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The international fiscal implications of global poverty reduction and global public goods provision

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Abstract

The mixed record on the 2015 Millennium Development Goal (MDG) targets and the focus on global public goods in post-MDG debates questions the future of traditional development co-operation (official development assistance, ODA). Meanwhile, international financial crisis and fiscal retrenchment have focussed policy makers on the international dimensions of income and asset taxation. This paper explores how these two currents of economic discourse can be combined, a decade after the Zedillo Commission proposed new forms of 'innovative development finance' (IDF). Current IDF proposals involve new forms of hypothecated taxation (such as those on financial transactions or carbon pollution) and borrowing against future ODA commitments. These proposals have practical drawbacks, require new intergovernmental mechanisms and tend to perpetuate 'aid dependency'. In contrast, greater international co-operation for direct tax collection (to which the G20 is already .../

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... committed) would allow developing countries to ensure full income tax collection from their residents (both corporate and personal) through information exchange and the resulting clearing mechanism for double taxation resolution would provide the basis for prior collection of agreed quotas to fund global public goods on an equitable basis. Based on an expanded global income tax base (not new taxes or increased rates) such co-operation represents a more sustainable and equitable system than forms of IDF based on traditional ODA relationships. While a decade ago such an outcome seemed extremely unlikely, recent changes in the global political economy mean that such a transformation of development assistance might now possibly be feasible.

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1 Introduction

The approach of the 2015 deadline for the Millennium Development Goals (MDGs) established at the Millennium Summit in 2000 with several targets unfulfilled, and the emergence of pressing new requirements for global provision in the fields of health and environment have understandably generated demands for an increased commitment to international co-operation funding. At the same time, the current global financial crisis and its attendant fiscal retrenchments among traditional donors, and the pressure from emerging economic powers for a realignment of international institutions, have both led to a downward pressure on the supply of aid funds.

Under these circumstances, interest in the possibility of new and innovative sources of finance has naturally increased. In fact, the debate on 'innovative development finance' (IDF) was initiated a decade ago by the Zedillo Commission (UN 2001), which estimated 'conservatively' that an extra US\$50 billion a year in funding would be required to meet the MDGs. This initiative had been preceded by UNDP work on the concept of 'global public goods' (GPGs) as the basis for 'international co-operation in the 21st century' (Kaul et al. 1999), a concept which went beyond the familiar international co-operation issues of trade facilitation, environmental mitigation, disease control and financial stability to include peace, knowledge and justice worldwide. The UN Department of Economic and Social Affairs, on behalf of the UN General Assembly, then commissioned UNU-WIDER in 2002 to undertake research into 'innovative sources' which established an important benchmark in this field (Atkinson 2005).

Over the past decade, interest in international taxation as a means of funding international public goods has arisen from at least two sources outside the traditional development debate. The first is the concept of a 'carbon tax' to mitigate global warming both through the price effect on fossil fuel use also by funding technological change. The second is the establishment of a 'financial tax' in order to mitigate financial instability by penalizing speculative transactions and also by funding bank stabilization schemes. In addition, and possibly even more significantly for the future of development co-operation, official concern about the revenue (and thus distributional) consequences of capital mobility for income and asset tax collection—particularly on wealthy persons and large firms—has been growing for some time (Tanzi and Zee 1999). Although there has been progress in the international co-ordination of income tax collection through information exchange between the fiscal jurisdictions of advanced economies, co-ordinated by the OECD; the implications for developing countries have only recently begun to be discussed within the UN development community (UN-DESA 2012).

The UNU-WIDER brief for the present paper was: 'to prepare a paper on the intersection of foreign aid, global public goods, and the international revenue/fiscal implications of funding aid and GPG provision. To evaluate progress in this area, make recommendations for new initiatives and to discuss and evaluate their political economy'. The approach I have taken is to focus on the confluence of these two streams of thought and debate, arriving at the possibly surprising and probably controversial conclusion that the current funding shortage for international development co-operation from traditional national budgetary sources (ODA) may well create the opportunity for a sea-change in the traditional donor-recipient fiscal relationship.

Table 1 illustrates the dimensions of the problem. The current global expenditure on development assistance and global programmes (primarily health and environment) is of the order of 0.25 per cent of global GDP; which can be seen as the order of magnitude of what I call the 'global public goods levy'. If this levy is funded by an equal per capita tax worldwide (a global poll tax), then this would be equivalent to roughly US\$25 per person per annum but the distributive effects are extremely regressive as this represents over 1 per cent of incomes in Africa and less than 0.1 per cent in advanced economies. A more equitable 'global income tax' of 0.25 per cent of GDP produces not only the same level of funding, but a large net transfer towards poorer countries which reflects the objectives of development co-operation programmes. A 'global activity tax' based on a country's participation in world trade produces a similar result. The challenge of innovative financing for development, therefore is (a) how to raise new funding of similar orders of magnitude to in effect double the levy; and (b) maintain the distributive criterion on burden sharing at least in proportion to income per capita.

Table 1: Alternative distributions of the global public goods levy

	Shares of World		GPG levy as tax burden					Implicit net transfer			
	GDP	Trade	Popn		obal me tax	Global ta	•	Global	poll tax	less (poll tax global ne tax
				% Y	US\$/ cap	% Y	US\$/ cap	% Y	US\$/ cap	% Y	US\$/ cap
World	100.0	100.0	100.0	0.25	25	0.25	25	0.25	25	0.0	0
Advanced	51.1	62.3	15.0	0.25	85	0.30	104	0.07	25	-0.18	-60
Developing	48.9	37.7	85.0	0.25	14	0.19	11	0.43	25	0.18	11
of which											
CIS, E&CE	7.8	7.4	6.8	0.25	29	0.24	27	0.22	25	-0.03	-4
Asia	25.0	16.1	52.1	0.25	12	0.16	8	0.52	25	0.27	13
LAC	8.7	5.5	8.4	0.25	26	0.16	16	0.24	25	-0.01	-1
MENA	4.9	6.6	5.7	0.25	21	0.34	29	0.29	25	0.04	4
SSA	2.5	2.1	12.1	0.25	5	0.21	4	1.21	25	0.96	20

Notes: Assumptions: world population = 7 billion; world GDP = US\$70 billion; total levy = 0.25 % of world GDP.

Sources: IMF Word Economic Outlook database and author's calculations.

Section 2 of this paper re-examines the proposals in the original Zedillo Commission and the subsequent Atkinson study, with particular reference to their proposals for new sources of international taxation, given that their other main proposals are in effect re-allocations of existing fiscal resources. Progress on the main proposals is assessed in terms of both the income raised and the distributional implications.

