaties that need to be addressed. The treaties become ineffective if offshore centres are used as transfer pricing points as well as for tax avoidance. Tax avoidance on a large scale worldwide is also facilitated by a lack of transparency in the way multi-national companies (MNCs) report and publish their accounts. Poorer and smaller developing countries are most vulnerable: they rarely have the necessary resources and capacity to challenge MNCs trading in their countries. The public accounts provided by MNCs represent the transactions of all the companies within the MNC group. However, the intra-group transactions, which are the basis for much tax avoidance, are not reported in the published accounts. Removing intra-group transactions from public view can make it impossible for tax authorities or anyone else to penetrate the accounts. This facilitates tax avoidance.

However, despite publishing their accounts as if they are unified entities, MNCs are *not* taxed in this way. Instead, each member company of the group is taxed individually. Given that over half of world trade is now intra-group trade (i.e. between companies under common control) and thus extremely susceptible to transfer mispricing, or routing through tax havens, the risk of tax loss is enormous. Country-by-country reporting, in contrast, means that an MNC would report in its accounts which countries it operates in, what name it trades under in each country, and its financial performance in the countries where it operates – and this information would have to reconcile with the company's main published accounts.

Moreover, a number of developing countries play a key 'offshore' role in the international investment process where tax avoidance is of particular importance. The object here is not so much to attract foreign investment as such, but rather the administration of assets and tax revenue a "process that has been described as 'tax degradation', whereby some countries change their tax systems to raid the world tax base and export their tax burden." (Tanzi, 1996b).

In sum, effective income taxation thus becomes an international rather than a national development issue. Information exchange is central to tax cooperation (Bacchetta and Espinosa, 2000; Huizinga and Nielsen, 2003; Keen and Ligthart, 2006) - although the scope and usefulness of exchanges of information are limited by political, legal, technical and administrative obstacles (Tanzi and Zee, 1999). This is recognised explicitly by the UK Government in its current international development policy:

2.48 There is increasing concern that tax systems in developing countries are undermined by international banking secrecy, including in tax havens. The London Summit made real progress on this issue, and the UK will work to ensure that the commitments on standards and sanctions are met, as well as the decision to develop proposals by the end of 2009 to make it easier for developing countries to benefit from the new co-operative tax environment.

2.49 The UK believes it is important for all jurisdictions to implement their commitments to the international standard for the exchange of tax information and will work in particular with its own Crown Dependencies and overseas territories to ensure that they can meet or exceed the agreed international standards.

2.50 Along with other members of the G20, the UK is ready to take action against jurisdictions that do not meet these international standards.

2.51 In addition the Government is discussing with its international partners whether other initiatives, including country by- country reporting of tax payments, could offer an effective and suitable means of advancing the tax transparency agenda. (Department for International Development, 2009)

3. Estimating the scale of tax revenue lost to developing countries

A plausible estimate of the sums involved in international tax evasion would give the international community a basis for understanding how much might be gained from intergovernmental coordination. Despite the evident policy value of a such an estimate, none of the relevant international agencies – such as the IMF or the OECD – with analytical resources and data generation capacity, have so far undertaken the task. The reasons for this lack of quantitative policy research are unclear. It is of course true that the macro-level data from balance of payments statistics is far from reliable, while micro-level data from corporate accounts is by definition lacking in this field. Nonetheless, comprehensive mobilisation of the data and skills of developing country tax authorities, combined with established frameworks for estimating international financial stocks and flows, would allow a good estimate to be made.

There are established methodologies for estimating capital flight (that is, unregistered and thus untaxed flows) which are accepted by international financial institutions (Ajayi, 1997; Beja, 2005). Computable general equilibrium modelling would also allow estimation of second-order effects of higher effective tax rates on capital flows (and, ideally, investment and growth) to be made. This is what has been done, for instance in estimating trade gains (and losses) to developing countries from global trade rounds (Devarajan and Robinson, 2005).

In the absence of official estimates or large-scale academic studies, the available estimates have in fact been made by international NGOs and independent research centres (“think tanks”) who have been motivated to address problems of development finance by the desire to identify funding for poverty reduction. These studies make ingenious use of available data and come to interesting conclusions, but their authors do not claim to substitute for the kind of study outlined above, for which they have neither the resources nor the mandate to undertake.

A number of such studies examine profit shifting by corporations (both foreign and domestic) in developing countries through transfer pricing, leading to tax losses for the government and – by extension – to a lack of resources for poverty reduction and economic development. On this basis, (Baker, 2005) estimates illicit financial flows for Global Financial Integrity (funded by the Ford Foundation) of the order of \$350bn a year for all developing countries; an estimate further refined in (Global Financial Integrity, 2009) for 2002-6. The method is sophisticated, using balance of payments data on unregistered capital flows as well as trade mispricing, and applying statistical filters to eliminate anomalous data. (Pak, 2007) takes a

slightly narrower approach by using US import data only, with the advantage that this allows transfer pricing to be distinguished from quality differentials in import unit value data, and estimates that \$202bn of profits were shifted out of developing countries in this way in 2005. (Global Financial Integrity, 2010) then goes on to estimate the implied tax loss from these implicit flows by applying the relevant country corporate tax rates to this data and finds that the average tax revenue loss in developing countries was \$98bn annually over the years 2002 to 2006.

