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Evidence and Global Policy Agendas

Tony Addison, George Mavrotas, and Mark McGillivray*

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Abstract

Understanding the development effects of official aid is crucial to building a better bridge between research and policy. This paper reviews the current evidence regarding the impact of aid on growth and poverty reduction, and develops a new narrative. In the light of this narrative, the paper then examines aid trends, focusing on the regions of sub-Saharan Africa and the Pacific. The paper then turns to recent discussion of new and innovative sources of development finance and considers how research has influenced the policy debate through a recent UNU-WIDER study for the UN General Assembly. The paper concludes that aid broadly works, that poverty would be higher in the absence of aid, and that the shortfall in aid during the 1990s has, by implication, made it more difficult to meet the Millennium Development Goals. Hence, a considerable catch-up in aid and other development finance flows is now necessary if poverty is to be substantially reduced by 2015.

Keywords: official development assistance, growth, poverty, Millennium Development Goals, sub-Saharan Africa, Pacific, innovative sources of finance

JEL classification: F35, O55

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* The authors are, respectively, Deputy Director, Research Fellow, and Senior Research Fellow at UNU-WIDER. Correspondence to Mark McGillivray: mark@wider.unu.edu.

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www.wider.unu.edu

publications@wider.unu.edu

UNU World Institute for Development Economics Research (UNU-WIDER) Katajanokanlaituri 6 B, 00160 Helsinki, Finland

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1 Introduction

Understanding the development effects of official aid is crucial to building a better bridge between research and policy. This is especially the case today since aid faces many challenges, not least that of the Millennium Development Goals (MDGs) and the widespread call to double official aid from its current level to US\$120 billion per year (Sachs 2005; UN Millennium Project 2005).¹ Aid's effectiveness in raising economic growth and reducing poverty (either through growth and/or by financing pro-poor public spending) is of course a topic of long-standing and vigorous debate in the research community, and indeed that debate is as old as development studies itself. Some pieces of research on this topic—though not all—have been very important in shaping donor policy. A prime example is research carried out in the World Bank from the late 1990s by Paul Collier, Craig Burnside, and David Dollar (Burnside and Dollar 1997; Collier and Dollar 1999). This was used to make the case that aid worked, but only when policies were right: a policy 'narrative' that donors seized on and that arguably played a large part in stimulating the recent increase in aid, the volume of which had stagnated for much of the 1990s.

It is well known, however, that the conclusions of the World Bank's research were controversial—and also that they were used somewhat selectively by donors. Masood Ahmed, in a paper presented at the Development Studies Association Annual Conference, 2004, argued that the World Bank research on aid was influential because (a) the analysis was timely, (b) the policy implications were compelling, (c) the authors had credibility, (d) the story line was presented simply and clearly, and (e) the authors deliberately set out to achieve impact. In answer to questions raised during the conference he made the additional point that donors were selective in their use of the World Bank's research on aid, and avoided some of the most difficult decisions, for example with respect to the need to move aid from middle income to low income countries.

All of this illustrates the importance of setting out a correct policy narrative about aid effectiveness. In this paper, we review the current evidence regarding the impact of aid on growth and poverty reduction, and develop a narrative that we hope can clarify further the issue of aid effectiveness. In the light of this narrative, we then examine aid trends, focusing on two important regions namely sub-Saharan Africa (where aid remains crucial) as well as the Pacific (a region that has received little international attention despite its deep development problems). The paper then turns to a recent discussion of how UNU-WIDER research on new and innovative sources of development finance has built a bridge into the policy debate in the UN General Assembly. The paper concludes that aid broadly works, that poverty would be higher in the absence of aid, and that the shortfall in aid during the 1990s has, by implication, made it more difficult to meet the MDGs. Hence, a considerable catch-up in aid and other development finance flows is now necessary if poverty is to be substantially reduced in the poorest countries by the MDG target date of 2015.

¹ The Commission for Africa (http://www.commissionforafrica.org) and the Helsinki Process on Globalization and Democracy (http://www.helsinkiprocess.fi) have also called for increased aid.

2 Aid effectiveness: a brief survey

Accompanying the debate around the MDGs is a recently found optimism associated with official aid based on the findings of a growing body of empirical research on the macroeconomic impact of these inflows, most of which involves the econometric analysis of panel data sets. Aid now works in the sense that it increases growth according to the findings of this research. This is the clear, unambiguous finding of practically all empirical studies conducted over the last seven or eight years. This should not imply that there are no valid criticisms of official aid. Fungibility, insufficient alignment between donor and recipient government policies, commercial tying, proliferation of donor activities within recipient countries, and insufficient policy coherence within and among donor activities are among these criticisms. But in their proper context they are not reasons why aid has failed. Instead they are reasons why aid has not worked better and areas in which improvements need to be made.

In so far as growth reduces poverty—and this is still a matter of research and debate—aid, in raising growth, reduces poverty (on growth–poverty linkages see Shorrocks and van der Hoeven 2004). We can be more certain that aid will reduce poverty through growth when aid itself is used to invest in the livelihoods of the poor thereby raising the poverty-elasticity of growth. Aid that finances pro-poor public spending on services and infrastructure improves the productivity of the poor (and therefore their participation in growth through smallholder agriculture and microenterprises) as well as their human development indicators more broadly.

Why aid now appears to work at the macro level, after decades of little or no clarity over its effectiveness, is a matter of speculation. A widespread view as to why this is so is that donors, following the demise of the cold war, are paying more attention to developmental criteria in the design and application of aid activities (Burnside and Dollar 1997; Collier and Dollar 2004; McGillivray 2003).² Another plausible reason why aid is now thought to have a positive impact is that recent studies employ better empirical methods and have access to better data, making it possible to observe such an impact. This of course implies that aid might always have been effective, and that earlier studies were simply not able to observe such an impact.

There is evidence that the impact of aid on growth is contingent on the policies of recipient countries, so that while aid works in all countries it works better in countries with better policy regimes (Burnside and Dollar 1997, 2000, 2004; Collier and Dollar 2001, 2002; Collier and Dehn 2001; Collier and Hoeffler 2002). But there is more evidence to suggest that aid works in countries irrespective of the policy regime (Amavilah 1998; Durbarry, Gemmell, and Greenaway 1998; Hansen and Tarp 2000, 2001; Lensink and Morrissey 2000; Lensink and White 2001; Dalgaard and Hansen 2001; Guillaumont and Chauvet 2001; Hudson and Mosley 2001; Lloyd, Morrissey, and Osei 2001; Lu and Ram 2001; Chauvet and Guillaumont 2002; Dalgaard, Hansen, and Tarp 2004; Gounder 2001, 2002; Mavrotas 2002a; Gomanee, Girma, and Morrissey 2002, 2003; Ram 2003, 2004; Economides, Kalyvitis, and Philippopoulos 2004;

² See Cassen and Associates (1994) for an excellent discussion of the results of earlier studies.