Progress over the past decade on innovative financing is examined in Section 3. The main focus is on carbon tax and transaction tax initiatives, for two reasons: they both are capable in principle of raising sums of the right order of magnitude; and they are both endowed with considerable political support worldwide. However, they both suffer from three weaknesses:

first, that they require new international institutions for their administration; second, that their revenues are already hypothecated to specific ends; and third, that they do not have an intrinsic commitment to redistribution towards poor countries. Further, even if these new resources were partly committed to development funding, the traditional donor-recipient relationship would be maintained or even strengthened.

Section 4 presents in condensed form, therefore, an analysis of the slow progress—led by the OECD—towards effectively supporting developing country fiscal authorities in the quest to effectively collect the tax due on the incomes of foreign firms and from the overseas assets of their own residents. I argue that the scale of extra resources that could be generated thereby is large in relation to the development funding needs while not requiring a new international executive agency or indeed new tax instruments or even alteration of existing tax rates. In other words this effective extension of the tax *base* by international co-operation in information exchange could be said to be the most 'innovative source of development finance'; despite it not having been considered in the original debates a decade ago.

The issue of the implications of international tax co-operation on distribution of development co-operation flows is discussed in Section 5. On the one hand, the main beneficiaries would be logically the middle-income countries, which would allow existing ODA funds to be redirected towards the poorest countries. The replacement of ODA by fiscal transfers would make the budgetary relationship more explicit and allow the principles of fiscal federalism to be applied. On the other hand, the open negotiation of fiscal transfer between developed and developing countries, and the determination of mechanisms to avoid double taxation, could provide the basis for funding global (and regional) public goods provision without a separate hypothecated tax.

Section 6 concludes with a consideration of the current drivers for change in international tax co-operation and the suggestion that there should be much greater engagement between debates on this topic and those on international development finance.

2 Background: development co-operation, innovative finance, global public goods and international taxation

In 2001, the United Nations High-level Panel on Financing for Development, chaired by former Mexican President Ernesto Zedillo, recommended a number of strategies for the mobilization of resources to fulfil the commitments previously made by donors at the United Nations Millennium Declaration to sustained development and poverty eradication. The Panel made a strong case for tapping international sources of financing for the provisioning of global public goods: including the prevention of contagious diseases, research for the development of vaccines and agricultural crops, combating climate change, and preservation of biodiversity.

While there were then (nor are now) no generally accepted estimates of the financing needs for meeting international development goals and global public goods, it was already clear to the Zedilo Commission that needs tend to exceed by far the funds available for such purposes. ODA has in fact increased since the adoption of the Millennium Declaration, reaching US\$133 billion in 2011. Yet flows would need to more than triple in order to meet the long-standing United Nations target of 0.7 per cent of donor-country gross national income (GNI); which even assuming that donors are still only the 'advanced economies'

which account for half of world income, would be equivalent to some US\$500 billion a year. Immediate prospects for meeting that target any time soon are poor, given fiscal pressures in donor countries. There are additional concerns that ODA has not been a very stable and reliable source of financing.

Of course ODA itself is a 'global equalization scheme' (Boadway 2005). The use of tax revenue from the better-off nations to finance development assistance for less well-off nations—effectively, a modest international fiscal equalization system—represents a purely redistributive source of revenue. It is also the preferred *global* form of redistributive taxation to the extent that one accepts the argument that vertical redistribution among households is the responsibility of nations themselves. An appropriate criterion for determining the allocation of tax burdens among nations is *fiscal equity*: a nation's contribution should be related to its ability to provide some international standard of public services and redistributive transfers to its citizens at comparable levels of taxation. As Boadway points out, the advantages of the fiscal equity criterion are that it can be defended theoretically on normative grounds, and that it is used in practice within decentralized national budgetary systems—particularly those based on federal constitutions.

Considerations of fiscal equity are also important in assessing proposals for international taxes such as those on carbon emissions or financial transactions discussed in Section 3 below. In principle, international agreement should be possible for a harmonized increase in taxes of these types, given that non-co-operative tax competition is responsible for their low equilibrium tax rates. However, there are significant problems with relying on such taxes for financing new development assistance. First, there is a divergence of interests between net fiscal losers and gainers that makes a co-operative solution difficult. Second, the incidence of these taxes is unlikely to correspond to fiscal equity considerations, so they may not be regarded as 'fair'. Third, in the absence of an agreed need for development assistance, co-operative agreements on taxing mobile taxbases would likely lead to the taxes collected being returned to the nation of origin.

Moreover, there is no agreed definition of 'innovative development finance' itself. The UN Leading Group on Innovative Financing for Development describes it as comprising all mechanisms for raising funds for development that are complementary to official development assistance, predictable and stable, and closely linked to the idea of global public goods (UN-DESA 2012). According to the Leading Group, innovative development finance should thus be linked to the process of globalization, either through taxing sectors considered to have gained most from globalization, such as the financial sector, or by taxing global public 'bads', such as carbon emissions.

The United Nations defines those innovative finance mechanisms falling within the realm of international public finance, that support international development goals and provisioning of global public goods, as those which involve: (a) official sector involvement, including the use of public sector resources, as well as arrangements in which official financing plays a catalytic role in leveraging private sector and/or philanthropic resources; (b) international cooperation and cross-border transfer of resources to developing countries; (c) innovation, in the sense that mechanisms are used in a new context or incorporate innovative features with respect to the type of resources or the way they are collected, or their governance structures; and (d) generate additional development financing over and above existing ODA (UN-DESA 2012).

The influential UNU-WIDER study of this topic, commissioned by the UN-DESA, took as its analytical point of departure the established theory of public finance and applied these principles to the global economy in general and development co-operation in particular (Atkinson 2005). This would seem to be the most rigorous way to approach the issue, although by 'established theory' in this context, the authors clearly mean the European welfare economics tradition (Jha 1998) which informs the UN approach to economic development, rather than North American public choice theory (Cullis and Jones 1992) which would logically lead to radically different proposals. The UNU-WIDER study considered seven proposals (Atkinson 2005: 4):

- 1. global environmental taxes (carbon-use tax)
- 2. tax on currency flows ('Tobin tax')
- 3. creation of new Special Drawing Rights (SDRs)
- 4. international Finance Facility
- 5. increased private donations for development
- 6. global lottery and global premium bond
- 7. increased remittances from immigrants.

In fact, only the first four of these seven proposals can really be considered as new forms of development finance in the UN definition and are the ones discussed in the rest of this paper.

Of the remaining three proposals, private donations (Proposal 5) have increased over the past decade and OECD statistics indicate that 'net grants by NGOs' have risen from US\$7 billion in 2001 to US\$31 billion in 2011, compared to ODA which was US\$53 and US\$134 billion respectively (OECD 2012: Table 2). In other words the private share of the combined total rose from 12 to 18 per cent. To some extent this reflects better recording of private donations by the OECD; and of course to a considerable extent these flows are financed by income tax deductions accruing to private donors—possibly as much as one half. There are however, widespread doubts about the lack of integration of private sector aid programmes into recipient countries' governance systems, health being the most problematic example. There is little indication moreover that the current flow can be increased substantially.