The first of the NGO advocacy studies to estimate tax losses was (Oxfam, 2000) which estimated a loss of fiscal revenue to developing countries of \$38bn in 1998 on the basis of UNCTAD data on FDI stocks and rates of return. This was updated by (Cobham, 2005) to \$50bn a year for the early 2000s. Further work led by Cobham for Christian Aid focussed on trade mispricing rather than foreign investment returns as the source of profit shifting, using published estimates of mispricing margins and corporate tax rates and initially estimated a tax loss of \$160bn in 2005 to developing countries (Christian Aid, 2008). A subsequent study by Pak (Christian Aid, 2009) was more technically robust, as Pak applied his own method to US and EU trade data to measure profit shifting, to which the application of a generic corporate tax rate of 30 percent generated an estimated developing country tax revenue loss of some \$122bn a year for 2005-7. These estimates have been widely quoted in government as well as advocacy circles – for instance by (Norwegian Government Commission on Capital Flight from Poor Countries, 2009).

(Fuest and Riedel, 2009) provide an interesting critique of the first set of literature from the viewpoint of business studies. They criticise those that try to identify profit shifting by analysing international trade prices, for not taking into account quality differences within a product group. There is some merit in this critique for early work in the field; but (Pak, 2007) overcomes these problems by using micro-level import data and (Global Financial Integrity, 2009) by checking trade against balance of payments data on a country-by country basis. But the authors are correct to argue that simply multiplying results for income shifted out of developing countries by statutory corporate tax rates neglects the existence of investment incentives which mean that part of this income, even if declared, would be taxable at lower rates. A corollary of this point is that income shifting takes place for many other reasons than tax evasion – such as political instability and regulatory arbitrage.

A rather different, yet potentially complementary approach is to look at financial assets held overseas by developing country residents, but not reported to the relevant tax authority, so that income tax on the resulting income is evaded. This indeed is the main attraction of tax havens, as we have seen in Section 2 above. The only published estimate of the revenue losses due to offshore holdings of financial assets is (Tax Justice Network, 2005; 2009). TJN combines estimates of global wealth published by banks and major consultancy firms with data on financial assets held offshore from the Bank for International Settlements to reach an estimate of \$11.5 trillion in assets held offshore in 2005. These estimates of the scale of asset holdings in tax havens have recently been confirmed by comprehensive IMF data set on these ‘small international financial centres’ (Lane and Milesi-Ferretti, 2010) which indicates that

their external assets (and liabilities) in 2008 totalled some \$15 trillion. This figure is equivalent to about 12 percent of all financial assets in the world economy (see Table 2 below).

It is worth noting in this context that the large proportion of assets held in these OFCs is a regulatory issue as well as a tax issue, since bank and securities regulators cannot oversee the activities of financial intermediaries booking their transactions through OFCs. It is widely agreed that this (large) gap in the international regulatory framework contributes to global financial instability.

Assuming an average return on these assets of 7.5 percent and a tax rate of 30 percent yields an estimate of tax revenue loss of \$ 255 billion in 2005 (Tax Justice Network, 2005). (Cobham, 2005) suggests that as 20 percent of world GDP is accounted for by developing countries, a similar share in the tax loss is likely – some \$50bn a year. But this is only a conjecture because there is no data on the location of the overseas assets held by tax residents in developing countries.

The OECD sums up the current state of knowledge as:

20. Offshore financial centres, broadly defined, reduce revenue available to developing countries where they act as a destination for income streams and wealth protected by a lack of transparency and show a refusal or inability to exchange information with revenue authorities who may have taxing rights in respect of that income or those assets. Data on revenues lost by developing countries from offshore non compliance is unreliable. Most estimates, however, exceed by some distance the level of aid received by developing countries—around USD 100 billion annually. (Organization for Economic Co-operation and Development, 2010)

In order to gauge the correct order of magnitude of these losses, and to help construct a rather more robust methodology for analysing the aggregate flows, it is necessary to take into account both dimensions of the problem: *first*, the tax lost on the illicit outflow of profits (whether by foreign companies or domestic residents) in any one year; and *second*, the tax lost due to the income arising abroad from the accumulated assets owned by residents only. For the methodology to be consistent, therefore, we need estimates of both flows *and stocks* on the same basis.

In principle, to the extent that tax has been paid in other jurisdictions on these flows, there may be claims by other governments on the revenue; but this we shall ignore for the purposes of estimation at this stage on the grounds that (i) we are interested in revenues to developing countries; and (ii) the sum is unlikely to be large. Nonetheless, this would be an issue once the flows are ‘legalised’ within a bilateral tax treaty (see Section 2 above), and thus should be considered as a future cooperation issue (see Section 4 below).

