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Chapter V

OFFICIAL DEVELOPMENT ASSISTANCE FOR THE MDGs AND ECONOMIC GROWTH



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A. Introduction

Official development assistance (ODA) has acquired a pivotal position in economic relations between developed and developing countries in the context of Goal 8 of the Millennium Development Goals (MDGs), which calls for a global partnership for development. To help developing countries achieve the MDGs, all States subscribing to the Monterrey Consensus (United Nations, 2002) recognized the need for concrete efforts to reach the quantitative targets for ODA that have long been on the international cooperation agenda. Furthermore, in 2005 most DAC donors set ambitious targets for increasing their ODA. However, despite a substantial rise in ODA disbursements, as of 2007 most donors were not on track to meet these targets (OECD, 2008).¹

Since the 1980s, bilateral and multilateral donors have incorporated increasingly demanding policy conditions into aid agreements with the objective of making the use of aid more effective. Questions surrounding the type, sources, purpose and channels of aid are critically important in the larger debate

on aid effectiveness. The policy framework that has guided ODA flows over the past decade or so has rested on the belief that, in the long run, better institutions lead to faster growth. Thus aid effectiveness is also increasingly associated with better institutions and policies. And, despite weak evidence of such a correlation, aid is often made conditional on good governance.

Despite a substantial rise in ODA disbursements, in 2007 most donors were not on track to meet their ODA targets.

The yardstick against which aid effectiveness is measured is not always clear. Certainly, the sectoral destination of ODA (and its link to the productive economy) makes a difference in terms of the impact of a particular aid package on growth. From most donors' perspectives, the political considerations driving aid are as imperative as

measures to ensure its transparent and effective use by beneficiaries. From the perspective of a poor developing country, on the other hand, harmonization, simplification and predictability of aid flows are as vital as the extent to which aid enables and empowers governments to assume their role in development. In

terms of the MDGs, aid effectiveness is viewed in terms of the level and quality of aid that should enable recipient countries to achieve those goals by 2015.

The Monterrey Consensus also recognized a possible role for innovative sources of development finance, and highlighted the need to maintain adequate funding of international financial institutions. This chapter reviews the trends that have shaped ODA since the beginning of the new millennium and assesses their measurable or possible effects on key development indicators, especially the MDGs. It shows that, although donor countries have made considerable efforts to increase their ODA in line with

old and new commitments, there is still a considerable gap between actual ODA flows and the aid estimated to be necessary to undertake measures in pursuit of the MDGs. Moreover, there is a risk that the design of ODA in the coming years may be too narrowly oriented towards realizing an improvement in the indicators against which achievement of the MDGs is measured. At the same time, ODA aimed at enhancing productive capacity, creating employment, increasing domestic value added and contributing to structural change risks being neglected. Yet, without such investments, poverty reduction and the improvement of other social and human development indicators are unlikely to be sustainable.

B. The rationale for ODA

The economic case for extending aid to poorer countries still largely rests on the growth and gap models of the 1950s and 1960s.² These suggest that aid can provide an initial boost to domestic capital formation, which will eventually augment fiscal revenues, export earnings and per capita incomes. Over time, growth and development should become self-sustaining and the need for aid should disappear (UNCTAD, 2000 and 2006).

Traditionally, the underlying premise for the transfer of financial resources from capital-rich industrialized countries to capital-scarce developing countries is rooted in the notion that additional resources are necessary for creating and upgrading productive capacity in the process of growth and structural change. One way to express this formally is through the use of an economic growth model that allows for foreign financing

to fill the chronic gap between domestic savings and the total investment needed to reach a targeted higher growth rate without creating an unsustainable debt (Rosenstein-Rodan, 1961).

From another perspective, growth and structural change in a typical low-income country are understood to be constrained by the fact that the imports deemed essential for accelerating growth and structural change are greater than the country's export potential. This results in a foreign-exchange gap, which is identical to the savings gap inasmuch as it corresponds to the current-account deficit. However, the foreign-exchange-gap theory also has a structural aspect in that a current-account deficit results

from the need for capital and intermediate goods that cannot be produced domestically but are necessary for strengthening the productive sectors and

Aid can provide an initial
boost to domestic capital
formation.

diversifying the economies of low-income countries, which typically have no, or very limited, access to private external capital.

The fact that developing countries as a group have registered net capital outflows since the turn of the century may give the impression that some of these countries no longer require external development finance since they can ensure stable economic and social development through export led-growth and macroeconomic management aimed at avoiding current-account deficits without sacrificing growth (see chapter III above). However, it should be pointed out that the current account performance of developing countries as a group has been strongly influenced by some of the largest developing economies, while many other developing countries continue to be structurally in deficit due to a very narrow export base and their need for considerable imports of the capital and intermediate goods necessary for broadening this base. Indeed, a number of these countries saw a deterioration in their current account, which in some cases was associated with a swing from surplus to deficit between 1992–1996 and 2002–2006 (table 5.1). During this period, overall, out of 113 developing countries and economies in transition for which reliable data are available, 60 countries saw an improvement in their current-account balance, while 53 experienced a deterioration. Among the 10 transition economies in the sample, half experienced an improvement, and among the 72 developing countries in the sample that are not classified as least developed countries (LDCs) the current-account balance improved in 44 (i.e. more than 60 per cent), whereas among the 31 LDCs this was the case for only 11 (i.e. 35 per cent). Almost two thirds of the LDCs saw their current account deteriorate despite a generally development-friendly external environment. During the period 2002–2006, 39 developing countries and 3 transition economies were net exporters of capital, including 6 LDCs.

In view of what has been discussed in chapter III on the role of real exchange rates for countries' current-account positions, it may be useful to compare the current-account performance of these countries with changes in their average real exchange rates from 1992–1996 to 2002–2006.³ In some of the developing countries that experienced a deterioration in the current account, this was associated with a sizeable appreciation of their real exchange rate, but in a majority of these countries the current account

Table 5.1

CURRENT-ACCOUNT BALANCES: CHANGES BETWEEN 1992–1996 AND 2002–2006

(Number of countries)

	Developed economies	Developing countries		Transition economies
		All	LDCs	
Improvement in the current-account balance				
Total	12	55	11	5
Higher surplus	7	14	2	1
Lower deficit	0	16	4	3
Swing from deficit to surplus	5	25	5	1
Deterioration of the current-account balance				
Total	23	48	20	5
Higher deficit	18	41	18	5
Lower surplus	0	1	0	0
Swing from surplus to deficit	5	6	2	0

Source: UNCTAD secretariat calculations, based on UNCTAD Handbook of Statistics database.

worsened despite a depreciation of the real exchange rate of more than 10 percentage points. This suggests that while the real exchange rate matters, the current account of many developing countries is also strongly influenced by terms-of-trade shocks and various structural factors that make their economies less responsive to such policies than those of the more advanced countries.

Apart from these macroeconomic considerations, there is another case for ODA, which concerns public finance. In most low-income countries the scope for the government to provide public goods in support of growth and development is constrained by their small income base and institutional difficulties in tax collection. The resulting fiscal gap remains an important reason for ODA in the form of budget support to the least developed and other low-income countries. In 23 out of 81 developing countries and economies in transition for which reliable data are

Table 5.2**SHARE OF AID IN CENTRAL GOVERNMENT EXPENDITURE, 2002–2006***(Number of countries)*

	<i>Developing countries</i>		
	<i>All</i>	<i>of which: LDCs</i>	<i>Transition economies</i>
More than 25 per cent	18	13	5
More than 50 per cent	13	11	3
More than 75 per cent	10	9	1

Source: UNCTAD secretariat calculations, based on World Bank, *World Development Indicators* database.

Note: The sample comprises 69 developing countries (of which 17 LDCs) and 12 transition economies.

available, ODA by members of the OECD Development Assistance Committee accounted for more than 25 per cent of central government expenditure during the period 2002–2006, and in 16 countries this share even exceeded 50 per cent (table 5.2). As for LDCs, a particularly large proportion relied heavily on ODA for budgetary support: 76 per cent of the LDCs depended on ODA for more than one quarter of their central government expenditure, and 65 per cent for more than one half of such expenditure.