The idea of a global lottery (Proposal 6) has not been taken up, despite the evident success of such schemes at the national and even regional (e.g. EU) level—possibly because this might compete with existing schemes focussed on charitable provision. Moreover lotteries seem in practice to rely on purchases from the poor and vulnerable and are thus regressive in the fiscal sense.

Migrant remittances (Proposal 7) have of course increased substantially over the past decade. Remittance flows to developing countries are estimated by the World Bank to have totalled US\$401 billion in 2012, and thus are about three times ODA flows. While these intra-family flows undoubtedly support relatives remaining at home, and allow for some savings for investment on return, they cannot be considered to be 'innovative developement finance' under the UN definition. Indeed these are factor payments for labour exports, not a form of finance at all.

Returning to the first four of the UNU-WIDER proposals, the IFF (Proposal 4) has got off the ground, although its impact is limited, and is discussed in Section 3 below. The tax on currency flows (Proposal 2) has not prospered, but the closely related Financial Transactions Tax has gathered considerable intergovernmental support (at least in the Eurozone) and in

principle will be implemented in 2014. However, the revenue is not destined for development funding. This too is discussed in Section 3 below. Finally, global environment taxes (Proposal 1) have not yet been implemented or are likely to be in the near future, despite intergovernmental commitments stemming from Kyoto. However political pressure is such that eventually they are increasingly levied at the national—and regional (e.g. EU)—level and are thus a real possibility in the longer run. This too is discussed in Section 3.

The main concept underlying Proposal 3 entails using SDRs to purchase long-term assets. The attraction resides in the ability to tap the large pool of 'unused' SDRs, in order to invest them either for development purposes or, as in one proposal, in equity shares in a Green Climate Fund (UN-DESA 2012). Through regular substantial SDR allocations, over US\$100 billion in development financing per year could be raised. An argument against this is that it would breach the very purpose of SDRs, which were created solely for transactions of a purely monetary nature. Leveraging them in such a way as to expose their holders to risks of illiquidity would distort the purpose for which they were created. The viability of the proposal may thus be seen to depend on how much risk would be involved and on designing the financial instrument for leveraging SDRs carefully enough to maintain its function as a reserve mechanism. The risks may be limited as long as the proposal is restricted to leveraging 'idle' SDRs, which is similar to the existing practice of a fair number of countries of moving excess foreign currency reserves into sovereign wealth funds.

It has, in the past, proved difficult to secure the necessary support for SDR allocations and there is no indication that this will change in the future. Moreover, in the absence of an amendment to the IMF Articles of Agreement a very small share of any new allocations would accrue to low-income and least developed countries (3.2 per cent and 2.3 per cent, respectively). Orienting the resources raised for development would therefore require establishing additional financial mechanisms, for example, through creating trust funds or using SDRs to purchase bonds from multilateral development banks. Proposal 3 is not discussed further in this paper, therefore.

As part of the same UNU-WIDER project on development finance, Boadway (2005) points out that to the extent that certain types of activities give rise to externalities that transcend borders, taxes on these transactions would be potentially efficient sources of financing for global use. However, international agreement is obviously needed in order to establish the authority to implement such a tax; either by a dedicated intergovernmental agency or individual nations could be entrusted with collecting the tax and turning the proceeds over to an international authority. The global externality tax (or taxes) would at least partly displace national taxes that are already in place; so that some account would have to be taken of this. A global externality tax system could also reduce fiscal inequities between donor and recipient nations at least; but would also create the potential of crowding out of development assistance rather than additionality. Boadway concludes that

Despite these problems, it is difficult to argue against 'free' revenues that can be obtained from a tax on global externalities. Presumably the same principle would apply to obtaining revenues from the use of world resources that are not owned by any nation. Thus, valuable resources from international waters (fish, minerals, etc.) and the use of the atmosphere or outer space, such as by satellites, might be regarded as legitimate common property resources of the world community (Boadway 2005: 236).

Last but not least, the issue in not just one of new fiscal sources of development finance but also one for national fiscal authorities of maintaining revenue in a global economy and ensuring that it is levied in a manner that is progressive and reduces (or at least does not increase) inequality. The erosion of the direct tax base has recently become a major concern for the advanced economies (OECD 2013). However, 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 for both capital flight and social equity of the inability to tax residents' overseas assets. To put this point another way, the problem is not only one of the tax *rate* applied, but also—and more importantly—of the tax *base* to which these rates are applied.

Globalization involves increasing freedom of capital movement: both for firms from industrialized 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 maximize government income and minimize 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.

This paper argues that to tap new resources on a significant scale requires the strengthening of international tax structures, which currently allow citizens and firms of (or in) developing countries to avoid, evade and defraud national tax systems. Co-operative arrangements among sovereign jurisdictions could offer the possibility of increasing public revenues in many countries. This could potentially allow some countries to exit from the international aid system altogether, so that funding could be shifted towards the poorest countries.

However, before presenting this argument it is necessary to examine the three tax-based proposals that are feasible to the extent that they now enjoy considerable international and intergovernmental support: capitalization of future ODA; environmental pollution charges and financial transactions levies. To these we now turn.

3 New sources of development finance in the 21st century

A number of innovative financing initiatives have been launched over the past decade. Many of these have been used to help finance new global health programmes (mainly AIDS and tuberculosis) and some to finance programmes for climate change mitigation and adaptation. While international taxes (including a levy on air travel) have added to public funds for international co-operation, so far, these innovative mechanisms have not proved to be major fundraisers. In all, the *WESS2012* estimates that only some US\$5.8 billion in health financing and US\$2.6 billion in financing for climate and other environmental protection programmes have been managed through such mechanisms in the decade between 2002 and 2011 inclusive. This represents less than US\$1 billion a year or little more than 0.5 per cent of the overall ODA programme.

In this Section, the three types of innovative financing than can be regarded as 'on the table' are discussed: capitalization of ODA budget commitments; financial transaction levies; and environmental pollution charges.

3.1 Capitalization of aid flows

Recently developed mechanisms termed 'innovative development finance' are largely the result of applying financial engineering to donor governments' future aid commitments. The principal aim of the first type is to secure financial resources for immediate use for development purposes. The International Finance Facility for Immunization (IFFIm) is one such mechanism. It binds ODA commitments over a long period (6-23 years in practice) and securitizes those commitments to provide funds for immediate use by the GAVI Alliance.

Debt conversion mechanisms, such as the Debt2Health scheme and debt-for-nature swaps, also fall within this category. Resources are freed up through cancellation of debts owed to bilateral creditors or by purchasing commercial bank debt at a discount on the secondary market. Part or all of the associated debt-service payments are redirected to a specific public use or non-governmental project, most commonly in the field of health or the environment.