Ideally we would also want to allow for the effect of a higher effective tax rate on activity levels (i.e. investment and growth) in developing countries, feeding back into modified tax income on both domestic and international activities. There is no reason to assume that this effect would be negative, because the reduced overall profitability of capital would be

balanced by the increased incentive to invest domestically. Further, it would be desirable to include the impact of the additional government expenditure on social objectives such as poverty reduction, as well on not only growth (e.g. through infrastructure provision). This would of course require a CGE modelling exercise which lies far beyond the scope of this paper.

We define the potential tax revenue (T) for a year in the following way:

The tax base (Y) is composed of two components

- The unregistered ('illicit') outflows of profits ('capital flight') in any one year (F)
- The undeclared annual income (R) from overseas assets (X) held by residents

Flows (F) and stocks (X) are clearly related, but stocks are not a simple sum of past flows because

- Only a fraction (a) of the flows (F) are attributable to residents and thus enter into the stock (X)
- The accumulated asset value (X) should also take into account the reinvested portion (b) of earnings (R), net of tax, inflation etc

The potential tax revenue (T) from this tax base (Y) depends therefore on the rate of return (r) on overseas assets ($R = rX$) and the effective corporate or income tax rate (t) applicable after incentives, deductions etc.

$$T = tY = t(F + rX)$$

$$\Delta X = aF + brX$$

In the absence of a database specifically constructed for this purpose which covers all developing countries, we use the best one available at present, which is (Global Financial Integrity, 2009). This gives the flows (F) by geographical region for 2002-6 but not the stocks. We have imputed the stocks by extending the linear trend values back for a further decade, which is clearly very conservative as it excludes earlier flows and accumulated earnings. We assume that one half ($a = 0.5$) of this stock is owned by residents in developing countries (again probably an underestimate), which we assume earned a 7percent rate of return (r) in 2006.

The GFI estimate for tax losses (Global Financial Integrity, 2010) does not take into account overseas assets, but just current flows (F). It also assumes that the official 'headline' corporate tax rate in each country (averaging around 30 percent) is in fact the effective rate, which is unrealistic. So for this estimate we have used a lower value for t of 20 percent.

The results of these calculations are shown in Table 1 below. Modifications in the assumptions would clearly change these results, but they can be taken as a conservative

estimate of the orders of magnitude involved. The overall potential yield to developing countries is of the order of \$200bn a year, with half of this is attributable to Asia (and half in turn to China) and relatively little to Africa. Although this result is, in fact, what would be expected in view of the relative regional contribution to world trade and production, the estimate for Africa seems too low, given other evidence (Ajayi, 1997) – a point we correct below.

Table 1 Estimated potential tax yield to developing regions (US\$ billions in 2006)

	Flow (F)	Stock (X)	Tax base (Y)	Potential Yield (T)
Developing Countries	858.6	3060.2	1072.8	214.6
Africa	11.0	80.2	16.6	3.3
Asia	399.4	1532.1	506.6	101.3
Europe	186.2	529.1	223.2	44.6
MENA	164.8	452.7	196.5	39.3
Western Hemisphere	97.3	466.2	129.0	25.8

Sources: author's own calculations (see text) on GFI data.

These figures can be seen in the context of international finance (we consider the relationship to ODA in the next Section) by comparison between Tables 1 and 2. The total tax loss as a proportion of developing countries' GDP is of the order of 2.5 percent, which is considerable and of a similar order of magnitude to total private capital inflows. In terms of tax revenue, the loss represents about 10 percent of revenue in developing countries; but a much larger proportion – probably one third - of corporate and income taxation revenue.

Our overseas asset stock (X) estimate is equivalent to about one-third of market capitalisation in developing economies in Table 2: in other words, about one quarter of total financial assets owned by developing country residents are held abroad. If we take into account that overseas assets are predominantly those of the wealthier section of society, the proportion of asset holdings abroad of those subject to the higher income tax rates is likely to be much higher – possibly as much as one half.

Table 2 World Market Capitalisation (US \$ bn in 2005)

	Equity	Bonds	Bank Assets	Total	GDP
<i>Market Capitalization</i>					
Advanced Economies (AE)	27855	48236	39759	115250	27863
Developing Economies (DE)	3947	3069	8075	15091	8457
World Total	31802	51305	47834	130341	36320
	<i>Equities</i>	<i>Bonds</i>	<i>Loans</i>	<i>Total</i>	
<i>DE Financing</i>	43	132	105	280	

Source: IMF Global Financial Stability Report 2005 and author's calculations

We have seen that our estimates on the basis of GFI flow data give very low figures for Africa in view of other evidence. Fortunately there is an excellent recent study (Ndikumana and Boyce, 2008) which calculates not only unregistered outflows from Africa ('capital flight') on a similar basis to GFI, but also estimates the accumulated capital flight stock. The flow data is consistent between the two studies, but the asset stock turns out to be more realistic in the former. Indeed it is widely believed that sub-Saharan Africa has the highest ratio of private capital held abroad in the form of capital flight of any developing region: (Collier, Hoeffler and Pattillo, 2004) claim that about 40 percent of African private capital was held abroad, that capital flight increased in the 1990s compared to the 1980s and that Africa leads other regions in capital flight.

