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Is Aid Effective?

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Abstract

Official aid is often criticized for not have contributed to economic growth and poverty reduction. This is of great concern given the role that aid is expected to play in achieving the Millennium Development Goals (MDGs). This paper surveys empirical literature on the macro level effectiveness of aid, paying special attention to studies of these inflows and economic growth. It finds overwhelming evidence that aid increases growth and other poverty-relevant variables. By implication, therefore, it can be inferred that poverty would be higher in the absence of aid. The paper also reviews trends in official development assistance since 1960, highlighting a downturn in the 1990s. It asserts that poverty is higher and the MDGs are harder to achieve as a result of this downturn. Other sources of development finance are also discussed briefly.

Key Words: aid, official development assistance, growth, poverty, public expenditure, Millennium Development Goals, sub-Saharan Africa, Pacific, innovative sources of finance.

JEL Classifications: F35, O55.

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I. Introduction

Official aid faces many challenges. The most difficult relates to the Millennium Developments Goals (MDGs). The principal MDG target - reducing the proportion of people living in extreme poverty to half the 1990 level by 2015 - on current trends will not be achieved in sub-Saharan Africa. Even seemingly optimistic forecasts suggest that the MDG income poverty target will not be achieved in sub-Saharan Africa until 2147, some 132 years late. Prospects for the achievement of other MDG targets in sub-Saharan Africa by 2015 are just as dismal. Cutting child mortality by two-thirds and achieving universal primary education will not be achieved until 2165 and 2129, respectively, according to recent forecasts (UNDP, 2003). The MDGs will also be difficult to achieve in other parts of the world. For instance, primary education enrolment rates remain low in South Asia, while in the Pacific maternal mortality remains very high and the spread of HIV/AIDS is not being halted (United Nations, 2004). The challenge for aid is that it is expected to help achieve the MDGs. Accordingly there are widespread calls to double official world aid from its current level, to approximately $US120 billion per year. But the challenge is not isolated to the MDGs. Donors expect aid to help achieve many other objectives, including the promotion of international peace and security.

The many developmental objectives that aid is expected to achieve are premised on the fundamental assumption that aid works in reducing poverty. Yet the effectiveness of aid in reducing poverty and achieving other related developmental outcomes, including pre-conditions for poverty reduction, has been questioned for many decades. Some critics go so far as to label aid as harmful, a failure or as counterproductive in terms of these effectiveness criteria. This paper surveys recent empirical literature on the aggregate, country level impacts of foreign aid. It is particularly interested in analyses of possible links between aid and national economic growth per capita. It reveals the overwhelming majority of recent, widely circulated empirical studies find that economic growth would be lower in the absence of aid. Also shown is evidence that aid is associated with higher public expenditures than would otherwise have prevailed. Included in these expenditures are those that are pro-poor in orientation. One can reasonably infer from these findings that poverty would be higher in the absence of aid, the many valid criticisms of aspects of aid delivery nothwithstanding. Aid works, therefore, and criticisms of it macro level impacts are simply not supported.[1]

The paper then examines international trends in official aid and other international resource transfers over the period 1960 to 2002. It does so in the context of the MDGs and a recently found confidence in the effectiveness of official development assistance. Aid flows to sub-Saharan Africa are highlighted, given the plight of that region. Flows to the Pacific, a region that has received little international attention, are also highlighted. It highlights falls in aid since the early 1990s and briefly considers the implications of them for growth and poverty reduction. It concludes by briefly considering alternative sources of external development finance.