These mechanisms have not mobilized additional funding; further, the amount of redirected resources has been relatively small. IFFIm has received donor commitments totalling US\$6.3 billion over a five-year period, generating a front-loaded fund of US\$3.6 billion, of which US\$1.9 billion has been disbursed since its establishment in 2006. Disbursements have been limited in part by the need for a very high level of liquidity to maintain creditworthiness. IFFIm disbursements will be offset in the long term by the diversion of ODA to service IFFIm bonds. The main benefit of these mechanisms clearly lies not in the raising of new resources, but rather in their hypothecation to an agreed (among donors at least) aim of global public goods provision.

Debt-forgiveness to debt-distressed countries cannot be considered innovative development financing, as it does not directly generate any new stream of financial resources. Indeed the process largely involves the diversion of ODA streams into the writing down of donor 'assets' in the form of unrepaid loans to developing countries—mostly themselves the result of either earlier credit guarantee schemes for private sector exporters or the pressure to fully service debts to multilateral institutions—particularly the IMF and the World Bank. No systematic data on 'debt-for-development' swaps is available. In the aggregate, the amount of resources generated through such mechanisms has been modest thus far. For instance, between 2007 and 2011, US\$107 million in resources was freed up through debt conversions for use by the Global Fund under the Debt2Health scheme.

A second type of mechanism tries to secure funds to cover certain public-health and natural disaster risks through internationally arranged guarantees or insurance schemes. Under advance market commitments, which constitute one such scheme and are used mostly for disease prevention, ODA or funding from private philanthropic sources or both are utilized to guarantee a predetermined level of demand and prices for a particular technology intensive good (such as pneumococcal vaccines) with a view to providing an assured market for producers so as to incentivize product development. Under the Affordable Medicines Facility—malaria (AMFm), a pilot scheme managed by the Global Fund to Fight AIDS, Tuberculosis and Malaria, lower prices are negotiated with producers of artemisinin-based combination therapies for malaria, in return for an assured market and a temporary subsidy, as a means of displacing older and less effective (but cheaper) alternatives from the market. By the end of 2011, the pilot advance market commitment for pneumococcal vaccines had secured US\$1.5 billion in funding from bilateral and philanthropic sources, while the amount raised by the Affordable Medicines Facility—malaria was somewhat smaller, US\$312

million (including US\$180 million of financing, provided by UNITAID and sourced from the innovative air-ticket levy).

Even in the health sector, where it is most developed, innovative development financing has not, reached a significant level relative to health expenditure. In only 12 very low income countries (mostly in sub-Saharan Africa) do innovative financing mechanisms account for 2 per cent or more of public-health spending, and in no case does the figure exceed 4.4 per cent. In countries with income per capita of more than US\$1,200, the figure rarely exceeds 0.2 per cent (UN-DESA 2012). Only the Caribbean Catastrophe Risk Insurance Facility appears to be functioning effectively, having made several payouts, including to Haiti following the 2010 earthquake.

In addition, the challenges posed by vertical health funds have been recognized for decades. The funds have generally been justified as temporary means for achieving short-term results pending the development of effective health systems. However, health programme silos have become more widespread and tensions between vertical-funded programmes and national health systems remain. Moreover, country experiences show that resource availability for global health funds does not necessarily translate into stable and predictable flows for individual recipients: country level disbursements by both the Global Fund and the GAVI Alliance tend to be more volatile than traditional ODA flows.

3.2 Environmental pollution charges

Most of the resources raised to date under the rubric of innovative financing for development have been devoted to health. However, the expectation is that, in the near future, substantial amounts of additional finance will become available for climate change mitigation and adaptation, which would be channelled through dedicated funds managing allocation for specific end uses. In the area of climate finance, most initiatives focus on mobilizing resources for programmes for climate change mitigation, which have a clear global public-good nature, but few on addressing developing country adaptation needs. Mitigation programmes account for about two-thirds of the resources channelled through innovative financing mechanisms. Overall, existing mechanisms tend to prioritize financing global public goods rather than supporting broader national-level development processes.

Climate funds more generally have been closely aligned with their goals and, in some cases, have been strongly results-oriented, while generally maintaining a commitment to country ownership. They also have the potential to provide stable and predictable levels of funding. An important caveat relates to uncertainty about the durability of many of these funds. As in the case of global health funds, the proliferation of climate funds in recent years has contributed to the fragmented nature of the international aid architecture. This is despite the fact that the 1997 Kyoto Protocol to the 1992 United Nations Framework Convention on Climate Change mandates only that higher-income countries make specific targeted reductions, as those countries are responsible for most of the man-made concentrations of CO₂ in the atmosphere and are best able to bear the economic burden. By comparison, the Stern Review estimated that stabilizing the concentration of greenhouse-gas emissions in the atmosphere at a maximum of 550ppm CO₂ by 2050 would mean cutting total greenhouse-gas emissions to three quarters of 2007 levels; and cost approximately 2 per cent of world GDP and thus require the present world level of global public goods funding (see Table 1) to be multiplied ten-fold.

Discussion continues on the issue of appropriate policies for reducing greenhouse gas emissions and for mobilizing more automatic, assured and substantial additional flows to finance climate change mitigation and adaptation. The most straightforward approach to reducing emissions through financial incentives would be to impose a tax on carbon dioxide (CO₂) emissions so as to encourage economic actors to reduce the emissions under their control, through shifting, for example, to less carbon-emitting activities and energy sources. In this vein, a tax of US\$25 per ton of CO₂ emitted by developed countries could be expected to raise US\$250 billion per year in global tax revenues; more than doubling the present world level of global public goods funding (see Table 1).

If global policy could be designed as if for a single economy, then a single global tax could be set (and adjusted over time) to steer overall emissions in the direction of a particular target to be achieved by a particular date. However, the world is made up of many countries which would experience different impacts on overall consumption and production from a single tax. The differential impact of a uniform carbon tax would cause objections to be raised by Governments and could frustrate agreement on the tax, especially since it is unlikely that those making the smallest sacrifices under a uniform tax would fully compensate those making the largest. Last but not least carbon taxes can be highly regressive as fuels (directly or indirectly) make up a larger proportion of the budgets of the poor.

In 2010, the European Commission considered implementing a pan-European minimum tax on pollution permits purchased under the European Union Greenhouse Gas Emissions Trading System (EU ETS) in which the proposed new tax would be calculated in terms of carbon content rather than volume, so that fuels with high energy concentrations, despite their subsequently high carbon content, will no longer carry the same traditionally low price. According to the European Commission, the new plan will charge firms a minimum tax per metric tonne of carbon dioxide emissions at a suggested rate of $\mbox{\em 4}$ to $\mbox{\em 6}$ 0 per tonne of $\mbox{\em CO}_2$.