However, although Ndikumana & Boyce impute a realistic reinvestment rate to convert flows into stocks, they do not seem to distinguish clearly between domestic and foreign (i.e. MNC) owners of the assets. In consequence, we have applied the same share (a) as in the previous calculation in order to estimate the net stock for 2004. Table 3 shows the results of this calculation, applying the same values of the other parameters (r , t) as in Table 1.

Table 3 Estimated potential tax yield to Sub-Saharan Africa (US\$ billions in 2004)

	Flow (F)	Stock (X)	Tax base (Y)	Potential Yield (T)
Total	8.8	303.4	30.0	6.0
of which				
Nigeria	5.8	120.4	14.2	2.8
S. Africa	11.7	8.8	12.3	2.5
Ethiopia	1.8	11.2	2.6	0.5
Cote d'Ivoire	0.5	27.0	2.4	0.5

Sources: author's own calculations (see text) on GFI data.

The difference between the estimates in Tables 1 and 3 is mainly due to the revision of the overseas asset figure (X) to a more realistic level. The main gainers from recovering the lost tax revenue would be, as expected, Nigeria and South Africa. Nonetheless, in absolute terms the gains to countries such as Ethiopia, or Cote d'Ivoire would still be considerable. In relation to output, the \$6bn yield in 2004 was equivalent to about 2 percent of regional GDP; but considering that corporate and income taxes only generate 4 percent of SSA GDP (Keen and Mansouri, 2009), this would represent a proportionately large increase.

In conclusion, the tax loss for developing countries was probably of the order of \$200-250bn a year in the mid-2000s. It is likely that the figure has increased since that data due to growth in the world economy and increased financial integration. While the current crisis may have slowed these two drivers, it has also increased the level of investor risk aversion and thus attraction of "safe havens" for mobile wealth.

4. International Tax Cooperation and International Development Cooperation

Section 3 argues that a reasonably reliable estimate of the tax income forgone by developing countries due to lax of tax cooperation in the mid-2000s is of the order of \$200-250bn. This figure is more than double the level of official development assistance (ODA) from DAC members in 2005. At first sight it might seem, therefore, that if the tax authorities in developing countries – with the assistance of their counterparts in developed countries and comprehensive action on tax evasion through offshore financial centres – were in receipt of these sums, either of two outcomes might be achievable. On the one hand, the total amount of international fiscal transfers (aid plus tax) available for development finance could be tripled. On the other, development assistance could be entirely replaced by tax cooperation while doubling the net fiscal transfer. Either outcome would presumably make the attainment of the Millennium Development Goals more likely (or at least, less unlikely).

However, this conclusion would not be sound. It is true that all developing countries would be in receipt of more resources, with the exception presumably of those developing countries which are themselves tax havens.¹ Logically, the main gainers from tax recovery would be the larger and richer developing countries, and specifically in per capita terms the middle-income countries or regions – because these are most integrated into the world economy and generate the profits which underpin tax evasion. As Table 4 implies, this relationship is logically the inverse of aid allocation – which, geostrategic considerations apart – is generally focussed on poorer countries and regions, particularly Africa. Nonetheless, as a first step, it would be reasonable to expect that, if tax recovery were realised, that middle-income countries as a group and possibly larger low-income countries with strong economies such as India could graduate entirely from ODA recipient status. This would allow aid to be reallocated entirely towards low income countries and humanitarian emergencies.

Table 4. Tax Potential and Development Assistance by Region, 2006 (US\$ bn)

	Potential Tax Yield	Development Assistance
Developing Countries	214.6	104.8
Africa	3.3	39.9
Asia	101.3	19.1
Europe	44.6	5.0
MENA	39.3	27.5
Western Hemisphere	25.8	7.3

Source: Potential Tax yield from Table 1; ODA from OECD: www.oecd.org/dac/stats/data

¹ However, given that the tax haven countries are all closely connected with advanced economies, it would be quite straightforward to reallocate a portion of the increase tax income to maintaining the incomes of their inhabitants and providing an alternative economic future for them – although not necessarily for the expatriate lawyers and tax consultants who might lose their employment. Even these latter are not as many as the volume of financial services might imply, because most if not all these services are in fact e-supplied from major onshore financial centres, particularly New York and London.