With the commitment of the international community to make achievement of the MDGs a common project, the general rationale for ODA has shifted from a focus on economic growth as a precondition for realization of the social objectives, to attainment of the social, human and environmental objectives themselves.⁴

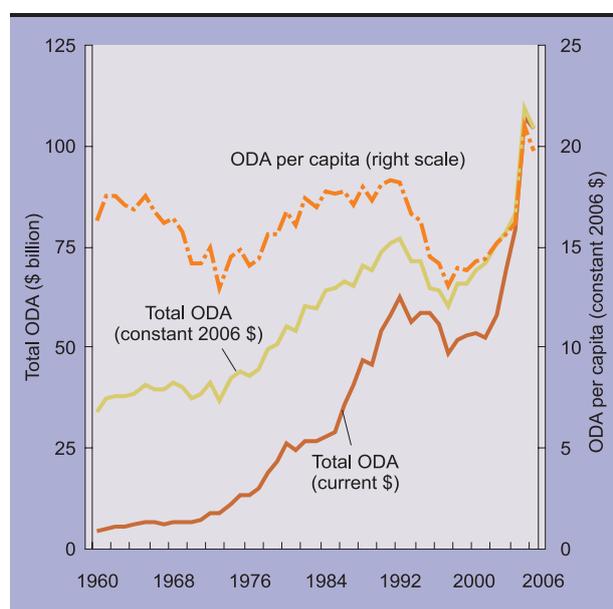
C. Recent trends in ODA

1. Aggregate ODA flows

The main source of data on ODA is the OECD Development Assistance Committee (DAC).⁵ It defines ODA as financial flows originating from official agencies, including State and local governments of DAC member States, which are “administered with the promotion of the economic development and welfare of developing countries as its main objective”.⁶ ODA can be provided fully as grants, or as concessional loans with a grant element of at least 25 per cent.⁷ It can take the form of financial flows, debt relief or goods and services in kind. The valuation of aid other than a financial flow complicates the measurement of ODA. Moreover, certain reporting modalities can distort the perception of actually disbursed aid flows, particularly when debt stock cancellation is included, which is not connected with the flow of new financial resources to the beneficiary countries.

Aggregate ODA, as reported by OECD-DAC, has risen considerably compared to the average in the 1990s, and in particular since 2002 (chart 5.1 and table 5.3). However, given that ODA fell quite dramatically between 1993 and 1999, average ODA per capita, in real terms, since the beginning of the new millennium has not been much higher than it was in the 1960s and 1980s (chart 5.1), despite the recovery from 2000 onward.

Between 2000 – the year of the adoption of the MDGs – and 2006, total ODA grew in real terms at an average annual rate of almost 9 per cent. Bilateral ODA drove that trend with an average annual growth rate of over 11 per cent. This demonstrates a positive response by donors to the commitments made at the beginning of the new millennium. However, the question remains as to whether increases in ODA have kept pace with the increases in initial donor commitments and with the requirements for addressing the core challenges of the MDGs, not to mention

Chart 5.1
LONG-TERM TRENDS IN ODA, 1960–2006


Source: UNCTAD secretariat calculations, based on OECD *International Development Statistics* online databases on aid (OECD-IDS).

Note: The data, as reported by donors, are net disbursements. Data in real terms are obtained using the OECD/DAC deflator.

the added requirements for addressing emerging new global concerns such as climate change and food and water security (discussed in section E below).

2. Sources, categories and distribution of ODA

Since the bulk of global ODA comes from OECD-DAC donors, the analysis in the remainder of this chapter is based on ODA from these sources, unless otherwise specified. However, it should be pointed out that contributions from non-DAC bilateral donors have risen, and can be an important source of funding for individual recipients. In the period 2004–2006, ODA provided by non-DAC countries doubled compared to 2000–2002, but it continued to account for less than 3 per cent of DAC ODA (table 5.3). In the 1990s, West Asian donors provided the largest share of non-DAC ODA, and

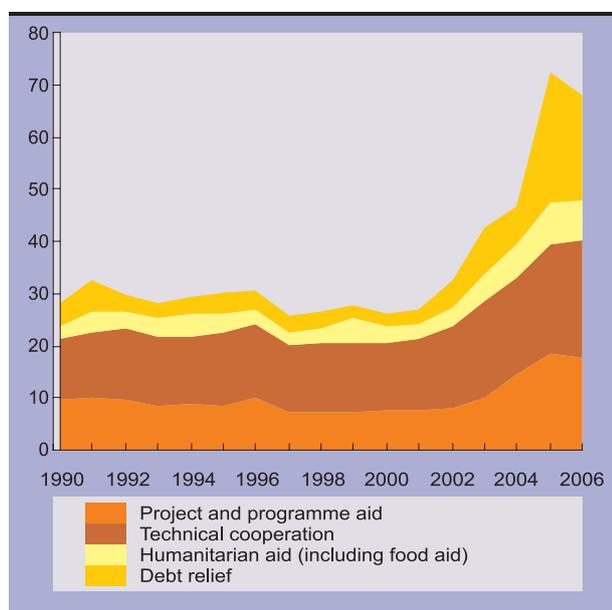
their disbursements were also the most stable. Subsequently, as a by-product of fast GNI growth in East Asia, ODA flows from that region rose rapidly and outpaced those from West Asia in 2005.⁸ Non-DAC aid programmes are often attractive for developing countries, because they typically imply fewer constraints, bureaucratic procedures and conditionalities. On the other hand, non-DAC official lending is criticized on the grounds that it is non-concessional and that uncoordinated lending may heighten the risk of new debt problems and undermine progress

Table 5.3
ODA BY MAIN TYPES, AVERAGES OF 2000–2002 AND 2004–2006

	2000–2002	2004–2006	Percentage change between periods
\$ million			
Total DAC ODA	54 823	96 984	77
Multilateral	17 512	25 747	47
Bilateral	37 311	71 237	91
Non-grants	1 855	-2 146	-216
Grants	35 456	73 383	107
Project and programme aid	7 864	16 953	116
Technical cooperation	13 940	20 559	47
Humanitarian aid (incl. food aid)	3 403	7 355	116
Debt relief	3 400	17 542	416
Other	6 848	10 974	60
Share in total DAC ODA (per cent)			
Multilateral	32	27	-16
Bilateral	68	73	7
Non-grants	3	-2	-168
Grants	65	75	17
Project and programme aid	14	18	22
Technical cooperation	25	21	-16
Humanitarian aid (incl. food aid)	6	8	23
Debt relief	6	17	184
Other	13	11	-8
Memo item:			
Total non-DAC ODA (\$ million)	1 411	2 820	100

Source: UNCTAD secretariat calculations, based on OECD-IDS.

Note: The data as reported by donors are in current dollars and represent net disbursements.

Chart 5.2**ODA BY SELECTED TYPES OF AID,
1990–2006***(Billions of current dollars)*

Source: UNCTAD secretariat calculations, based on OECD-IDS.

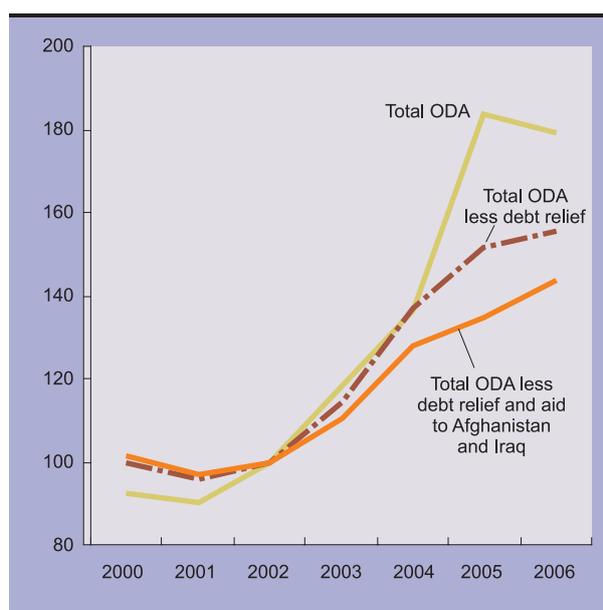
Note: The data, as reported by donors, are net disbursements of bilateral aid.

towards maintaining sustainable debt levels achieved in part as a result of bilateral and multilateral debt relief initiatives.