Channelling the funds for international co-operation would require a separate political agreement, such as the 2009 Copenhagen Accord through which developed countries promised to provide US\$30 billion over the period 2010-2012 (with pledges made so far coming close to that amount) and US\$100 billion per year by 2020 in new and additional resources to support climate mitigation and adaptation programmes in developing countries. So far these funds have been mostly channelled through the Global Environment Facility (GEF), an environmental funding unit in the World Bank with a mandate on biological diversity, climate change, international waters, ozone layer depletion, land degradation and persistent organic pollutants. However the current level of spending by the GEF is relatively small (about US\$3 billion a year, of which US\$0.5 billion from its own resources and the rest from other agencies, mainly the World Bank).

3.3 Financial transaction levies

Keynes (1936: 105) and subsequently Tobin (1978), proposed a Financial Transactions Tax (FTT) as a way of reducing short-term speculative currency flows, which should tame exchange rate volatility, limit speculation and raise tax revenues. During the current global financial crisis support for a FTT has moved from academic and NGO fringes into the policy mainstream. A FTT has two goals: reducing financial market risk and potentially preventing asset price bubbles; and raising revenue for the government from the financial sector, which

can be used to meet the cost of financial crises. In general, FTTs have been proposed not only in the realization that the volume of relevant financial transactions would be reduced but also that such a reduction would be part of the rationale for such taxes (Arestis and Sawyer 2013).

The traditional proposal has been for a very small currency (spot) transactions tax. However, to cover the global financial market adequately, such a tax would have to be extended to London and New York, and the US and UK governments appear to have little or no appetite for an FTT in general and currency transaction tax in particular. A revenue estimate for Global Currency Transaction Tax is cited by the IMF (Matheson 2011) which would generate some US\$33 billion a year on spot currency transactions (the original Keynes-Tobin proposal) at a rate of 0.005 per cent; but by far the greater part of this would come from USD and GPB transactions, and only US\$6 billion from EUR.

When the IMF presented its interim report for the G20 in 2010 (Claessens et al. 2010), it laid out three options: a tax on bank assets, a financial activities tax (FAT) and a third option (which was not promoted but not ruled out), a financial transaction tax (FTT). The IMF stated that a FTT 'does not appear well suited to the specific purposes set out in the mandate from the G-20 leaders' and preferred the FAT which would be explicitly tied to the building up of an international bank bailout fund, but conceded that 'The FTT should not be dismissed on grounds of administrative practicality'. The G20 leaders then declared that a 'global tax' was no longer 'on the table', but that individual countries would be able to decide whether to implement a levy on financial institutions in order to recoup bailout costs and provision for future crises.

The European Parliament voted in 2011 to support an EU-wide financial package to be introduced after 2014, involving a financial transaction tax (EU FTT) proposed by the Commission within the 27 member states. The tax would not be a currency trading tax, but rather would only impact transactions between financial institutions: 0.1 per cent on the exchange of shares and bonds, 0.01 per cent on derivative contracts. This is similar to the stamp duty charged in the UK and a number of developing countries such as Korea. According to the European Commission it could raise €7 billion every year, of which around €10bn would go to Great Britain, which hosts Europe's biggest financial centre. The proposal supported by 11 member states was approved in the European Parliament in December 2012, and by the Council of the European Union in January 2013. The European Commission has proposed a regional FTT to be implemented within the European Union (or at least the Eurozone) by 2014.

Whilst it is recognized that the tax could not be implemented in one country, the question does arise as to whether it would have to be universal in order to be effective; In principle the answer is positive; However, there may be ways of avoiding a shift of transactions to 'tax havens'; one possibility is to consider the transfer of funds to or from such location as taxable transactions at penalty rates. If implemented the tax must be paid in the European country where the financial operator is established. This 'R plus I' (residence plus issuance) solution means the EU-FTT would cover all transactions that involve a single European firm, no matter if these transactions are carried out in the EU or elsewhere in the world. The scheme makes it impossible for say French or German banks to avoid the tax by moving their transactions offshore, unless they give up all their European customers.

It remains to be seen if the EU-FTT is implemented in practice, but what is clear is that it is not regarded as a new form of development finance but rather a means of stabilizing the

financial system by reducing trading frequency (and thus hopefully volatility, though it is not clear theoretically or empirically that this will be the case) and building up a capacity to deal with future crises through distress lending. Above all the object is distributional: to reduce the burden on taxpayers of bank failures.

3.4 In sum

The main operative sources of innovative development finance do not appear to be raising the required level of additional funding, and remain mired in seemingly intractable problems of institutional architecture. Moreover, the hypothecation of what are in the end tax revenues (largely from developed countries) to particular international objectives may well be regarded as necessary to maintain political support from taxpayers, but in itself is a major drawback. This is for two reasons: on the one hand the familiar welfare costs of inflexible resource allocations; and on the other hand, the lack of developing country participation in that allocation, perpetuating the traditional donor-recipient relationship.

Most existing innovative financing mechanisms earmark resources upfront for specific purposes, as is the case for the global health funds. There are perceived benefits in doing so. Advocates argue that the earmarking helps build political support and attract funds by establishing a clear link between fundraising and popular causes. This may come at a cost, however, since earmarking funds can limit domestic policy space for channelling resources to nationally defined priorities.

Pure hypothecation would see spending on a particular programme linked directly to the revenue raised by a particular tax or set of taxes: but it is highly unlikely that the optimal amount to spend on a particular programme will be the same as the optimal amount of money raised from a particular tax. The tax base may also be volatile, which would lead to inappropriately volatile spending, and (particularly for environmental taxes) may even erode away over the long term if behaviour changes. Governments should be seeking to raise revenue in the most efficient way possible and to spend that revenue in the most efficient way possible. It is highly unlikely these objectives will marry up neatly in a way that justifies pure hypothecation. While winning public support is clearly an important consideration for policy makers, it should not be an excuse for poor policy making. It may well be true that there is a clear rationale for instance both to raise green taxes and to spend more on environmental objectives. But if so the case for each should be made on its own merits rather than making one contingent on the other.

Further, the revenues from the two potentially 'new' tax bases (financial transactions and carbon emissions) would mainly accrue to developed countries in the first instance, so that any development funding would have to come as a separate discretionary step. It is hard to see under the current political and fiscal circumstances in developed countries how further increments in the ODA budget could be justified politically. The same is true a fortiori of the capitalization of future ODA streams.

4 International tax co-ordination as a new source development finance

As was pointed out in the UNU-WIDER study of innovative development finance, a main source of finance for development use might be global taxation of taxbases that nations are liable to compete away because of international mobility, or that they underutilize because of

monitoring problems (Frenkel et al. 1991). In principle, international agreement should be possible for a harmonized increase in taxes of these types, given that non-co-operative tax competition is responsible for their low equilibrium tax rates (Boadway 2005: 236).