Even within Africa, although the aid flow is much greater than the potential tax yield, individual countries such as Nigeria and South Africa would gain far more than from aid, and even less prosperous ones, such as Ethiopia and Cote d'Ivoire, would do relatively well. The heavily aid dependent countries – particularly those with current or recent civil wars, would not of course be major beneficiaries. To the extent that a case could be made for reallocating tax resources within the region towards poorer countries, this could be done through regional institutions such as the African Development Bank.

Table 5. Tax Potential and Development Assistance to Sub-Saharan Africa (US\$ bn 2004)

	Potential Tax Yield	Development Assistance
Total	6.0	26.0
of which		
Nigeria	2.8	0.6
S. Africa	2.5	0.6
Ethiopia	0.5	1.8
Cote d'Ivoire	0.5	0.2

Source: Potential Tax yield from Table 3; ODA from OECD:

www.oecd.org/dac/stats/data

Finally, if we take into account that the OECD data in Table 5 also indicates that some US \$ 47 bn of aid in 2005 was allocated to middle-income countries, who would be the major beneficiaries of global tax recuperation. Reallocation of this aid allocation in recognition of the fact that they would gain nearly three times this amount from the recuperation, would allow the aid allocation to lower-income countries US \$ 41 bn in that year) to be doubled.

In most of the lower-income developing countries, therefore, international tax cooperation could not be a substitute for ODA, but could become a complementary source of development finance. This is not a strange as might seem at first sight, because although the funds are channelled through different institutions (typically ministries of finance and ministries of international development) they are both fiscal transfers from government to government, and they both have their origins in taxation. It would be logical, therefore, that the two flows should be administered in parallel, particularly because ODA in recent years has increasingly taken the form of budgetary support in cases of regular development programmes as opposed to humanitarian emergencies.

Indeed the current focus on 'good governance' as an objective of, and even condition for, aid can be seen in this light as well. In this context, increased tax revenue can be seen not only as a financial resource but also as a factor in strengthening state legitimacy:

2.46 Effective tax systems are central to effective states. Raised in ways that encourage economic growth and promote political accountability, taxes provide the resources to fund public services, leading to an eventual exit from aid dependence. (Department for International Development, 2009)

What the funds are used for would be a matter for governments to decide rather than aid donors: this would be one of the gains from the process. However, there would probably be a case for using increased resources to support economic infrastructure for at least three reasons. First, this would help to legitimise the process of tax recovery itself among the affected wealth holders. Second, by promoting growth it would help generate further revenue from corporate and income taxation (CET). And third, by in effect hypothecating these receipts to infrastructure projects, it would be possible to leverage further private investment in sectors such as power, transport and telecommunications.

The literature on the economic effects of aid does not address the relationship with international taxation. Domestic taxation is regarded as part of the process of fiscal response to aid to the extent that it affects government decisions on expenditure and borrowing (McGillivray and Morrissey, 2001). These fiscal response studies attempt to address the effects of aid on behaviour regarding total spending, tax revenue and borrowing. Results show that the effects are complex and varied, but that aid tends to be associated with government spending increases in excess of the value of the aid, and can also have the effect of increasing borrowing and reducing tax effort. The literature does not address the effect of increases in international tax income, but from the familiar literature on open economy macroeconomics it is reasonable to expect that apart from raising the rate of growth (through increased demand and import availability) the real exchange rate would tend to rise and thus exports to fall in the short run. However, the long run effect would depend upon the use of the new resources, and in particular whether they are employed to increase output and productivity in the export sector. Thus the importance of the infrastructure allocation mentioned above.

Even if increased international tax income did lead to some reduction in other sources of taxation, as the fiscal response literature suggests might happen, this could also be beneficial. Low income countries – and Africa in particular – have tended to rely on indirect taxation to a great extent. This tends to be regressive, or at least much less progressive than CET, and the switch from trade taxes to VAT has made the regressive effect even greater. A substitution of VAT by international taxation would make the tax system more progressive and thus contribute to reducing income inequality. Alternatively, if international taxation is included in the figures for CET for Africa, its share of GDP would increase by about one-half from its currently relatively low level by international standards of 4 percent of GDP (Keen and Mansouri, 2009).

Moreover, the implications of such a concept go beyond the volume of funds involved: it would imply that aid be reconceptualised as a form of fiscal decentralisation not unlike the notion of ‘fiscal federalism’ in terms of administrative practice – although not of course in terms of constitutional principle. There is of course a vast literature and growing practice on budgetary decentralisation in developing countries (Bird and Vaillancourt, 1998), but there appears to have been no attention given to considering aid in this context – despite the fact

that intergovernmental transfers for development purposes are often analysed this way, e.g. as in the European Union.