In the total ODA provided by DAC countries, the share of grants has risen continuously over the past 20 years, to reach more than 75 per cent of total net ODA flows from DAC countries in 2006. Net flows in the form of loans have been negative since 2003, indicating a net repayment of concessional loans. To a large extent, the increase in the proportion of grants in total ODA is attributable to the inclusion of debt relief in ODA statistics. Indeed, debt relief dominated the increase in average ODA between 2000–2002 and 2004–2006. It accounted for almost two thirds of the surge of ODA in 2005, when total aggregate ODA reached a historic peak, and for around 30 per cent of all grants provided in 2005–2006 (chart 5.2). Compared to 2000–2002, debt relief more than quadrupled in 2004–2006, according to OECD statistics. In the coming years, this increase in total ODA may be reversed, at least in part, as unusually large debt relief exercises in the Paris

Club for some non-HIPCs have been completed and debt write-offs under the HIPC Initiative are set to decline. Meanwhile, other categories of ODA have increased much less: in nominal terms, ODA in the form of technical cooperation increased by 47 per cent between 2000–2002 and 2004–2006, and project and programme aid, the category of ODA that provides the most fiscal space to the recipient countries, by 116 per cent (table 5.3).

Another factor, in addition to debt relief, that has driven the recent increase in aggregate ODA is the assistance provided to a few countries in special circumstances, notably Afghanistan and Iraq (chart 5.3). There can be no doubt that assistance to countries emerging from war, political conflict or other exceptional crises is an indispensable element in an effective global partnership for development. However, adding it up with regular ODA flows to other developing countries can distort the overall picture. If the temporary increase in debt relief and the additional aid flows to these two war-torn

Chart 5.3**ODA LESS DEBT RELIEF AND AID TO
AFGHANISTAN AND IRAQ, 2000–2006***(Index numbers, 2002 = 100)*

Source: UNCTAD secretariat calculations, based on OECD-IDS.

Note: The data, as reported by donors, are in current dollars and represent net disbursements of bilateral aid.

economies are excluded, the increase in ODA, while still considerable, is more modest.

Apart from the assistance to countries emerging from major crises, ODA would be expected to flow primarily to those countries that are the most in need, as indicated by low GDP per capita. However, empirically there is no significant correlation (chart 5.4). Similarly, as discussed later, there is also a weak correlation between variables, indicating needs for investment or social spending, on the one hand, and specific categories of ODA on the other.

These developments have led to a change in the composition of total ODA at the expense of what could be referred to as “development aid” (i.e. ODA provided in support of economic and social infrastructure and the productive sectors), the share of which fell from 59 per cent in the late 1990s to 51 per cent in the period 2002–2006 (chart 5.5).

Chart 5.5

COMPOSITION OF TOTAL ODA BY MAIN SECTORS, 1990–2006

(Average in per cent)

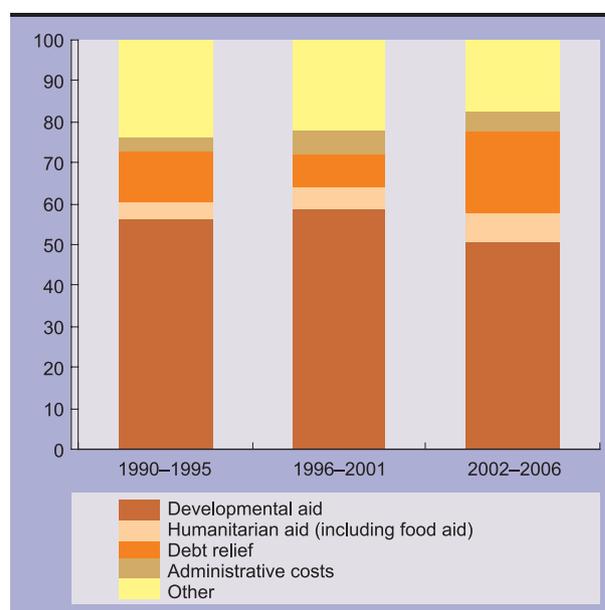
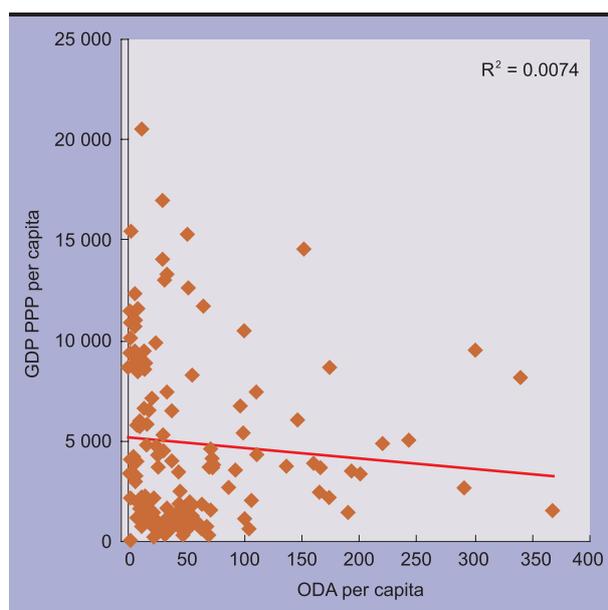


Chart 5.4

GDP AND ODA PER CAPITA, AVERAGE OF 2004–2006

(Current dollars)



Source: UNCTAD secretariat calculations, based on OECD-IDS; United Nations Statistics Division (UNSD) database; and IMF, *World Economic Outlook* database.

Note: GDP is adjusted for purchasing power parity (PPP).

Source: UNCTAD secretariat calculations, based on OECD-IDS.

Note: The data, as reported by donors, are in current dollars and represent net disbursements. The component “other” includes: multisector/cross-cutting, support to NGOs, refugees in donor countries, commodity aid/general programme assistance and unallocated/unspecified sectors.

3. Additionality of debt relief and other forms of ODA

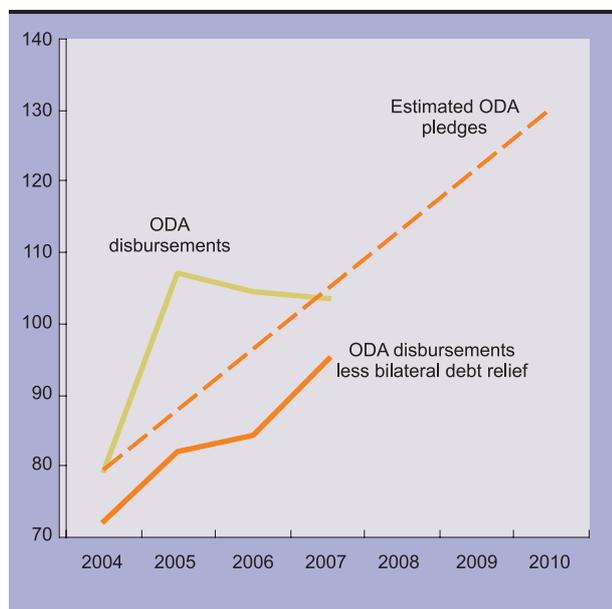
Although the HIPC Initiative for debt relief was conceived on the understanding that the debt relief provided would be a net addition to the total volume of ODA, the first five years following the launch of the HIPC Initiative saw a sharp fall in total net ODA transfers compared to previous trends. Aggregate ODA started to recover from 2002 onwards, with substantial increases in all categories of aid, but this is no proof that the debt relief was additional to other forms of aid.

According to Arslanalp and Henry (2006), debt relief under the HIPC Initiative has not been additional, while according to the World Bank (2006) it was not additional until 1999 but subsequently became

Chart 5.6

ODA DISBURSEMENTS AND ESTIMATED ODA PLEDGES, 2004–2010

(Billions of current dollars)



Source: UNCTAD secretariat calculations, based on OECD-IDS; and G-8 (2005) for OECD estimates of ODA pledges.