The OECD sums up the current state of knowledge on this lost revenue potential as follows:

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 ... (OECD 2010: 6).

In fact, already a decade ago, the Zedillo Commission had identified the key issue in development financing as being the inability of developing countries to effectively tax income from capital (from foreign companies operating in their tax jurisdiction or from assets held abroad by their own residents). The 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:

- o 'At the least, compile statistics, identify trends and problems, present reports, provide technical assistance, and develop international norms for tax policy and administration.
- o Maintain surveillance of tax developments in the same way that the IMF maintains surveillance of macroeconomic policies.
- o Take a lead role in restraining tax competition designed to attract multinationals with excessive and unwise incentives.
- o Slightly more ambitiously, develop procedures for arbitration when frictions develop between countries on tax questions.
- o 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.' (UN 2001: pp iii-iv).

The creation of an ITO of this kind, even without any influence on tax schedules for any participating country, has not received any official support. None the less, limited progress has been made towards the five aims set out by the Zedillo Commission:

- On statistics, the IMF has started to improve the very weak data in the *GFS*. Article IV reports now contain more information on national tax receipts; while steady progress has been made in the estimation of assets in OFCs, and off countries' external asset positions.
- On surveillance, the IMF has introduced the new *Fiscal Monitor* publication; the OECD has established the Tax Forum; and the FATF has extended its reach to tax evasion.

- A potential lead role on tax competition is now emerging among regional bodies such as the African Development Bank; while UNCTAD is providing more evidence of the lack of effect of corporation tax on FDI (compared especially to infrastructure, skills, and legal systems).
- On tax arbitration, there has not been much if any call from developing countries for this, beyond the existing provisions in the growing number of bilateral tax treaties; but the potential capacity exists in the form of the UN Expert Committee on International Co-operation in Tax Matters.
- o Finally, on information exchange, progress has been considerable—as discussed below—but has not so far involved developing countries.

In the absence of official estimates (or reliable non-official ones) of the order of magnitude of the losses to developing countries from lack of tax co-operation it is necessary to take into account: *first*, the tax lost on the unregistered 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 undeclared accumulated assets owned by residents. Absent official (or reliable unofficial) estimates the loss of tax base can be estimated by drawing on estimates of unregistered ('illicit') capital flows from developing countries trade and balance of payments data (from World Bank data) and then calculating the accumulated stock. This we call *Method A*. A different yet potentially complementary approach is to start from estimates of financial assets held overseas by developing country residents (from IMF data). This we call *Method B*. I discuss both methods, and the calculation methods used to apply them, elsewhere (FitzGerald 2012a).

We can 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.

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

$$\Delta X = aF + brX$$

The results of these calculations using Method A for 2006 are shown in Table 2, which is based on conservative parameter assumptions. The overall potential yield to developing countries is of the order of US\$200 billion a year: half of this is attributable to Asia (and half of this in turn to China) and relatively little to Africa. This is logical in view of the relative economic size and integration to the global economy of these regions that were outlined in Table 1.

Table 2: Estimated potential tax yield to developing regions: method A (US\$ billions in 2006)

	Flow (F)	Stock (X)	Tax base (Y)	Potential Yield (T)
Developing Countries	859	3060	1073	215
SSA	11	80	17	3
Asia	399	1532	507	101
Europe	186	529	223	45
MENA	165	453	197	39
LAC	97	466	129	26

Source: FitzGerald (2012a).

The total tax loss is of the order of 2.5 per cent of developing countries' GDP, which is considerable and of a similar size to total private capital inflows. In terms of tax revenue, the loss represents about 10 per cent of revenue in developing countries; but a much larger proportion—probably one third—of corporate and income taxation revenue. The overseas asset stock (X) estimate in Table 2 is equivalent to about one-third of financial market capitalization in developing economies; which is consistent.

Table 3 shows the result of applying Method B. The allocation of offshore assets is estimated allocating them in proportion to GDP. Although this allocation method is highly arbitrary, it does produce results that are similar to those in Method A and thus acts as a rough confirmation that the overall estimates are not grossly inaccurate.

Table 3: Estimated potential tax yield to developing regions: Method B (US\$ billions in 2006)

	Asset stock (X)	Potential tax yield (T)
World	18454	692
Developing countries	5788	217
Africa	285	11
Asia	2531	95
Europe	1035	39
MENA	660	25
LAC	1277	48

Source: FitzGerald (2012a).

The regional estimates under the two methods do differ considerably however; particularly for sub-Saharan Africa. Re-estimation using Method A and the study by Ndikumana and

Boyce (2008) of unregistered capital outflows yields Table 4, which seems more plausible—mainly due to the revision of the overseas asset figure (*X*) to a more realistic level.

Table 4: Re-estimated potential tax yield to sub-Saharan Africa from Method A (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
South Africa	11.7	8.8	12.3	2.5
Ethiopia	1.8	11.2	2.6	0.5
Côte d'Ivoire	0.5	27.0	2.4	0.5

Source: FitzGerald (2012a).

The main gainers from recovering the lost tax revenue would be, as expected, Nigeria and South Africa. None the less, in absolute terms the gains to countries such as Ethiopia, or Côte d'Ivoire would still be considerable. In relation to output, the US\$6 billion potential yield in 2004 was equivalent to about 2 per cent of regional GDP; but considering that corporate and income taxes only generate 4 per cent of SSA GDP (Keen and Mansour 2009), this would represent an increase of one-half in revenues from this source.

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

This figure is about double the present level of official development assistance (ODA) from DAC members. At an aggregate (i.e. global) level 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 co-operation 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).

The major requirement for such recovery to be feasible—automatic exchange of information between tax jurisdictions—is already in place between OECD countries. The very existence of the system in fact will increase tax compliance even if the information is not in fact needed for prosecution of tax evaders:

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. (OECD 2000, para 109)

As we have seen, information exchange is the key to this problem. However, tax transparency has featured prominently at G20 recent summits in Washington (November 2008), London (April 2009), Pittsburgh (September 2009), and Toronto (June 2010). In Washington, tax authorities were tasked to '[draw] upon the work of... the OECD to enhance regulatory cooperation between jurisdictions' and to address vigorously the 'lack of transparency and failure to exchange tax information'. The summit in London declared the era of banking secrecy to be over and agreed to 'take action against non-co-operative jurisdictions, including tax havens, [and] to deploy sanctions to protect public finances and financial systems.' In Pittsburgh, G20 leaders reaffirmed the need for quick progress, stating that G20 governments '... stand ready to use countermeasures against [unco-operative] tax havens from March 2010'. In October 2010, a restructured Global Forum on Taxation, now significantly renamed as the *Global Forum on Transparency and Exchange of Information for Tax Purposes* met for the first time in Singapore with representation from all G20 and OECD member states. At the same time, these new standards will address new priority areas such as corruption and tax crimes (FATF 2012).