Fiscal federalism theory does suggest principles upon which tax and aid (i.e. transfers) can be related in order to overcome the familiar principle-agent problem (Bird, 1993). Accountability requires that services should be paid for by residents in the form of taxation (or charges) on which they can vote. To the extent that central government provides extra transfers, these should be for clearly defined purposes and accountable by local to central government. This at least in principle is already the notion behind budgetary support by donors to developing countries, though it is not expressed in this way (Department for International Development, 2004). To avoid disincentives to local revenue raising (or expenditure efficiency) these transfers cannot simply cover deficits (even if citizen entitlements are defined) so some estimate of fiscal capacity has to be made before calculating transfers. This 'capacity equalisation' aims to provide each local government with the funds (own revenue plus transfers) required to provide a (centrally) predetermined level of services. Because such capacity is based on *potential* rather than actual revenue, there is no disincentive to local tax collection (or indeed expenditure economies). This dimension, however seems still to be absent from budgetary support principles in ODA.

In other words, ODA based on the principle of decentralised government would not be unconditional or conditional on macroeconomic policies or reform programmes. Rather it would be conditioned by both tax capacity and performance, in the sense of actually providing the specified package of services. Both the incorporation of an appropriate measure of tax capacity in any general transfer formula and the implementation of an acceptable international monitoring system would thus be essential for such a framework.

In sum the point here is that both tax recovery and aid should be combined in a single system of fiscal cooperation; which is what aid ministries could eventually become. The implications for international development finance both conceptually and operationally would be enormous.

5. Conclusions and policy implications

At the very least, this paper demonstrates that international taxation arrangements should be seen as a vital dimension of international economic development policy, just as investment and trade rules have become. Effective income taxation of foreign companies and their own residents' overseas assets thus becomes an issue of international development cooperation rather than one of domestic economic policy. A great deal more research is clearly needed in order to pin down the potential sums involved from international data bases, and then relate these to robust estimates from developing countries' own fiscal authorities.

The specific findings of the paper are three:

- *First*, the scale of the resources potentially available from the taxation of illicit capital flows out of developing countries, despite the conservative bias in my estimates, is of an order of magnitude that is large in both absolute terms and in relation to the other international fiscal transfer – official development assistance (“aid”)
- *Second*, although the regional distribution of the potential tax resources corresponds to levels of economic activity (as might be expected) so the gains would be greatest of Asia and Latin America, even for Africa the gains would be large in relation to both aid and fiscal income for a wide range of countries.
- *Third*, the governance implications of tax cooperation on this scale between rich and poor countries are considerable and could underpin a new model of development cooperation derived from the principles of fiscal federalism rather than those of humanitarian charity.

The Zedillo Commission proposed to address the tax cooperation problem from the point of view of developing countries by creation of an International Tax Organization (ITO) to:

- “At the least, compile statistics, identify trends and problems, present reports, provide technical assistance, and develop international norms for tax policy and administration.
- Maintain surveillance of tax developments in the same way that the IMF maintains surveillance of macroeconomic policies.
- Take a lead role in restraining tax competition designed to attract multinationals with excessive and unwise incentives.
- Slightly more ambitiously, develop procedures for arbitration when frictions develop between countries on tax questions.
- Sponsor a mechanism for multilateral sharing of tax information, like that already in place within the OECD, so as to curb the scope for evasion of taxes on investment income earned abroad.” (High-Level Panel on Financing for Development, 2001)

However, the creation of an ITO is apparently not on the G20 agenda at present, though tax cooperation certainly is. Thus from the point of view of developing country revenue authorities, bilateral taxation treaties are still the only reliable way to cover intra-firm transactions to overcome the problem of transfer pricing and to capture the overseas assets of their own residents. It is necessary to ensure far more comprehensive information exchange within existing treaties than is currently the case – particularly in relation to assets in the US and the EU. Such measures, however, become ineffective if offshore centres are used for transfer pricing points as well as for tax avoidance. In consequence, the application of the US ‘pass-through’ principle to tax havens would also be essential. Country-by-country reporting could be introduced immediately by the International Accounting Standards Board (IASB), which sets accounting rules for the vast majority of MNCs.

The U.N. Code of Conduct on Cooperation in Combating International Tax Evasion has recently made a step in this direction by agreeing that

“Governments commit to... Ensure that the reliable information is available, in particular, bank account, ownership, identity and relevant accounting information, with powers in place to obtain and provide such information in response to a specific request” (United Nations Committee of Experts on International Cooperation in Tax Matters, 2009, section III. d)

However “exchange of information upon request” is not effective exchange of information because in effect it requires the requesting government already to know the information that it is requesting. This is evidenced by the very small number of requests for information that are made, and the smaller number of requests that actually are implemented. Moreover,

Automatic reporting [by financial institutions of information to the tax authorities] also can serve to increase voluntary compliance. If taxpayers know that their banks are required to report income information to the tax authorities, taxpayers will be more likely to file accurate returns regarding this income. In addition, automatic reporting enables tax administrations to implement programs that may benefit tax payers by reducing their compliance burden. (Organization for Economic Co-operation and Development, 2000)

For this reason, The UN Commission on the International Monetary and Financial System recommended recently acceptance by all countries of an amendment of Article 26 of the U.N. Model Tax Treaty to make the exchange of information automatic (United Nations Commission on the International Monetary and Financial System, 2009, para. 79).