Note: The data, as reported by donors, are net disbursements.

additional. However, neither of these studies conducts a formal econometric analysis of the additionality of debt relief similar to that presented for the period 2000 to 2006 in the annex to this chapter.⁹

Assessing the additionality of the debt relief granted requires a comparison with a counterfactual scenario (i.e. the amount of ODA that would have been provided in the absence of debt relief). One way to construct such a scenario would be to consider the different pledges made by major donor countries to increase their ODA up to a certain level and within a certain time frame (G-8, 2005). In 2005, the OECD estimated that, on the basis of these donor commitments and other relevant factors, ODA from the G-8 and other donors to all developing countries would be higher by \$50 billion in 2010 compared to its 2004 level. If this estimate is translated into annual increases along a trend line, and if these are compared to actual disbursements, total ODA excluding debt relief has been considerably lower than the assumed trend increase based on donor pledges (chart 5.6).

The econometric analysis of debt relief additionality undertaken for this *Report* is based on a narrower definition of additionality, one that is consistent with the Monterrey Consensus which stipulates that debt relief should be “fully financed through additional resources” (para. 49) and that donors need to ensure that “resources provided for debt relief do not detract from ODA resources” (para. 51).

Within this definition, additionality can be evaluated from the donors’ or the recipients’ side. From the donors’ side debt relief is additional if it does not reduce total ODA net of debt relief extended by each donor. From the recipients’ side it is additional if countries that receive more debt relief do not receive less ODA net of debt relief. The finding that debt relief is additional from the recipients’ side and is not additional from the donors’ side would suggest that, for any recipient of debt relief that receives constant (or increasing) ODA net of debt relief, there is a poor country that is not receiving debt relief and is also receiving less ODA.

The analysis of additionality contained in the annex to this chapter finds that, from the donors’ side, an extra dollar of debt relief leads to a reduction of \$0.22–\$0.28 in other forms of ODA. Moreover, statistical analysis, which includes the period prior to the launch of the HIPC Initiative, shows that, if donor countries are split into three groups – parsimonious (those that give little aid), generous (those that give a lot of aid) and intermediate (all the other countries) – debt relief crowds out much of the aid extended by generous countries. The point estimates of the regressions indicate that, for this group of countries, debt relief is not additional according to the definition of additionality employed here. For intermediate countries, the crowding-out coefficient is approximately 40 per cent and for parsimonious countries the coefficient is positive (albeit not statistically significant).

Focusing on the recipients’ side, the results of the statistical analysis suggest that there is no strong evidence for either crowding in or crowding out. In fact, the study described in the appendix shows that different statistical techniques yield different results: some find evidence of small crowding-out effects and others show small crowding-in effects. Contrary to the findings of the World Bank (2006), that debt relief through the HIPC Initiative has become additional in recent years, the test elaborated in the annex to this

chapter does not find this to be the case. If the proposition is accepted that full additionality requires debt relief to be additional to other forms of ODA commitments on both the donors' and the recipients' side, then the results of the statistical exercise described in the annex lead to the conclusion that debt relief under the HIPC Initiative has not been fully additional.

The reasoning behind debt relief initiatives was that they free up fiscal space previously allocated to servicing debt, thus enabling reallocation of budgetary resources to social expenditures. This assumes that the forgiven debt will have been serviced, but in many cases the forgiven debt was non-performing at the time

Debt cancellations have provided only a limited amount of new resources, if any.

of its cancellation (see also chapter VI, section C). Moreover, debt servicing *flows* that are purportedly liberated for use as social expenditures under the HIPC Initiative are well below the debt *stock* values that are reported as ODA in debt cancellations, resulting in inflated estimates of delivered assistance. Thus debt relief operations, while alleviating the future financial burden of servicing outstanding loans, have only provided a limited amount of new resources, if any, that could be used immediately for investment or social spending purposes. Accordingly, the discussion in the following sections shifts from a focus on the provision of *aggregate* ODA, to an analysis of ODA excluding debt relief.

D. Effectiveness of ODA

1. The recent debate on aid effectiveness

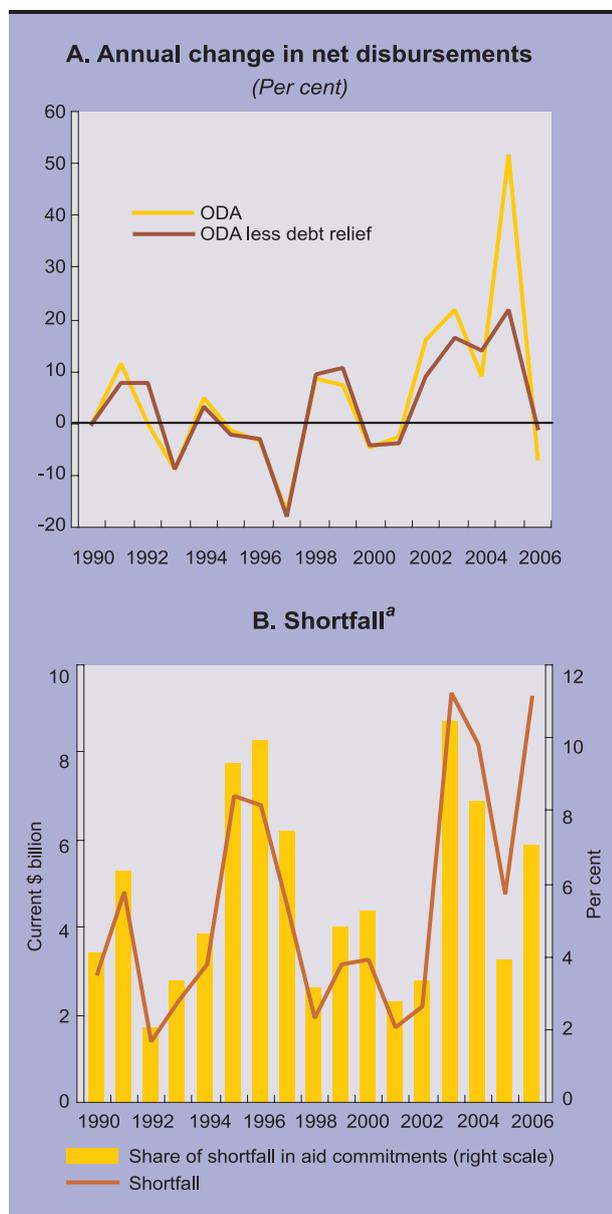
The role that ODA can play in supporting the development process depends not only on its level, but also on how effectively it is used. Indeed, along with the commitments made by donor and recipient countries at various international conferences, aid effectiveness has assumed a leading position on the international development cooperation agenda, as reflected in the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action (OECD, 2005 and 2007; Accra High-Level Forum, 2008). The current debate on aid effectiveness is concerned mainly with issues related to the administration of ODA, such as ownership of ODA-financed projects and programmes, harmonization of aid delivery, mutual accountability, the untying of aid, and reporting and assessment frameworks (OECD, 2007).

With regard to ownership, it has been stipulated that, as a matter of principle, ODA should support development priorities identified by stakeholders in the beneficiary countries themselves rather than by donor countries. Similarly, technical cooperation activities are expected to achieve optimal results only when they are tailored to locally determined capacity-building needs. Moreover, the OECD also found that efforts by developing countries to strengthen national development strategies and budgets need to be complemented by efforts of donor countries to "make better use of partners' national budgets" and to "work aggressively to reduce the transaction costs of delivering and managing aid" (OECD, 2007: 52).

The Paris Declaration recognized that the stability of aid flows has a strong impact on aid effectiveness. Stability implies low volatility of net disbursements around the trend (which, following the commitments

Chart 5.7

VARIABILITY OF BILATERAL ODA, 1990–2006



Source: UNCTAD secretariat calculations, based on OECD-IDS.

Note: The data, as reported by donors, are in current dollars.

a Aid commitments less gross disbursements, excluding debt relief.

made in connection with the Monterrey Consensus, should be a rising one). It can also be interpreted to mean that aid flows should be reliable, and that actual disbursements should not repeatedly and substantially fall short of aid commitments. Given that ODA flows account for a substantial part of central

government expenditure in many recipient countries, their instability can have immediate effects on the provision of essential publicly provided goods in those countries. It also impairs the effectiveness of ODA in terms of contribution to per capita income growth, as discussed in subsection 2 below. In reality, aid has been fairly volatile since the early 1990s, including year-to-year reductions in absolute terms in some years in the mid-1990s and again since 2005 (chart 5.7). Aid uncertainty, as measured by the shortfall of gross disbursements against formal commitments, excluding debt relief, has increased since 2002.