Feeny 2005; Ouattara and Strobl 2004).³ Irrespective of whether policy is important for aid effectiveness, it must be emphasized that both groups of studies agree that aid works, in one way or another. They agree that in the absence of aid flows growth would have been lower and, to the extent that growth and poverty are positively associated, poverty would have been higher. The debate is over whether the aid impact is contingent upon recipient policy regimes. More precisely, the debate is not over the importance of policy but whether one can validly observe a robust aid-policy-growth relationship from an econometric analysis of panel data. One would in principle expect that better policies would in all probability result in more effective aid. Possibly reflecting this, there is some acceptance among researchers that better policies, however defined, should in all probability result in more effective aid.⁴ Yet one would also expect that with the exception of extreme cases, aid provided to countries with bad policies (however defined) can still have positive impacts.

Importantly, the studies referred to above utilize diverse samples of countries. There is diversity in terms of whether or not a country is structurally vulnerable, in a post-conflict scenario, undergoing trade shocks, democratic, highly populated and so on.⁵ Importantly, the samples include countries located in all regions in which developing countries are situated geographically. Some of the above studies provide results that are region-specific. Lensink and Morrissey (2000) and Gomanee, Girma, and Morrissey (2003), for example, report findings that are specific to sub-Saharan Africa. Others provide results that are country-specific. Gounder (2001, 2002) and Feeny (2005) look at the cases of Fiji, Solomon Islands, and Papua New Guinea, respectively. Each of these studies concludes that growth in the countries under consideration would have been lower in the absence of aid. It necessarily follows that disappointing growth records in sub-Saharan Africa and parts of the Pacific cannot be attributed to aid ineffectiveness. To this extent, aid has not failed sub-Saharan Africa, nor has aid failed the Pacific.

Aid can of course contribute to poverty reduction or, more generally, well-being enhancement more directly, via channels other than growth. This is important, as growth is not the only way of reducing poverty, nor is it necessarily the most efficient way (especially in countries characterized by high income inequality: see Shorrocks and van der Hoeven 2004). Gomanee *et al.* (2003) look at aid and pro-poor expenditures,

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In addition to the published, peer reviewed or widely circulated studies cited here, the authors are (at the time of writing this paper) aware of a further five empirical papers that conclude that aid and growth are positively associated. Note that these studies report results from different (in some cases revised or updated) empirical exercises, using different data or estimation techniques. The only exceptions are the Collier and Dollar studies, which report (identical) results obtained from a single empirical investigation. Further note that Ouattara and Strobl (2004) conclude that project aid worked but programme aid did not and Ram (2004) concludes that bilateral but not multilateral aid worked. Almost all the studies cited here looked specifically at the impact of aid on per capita GDP growth. See Beynon (2001, 2002), McGillivray (2003) and Morrissey (2001) for surveys of the aid-growth literature. Easterly, Levine, and Roodman (2003) and Roodman (2003) provide alternative views on aid effectiveness, highlighting the fragility of the results obtained by a number of the studies cited here, although not challenging the fundamental result, that aid is effective. For a discussion of a range of related issues, see Lensink and White (2000) and Collier and Dollar (2004).

⁴ See Robinson and Tarp (2000), Benyon (2001, 2002), Morrissey (2001) and McGillivray (2003).

⁵ This can make empirical work more difficult and cause one to doubt the robustness of the results obtained. In the case of the literature cited here reasonable steps were taken to handle this diversity.

finding that aid is associated with increases in these expenditures and in turn improvements in well-being. Kosack (2003) found that, contingent on the extent of democracy in recipient countries, aid was positively associated with the level of well-being among countries as measured by the Human Development Index. A related literature looks at the impact of aid on various categories of public expenditure and revenue; health and education expenditures can be important to MDG achievement if the services reach the poor. Recent studies include Feyzioglu, Swaroop, and Zhu 1998; Franco-Rodriguez, McGillivray, and Morrissey 1998; McGillivray and Ahmed 1999; Swaroop, Jha, and Rajkumar 2000; McGillivray and Morrissey 2001b; McGillivray 2000; Mavrotas 2002b, 2003; and McGillivray and Ouattara 2005. It is generally concluded that aid results in increased public expenditure, although it can also result in decreases in tax revenue and increases in public sector debt.6

While aid is positively associated with growth, there can be too much of a good thing. That is, aid does appear to be subject to diminishing returns. A number of studies have tested for non-linearity in the aid-growth relationship, with aid being positively related to growth up to a certain level of aid relative to recipient GDP and negatively related thereafter. Among the studies reporting diminishing returns are Collier and Dollar 2002; Collier and Hoeffler 2002; Hansen and Tarp 2000, 2001; Dalgaard and Hansen 2001; Hudson and Mosley 2001; Lensink and White 2001; and Dalgaard, Hansen, and Tarp 2004. That diminishing returns exist is a seemingly highly robust finding, with almost all studies reporting such a relationship, with negative returns setting-in when the aid inflow reaches anywhere between 15 and 45 per cent of GDP. This has been interpreted as indicating limited aid absorptive capacities, with recipient governments being constrained in the amounts of aid they can use effectively (Clemens and Radelet 2003). This is not, though, an argument against aid. It is an argument for donors to be conscious of absorptive capacities and to work with recipient countries to remove bottlenecks to aid effectiveness. This is an important matter if aid flows are to be increased substantially to help achieve the MDGs.8

Sound institutions (broadly defined) therefore have an important role to play in aid effectiveness. Delving deeper into the channels through which aid may be used to strengthen the institutional framework (for example, by enabling improvements in domestic resource mobilisation and public sector management), but also examining the circumstances under which aid may undermine institutions is crucial (Addison and Roe 2004; Kayizzi-Mugerwa 2003). Regarding the relationship between development aid and institutional constraints in aid-recipient countries two extreme cases may be considered. On the one hand, aid may contribute to a virtuous circle of economic growth and poverty reduction through fostering desirable policy change, building effective institutions, and relieving constraints on funds for investment, leveraging in private resources. Arguably India can be included in this category but also Uganda in recent

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⁶ The relevant literature is surveyed in McGillivray and Morrissey (2001a).

Heller and Gupta (2002) provide a useful discussion of this issue, along with the related problem of Dutch disease. Note though that Gomanee, Girma, and Morrissey (2003), using a general technique specifically designed to detect threshold effects, struggle to find evidence of such returns and therefore question the inferences drawn by previous studies.