The Forum has strong support from the G20:

'Tackling tax havens and non-co-operative jurisdictions

- 35. We are committed to protect our public finances and the global financial system from the risks posed by tax havens and non co-operative jurisdictions. The damage caused is particularly important for the least developed countries. ... In the tax area, the Global Forum has now 105 members. More than 700 information exchange agreements have been signed We underline in particular the importance of comprehensive tax information exchange ...
- 36. We urge all jurisdictions to adhere to the international standards in the tax, prudential ... areas. We stand ready, if needed, to use our existing countermeasures to deal with jurisdictions which fail to meet these standards. The FATF, the Global Forum and other international organizations should work closely together to enhance transparency and facilitate co-operation between tax and law enforcement agencies in the implementation of these standards. We also call on FATF and OECD to do further work to prevent misuse of corporate vehicles.' (G20 2011)

As of June 2013, the Global Forum has 120 member countries. In this context it is useful to remember that not only are some key developing countries (Chile, Korea, Mexico) are OECD members but also Brazil, China, India, Indonesia and South Africa have 'advanced engagement' as a prelude to membership.

Above all, effective international tax co-operation would not require a new, large multilateral institution because co-operation will be based on information exchange rather than tax collection as such. Any redistribution towards poorer or smaller countries, could be done through existing multilateral or regional institutions—although these would not have to handle funds either—just ensure agreement on the allocation of fiscal recovery between member countries.

5 Implications in developing countries and development finance

In the UNU-WIDER study of new sources of development finance, Boadway states that 'the clearest message that comes out of the fiscal federalism literature seems to be: *it should be fiscal equity among states rather than vertical equity among individuals that informs the design of a development financing system*' (Boadway 2005: 234, italics in original). This implies redistribution of any gains from international tax co-operation should be biased towards poor countries. He also argues that

'However, there are significant problems with relying on such taxes [on offshore income] for financing new development assistance. The incidence of these taxes will not bear a close relationship with fiscal equity considerations, so they may not be regarded as 'fair' taxes. In the absence of a need for development assistance, cooperative agreements on taxing mobile taxbases would likely lead to the taxes collected being returned to the nation of origin. ... There will be significant administrative and compliance problems associated with taxing these transactions unless an international tax administration is instituted with significant powers of audit and information gathering. Their incidence among nations would bear little resemblance to a fair allocation based on fiscal equity. Crowding-out of national voluntary contributions will be an issue. (Boadway 2005: 236-7)

The previous Section has argued that this reservation is overstated in terms of administration and harmonization; and indeed that the Zedillo proposal for an International Tax Organization is unnecessary as well as infeasible. However, Boadway is correct in arguing that fiscal equity is more difficult to implement in a global setting than in a national federal setting. In the latter, sub-national government tax-expenditure policies are likely to be much less diverse than is the case among nations; so that devising a representative standard level and mix of public services, transfers and taxes against which to measure each nation's capacity is much more difficult internationally than among sub-nations in a federation. International fiscal equity would require that the fiscal transfer take account of the local tax 'effort' and perhaps involve an additional incentive, much as national tax systems give additional incentives for household voluntary contributions. Given these difficulties in devising a suitable measure of a nation's capacity to pay, he suggests that it may be necessary to fall back on a macro indicator of fiscal equity that is consistent across nations and also is a rough index of fiscal equity—in other words the tax/GDP ratio as in Table 1 in Section 2.

Extending with this logic, the MDG benchmarks (or whatever successor targets are agreed after 2015) and the per capita share of GPG costs could determine the floor for relevant public expenditure, and thus the revenue requirements to be met and the scale of the international contribution to this effort.

In most of the lower-income developing countries, therefore, international tax co-operation could not be a complete substitute for ODA, but it could become a major 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.

Even if increased international TIC revenue led to some reduction in other sources of taxation, this could also be beneficial. Low income countries—and Africa in particular—have

tended to rely on indirect taxation to a great extent, which tends to be regressive as it is generally focussed on manufactured mass consumption items. According to IMF estimates CIT revenue averages less than 2 per cent of GDP in sub-Saharan Africa, implying an implausibly low taxable base (i.e. income from capital) of less than 8 per cent of GPD (Keen and Mansour 2009). To put this point another way, assuming that (say) 30 per cent of national income is in the form of return to capital, only one quarter of this is being declared as such to the authorities. The switch from trade taxes to VAT has made this regressive effect even greater, because the previous duties on imports bore more heavily on non-essential consumer goods with high income-elasticities of demand.

The collection and allocation of the tax resources discussed in Section 3 raise considerable problems of equity between countries, and are closely related to the other form of fiscal transfer—official development assistance (ODA). These are highlighted by comparison with fiscal institutions in federations: assignment of revenue-raising authority, intergovernmental transfers, and the behaviour of subnational governments on the one hand; and revenue-raising in federations with no central government on the other:

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 those that are most integrated into the world economy and generate the profits which underpin tax evasion. As Table 5 shows, the potential tax revenue gains (under either of the estimation methods) to Asia and LAC are far greater than ODA flows, as would be expected due to their larger economies—although the difference in per capita gains would be less. Logically, aid allocation works in the other direction because—geostrategic considerations (which account for the ODA to MENA and Europe) apart—ODA is focussed on poorer countries and regions, particularly Africa.

Table 5: Tax potential and development assistance by region (US\$ billion)

	Potential	ODA	
	Method A	Method B	
Developing countries	215	217	105
of which:			
Africa	3	11	40
Asia	101	95	19
LA & C	26	95	7

Source: Potential tax yield from Table 2 and 3; ODA from www.oecd.org/dac/stats/data

Clearly there are poor, small and/or fragile countries within the two regions that stand to gain most from tax recovery, but reallocation of between 10 per cent (LAC) and 20 per cent (Asia) of this recovery within the two regions could compensate for removal of ODA. If this aid allocation in donor budgets were then reallocated to Africa, ODA to that region would rise by 65 per cent and when combined with tax recovery would imply a resource increase of some 80 per cent. This hypothetical reallocation exercise is shown in Table 6. Despite the tentative nature of these estimates, they do make clear that the development gains from recovery and reallocation could be very substantial.

Table 6: Hypothetical reallocation of tax gains and ODA by region, (US\$ billion)

	Tax gain	Initial ODA	Reallocated ODA	Net flow
Developing countries	216	105		321
of which:				
Africa	7	40	26	73
Asia	98	19	0	98
Lat Amer & Caribb	60	7	0	60

Source: Author's estimations based on Table 5.