II. Aid Effectiveness: A Brief Survey

Accompanying the MDGs is a recently found optimism associated with official aid. This is based on 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 appears to work in the sense that per capita economic growth would have been lower in its absence, 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, one that marks a remarkable turnaround in the literature on aid effectiveness, which for decades provided rather inconclusive, often contradictory findings.[2] [3]

The overall message from the empirical literature is thus reasonably clear: to the extent that growth is good for poverty reduction, it can reasonably be inferred that poverty would be higher in the absence of aid flows. The finding should not imply that there are no valid grounds on which official aid can be criticised. Fungibility, insufficient

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1. One could assert that aid has failed because it has not eradicated world poverty. This, though, is far too lofty an expectation for aid as it assumes that these inflows have the potential to offset factors which cause poverty. No one factor can be reasonably expected to do this.
2. See Cassen (1994) for an excellent discussion of the results of earlier studies.
3. The turning point in the literature is defined by two, very well-known studies. The first is Burnside and Dollar (1997) and the second is a *Assessing Aid: What Works, What Doesn't and Why* (World Bank, 1998). The latter reports results presented in the former. To the authors knowledge, a further 35 studies empirical aid-growth studies have been conducted since Burnside and Dollar (1997) Each is cited below. Thirty-four of these studies provide original empirical results, obtained from either new or updated data sets, similar data sets but employing different empirical methods or both. The only study which does not provide new results is Collier and Dollar (2002), which re-reports results shown in Collier and Dollar (2001). Inclusive Burnside

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 the valid grounds for criticism. But in their proper context they do not provide a sufficient case for arguing that aid has failed. They instead provide a case for why aid has not worked better and point to areas in which improvements need to be made.

Why aid now appears to work in promoting growth, after decades of little or no clarity in research circles 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 (McGillivray, 2003a, 2002b). 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 (McGillivray, 2003a).

There is evidence that its impact 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, Svensson, 1999, Collier and Dehn, 2001 and Collier and Hoeffler, 2002). But there is more evidence to suggest that aid works in countries irrespective of the quality of policy regime (Amavilah, 1998, Durbarry *et al.*, 1998, Hansen and Tarp, 2000, 2001, Lensink and Morrissey, 2000, Lensink and White, 2001, Dalgaard and Hansen, 2001 Guillamont and Chauvet, 2001, Hudson and Mosley, 2001, Lloyd *et al.*, 2001, Lu and Ram 2001, Chauvet and Guillamont, 2002, Dalgaard *et al.*, 2004, Gounder, 2001, 2002, Mavrotas 2002a, Gomanee *et al*, 2002a, 2003, Ram, 2003, 2004, Economides *et al.*, 2004, Feeny, 2004, Clemens *at al.*, 2004, Heady *et al.*, 2004, Outtara and Strobl, 2004, and Roodman, 2004).[4] Irrespective of whether policy is important for aid effectiveness, it

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and Dollar (1997), 36 studies have been conducted during 1997 to 2004, therefore. Thirty-four of these studies conclude that aid works.

4. Some of these studies explicitly test for the relevant of policy, finding that aid's impact on growth is not contingent on the recipient policy regime. Others do not take this issue into account, but still find that aid and growth are positively associated. Easterly *et al* (2003) and Jensen and Paldham (2003) are the only papers, to the author's knowledge, which do not support the hypothesis that aid and growth are positively associated. Note, though, that the former study was concerned with critiquing Burnside and Dollar's econometric analysis, and not with the effects of aid *per se*. On a similar vein, the Roodman (2003) study shows that the results obtained

must be emphasised that both groups of studies agree that aid works, in one way or another. The debate is over whether aid impact is contingent upon recipient policy regimes. More precisely, 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 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.[5] 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 utilise diverse samples of countries. There is diversity in terms of whether or not a country a country is structurally vulnerable, in a post-conflict scenario, undergoing trade shocks, democratic, highly populated and so on.[6] 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 *et al.* (2003), for example, report findings specific to sub-Saharan Africa. Others provide results that are country-specific. Amavilah (1998), Gounder (2001, 2002) and Feeny (2004) look at the cases of Namibia, 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.[7] 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.

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by some studies can be fragile, and for this reason qualifies the results it reports. Further note that Ouattara and Strobl (2004) concludes that project aid worked but program aid did not and Ram (2004) concludes while the overall impact of aid is positive, that multilateral unlike bilateral aid does not work. All the studies cited above were concerned specifically at the impact of aid on per capita national income growth, the exception being Lloyd *et al.*, which looked at private consumption growth. See Beynon (2001, 2002), McGillivray (2003b, 2003c) and Morrissey (2001) for surveys of the aid-growth literature. For a discussion of a range of related issues, see Collier and Dollar (2004) and Lensink and White (2000)

5. See Robinson and Tarp (2000), Benyon (2001, 2002), Morrissey (2002), Collier (2002) and McGillivray (2003b)

6. 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 above reasonable steps have in general been taken to handle this diversity.