On absorptive capacity constraints and diminishing returns to aid see also de Renzio (2005) and Foster (2003).

years. On the other hand, aid may contribute to a vicious circle where the availability of aid flows may delay policy reforms, undermine the effectiveness of institutions, and contribute to conflict over the distribution of economic rents. Somalia in the 1970s and the 1980s is an example where aid undermined institutions and governance (Addison 2003). Of course, most country experiences regarding the above nexus usually lie between the two extremes.⁹

A rather serious drawback of much of the vast empirical literature on the effectiveness of aid is the use of a single aggregate for aid in empirical work. However, distinguishing among the various aid modalities (such as programme aid, project assistance, technical co-operation grants, and food aid and emergency assistance among others) in empirical work may have significant policy implications. Indeed, recent work in this area has shown that understanding how different types of aid work and in particular which types of aid have the greatest impact is of paramount importance for delving deeper into aid effectiveness and for designing and implementing policies capable of improving aid effectiveness further. The issue of aid heterogeneity has been discussed recently in Mavrotas (2002a, 2002b, 2003), Cordella and Dell'Ariccia (2003), Mavrotas and Ouattara (2003), Ouattara and Strobl (2004), and Clemens, Radelet, and Bhavnami (2004); see also Singer (1965), Cassen and Associates (1994) and White (1998) for earlier discussions on the aid heterogeneity issue.

Last but not least, issues related to the volatility of aid flows are now becoming crucial in view of their relevance to the achievement of the MDGs (UN Millennium Project 2005). Gemmel and McGillivray (1998) and Pallage and Robe (2001) note that aid is often among the most volatile sources of foreign exchange income. Lensink and Morrissey (2000) and Bulíř and Hamann (2003) find that aid volatility has significant and negative effects on growth. More recently, by examining aid volatility using disaggregated aid data for 66 aid recipients spanning the period 1973-2002, Fielding and Mavrotas (2005) found that the institutional quality of the aid recipient affects the stability of sector aid but not that of programme assistance, and that more open economies (which tend to be smaller and richer, ceteris paribus) are associated with more volatile sector-aid flows.

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There are potentially important similarities in this case between the analysis of aid (viewed as a resource windfall for an economy) and the analysis of natural resource windfalls, where a well-established result clearly suggests that mineral-rich economies have performed worse in terms of economic growth than less well-endowed developing economies (Auty 2001; Murshed 2001). Issues related to rent-seeking behaviour in the presence of aid are also of relevance in this case (see Economides, Kalyvitis, and Philppopoulos 2004; Svensson 2000).

3 Aid volumes and trends

Given the MDGs and findings on aid effectiveness one might be forgiven for assuming that aid flows would be substantially higher now than at any time in recent history. One would also be forgiven for assuming likewise with respect to flows to sub-Saharan Africa, or that the share of aid to these countries would be substantially higher. Each of these assumptions is wrong, as Figures 1 to 3 make clear. Of After rising for most years during the 1960s, 1970s, and 1980s, total official development assistance (ODA) trended sharply downward from the early 1990s (see Figure 1). After peaking at US\$58.3 billion in 1991, it dropped to US\$43.2 billion in 1997. While the downward trend for much of the 1990s has now been reversed, the reality is that at the end of 2002 the level of ODA was less than it was some 11 years earlier. The trend in total ODA is almost totally driven by that in bilateral ODA; the decline in the 1990s in the former is driven by falls in the latter. In contrast, multilateral ODA has been much more stable, trending modestly upward for the period 1960 to 2002.

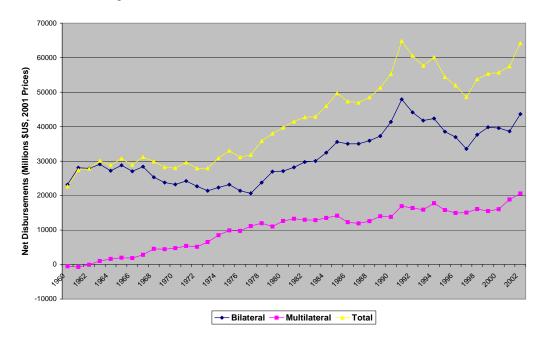


Figure 1. Total bilateral and multilateral ODA, 1960-2002

All data shown in this section are taken from OECD (2004) and relate to aid flows emanating from countries belonging to the OECD Development Assistance Committee (DAC). All dollar amounts are in constant 2001 prices. As mentioned, the measure of aid used is ODA, which is defined by the DAC as grants or loans to developing countries which are: (a) undertaken by the official sector; (b) with the promotion of economic development and welfare as the main objective; (c) at concessional financial

terms (a loan must have a grant element of at least 25 per cent). In addition to financial flows, technical co-operation is included in ODA. Grants, loans and credits for military purposes are excluded. The flows shown in Figures 1 to 3 are net ODA disbursements, which are the actual international transfer of resources from donor to recipient, less any repayments on ODA loans from previous periods. Total net ODA is simply the sum of bilateral and multilateral ODA. See OECD (2003) for further details. The latest available comparable international aid data are for 2002.

ODA to sub-Saharan Africa has followed a similar pattern, trending downward from the early 1990s (see Figure 2). After reaching a pre-2000 peak of US\$17.3 billion in 1990, it fell substantially in the mid-1990s, falling from US\$16.9 billion in 1994 to US\$11.6 billion in 1999.¹¹ This trend was reversed in 2000, with ODA reaching a post-1960 high of US\$17.7 billion in 2002. While the rise in ODA from 1999 should obviously not be overlooked as a very positive signal, the reality is that sub-Saharan Africa has received US\$1.4 billion less of this aid during 1993 to 2002 than during 1983 to 1992. The declines in total ODA are also evident in aid allocated bilaterally and via multilateral agencies: both forms of aid tend to follow trends in total aid. Shares in world ODA to sub-Saharan Africa have also fallen sharply in most years between 1990 and 1999 (see Figure 3). There has since been some recovery in these shares, with total and bilateral ODA shares rising since 1999 and the multilateral share since 2000. The main point, however, is that the decline in aid volumes to sub-Saharan Africa during the 1990s was not entirely due to an overall contraction in world aid; donors actually allocated away from the region. Donors, it seems, have favoured less impoverished countries in other parts of the world.