These automatic systems already exist in practice, but almost entirely between developing countries. Examples include: (a) The European Union Directive on the Taxation of Savings which provides for automatic exchange of information on interest income paid within the EU to individuals resident in the EU; (b) A number of OECD countries (Australia, Canada, Denmark, Finland, France, Japan, Korea, New Zealand, Norway, Sweden, United Kingdom) automatically exchange bank information with their treaty partners; (c). The U.S. Internal Revenue Code provides for the automatic exchange of information by the United States with Canada with regard to interest on bank deposits in the United States by individuals resident in Canada; and (d) the United States qualified intermediary (“QI”) provisions require foreign financial institutions to provide information automatically to the U.S.

There is no reason in principle why such systems should not be implemented by developing countries particularly if they are given adequate technical support by international organisations – as already happens with (say) frontier controls. Starting with middle income countries (such as Chile, Mexico and South Africa) with experience in this field, expertise could be spread steadily. For this reason, the Zedillo Commission argued that the international community should

“Sponsor a mechanism for multilateral sharing of tax information, like that already in place within the OECD, so as to curb the scope for evasion of taxes on investment income earned abroad.” (High-Level Panel on Financing for Development, 2001).

The main obstacle seems to be offshore financial centres, many (but not all) of which are small island ‘developing countries’ despite having particular dependent links with OECD financial centres – which themselves often operate as effective offshore centres as far as non-residents are concerned. The main beneficiaries of these arrangements to prevent the exchange of information on income and wealth are not, however, the inhabitants of these developing OFCs, but rather the elites of both developed and developing countries that can avoid their legal tax obligations thereby – and thus undermine the global effort to eliminate poverty within a generation.

References

- Ajayi, S. I. (1997). An analysis of external debt and capital flight in the severely indebted low income countries in sub-Saharan Africa. IMF Working Paper No. 97/68. Washington D.C.: International Monetary Fund.
- Bacchetta, P., and M. P. Espinosa (2000). Exchange-of-information clauses in international tax treaties. *International Tax and Public Finance*, vol. 7, No. 3, pp. 275-293.
- Baker, R. W. (2005). *Capitalism's Achilles Heel: Dirty Money and How to Renew the Free-market System*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Barrett, R. W. (1997). Confronting tax havens, the offshore phenomenon, and money laundering. *International Tax Journal*, vol. 23, No. 2, pp. 12-42.
- Beja, E. L. Jr. (2005). Capital flight: Meanings and measures. In *Capital Flight and Capital Controls in Developing Countries*, Gerald A. Epstein, ed. Northampton, MA: Edward Elgar Publishing, pp. 58.
- Bird, R. (1993). Threading the fiscal labyrinth: Some issues in fiscal decentralisation. *National Tax Journal*, vol. 46, No. 2, pp. 207-227.
- Bird, R. M., and F. Vaillancourt (1998). *Fiscal Decentralization in Developing Countries*. Cambridge: Cambridge University Press.
- Bovenberg, A. L. (1994). Capital taxation in the world economy. In *The Handbook of International Macroeconomics*, F. van der Ploeg, ed. Oxford: Blackwell.
- Burgess, R., and N. Stern (1993). Taxation and development. *Journal of Economic Literature*, vol. 31, No. 2, pp. 762-830.
- Christian Aid (2008). Death and taxes: The true toll of tax dodging. London: Christian Aid.
- _____ (2009). False profits: Robbing the poor to keep the rich tax-free. London: Christian Aid.
- Cobham, A. (2005). Tax evasion, tax avoidance and development finance. QEH Working Paper No. 129. Oxford: University of Oxford.
- Collier, P., A. Hoeffler, and C. Pattillo (2004). Africa's exodus: Capital flight and the brain drain as portfolio decisions. *Journal of African Economies*, vol. 13, No. 2, pp. 15-54.
- Department for International Development (2004) *Poverty reduction budget support*. London: Department for International Development: Available from www.dfid.gov.uk/Documents/publications/prbspaper.pdf.
- _____ (2009). Eliminating world poverty: Building our common future. London: Department for International Development.
- Devarajan, S., and S. Robinson (2005). The influence of computable general equilibrium models on policy. In *Frontiers in Applied General Equilibrium Modeling: In Honor of Herbert Scarf*, T. Kehoe, T. Srinivasan and J. Whalley, eds. Cambridge: Cambridge University Press, pp. 402.
- FitzGerald, V. (2002). International tax cooperation and capital mobility. *CEPAL Review*, No. 77, pp. 65-78.
- _____ (2004). Global financial information, compliance incentives and terrorist funding. *European Journal of Political Economy*, vol. 20, No. 2, pp. 387-401.
- Frenkel, J., A. Razin, and E. Sadka (1991). *International Taxation in an Integrated World*. Cambridge MA: The MIT Press.
- Fuest, C., and N. Riedel (2009). Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature. Report prepared for the UK Department for International Development (DFID). Oxford: Centre for Business Taxation.
- Global Financial Integrity (2009). Illicit financial flows from developing countries, 2002-2006. Washington D.C.: Global Financial Integrity.
- _____ (2010). The implied tax revenue loss from trade mispricing. Washington D.C.: Global Financial Integrity.