A key question in the context of aid effectiveness relates to the variables against which it can be measured. Traditionally, growth of per capita income has been a key indicator for progress in development, but with the Millennium Declaration, which does not contain any explicit reference to growth, the focus has been shifted to the MDGs. Obviously, depending on the objective, instruments and intermediate targets tend to differ. If output growth is the objective, enlarging productive capacity and productivity must be intermediate targets, and financing of projects that directly or indirectly contribute to these targets is an indispensable instrument. By contrast, if short-term or direct poverty reduction is the objective, direct transfers and investment in and current spending on health and education can be additional instruments or intermediate targets, even if they have no measurable, or only a very long-term, impact on per capita income growth. It is against this background that the effectiveness of ODA in terms of generating faster growth and achieving the MDGs is discussed next.

2. Effectiveness of ODA with respect to growth

Since the late 1960s, empirical research has dealt with the aid-growth relationship in detail, but the results have been inconclusive. Even the reverse causality (i.e. growth leading to higher ODA flows) cannot be ruled out, because some donors may tend to reward improvements in economic performance. However, earlier research has also pointed to the necessity of decomposing aid flows in order to obtain meaningful results for the ODA-growth relationship (Cassen, 1986), and recent research following this

Box 5.1

RESEARCH ON THE RELATIONSHIP BETWEEN AID AND GROWTH

The assumption of aid having a positive impact on growth remained scientifically almost unchallenged during the 1950s and 1960s. It was Papanek (1972) who provided the first growth regressions on aid. He divided foreign capital flows into foreign aid, foreign investment and other capital inflows, and could thus isolate the particular effect of aid on growth. He found a positive correlation. Chenery and Carter (1973) developed the savings-gap model of the 1960s further and arrived at the conclusion that aid was well able to bridge the savings gap as well as the foreign-exchange gap. Following Rosenstein-Rodan, this additional foreign capital inflow was believed to provide a “big push” for poor economies.

This optimistic view was called into question at the beginning of the 1980s in light of the empirical evidence. Mosley (1980) introduced the “micro-macro” paradox of the aid-growth relationship. According to this, ODA may have positive effects when individual projects are evaluated at the micro level, but without evidence at the macro level to support the contention that aid has a significant impact on growth. Other researchers have sought explanations for the perceived weak impact of aid on growth in developing countries, and have criticized ODA from a number of angles: for generating false incentives, enhancing corruption or damaging private sector initiative, with negative effects on growth (see, for example, Bauer, 1982).

Until the mid-1990s, the common view on the impact of aid on growth was quite bleak. Boone (1996) found that, on average, aid had a neutral impact, given that poverty was not caused by capital shortages and aid flows in particular did not stimulate growth processes. He also pointed out that ODA flows did not have a significant effect on human development either. A new debate on the aid-growth relationship emerged from these results, with some authors highlighting the importance of the policy environment, in particular the quality of governance and institutions, for the growth effectiveness of ODA (Burnside and Dollar, 2000). The proposition that “good governance” was key to securing a positive effect from external aid soon entered into policy prescriptions of the international financial institutions, and many other donors started to base their lending decisions on these findings. However, the results of Burnside and Dollar (2000) were quickly refuted (for example, by Easterly, Levine and Roodman, 2004). For example, Hansen and Tarp (2000 and 2001) demonstrated that foreign aid may have a positive impact on growth even in a bad policy environment. Most researchers who advance this view would nonetheless agree that aid has diminishing returns, which can be explained by countries’ limited absorptive capacities. Other researchers doubt that aid has positive effects on growth (e.g. Rajan and Subramanian, 2005 and 2007).

More recently, Roodman (2008) has checked the robustness of the main empirical results of the aid literature. He challenges previous techniques and concludes that the average effects of aid on growth are too small to be traced statistically. There is thus an inherent lack of robustness in aid-growth-regressions, for which no simple or definitive explanation may exist.

Another strand of the literature tries to establish causality between specific subcomponents of aid and growth, and studies the growth-enhancing effects of these subcomponents (e.g. Clements, Radelet and Bhavnani, 2004; Michaelowa and Weber, 2006; Dreher, Thiele and Nunnenkamp, 2007; and Mishra and Newhouse, 2007). While the results from this literature are still inconclusive, there is some evidence that sectoral aid is able to strengthen certain factors that are conducive to economic growth.

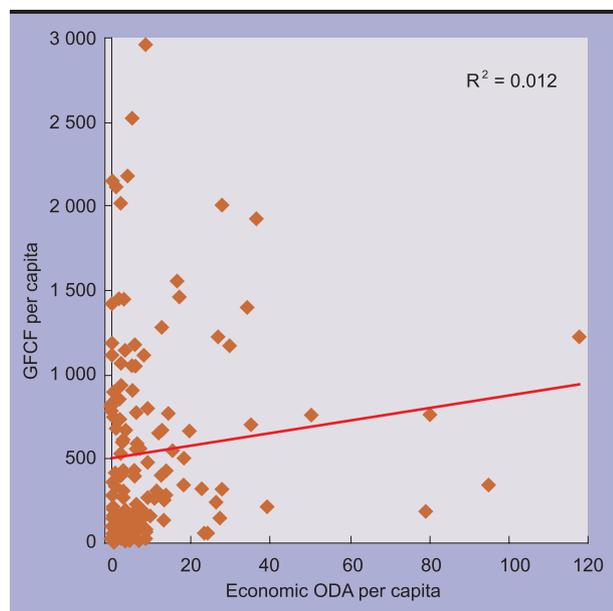
approach found that the short-term impact of aid on growth was considerably greater than what emanated from studies based on aggregate ODA data (see box 5.1 for details of the literature).

In pursuing this analytical approach further, an econometric test (described in greater detail in the annex to this chapter) is used to analyse ODA flows for various types of sectoral aid, programme

Chart 5.8

GROSS FIXED CAPITAL FORMATION (GFCF) AND ECONOMIC ODA PER CAPITA, AVERAGE OF 2004–2006

(Current dollars)



Source: UNCTAD secretariat calculations, based on OECD-IDS; and UNSD database.

Note: ODA data, as reported by donors, are gross disbursements. Economic ODA is ODA for economic infrastructure and production as defined by OECD/DAC.

and budget support, and debt relief for 162 developing countries, and their impact on growth during the period 1975–2006. This analysis also controls for a number of other factors, such as the quality of governance, degree of openness and level of educational attainment, which are generally believed to affect the aid-growth relationship.

The analysis shows that within the category of sectoral ODA, flows targeted at economic infrastructure contribute strongly to economic growth, whereas those earmarked for social infrastructure and services do not. These findings have important policy implications for financing of the MDGs and for development in general. While aid for social sectors is welcome, and should even be intensified in certain areas or regions, such disbursements should come in addition to sectoral ODA in support of capital formation in the productive sectors, which is a prerequisite for faster growth of value added and employment.

The analysis also shows that uncertainty with respect to aid disbursements has a significant negative impact on growth (see also Fielding and Mavrotas, 2005).

Another aspect that merits attention from the point of view of aid effectiveness is geographical distribution. In terms of actual need for foreign financing, it seems reasonable to expect that the share of ODA provided with the specific purpose of improving economic infrastructure and strengthening the productive sectors would flow primarily to those countries that have the lowest ratios of investment to GNI per capita. However, empirically the correlation is very weak and the actual distribution of “economic” ODA differs from what might be expected (chart 5.8).

Obviously, the effects of ODA, or specific categories of ODA, on per capita income growth discussed in this subsection can be expected to lead to, or at least facilitate the achievement of improvements in the different variables specified as indicators for development in the Millennium Declaration. Indeed, it is difficult to see how most of these indicators, in particular those related to poverty reduction, can be improved in the long term without higher investment in productive capacities that raise domestic value-added. Such investment would increase the level of income, and boost employment, which would improve income distribution in favour of the poorer parts of the population. However, independent of the growth effectiveness of ODA, or specific categories of ODA, in terms of higher investment and faster growth, the potential effects of ODA on social and human development indicators have received particular attention in connection with the efforts of the international community to support developing countries in achieving the MDGs. This aspect is examined in the next section.