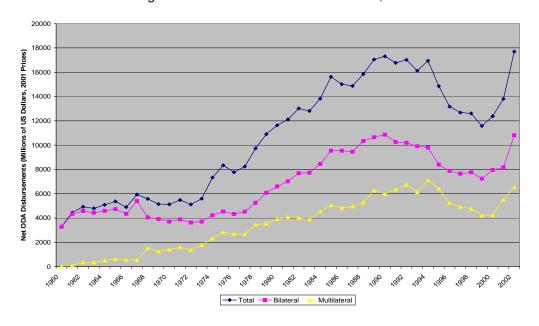
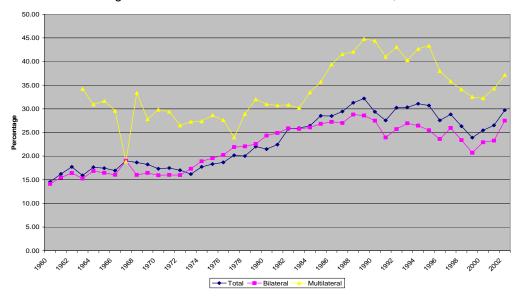


Figure 2. Aid flows to sub-Saharan Africa, 1960-2002

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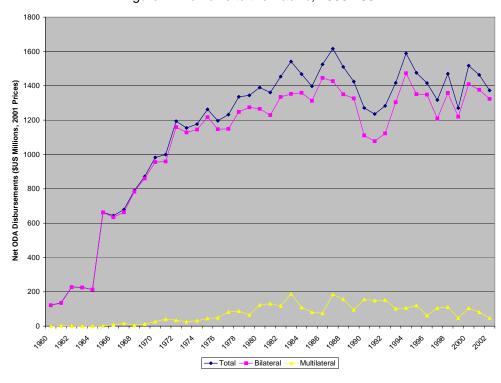
¹¹ It ought to be acknowledged that much of the high level of aid to sub-Saharan Africa countries prior to the downturn in the early 1990s took the form of loans and this resulted in a growing stock of debt in the region, ranging from about US\$60 billion in 1980 to US\$230 billion in 2000 (Birdsall, Claessen, and Diwan 2004).

Figure 3. World aid shares to sub-Saharan Africa, 1960-2002



Official aid flows to the Pacific trended upward from 1960 to the late 1980s, peaking at US\$1.62 billion in 1987 (see Figure 4). They fell to US\$1.24 billion in 1991. Unlike total ODA and that to sub-Saharan Africa, they recovered in the early 1990s, reaching US\$1.59 billion in 1994, but then trended downward, falling to US\$1.37 billion in 2002. Flows to the Pacific are dominated by bilateral aid, from DAC member countries. Multilateral aid, which has remained relatively constant from 1960 to 2002, has on average constituted just over 5 per cent of total official aid during this period. The share of official world aid to the Pacific has also remained relatively constant for most of this period. While less than 1 per cent in the early 1960s, from 1965 to 2002 it has hovered between 2 and 4 per cent.

Figure 4. Aid flows to the Pacific, 1960-2002



Developing countries attract, of course, development-oriented foreign financial transfers in addition of ODA. They attract official flows from OECD countries that do not qualify as ODA and private flows. The OECD reports data on both flows, labelling the former as other official financing (OOF) and the latter simply as private flows, which consist mainly of foreign direct investment. A reduction in ODA might be mitigated by increases in these flows, although there is less clarity over the impact of OOF and (to a lesser extent) private flows on growth and poverty reduction. Such mitigation has not occurred. As Figure 5 shows, OOF flows to sub-Saharan Africa have trended downward since the late 1980s, and were negative in each of the years 1996 to 2001. OOF increased sharply in 2001, but its level in that year was much less than that which prevailed in the mid- to late-1980s. Private flows have been much more volatile. They fell dramatically in 1984, recovered in 1989, but then trended downward thereafter. Non-ODA flows to the Pacific behave in a similar manner to those to sub-Saharan Africa. OOF flows have trended downward slightly from the early 1980s, and private flows have been extremely volatile since the mid-1970s.

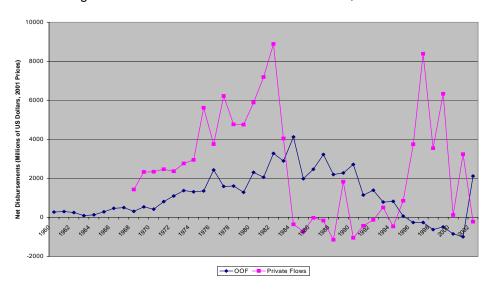
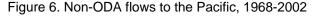
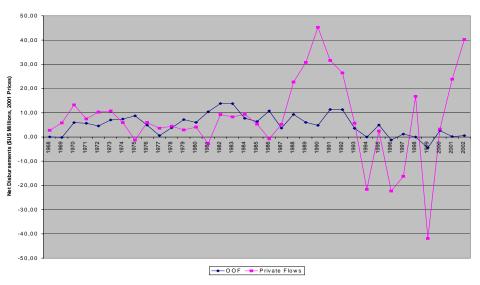


Figure 5. Non-ODA flows to sub-Saharan Africa, 1960-2002





While declines in ODA might potentially be mitigated by increases in other inflows, it should be recognized that this potential is somewhat limited in the case of sub-Saharan Africa. This is made clear by Table 1, which shows percentage breakdowns of foreign inflows reported by the OECD. ODA accounted for almost 90 per cent of total flows to sub-Saharan Africa during 1991 to 2002, indicating that many of the countries in this region are unable to attract private capital. Not only is this share more than twice that for all developing countries for the same period, it is also substantially higher than for the 1970s and 1980s overall. ODA dependency is a reality in sub-Saharan Africa. It is an even greater reality in the Pacific, which is even more dependent on ODA, bilateral ODA especially. More than 93 per cent of that region's total external flows were in the form of ODA during 1991 to 2002. Thus even if OOF and private flows were to continue to increase to sub-Saharan Africa and to the Pacific, such increases would have to be dramatic and sustained over many years for them to reduce the region's dependence on ODA.

Table 1
Total net disbursements of total official and private flows, by type, 1971-2002 (%)

	1971-78	1981-90	1991-2002
All developing countries			
Official development assistance (ODA)	36.7	50.8	43.6
Bilateral	29.0	38.3	30.9
Multilateral	7.7	12.5	12.7
Other official flows (OOF)	8.7	6.6	4.3
Private flows	50.7	38.2	47.7
Grants from NGOs	3.9	4.4	4.8
Total	100.0	100.0	100.00
Sub-Saharan Africa			
Official development assistance (ODA)	59.5	77.8	88.3
Bilateral	42.0	52.9	54.2
Multilateral	17.5	24.9	34.1
Other official flows (OOF)	11.2	14.4	0.2
Private flows	29.3	7.9	11.5
Grants from NGOs	n.a.	n.a.	n.a.
Total	100.0	100.0	100.0
The Pacific			
Official development assistance (ODA)	89.0	78.1	93.5
Bilateral	84.8	71.2	87.2
Multilateral	4.2	6.9	6.3
Other official flows (OOF)	5.6	8.7	2.5
Private flows	5.4	13.3	4.0
Grants from NGOs	n.a.	n.a.	n.a.
Total	100.0	100.0	100.0

Source: OECD (2004).

What can we infer from trends in aid and other foreign inflows to developing countries in light of the findings of the literature on macro level impacts of official aid? There would appear to be one inescapable conclusion from the preceding data. Given that the vast majority of the literature finds that aid is effective in promoting growth, that this result holds on average for all countries, and that reductions in aid have not been offset by increases in other development-oriented inflows, poverty is almost certainly higher in sub-Saharan Africa and the Pacific as a result of the declines in aid to these regions during the 1990s. This in turn means that the MDGs will be harder to achieve in these regions than would otherwise have been the case. While recent increases in aid to this region are to be welcomed, there remain many significant challenges for governments in sub-Saharan Africa, the Pacific, and the international donor community.