- High-Level Panel on Financing for Development (2001). *Financing for development*. New York: United Nations.
- Huizinga, H., and S.B. Nielsen (2003). Withholding taxes or information exchange: The taxation of international interest flows. *Journal of Public Economics*, vol. 87, No. 1, pp. 39-72.
- Keen, M., and J. E. Lighthart (2006). Information sharing and international taxation: A primer. *International Tax and Public Finance*, vol. 13, No. 1, pp. 81-110.
- Keen, M., and M. Mansouri (2009). Revenue mobilization in sub-Saharan Africa: Challenges from globalization. IMF Working Paper No. 09/157. Washington D.C.: International Monetary Fund.
- Lane, P. R., and G. M. Milesi-Ferretti (2010). Cross-border investment in small international financial centres. IMF Working Paper No. 10/38. Washington D.C.: International Monetary Fund.
- McGillivray, M., and O. Morrissey (2001). A review of the evidence on the fiscal effects of aid. CREDIT Working Paper No. 01/13. Nottingham: Nottingham University.
- Ndikumana, L., and J. K. Boyce (2008). New estimates of capital flight from sub-Saharan African countries: Linkages with External Borrowing and Policy Options. Political Economy Research Institute (PERI) Working Paper Series. University of Massachusetts.
- Norwegian Government Commission on Capital Flight from Poor Countries (2009). Tax havens and development status, analyses and measures. Oslo: Ministry of Environment and International Development.
- Organization for Economic Co-operation and Development (1997). Model double taxation convention on income and capital. Paris: OECD.
- _____ (1998). Harmful tax competition: An emerging global issue. Paris: OECD.
- _____ (2000). Improving access to bank information for tax purposes. Paris: OECD Centre for Tax Policy and Administration.
- _____ (2010). Promoting transparency and exchange of information for tax purposes. Paris: OECD Centre for Tax Policy and Administration.
- Oxfam (2000). Tax havens: Releasing the hidden billions for poverty eradication. Oxford: Oxfam.
- Pak, S. (2007). Closing the floodgates – collecting tax to pay for development. *Commissioned by the Norwegian Ministry of Foreign Affairs and Tax Justice Network*.
- Sadka, E., and V. Tanzi (1992). A tax on gross assets of enterprises as a form of presumptive taxation. IMF Working Paper No. 92/16. Washington D.C.: International Monetary Fund.
- Slemrod, J., and J. D. Wilson (2009). Tax competition with parasitic tax havens. *Journal of Public Economics*, vol. 93, No. 11-12, pp. 1261-1270.
- Stern, N., and D. Newbery (eds.) (1985). *Taxation in developing economies*. Oxford: Oxford University Press for World Bank.
- Tanzi, V. (1996a). *Taxation in an Integrating World*. Washington D. C.: Brookings Institution Press.
- _____ (1996b). Globalization, tax competition and the future of tax systems. IMF Working Paper No. 96/141. Washington D.C.: International Monetary Fund.
- _____ (1998). International dimensions of national tax policy. Paper presented at the UK Expert Meeting on International Economic and Social Justice. New York.
- Tanzi, V., and H. H. Zee (1999). Taxation in a borderless world: The role of information exchange. In *International Studies in Taxation: Law and Economics*, B. Wiman, ed. The Hague: KLUWER, pp. 58-63.
- Tax Justice Network (2005). The price of offshore. Briefing Paper. London: Tax Justice Network. Available from <http://www.taxjustice.net>.
- _____ (2009). Magnitudes: Dirty Money, Lost Taxes and Offshore. Briefing Paper. London: Tax Justice Network. Available from <http://www.taxjustice.net>.
- United Nations (1980). United Nations model double taxation convention between developed and developing countries. New York: United Nations. Sales No. E.80.XVI.3.
- _____ (2000). United Nations model double taxation convention between developed and developing countries. Revised. New York: United Nations. ST/ESA/PAD/SER.E/21.

- United Nations Commission on the International Monetary and Financial System (2009). Report of the Commission of Experts on Reforms of the International Monetary and Financial System, ("Stiglitz Commission"). New York: United Nations.
- United Nations Committee of Experts on International Cooperation in Tax Matters (2009). Report of the Committee of Experts on International Cooperation in Combating International Tax Evasion. New York: United Nations.
- United Nations Conference on Trade and Development (1995). Incentives and foreign direct investment. Geneva: United Nations Conference on Trade and Development.