3. Effectiveness of ODA with respect to the MDGs

In recent years, ODA is increasingly viewed as the contribution of the international community to the efforts of developing countries to achieve the MDGs, which reflect social and human development; growth is not explicitly mentioned as an objective or an intermediate target. This is a departure from the traditional

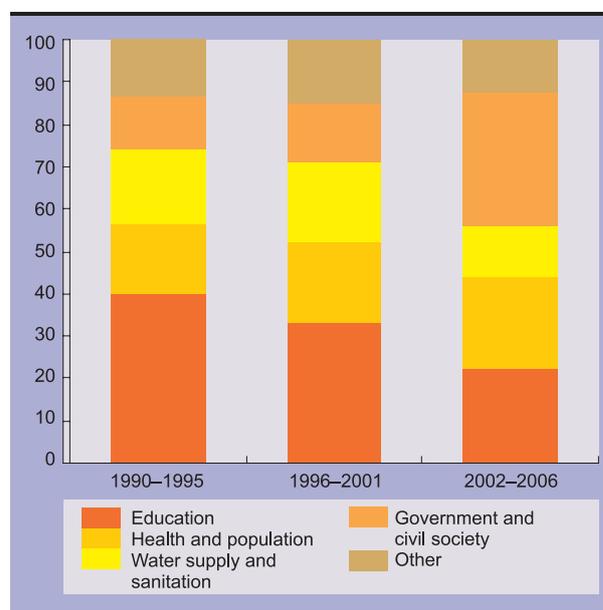
premise that the purpose of external financing was primarily to raise the level of domestic investment in the productive sectors. The data reported by OECD-DAC on ODA for social infrastructure and services in the areas of education, health, and water supply and sanitation (referred to in what follows as “social aid”) can be considered the most closely related to efforts aimed at achieving the MDGs. Social aid increased by 88 per cent from 1996–2001 to 2002–2006, and its share in total developmental aid rose from 52 to 65 per cent.

In particular, the share of social aid in total development aid has risen since the early 1990s, with a surge after the MDGs were agreed (chart 5.9). Since 2001, there has been an increase in all components of social aid. The steepest increase has taken place for government and civil society, which has become the single most important component of social aid (chart 5.10), in line with the international dialogue that emphasizes the importance of governance in the development process. In absolute terms, the smallest

Chart 5.10

COMPOSITION OF SOCIAL ODA BY MAIN SUB-CATEGORIES, 1990–2006

(Per cent)

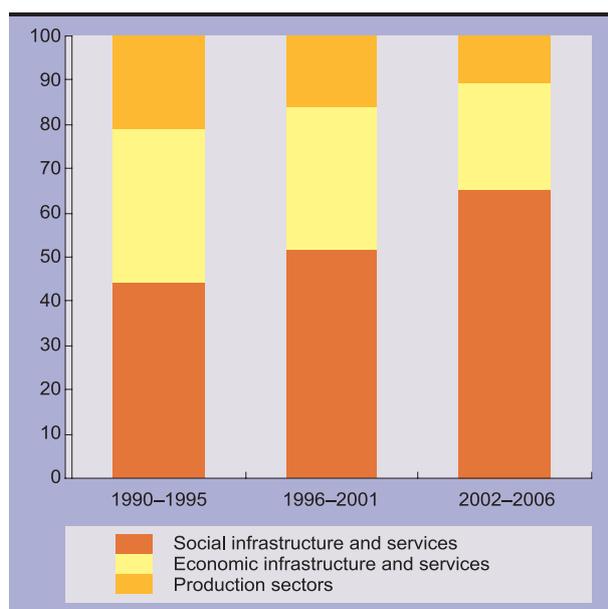


Source: UNCTAD secretariat calculations, based on OECD-IDS.
Note: The data, as reported by donors, are in current dollars and represent net disbursements.

Chart 5.9

COMPOSITION OF DEVELOPMENTAL ODA BY MAIN CATEGORIES, 1990–2006

(Per cent)



Source: UNCTAD secretariat calculations, based on OECD-IDS.
Note: The data, as reported by donors, are in current dollars and represent net disbursements.

increase has been registered for education, and the annual average ODA for water supply and sanitation even stagnated compared to the second half of the 1990s. Nevertheless, there is evidence that ODA has been successful in increasing educational attainment and health conditions (Michaelowa and Weber, 2006; Dreher, Nunnenkamp and Thiele, 2007; Mishra and Newhouse, 2007).

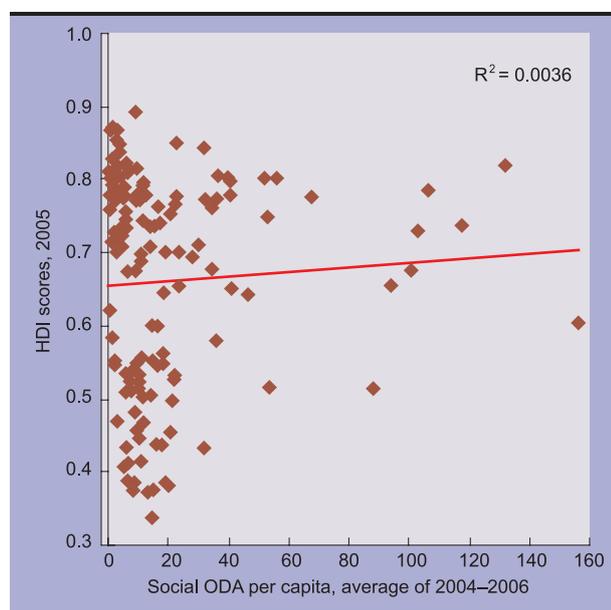
The 2008 *Global Monitoring Report* of the World Bank notes that progress towards achieving the MDGs has occurred across all regions, though the degree has been uneven. However, it also notes that despite incremental progress towards reducing poverty across all regions, many countries are off-track with regard to achieving the MDGs by 2015. It observes that in no country has aid been scaled up sufficiently to support a medium-term programme to achieve the MDGs (World Bank, 2008).

Looking at the geographical distribution of ODA for social infrastructure by comparing it with the

Chart 5.11

HUMAN DEVELOPMENT INDEX (HDI) SCORES AND SOCIAL ODA PER CAPITA

(Current dollars and index numbers)



Source: UNCTAD secretariat calculations, based on OECD-IDS; and UNDP, *Human Development Report*, online.

Note: ODA data, as reported by donors, are gross disbursements. Social ODA is gross ODA disbursements for social infrastructure and services as defined by OECD/DAC.

score for countries in the UNDP's Human Development Index (HDI) (chart 5.11), reveals no correlation between the two variables. Despite the shift in the focus of ODA towards achieving the MDGs, and distinct from what might be expected, the geographical distribution of ODA for social purposes does not reflect the relative needs of countries as indicated by their HDI scores. This suggests that the effectiveness of ODA in helping countries attain the MDGs could be improved by taking better account of the relative needs of different countries, concentrating further increases in ODA grants on those countries that have the lowest level of social and human development.

Moreover, unless ODA is effective in helping growth, it is unlikely to be effective in reducing poverty in the long-term beyond 2015. Therefore, in order to achieve sustained poverty reduction, increases in ODA for social infrastructure and services must be accompanied by increases in ODA for economic infrastructure and productive sectors. Even

in these areas, there appears to be considerable room for improving aid effectiveness. One way could be to combine ODA in these areas with domestic financial reform, for example through the creation of institutions that would channel ODA into public and private investment projects financed jointly with domestic financial banks. This could help facilitate access of potential domestic investors to long-term financing and reduce the risks for domestic banks – and thus the spreads they charge – while at the same time helping to build a better functioning system of domestic financial intermediation.