4 New and innovative sources of development finance

A battle of ideas has been steadily building up around what are now called 'new' or 'innovative' sources of development finance. The first of these to emerge, and still the best known, is the currency transactions tax (CTT)—popularly known as the 'Tobin tax' after the late James Tobin—which would apply to transactions in the foreign-exchange markets (spot, forward, future, swaps, and other derivatives). Tobin proposed the tax in the 1970s as a means for reducing destabilizing fluctuations in currencies following the breakdown of the long-standing fixed-exchange rate system of the Bretton Woods system. It was later taken up by international civil society as offering a potential source of development finance (on the history see Pätomaki and Sehm-Pätomaki 1999).

The stagnation in aid flows in the 1990s stimulated an increasing interest in the possibilities of such innovative sources of finance (Clunies-Ross 1999). The debate was invigorated by the report of the panel chaired by President Ernesto Zedillo of Mexico which estimated that an additional US\$50 billion would be required annually to achieve the international development goals (UN 2001). The Zedillo report also urged increased funding for global public goods in the areas of peacekeeping, health, and the environment (on the rationale for global public goods see Kaul et al. 2003). The 2002 UN Financing for Development Summit in Monterrey was also crucial, and the financing issue has become inter-twined with the even larger question of the UN's role in international economic governance (Nayyar 2002). As a result of the Five Year Review of the World Summit for Social Development, the UN General Assembly in September 2000 adopted a resolution calling for 'a rigorous analysis of the advantages, disadvantages and other implications of proposals for developing new and innovative sources of funding, both public and private, for dedication to social development and poverty eradication programmes'. The World Institute for Development Economics Research (UNU-WIDER) in Helsinki undertook the study for the UN Department of Economic and Social Affairs, the project being led by Anthony Atkinson of Oxford University (Atkinson 2004).

The UNU-WIDER study discusses the relative merits of global environmental taxes (a carbon-use tax), the Tobin tax, and the principles of international taxation more generally. The study finds that quite modest rates of taxation will raise significant funds for development and global public goods. The Tobin tax could generate US\$15-28 billion per year (Nissanke 2004). A tax on the use of hydrocarbon fuels according to their carbon content could raise US\$50 billion (Sandmo 2004). These taxes have 'double dividends'—reducing excessive currency speculation and global warming

respectively—but it must be emphasized that the tax rates used to make these calculations are smaller than those proposed in the general debate (thus the carbon tax rate used in the UNU-WIDER study is much less than that usually proposed to completely halt global warming, reflecting the study's concentration on the finance objective).

The study also examined other possibilities to increase financial flows to developing countries, including: the UK's proposal for the International Finance Facility (IFF); the creation of Special Drawing Rights (SDRs) for development purposes; new ideas to stimulate (and reduce the cost of) remittances; innovations in the area of charitable donations for development; the Finnish proposal for a global lottery; and a proposal to create a global premium bond for development based on the UK's successful premium bond scheme. The IFF would leverage additional money from the international capital markets (through a securitization process); it could achieve a flow of \$50 billion during the crucial years 2010 to 2015 (that is, up to the target date for the MDGs), building up from 2006 and falling to zero by 2020 (Mavrotas 2004). An SDR allocation of \$25-\$30 billion, with donor countries making their SDR allocation available to fund development, could make a significant contribution to the overall financing needs of poor countries; it would also generate a more balanced pattern of global economic growth by stimulating growth in the poorest countries of the South (Aryeetey 2004). Annual remittances amount to at least \$80 billion (much more than annual aid flows), and a reduction in transfer costs may help meet the MDGs when remittances flow to poorer households and communities (Solimano 2004). Development philanthropy by individuals and firms can certainly be increased by tax incentives, global funds, and corporate giving (including measures that encourage payroll giving), and the recent response to the tsunami disaster in Asia illustrates the potential in this area (Micklewright and Wright 2004). A global development lottery could perhaps raise an annual \$6 billion by taking a slice out of the world gambling market which is a \$1 trillion per year business, especially if buyers of lottery tickets take the view that development and global public goods are a better use of their money than swelling the profits of commercial gambling operators. A global premium bond would follow the modus operandi of the UK premium bond scheme whereby the bonds are entered in a monthly prize draw with no loss of the initial investment; this could constitute an attractive ethical investment product (Addison and Chowdhury 2004).

Since the UNU-WIDER study was undertaken at the behest of the UN General Assembly, the process represented a clear bridge from research into policy discussion at a high level. The UNU-WIDER study was also important in informing two other major initiatives: a study by the French government (Landau *et al.* 2004)—which also considered additional proposals such as a tax on airline fuel—as well as the 'Action Against Hunger and Poverty Initiative' of the governments of Brazil, Chile, France, and Spain which convened a heads of state meeting at the UN in September 2004 (President Chirac of France also spoke on the development finance theme at the 2005 Davos conference, where he emphasized the airline fuel tax).

UNU-WIDER's findings were presented at the Second Committee (Economic and Financial) of the UN General Assembly in October 2004. The study was generally well received by the European delegates (including the UK) as well as the developing countries. However, at this meeting the US delegation to the UN stated that the United States is firmly opposed to any form of international taxation as well as to any role for the UN in this area, while cautiously supporting some voluntary measures (such as

private and corporate philanthropy). This resonates with the views of the conservative press in the United States, as well as such bodies as the influential Heritage Foundation which is vehemently opposed to international taxes and, indeed, to the UN itself.

This debate now leads us to consider a key issue, namely what level of agreement is necessary for actual implementation? Although global taxes are promising from a revenue-raising perspective, their implementation requires a large amount of international political agreement. The Tobin tax will not get off the ground without the agreement of countries that host major centres of international finance (notably New York, London, and Frankfurt) while environmental taxes stumble over the present US administration's reluctance to face up to the facts of global warming. A smaller subset of countries can implement the IFF and this is one of the scheme's big advantages over global taxes; it appears that the IFF is inconsistent with the budgetary procedures of some donor countries, including those of Canada and the United States, but the de facto loosening of the EU's stability and growth pact in early 2005 may now make it easier for EU member states to sign up to the IFF. For the same reason, the IFF stands more of a chance than the proposal to create SDRs for development purposes; this requires ratification by 100 IMF members (85 per cent of the voting power of the Fund). Hence, the IFF stands the best chance of gathering a 'coalition of the willing' (to use an expression of Hilary Benn, the UK Secretary of State for International Development). A lottery for development purposes could be introduced by individual countries as could a global premium bond, but these may be opposed by the beneficiaries of existing national lotteries, including domestic charities as well as commercial gambling operators. A global premium bond would make inroads into the existing UK premium bond market, since the latter funds general government expenditures and ethical investors may prefer the former with its developmental ear-marking.