7. Amavilah (1998) was concerned solely with German aid to Namibia.

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 means of reducing poverty, nor is it necessarily the most efficient way. Gomanee *et al.* (2002b) look at aid and pro-poor expenditures, finding that aid is associated with increases in these expenditures and in turn improvements in overall well-being achievement. Kosack (2003) found that, contingent on the extent of democracy in recipient countries, aid was positively associated with the level of well-being achievement 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. Included in expenditure categories are those that support the provision of health and education services important to MDG achievement. Recent studies include Feyzioglu, *et al.* (1998), Franco-Rodriguez *et al.* (1998), McGillivray and Ahmed (1999), Swaroop *et al.* (2000), McGillivray and Morrissey (2001b) McGillivray (2000), Mavrotas (2002) and McGillivray and Outtara (2005). The evidence emerging from these studies is not as unambiguous as that emerging from the aid-growth literature, but it is in general concluded that aid results in higher public expenditure than would otherwise have prevailed, although it can also result in decreases in tax revenue and increases in public sector debt.[8]

While aid is positively associated with growth, there can be too much of good thing, with aid being to be subject to diminishing returns. This is based on the findings of a number of studies that 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. That diminishing returns exists is a seemingly highly robust finding, with almost all studies testing for such a relationship finding evidence of its existence. Among the studies reporting diminishing returns are Durbarry *et al.* (1998), 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 et al. (2004). These studies find that negative returns set-in when the aid inflow reaches anywhere between 15 and 45 percent of GDP. This has been interpreted as

8. The relevant literature is surveyed in McGillivray and Morrissey (2001a). Feeny and McGillivray (2003) look at the results of 15 empirical studies, conducted during the period 1975 to 2000, that analyse links between aid and various public sector variables. Eleven of these studies find that aid is associated with higher levels of public expenditure than would otherwise be the case, although eight provide evidence of aid being associated with higher public sector borrowing. The increases in debt are, though, much smaller in magnitude that the increases in expenditure for the countries or samples in which the former result was observed.

indicating limited aid absorptive capacities, with recipient governments being limited in the amounts of aid they can use effectively (Clemens and Radelet, 2003).[9] This is not, though, an argument against aid. It is an argument for donors being 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.

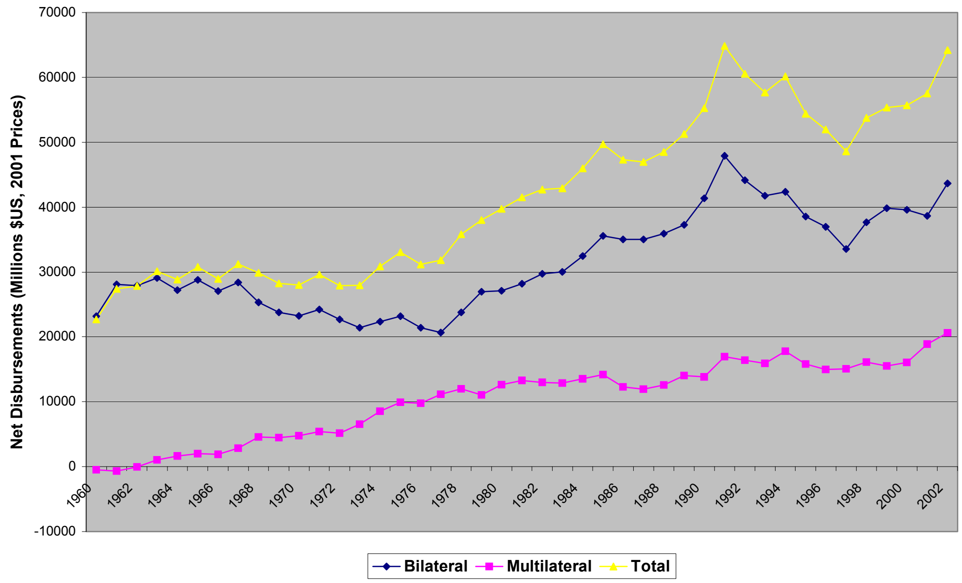
III. Aid Volumes and Trends

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 that 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.[10] 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 $US58.3 billion in 1991, it dropped to $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 1990s falls 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.