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 as Table 6 demonstrates. The heavily aid dependent countries—particularly those with current or recent civil wars, would not of course be major beneficiaries of tax recovery. 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. The hypothetical result of a reallocation of ODA as in Table 6, between these four countries, is also shown in Table 7. All four countries gain considerably, even without reallocation of the tax gain itself.

Table 7: Tax potential and development assistance between four SSA countries (US\$ billion)

	Tax gain	Initial ODA	Reallocated ODA	Net flow
Total	6.3	3.2	3.2	9.5
of which	0.5	5.2	5.2	9.0
Nigeria	2.8	0.6	0	2.8
South Africa	2.5	0.6	0	2.5
Ethiopia	0.5	1.8	2.8	3.3
Côte d'Ivoire	0.5	0.2	0.4	0.9

Source: Potential tax gain from Table 4; ODA from OECD: www.oecd.org/dac/stats/data

In most of the lower-income developing countries international tax co-operation could not be a substitute for ODA, but could become a core source of development finance. This is logical because although the funds would be channelled through different institutions (typically ministries of finance and ministries of international development in 'donor' countries) 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 'best practice' ODA increasingly takes the form of budgetary support in cases of regular development programmes as opposed to humanitarian emergencies (DFID 2004).

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. (DFID 2009: 31).

To the extent that lower-income or small developing countries do not at present have the technical capacity, the UN, IMF and OECD should focus on helping developing countries acquire that capacity. Co-operation between developing countries would also be very effective: for instance Chile has a highly developed electronic tax compliance system, and is providing technical advice about that to certain countries in Latin America and Africa. Therefore, it would be possible to focus automatic exchange of information initially on those developing countries which already have the necessary technical expertise (Keen and Lightheart 2006).

The use of these funds would be a matter for governments to decide rather than aid donors: indeed this would be one of the gains from the process. However, there would probably be a case for using increased resources to support public goods such as production infrastructure for at least three reasons. First, this would help to legitimize 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. 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 if affects government decisions on expenditure and borrowing (McGillivray and Morrissey 2001). Empirical 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. From standard 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. Note also that a major macroeconomic effect would not only be through increased tax receipts through such identification of overseas assets (and possible legal action) but rather from the disincentive to capital flight in the first place. Retention and recovery of such assets would raise domestic investment rates and thus the rate of economic growth.

To those countries in receipt of substantial aid—particularly budgetary support—the new income should not be simply deducted from aid flows as then there is no incentive effect. Table 7 assumed that poorer countries (such as Ethiopia) would receive increased ODA as well as increased tax revenue. Suppose aid agencies are providing budget support (B) equal to a proportion (z) of the difference between minimum welfare spend (W) on the one hand, and the proportion (w) of the total tax income (T) spent on welfare, on the other. W is determined by an agreed definition of basic needs provision per capita, adjusted for poverty profile. So

$$B = z(W - wT)$$

$$\frac{\partial B}{\partial T} = -zw \gg -1$$

For (say) z = 0.5 and w = 0.6, then aid would only be reduced by 30p for each extra £ collected in tax, leaving a 70p net gain.

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, which tends to be regressive as it is generally focussed on manufactured mass consumption items. Corporate income tax for Africa as a share of GDP is very low by international standards, despite comparable tax *rates* due to the small size of the tax base despite large resource rents (Keen and Mansour 2009). The switch from trade taxes to VAT has made the regressive effect even greater, because the import duties on imports tended to bear more heavily on non-essential consumer goods. A substitution of VAT by international taxation would thus make the tax system more progressive and thus contribute to reducing income inequality.

Finally while it is true that all developing countries would be in receipt of more resources under such a system, a key exception would be those developing countries which are themselves tax havens. The scale of this loss is impossible to estimate precisely because of the opacity with OFC authorities create about financial assets and transactions within their jurisdictions. However, given that these 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. Where they are US or EU dependencies, this could be done by the respective tax authorities, who would of course themselves be major beneficiaries of tax recovery—which would undoubtedly be at least equal to the benefits to developing countries estimated above.

Of course lawyers and tax consultants in these countries might lose their employment; but 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. The main beneficiaries of these arrangements to prevent the exchange of information on income and wealth not the inhabitants of these developing OFCs either, but rather the elites of both developed and developing countries can avoid their legal tax obligations thereby. Moreover, wealthy foreigners wishing to *settle* in OFCs would continue to benefit from low tax rates.

6 Conclusions

The three key points in this paper are as follows:

- O Ultimately, the way to fund public goods and redistributive transfers at the international level (as nationally) is through taxation; other schemes for capitalization of aid flows or private donations are relatively insignificant. Indeed ODA itself is really tax revenue redistribution from developed to developing countries.
- O Present international proposals for new taxes on carbon emissions or financial transactions are face serious implementation barriers, lack international support, and

in any case are either already hypothecated to other uses (such as the financial transaction tax for bank bailouts) or very small in effect (such as airline carbon taxes).

O The expansion of effective income tax capture through international co-operation under existing tax systems is a truly innovative source of finance as it would result from international co-operation and reduce negative externalities arising from globalization. It could provide a sustainable mechanism for funding both transfers to poor countries (ODA) and GPG provision.

This paper proposes no new tax and no change in tax rates—just the effective collection of what is already legally established; and can be considered due to developing countries as of legal right rather than a charitable donation. None the less, the proposal can be defined as 'innovative finance' because the sources to be tapped (untaxed income and assets held outside the relevant tax jurisdiction) have hitherto been exempt and in effect unavailable to developing *and* developed countries.

There is an important further implication of this proposed approach: both tax recovery and aid could be combined in a single system of fiscal co-operation; which means in turn that aid agencies would become similar to their counterparts in ministries of local government in unitary states or national disaster relief in federal states for instance. However, 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.

There is commitment to change in the G8 and G20

'we know that in a globalized world, no one country can, on its own, effectively tackle tax evasion and aggressive avoidance. But as a group of eight major economies together we have an opportunity to galvanize collective international action. We can lead the way in sharing the information to tackle abuses of the system, including in developing countries, so that Governments can collect the taxes due to them.' 'Prime Minister's letter to G8 leaders', 2 January 2013 available online at: https://www.gov.uk/government/news/prime-ministers-letter-to-g8-leaders.

20. In the tax area ... we are determined to develop measures to address base erosion and profit shifting ... (and) reiterate our commitment to extending the practice of automatic exchange of information, as appropriate, and commend the progress made recently in this area. We support the OECD analysis for multilateral implementation in that domain. [Communiqué of the Meeting of Finance Ministers and Central Bank Governors Moscow, 15-16 February 2013]

While at the individual donor agency level both personal and corporate tax issues are recognized 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. (DFID 2009: 32).

What is lacking so far is the analytical and political effort to convert this commitment to tax co-operation into a resolution of the development co-operation funding gap.

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