In summary, some proposals require a high level of international unanimity (global taxes), some can be introduced by a sub-set of countries or individual countries (the IFF, the global lottery, and the global prize bond), while still others (philanthropic measures) can be purely private initiatives (although they would benefit greatly from government support and help). Politics will therefore play a decisive role, including political mobilization at both national and international levels. For example, international development campaigners have put great store by the Tobin tax, but this is in our judgement the least likely to be implemented; we may therefore see in the near future a shift in campaigning focus to other measures that stand a greater chance of success. However, economics still has a major role to play in trying to develop creative and workable proposals. And campaigners for more development finance would do well to listen to economists working in this area, since we can be sure that the political forces opposed to any innovation will do their best to claim that economics is 'on their side'.

Finally, none of this flurry of interest in 'new', 'innovative', 'alternative', or 'additional' sources of development finance should be allowed to take attention away from the core task of mobilizing political support for increased official aid (and more debt relief). The developing countries themselves made this point at the UN General Assembly debate on the UNU-WIDER study; when the leaders of the rich world talk about innovation in development finance, they may be distracting attention from their own lack of success (or worse, lack of real interest) in raising aid. If, as Atkinson (2002) proposes, the EU committed 1 per cent of its GNP to development assistance—that is 1 per cent of €10,000 billion—then the world would be well on the way to finding the finance needed for the MDGs.

5 Conclusion

Aid is expected to meet a host of objectives; economic growth, poverty reduction and conflict prevention—to name just three of the most important. Having the right narrative about aid's effects is vital to successful policy-making. This paper has shown that the empirical literature published over the last eight years broadly concludes that growth would have been lower in the absence of official aid, despite the many valid criticisms of aspects of aid delivery. Aid works, therefore, and criticisms of aid's macrolevel impact—that it is overwhelmingly harmful, a failure or counterproductive—are simply not supported by research. The paper also presents evidence that aid increases public expenditure, including expenditures that are pro-poor in orientation. This, together with aid's positive impact on growth, implies that aid broadly works to reduce poverty, and that poverty would be higher in the absence of aid. In reaching this conclusion, we must emphasize that there is still considerable work to do in improving the role of aid in supporting pro-poor public expenditures, in understanding the povertyreducing effects of those expenditures, and in reducing the volatility of aid flows which creates problems for budgetary management. And growth's benefits for the poor, and their participation in the growth process, can be enhanced by well-designed aid programmes that improve the market access of the poor, build their human capital, and create infrastructure that supports smallholder and microenterprise livelihoods.

This paper has also discussed the substantial downturn in aid flows in the 1990s—which has been only partly ameliorated by their recent increase—and has highlighted the cases of sub-Saharan Africa and the Pacific. Poverty is clearly higher in sub-Saharan Africa and the Pacific as a result of the decline in aid to those regions during the 1990s. This in turn means that the MDGs will be harder to achieve since we are further behind target than would otherwise be the case if aid volumes had held up in the 1990s. Even seemingly optimistic forecasts suggest that the MDG target to reduce the proportion of people living in extreme poverty to half the 1990 level by 2015 will not be achieved in sub-Saharan Africa until 2147, some 132 years late (UNDP 2003). The Pacific region also faces immense challenges, including the rapid spread of HIV/AIDS which is undermining human development in what are mostly small and highly vulnerable economies. Given that aid is broadly effective, there can be little rationale for the stagnation in aid flows, and researchers either need to communicate better or donor governments need to listen harder.

This paper also examined new and innovative sources of development finance, focusing on the UNU-WIDER study presented to the UN General Assembly in 2005. Discussion of these sources of finance has opened up a major policy window and further research on the technical pros and cons of each can be expected. The UK's International Finance Facility is the lead runner, but other proposals may gain speed depending on how the political debate shapes up among major political players (the EU in particular), as well as the level of interest that can be generated by NGO campaigners for more development finance (and whether they will move beyond their concentration on the Tobin tax). Indeed, discussion of development financing is now caught up in the larger political issues of international economic governance and the role of the United Nations in economic affairs. The global debate can therefore be expected to remain vigorous, offering plenty of opportunities for researchers attempting to build bridges into policy in the area of development finance.

References

- Addison, T. (ed.) (2003). From Conflict to Recovery in Africa. Oxford University Press: Oxford, for UNU-WIDER.
- Addison, T., and A. Chowdhury (2004). 'A global lottery and a global premium bond', in A. B. Atkinson (ed.) *New Sources of Development Finance*. Oxford University Press: Oxford, for UNU-WIDER: 156-176.
- Addison, T. and A. Roe (eds) (2004). Fiscal Policy for Development: Poverty, Reconstruction and Growth. Palgrave Macmillan: Basingstoke for UNU-WIDER.
- Amavilah, V. H. (1998). 'German aid and trade versus Namibian GDP and Labour Productivity', *Applied Economics* 30: 689-95.
- Aryeetey, E. (2004). 'A development-focused allocation of the Special Drawing Rights', in A. B. Atkinson (ed.) *New Sources of Development Finance*. Oxford University Press: Oxford, for UNU-WIDER: 90-109.
- Atkinson, A. B. (2002). '1% of €10,000 Billion', in P. Townsend and D. Gordon (eds) *World Poverty: New Policies to Defeat an Old Enemy*. Policy Press: Bristol: 401-11.
- Atkinson, A. B. (ed.) (2004). *New Sources for Development Finance*. Oxford University Press: Oxford, for UNU-WIDER.
- Auty, R. (ed.) (2001). Resource Abundance and Economic Development. Oxford University Press: Oxford, for UNU-WIDER.
- Beynon, J. (2001). 'Policy implications for aid allocations of recent research on aid effectiveness and selectivity'. Paper presented at the Joint Development Centre/DAC Experts Seminar on Aid Effectiveness, Selectivity and Poor Performers, January. OECD: Paris.
- Beynon, J. (2002). 'Policy implications for aid allocations of recent research on aid effectiveness and selectivity', in B. Mak Arvin (ed.) *New Perspectives on Foreign Aid and Economic Development*. Praeger: Westport.
- Birdsall, N., S. Claessen, and I. Diwan (2004). 'Policy selectivity forgone: debt and donor behaviour in Africa', in T. Addison, H. Hansen and F. Tarp (eds) *Debt Relief for Poor Countries*. Palgrave Macmillan: Basingstoke for UNU-WIDER: 59-89.
- Burnside, C. and D. Dollar (1997). 'Aid, policies and growth'. Policy Research Working Paper No. 1777. World Bank: Washington DC.
- Burnside, C. and D. Dollar. (2000). 'Aid, policies and growth'. *American Economic Review* 90(4): 847-68.
- Burnside, C. and D. Dollar (2004). 'Aid, policies and growth: revisiting the evidence'. Policy Research Paper No. O-2834. World Bank: Washington DC.
- Bulíř, A. and J. Hamann (2003). 'Aid volatility: an empirical assessment'. *IMF Staff Papers* 50: 65-89.
- Cassen, R. and Associates (1994). *Does Aid Work?* Clarendon Press: Oxford.