4. ODA effectiveness, conditionality and governance

One way in which donors and creditors traditionally aimed at ensuring the effectiveness of their ODA grants and loans, and safeguarding the integrity of their financing, was by imposing different types of conditionality. These were shaped largely by the international financial institutions, but they also influenced bilateral donors and creditors. During the 1980s and 1990s, under structural adjustment programmes, conditionality became more far-reaching, including requiring commitments to reform macroeconomic, fiscal and trade policies. Since the mid-1990s, conditionality has focused more on the design and implementation of poverty reduction strategies, with greater attention given to the social implications of development policies. However, poverty reduction strategies typically are to be combined with macroeconomic policies and structural reforms that strongly resemble the prescriptions of previous structural adjustment programmes (UNCTAD, 2002).

There is broad agreement that new lending by the international financial institutions and the provision of official debt relief should be linked to certain conditions. However, the type and scope of the conditionality actually applied has come under growing criticism over the years, not only because of its deflationary bias, but also because of the proliferation and widening scope of the conditions (Goldstein, 2000; Kapur and Webb, 2000; and Buirra, 2003). More recently, conditionality has extended beyond the economic sphere, entering into the broad area of domestic governance and institutions.

This recent trend reflects an increasingly influential strand of development thinking that emphasizes the role of good governance and institutions for enhancing growth and the effectiveness of ODA. While there is general agreement that improvements in governance and institutions are desirable in their own right, and are often positively correlated with economic development, there are different interpretations of the empirical evidence regarding this relationship, including the direction of causality (Khan, 2006; Mo, 2001). Moreover, views differ as to what constitutes good institutions and good governance, particularly when the large diversity of countries in terms of cultural, social, political, economic and natural heritage is taken into account.¹⁰

One major weakness is the lack of operational precision of the governance concept, the practical application of which frequently necessitates interpretation, which can be very subjective (Kapur and Webb, 2000). Moreover, a detailed analysis of developing countries, distinguishing between different groups of countries and different areas of governance, has shown that, although governance matters, “the very desirable goal of good governance may be neither necessary nor sufficient for accelerating and sustaining development” (Khan, 2006: vii).

The intellectual foundation for allocating aid on the basis of the quality of institutions and policies was elaborated in a well-known paper by Burnside and Dollar (2000). However, successive work has shown that, while the link between institutions and growth is undeniable in the very long run (Acemoglu, Johnson and Robinson, 2001), there is no robust evidence that aid produces better results in the presence of better policies or institutions (Easterly, Levine and Roodman, 2004).

Nevertheless, evaluations of countries according to their “scores” on different aspects of governance have become widely accepted, and seem to be increasingly influencing decisions by donors on

the allocation of ODA. One important measure is provided by the Country Policy and Institutional Assessment (CPIA) of the World Bank, which strongly influences multilateral lending to countries. It is at the heart of the World Bank-IMF Debt Sustainability Framework, which is a determinant for debt relief under the HIPC Initiative and the Multilateral Debt Relief Initiative (MDRI) (see also chapter VI).

The CPIA measures the quality of 16 governance variables under the overall headings of economic management, structural policies, policies for social

inclusion, and public sector management and institutions, and it consolidates the ratings on each of these variables into a single one. Obviously, the rating of policies requires certain value judgements and preferences for specific policy targets over others. For example, for macroeconomic management, countries receive the highest score if “... monetary/exchange rate policies have maintained price stability, and if public spending has not crowded out private investment” (World Bank, 2006: 6), although other possible criteria could be low and stable interest rates, increasing investment, faster GNI growth, or progress in structural change as measured by the expansion of the manufacturing sector. Similarly, fiscal policy is considered optimal when “the primary surplus has been managed to maintain a stable and low ratio [of] public debt to GDP ...” (World Bank 2006: 7), while its use for countercyclical macroeconomic management, or for the provision of certain public goods that are essential for the development of private productive activities, is not considered.

With regard to trade policy, which is measured under the heading of structural policies, the best governance score can be achieved by countries that have an average tariff rate of less than 7 per cent and a maximum tariff rate of no more than 15 per cent on imported goods (World Bank 2006: 12). These examples suggest that, with respect to

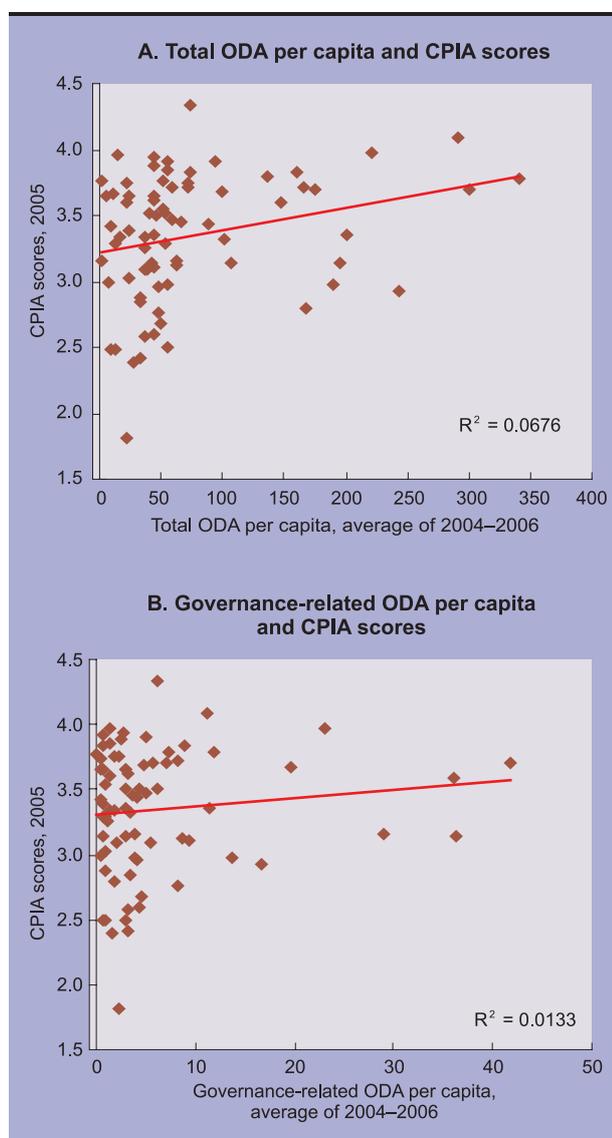
economic management and structural policies, good policies are interpreted subjectively as those that are in line with policy prescriptions under structural adjustment programmes; yet the performance of

Conditionality has extended beyond the economic sphere, entering into the broad area of domestic governance and institutions.

There appears to be a lack of coherence between the call for country ownership of ODA-financed projects and conditionalities.

Chart 5.12

CPIA SCORES AND ODA PER CAPITA



Source: UNCTAD secretariat calculations, based on OECD-IDS; and World Bank CPIA data, online.

Note: The value of the consolidated CPIA rating varies between 1 and 6, with the latter indicating the best possible policies and institutions. Total ODA data, as reported by donors, are in current dollars and represent net disbursements. Governance-related ODA is gross disbursements of ODA for government and civil society as defined by OECD-IDS.

countries that followed these prescriptions in the past rarely met the high expectations (*TDR 2006*, chap. II). There also appears to be a lack of coherence between the call for country ownership of ODA-financed projects and programmes in the Paris Declaration on

Aid Effectiveness and conditionalities that impose restrictions on the orientation of economic policy and development strategy.

Under the heading of public sector management and institutions, the CPIA also measures country performance in terms of non-economic indicators, such as the quality of public administrations and transparency, accountability and corruption in the public sector. These are undoubtedly of great importance for the effectiveness and efficiency of public administration, but they cannot be measured objectively. Moreover, it appears that it is not the attained level or an improvement of an average measure of governance in these areas that makes a difference to growth and aid effectiveness; rather, it is the improvement of those governance capacities in countries that is critical for accelerating economic and social transformation (Khan, 2006). There has also been an intense debate on the design and function of the CPIA, particularly relating to its perceived policy biases and empirical flaws (see, for example, Alexander, 2004; van Waeyenberge, 2007; Herman 2007). Furthermore, proposals have been made to expand the CPIA index by introducing additional, outcome-oriented, variables (Kanbur, 2007; and Buiters 2007).¹¹

Good governance indicators are not only a criterion for assistance at the multilateral level, but have also come to influence assistance at the bilateral level. For example, the Paris Declaration has set a target to significantly improve the performance of the CPIA indicator relating to public financial management in half of the recipient countries (OECD, 2005). In recent years, the promotion of good governance has thus become both a precondition for aid, as well as an intermediate target considered necessary for increasing the effectiveness of ODA.