9. Heller and Gupta (2002) provide a useful discussion of this issue, along with the related problem of Dutch Disease. Note though that Gomanee *et al.* (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.

10. 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 (2003a) for further details. The latest available comparable international aid data are for 2002.

Figure 1. Total Bilateral and Multilateral ODA, 1960 to 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 $US17.3 billion in 1990, it fell substantially in the mid-1990s, falling from $16.9 billion in 1994 to 11.6 billion in 1999. [11] This trend was reversed in 2000, with ODA reaching a post-1960 high of $17.7 billion in 2002. While the rises in ODA from 1999 should obviously not be overlooked as a very positive signal, the reality is that sub-Saharan Africa has received $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 multilateral since 2000. The main point, however, is that the decline in aid amounts 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.

11. Much of the 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 *et al.*, 2004).

Figure 2: Aid Flows to sub-Saharan Africa, 1960 to 2002

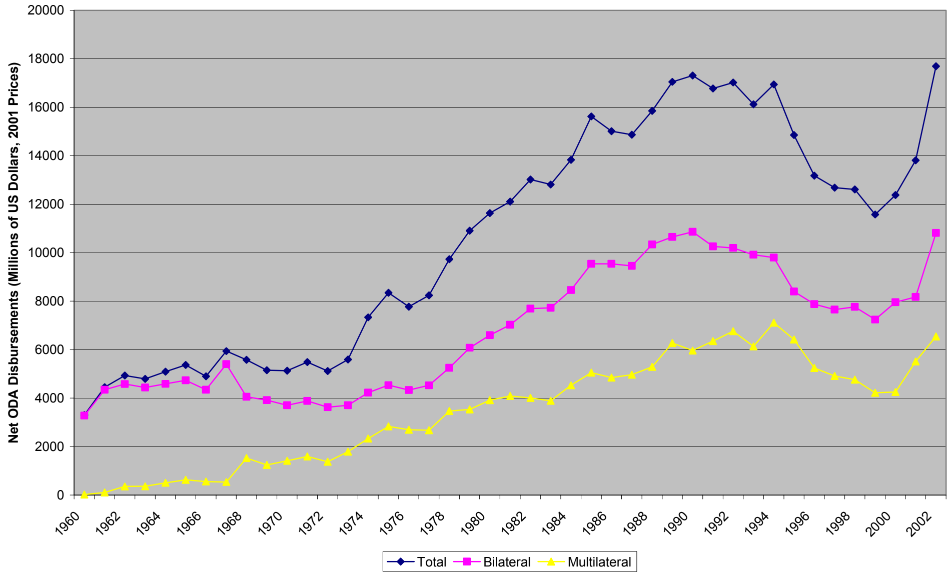
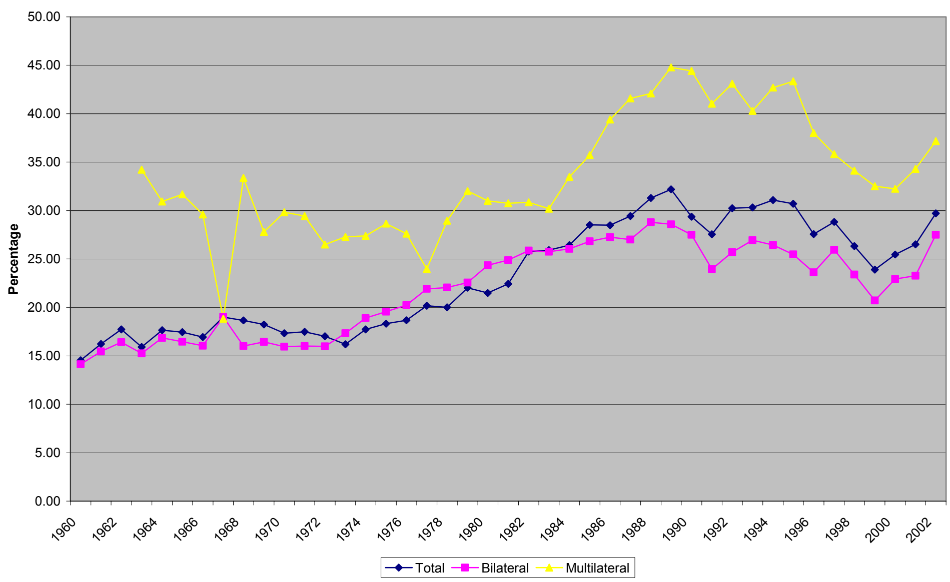
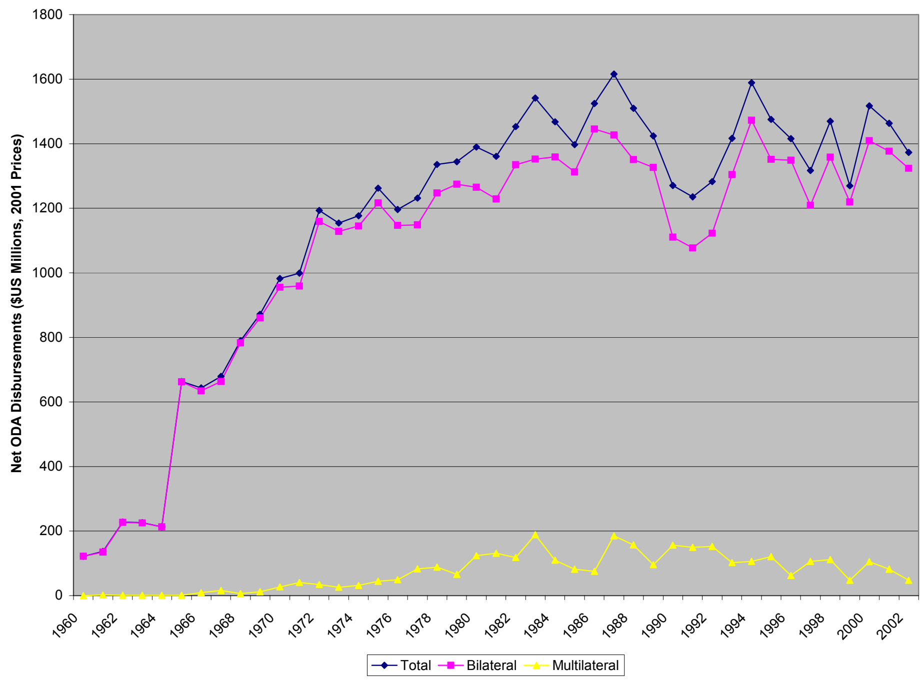


Figure 3: World Aid Shares to sub-Saharan Africa, 1960 to 2002



Official aid flows to the Pacific trended upward from 1960 to the late 1980s, peaking at $US1.62 billion in 1987 (see Figure 4). They fell to $US1.24 billion in 1991. Unlike total ODA and that to sub-Saharan Africa, recovered in the early 1990s, reaching $US1.59 billion in 1994, but then trended downward, falling to $US1.37 billion in 2002. Flows to the Pacific are dominated by bilateral aid, from DAC member countries. Multilateral aid, which has remained relatively constant during 1960 to 2002, has on average constituted just over five percent 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 then one percent in the early 1960s, from 1965 to 2002 it has hovered between two and four percent.