- Chauvet, L. and P. Guillaumont (2002). 'Aid and growth revisited: policy, economic vulnerability and political instability'. Paper present at the Annual Bank Conference or Development Economics on Towards Pro-poor Policies, June. Oslo.
- Clemens, M. and S. Radelet (2003). 'The millennium challenge account: how much is too much, how long is long enough?' Working Paper No. 23. Centre for Global Development: Washington DC.
- Clemens, M., S. Radelet and R. Bhavnani (2004). 'Counting chickens when they hatch: the short-term effect of aid on growth'. Working Paper No. 44. Centre for Global Development: Washington DC.
- Clunies-Ross, A. (1999). 'Sustaining revenue for social purposes in the face of globalization', in *Experts Discuss Some Critical Social Development Issues*. UN Department of Economic and Social Affairs: New York.
- Collier, P. and J. Dehn (2001). 'Aid, shocks, and growth'. Policy Research Working Paper No. 2688. World Bank: Washington DC.
- Collier, P. and D. Dollar (1999). 'Aid allocation and poverty reduction'. Policy Research Working Paper No. 2041. World Bank: Washington DC.
- Collier, P. and D. Dollar (2001). 'Can the world cut poverty in half? How policy reform and effective aid can meet the international development goals?' *World Development* 29(11): 1787-1802.
- Collier, P. and D. Dollar (2002). 'Aid allocation and poverty reduction'. *European Economic Review* 26: 1475-1500.
- Collier, P. and D. Dollar (2004). 'Development effectiveness: what have we learnt?' *Economic Journal* 114(496): F244-F271.
- Collier, P. and A. Hoeffler (2002). 'Aid, policy, and growth in post-conflict societies'. Policy Research Working Paper No. 2902. World Bank: Washington DC.
- Cordella, T. and G. Dell'Ariccia (2003). 'Budget support versus project aid: a theoretical appraisal'. IMF Working Paper No. 03/88. International Monetary Fund: Washington DC.
- Dalgaard, C. and H. Hansen (2001). 'On aid, growth and good policies'. *Journal of Development Studies* 37(6): 17-35.
- Dalgaard, C., H. Hansen and F. Tarp (2004). 'On the empirics of foreign aid and growth'. *Economic Journal* 114(496): F191-F216.
- de Renzio, P. (2005). 'Can more aid be spent in Africa?' *ODI Opinions*. Overseas Development Institute: London.
- Durbarry, R., N. Gemmell and D. Greenaway (1998). 'New evidence on the impact of foreign aid on economic growth'. CREDIT Research Paper No. 98/9. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Easterly, W., R. Levine and D. Roodman (2003). 'New data, new doubts: revisiting "aid, policies and growth"'. CGD Working Paper No. 26. Centre for Global Development: Washington DC. Published as 'Aid, Policies, and Growth: Comment', *American Economic Review* (2004), 94(3): 774-80.

- Economides, G., S. Kalyvitis and A. Philippopoulos (2004). 'Do foreign aid transfers distort incentives and hurt growth? Theory and evidence from 75 aid-recipient countries'. Mimeo. Athens University of Economics and Business: Athens.
- Feeny, S. (2005). 'The impact of aid on economic growth in Papua New Guinea'. Journal of Development Studies 41 (forthcoming).
- Feyzioglu, T., V. Swaroop and M. Zhu (1998). 'A panel data analysis of the fungibility of foreign aid'. *World Bank Review* 12: 29-58.
- Fielding, D. and G. Mavrotas (2005). 'The volatility of aid'. WIDER Discussion Paper 2005/06. UNU-WIDER: Helsinki.
- Foster, M. (2003). 'The case for increased aid'. Report to the UK Department for International Development: London.
- Franco-Rodriguez, S., M. McGillivray and O. Morrissey (1998). 'Aid and the public sector in Pakistan: evidence with endogenous aid'. *World Development* 26: 1241-50.
- Gemmell, N. and M. McGillivray (1998). 'Aid and tax instability in the government budget constraints in developing countries'. CREDIT Research Paper 98/1. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Gomanee, K., S. Girma and O. Morrissey (2002). 'Aid and growth in Sub-Saharan Africa: accounting for transmission mechanisms'. CREDIT Research Paper 02/05. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Gomanee, K., O. Morrissey, P. Mosley and A. Verschoor (2003). 'Aid, pro-poor government expenditure and welfare'. CREDIT Research Paper 03/03. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Gomanee, K., S. Girma and O. Morrissey (2003). 'Searching for aid threshold effects: aid, growth and the welfare of the poor'. CREDIT Research Paper 03/15. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Gounder, R. (2001). 'Aid-growth nexus: empirical evidence from Fiji'. *Applied Economics* 33: 1009-19.
- Gounder, R. (2002). 'Empirical evidence of the relationship between foreign aid and economic growth: the case of the Solomon Islands', in B. Mak Arvin (ed.) *New Perspectives on Foreign Aid and Economic Development*. Praeger: Westport.
- Guillaumont, P. and L. Chauvet (2001). 'Aid and performance: a reassessment'. *Journal of Development Studies* 37(6): 66-87.
- Heller, P. and S. Gupta (2002). 'More aid—making it work for the poor'. World Economics 3(4): 131-46.
- Hansen, H. and F. Tarp (2000). 'Aid effectiveness disputed'. *Journal of International Development* 12: 375-98.
- Hansen, H. and F. Tarp (2001). 'Aid and growth regressions'. *Journal of Development Economics* 64(2): 547-70.