Figure 4: Aid Flows to the Pacific, 1960 to 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 to 2002

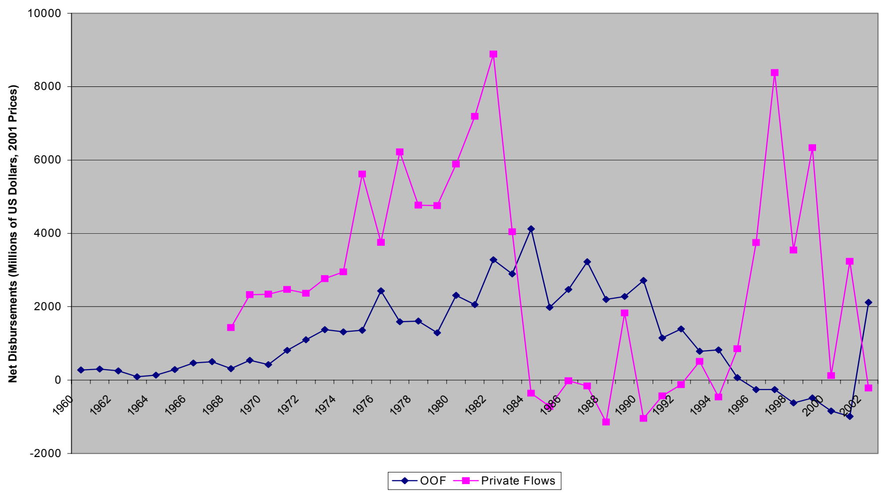
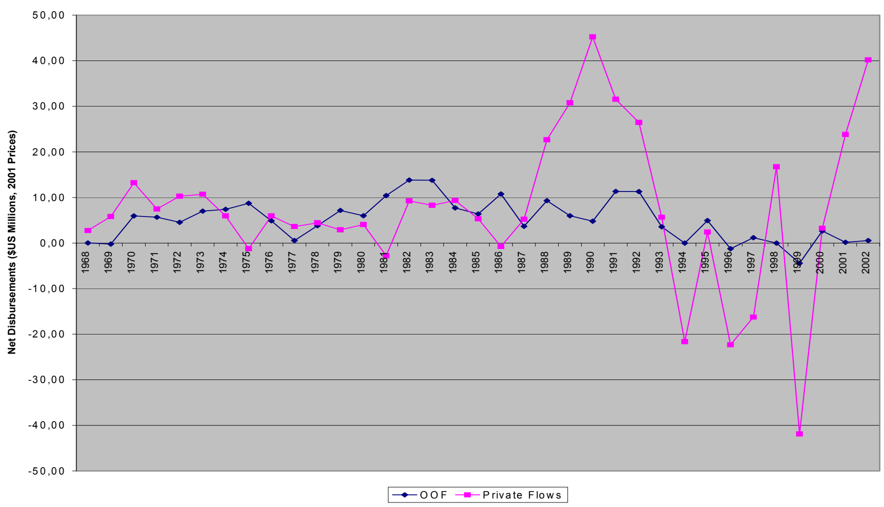


Figure 6: Non-ODA Flows to the Pacific, 1968 to 2002



While declines in ODA might potentially be mitigated by increases in other inflows, it should be recognised 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 percent 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, but is 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 percent 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, 1971-2001 (%)

	1971-80	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).

IV. Conclusion

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, and by implication in reducing poverty, that this result holds on average for all countries poverty is undoubtedly higher in sub-Saharan Africa and the Pacific as a result of the declines in aid to these regions during the 1990s. Moreover, these declines of their poverty-reducing implications have not been offset by increased in other development-oriented forms of external finance. These factors combine to dictate 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.

The obvious challenge is to sustain recent increases in official aid to both sub-Saharan Africa and the Pacific. Another appropriate response is to look to other, innovative sources of external finance to assist in the achievement of the MDGs. A number of possible sources have been recently been proposed. These include the Tobin tax, the International Finance Facility, a global lottery, a global premium bond, development-focussed special drawing rights and a global environment tax (Atkinson, 2003, 2004). These sources should be seen as an augmentation of official aid, building on the positive impact of these flows, but at the same time building on factors that increase the poverty reducing impact of this category of inflow. It is a case of not throwing the baby out with the bath water.

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