- Hudson, J. and P. Mosley (2001). 'Aid, policies and growth: in search of the holy grail'. *Journal of International Development* 13: 1023-38.
- Kaul, I., P. Conceição, K. Le Goulven and R. U. Mendoza (eds) (2003). *Providing Global Public Goods: Managing Globalization*. New York: Oxford University Press for UNDP.
- Kayizzi-Mugerwa, S. (ed.) (2003). *Reforming Africa's Institutions: Ownership, Incentives and Capabilities*. Tokyo: United Nations University Press for UNUWIDER.
- Kosack, S. (2003). 'Effective aid: how democracy allows development aid to improve the quality of life'. *World Development* 31(1): 1-22.
- Landau, J. P., *et al.* (2004). 'Groupe de travail sur les nouvelles contributions financières internationals', rapport à Monsieur Jacques Chirac Le Président de la République, Paris.
- Lensink, R. and O. Morrissey (2000). 'Aid instability as a measure of uncertainty and the positive impact of aid on growth'. *Journal of Development Studies* 36(3): 31-49.
- Lensink, R. and H. White (2000). 'Assessing aid: a manifesto for the 21st century?' *Oxford Development Studies* 28(1): 5-18.
- Lensink, R. and H. White (2001). 'Are there negative returns to aid?' *Journal of Development Studies* 37(6): 42-64.
- Lloyd, T., O. Morrissey and R. Osei (2001). 'Aid, exports and growth in Ghana'. CREDIT Research Paper No. 01/01. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- Lu, S. and R. Ram (2001). 'Foreign aid, government policies and economic growth: further evidence from cross-country panel data for 1970 to 1993'. *International Economics* 54: 15-29.
- Mavrotas, G. (2002a). 'Aid and growth in India: Some evidence from disaggregated aid data'. *South Asia Economic Journal* 3(1): 19-49.
- Mavrotas, G. (2002b). 'Foreign aid and fiscal response: does aid disaggregation matter?' *Weltwirtschaftliches Archiv* 138(3): 534-59.
- Mavrotas, G. (2003). 'Which types of aid have the most impact?' WIDER Discussion Paper 2003/85. UNU-WIDER: Helsinki.
- Mavrotas, G. (2004). 'The international finance facility proposal'. in A. B. Atkinson (ed.) *New Sources of Development Finance*. Oxford University Press: Oxford, for UNU-WIDER: 110-131.
- Mavrotas, G. and B. Ouattara (2003). 'Aid disaggregation, endogenous aid and the public sector in aid-recipient economies'. WIDER Discussion Paper 2003/15. UNU-WIDER: Helsinki. Forthcoming in *Review of Development Economics* (2006) 10.
- McGillivray, M. (2000). 'Aid and public sector fiscal behaviour in developing countries'. *Review of Development Economics* 4(2): 156-163.

- McGillivray, M. (2003). 'Aid effectiveness and selectivity: integrating multiple objectives in aid allocations'. Paper presented at the Joint OECD DAC/Development Centre Aid Experts' Seminar. OECD Headquarters: Paris.
- McGillivray, M. and A. Ahmed (1999). 'Aid, adjustment and the public sector in the Philippines'. *Journal of the Asia-Pacific Economy* 4(2): 381-91.
- McGillivray, M. and O. Morrissey (2001a). 'New evidence of the fiscal effects of aid'. CREDIT Research Paper No. 01/13. Centre for Research in Economic Development and International Trade, University of Nottingham: Nottingham.
- McGillivray, M. and O. Morrissey (2001b). 'Aid illusion and public sector fiscal behaviour'. *Journal of Development Studies* 37(6): 118-136.
- McGillivray, M. and B. Ouattara (2005). 'Aid, debt burden and government fiscal behaviour in Cote d'Ivoire'. *Journal of African Economies* 14(2): 147-161.
- Micklewright, J. and A. Wright (2004). 'Private donations for international development', in A. B. Atkinson (ed.) *New Sources of Development Finance*, Oxford University Press: Oxford, for UNU-WIDER: 132-155.
- Morrissey, O. (2001). 'Does aid increase growth?' *Progress in Development Studies* 1(1): 37-50.
- Murshed, S M. (2001). 'Short-run models of natural resource endowment', in R. M. Auty (ed.) *Resource Abundance and Economic Development*. Oxford University Press: Oxford, for UNU-WIDER.
- Nayyar, D. (ed.) (2002). *Globalization: Issues and Institutions*. Oxford University Press: Oxford, for UNU-WIDER.
- Nissanke, M. (2004). 'Revenue potential of the Tobin tax for development finance: a critical appraisal', in A. B. Atkinson (ed.) *New Sources of Development Finance*, Oxford University Press: Oxford, for UNU-WIDER: 58-89.
- OECD (2003). Geographical Distribution of Financial Flows to Developing Countries. OECD: Paris.
- OECD (2004). International Development Statistics On-line. OECD: Paris.
- Ouattara, B. and E. Strobl (2004). 'Disaggregating the aid and growth relationship'. Discussion Paper No. 0414. School of Economic Studies, University of Manchester: Manchester.
- Pallage, S. and M. Robe (2001). 'Foreign aid and the business cycle'. *Review of International Economics* 9: 636-67.
- Pätomaki, H. and K. Sehm-Pätomaki (1999). *The Tobin Tax: How to Make it Real*. The Network Institute for Global Democratisation: Helsinki.
- Ram, R. (2003). 'Roles of bilateral and multilateral aid in economic growth of developing countries'. *Kyklos* 56: 95-110.
- Ram, R. (2004). 'Recipient country's 'policies' and the effect of foreign aid on economic growth in developing countries: additional evidence'. *Journal of International Development* 16: 201-11.

- Robinson, S. and F. Tarp (2000). 'Foreign aid and development: summary and synthesis', in F. Tarp and P. Hjertholm (eds) *Foreign Aid and Development: Lessons Learnt and Directions for the Future*. Routledge: London.
- Roodman, D. (2003). 'The anarchy of numbers: aid, development and cross-country empirics'. CGD Working Paper No. 32. Center for Global Development: Washington DC.
- Sachs, J. (2005). The End of Poverty: How We Can Make it Happen in Our Lifetime. Penguin Books: London.
- Sandmo, A. (2004). 'Environmental taxation and revenue for development', in A. B. Atkinson (ed.) *New Sources of Development Finance*, Oxford University Press: Oxford, for UNU-WIDER: 33-57.
- Shorrocks, A. and R. van der Hoeven (2004). *Growth, Inequality and Poverty: Prospects for Pro-Poor Economic Development*. Oxford University Press: Oxford, for UNU-WIDER.
- Singer, H. (1965). 'External aid: for plans or projects?' Economic Journal 75: 539-45.
- Solimano, A. (2004). 'Remittances by emigrants: issues and evidence', in A. B. Atkinson (ed.) *New Sources of Development Finance*, Oxford University Press: Oxford, for UNU-WIDER: 177-199.
- Svensson, J. (2000). 'Foreign aid and rent-seeking'. *Journal of International Economics* 51: 437-61.
- Swaroop, V., S. Jha and A. Rajkumar (2000). 'Fiscal effects of foreign aid in a federal system of governance: the case of India'. *Journal of Public Economics* 77: 307-30.
- UN (2001). Report of the High-Level Panel on Financing for Development (chair Ernesto Zedillo). United Nations: New York.
- UNDP (2003). *Human Development Report 2003*. UNDP and Oxford University Press: Oxford and New York.
- UN Millennium Project (2005). *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. United Nations: New York.
- White, H. (1998). Aid and Macroeconomic Performance: Theory, Empirical Evidence and Four Country Cases. Macmillan: London.