Chart 5.12 shows the relationship between the CPIA scores of 75 countries and the amount of net ODA per capita they received in 2004–2006. It reveals a slight bias in favour of countries with higher scores (chart 5.12A). This reflects the importance of CPIA ratings for the allocation of IDA support. On the other hand, the distribution of governance-related ODA does not favour those countries that score low in the CPIA rating, and thus have a particular need for this support in their efforts to improve their governance and strengthen their public institutions (chart 5.12B).

In principle, linking ODA, especially in the form of grants, to certain conditions may be helpful for increasing its effectiveness. But in order for such conditionality to be coherent with other factors that determine the effectiveness of ODA, it might be useful to strengthen the dialogue between donors and recipients on the appropriateness of specific conditions. Their appropriateness should be determined by an evidence-based assessment of the relationship between the fulfilment of certain conditions and final development outcomes, taking into account

governance and institutional weaknesses that hamper growth in the country-specific context.

It should also be recognized that compliance with conditionalities may require a front-loading of aid. The development of credible and capable institutions, for instance, is a formidable challenge, but many developing countries will require assistance in creating the necessary institutions and capabilities for fighting corruption and assuring good governance.

E. Remaining and new challenges

1. MDG financing and beyond

Since the adoption of the Millennium Declaration, securing sufficient financing to enable all developing countries to meet the MDGs has been an ongoing issue in the international development debate. In 2001, the Report of the High-level Panel on Financing for Development – the so-called *Zedillo Report* (United Nations, 2001) – estimated that an additional \$50 billion per year would need to be added to net disbursements of ODA by DAC member States (which amounted to about \$54 billion in 2000) in order to finance programmes designed to help countries reach the MDGs by 2015. Although DAC donors substantially increased their development assistance following the Monterrey Consensus, a large share of the recorded increase between 2000 and 2007 was on account of debt relief. Until 2007 total ODA disbursements net of debt relief remained below the level estimated as being needed by the *Zedillo Report*: the cumulative shortfall over this period

amounted to \$264 billion (chart 5.13). Furthermore, only a fraction of the increase in ODA was directed to MDG-related uses.

Estimates published in the report, *Investing in Development*, of the United Nations Millennium Project¹² (also known as the *Sachs Report*), which place a greater emphasis on the role of governments (UN Millennium Project, 2005), arrived at considerably higher figures on the ODA required for MDG financing. According to this report, ODA would need to increase gradually, from \$121 billion in 2006 to \$143 billion by 2010 and to \$189 billion in 2015 (chart 5.13). Compared to the amounts suggested in the *Sachs Report* for ODA disbursements, those of the *Zedillo Report* would result in a cumulative shortfall of ODA for MDGs of \$476 billion by 2015.

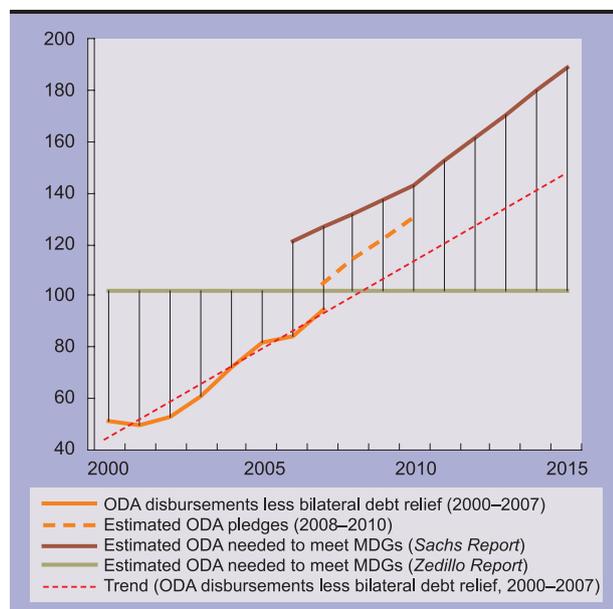
If ODA disbursements net of debt relief continued to follow their actual 2000–2007 trend until 2015, DAC donors would not reach their own aid target

Until 2007, ODA disbursements remained below the level required for MDG financing.

Chart 5.13

MDG FINANCING NEEDS, ODA DISBURSEMENTS AND ESTIMATED ODA PLEDGES, 2000–2015

(Billions of current dollars)



Source: UNCTAD secretariat calculations, based on OECD-IDS; G-8 (2005); *Zedillo Report* (United Nations, 2001); and *Sachs Report* (UN Millennium Project, 2005).

Note: The data, as reported by donors, are in current dollars and represent net disbursements.

(OECD, 2008). Moreover estimates in both reports assume that the suggested amounts, in their entirety, will take the form of additional financial resources – rather than debt relief – which the recipient governments can fully dispose of, and that they will be used entirely for the financing of MDG-related activities. However, it is highly unlikely that these assumptions will prove to be valid. In any case, despite the obvious efforts of donors to increase their ODA, actual aid disbursements are likely to fall short of the level required for reaching the MDGs (chart 5.13), let alone for longer term investment and growth objectives, especially if adjusted for population growth.

There is also the risk that a high concentration of ODA resources on projects that help achieve the MDGs by 2015 could divert financing away from other projects and programmes whose impact on growth and poverty reduction will only be felt in the long term. Yet many of those projects could be decisive for sustaining improvements in the indicators

of development contained in the MDGs. Higher and sustained rates of economic growth, which require concomitant levels of real investment, are essential for the creation of more productive employment opportunities, for raising household incomes and for achieving sustainable poverty reduction. It is therefore necessary to ensure that the increase in ODA for social and human development does not interfere with a necessary increase in ODA for economic infrastructure and production.¹³

2. New requirements and new financing instruments

The prospect of insufficient ODA, in its traditional forms, to finance the MDGs has energized efforts to design alternative or “innovative” financing mechanisms.¹⁴ One set of proposals concerns the introduction of a global tax assessed on variables such as foreign currency transactions or the consumption of hydrocarbon fuels. Some of the proposals are not new, and their implementation is fraught with substantial practical and legal problems. Nonetheless, they merit further consideration in international forums, because of the need for additional financing, not only for the realization of the MDGs but also for addressing new issues of global concern that have gained prominence in recent years (see Kaul, 2008). These new issues include, in particular, measures for climate change mitigation, and the provision of global public goods such as international security, global communications and transportation infrastructures, and control of communicable diseases. However, given that the rationale for many national taxes is not restricted to their fiscal function but also includes the potential to influence the behaviour of consumers and investors, global taxes can also support the pursuit of non-fiscal objectives.

For example, the proposal for a tax on foreign currency transactions, which dates back to the early 1970s (and was discussed more intensely in the 1990s), was made initially not with a view to stepping up official development financing, but to reducing speculative capital flows and thereby increasing the stability of the international monetary and financial system after the collapse of the Bretton Woods arrangements.¹⁵ The proposed tax would thus address two major problems in international financial

governance at the same time and in a coherent manner. But although its attractiveness has become even more compelling in light of the exponential growth of financial markets and their increasing instability, since the proposal was first introduced in the 1970s, it continues to lack the required degree of international political support.

Heightened concerns over the global environment and the adverse effects of climate change have also strengthened the case for the introduction of some form of a global environmental tax. One of the most prominent proposals is for a global tax on fuel consumption, which would penalize the consumption of carbon dioxide emitting products while raising funds for development-related projects. A major obstacle to the introduction of such a tax would be the reluctance of many national governments to tax gasoline consumption above current levels. Furthermore, United States legislation prevents the Government of that country from participating in any global tax schemes and, as the United States is the single largest consumer of fuel, excluding it from such a scheme would reduce the potential global revenue of this tax by about 20 per cent.

The revenue potential of these proposals is very different: a tax of 0.01 per cent on foreign currency transactions would yield annual revenues of around \$18 billion, whereas a uniform worldwide gasoline tax of \$0.01 per litre could produce annual revenues of \$180 billion (Reisen, 2004). Even if a gasoline tax were to be introduced only in high-income countries, the annual revenue potential is projected to be about \$61 billion – an amount sufficiently large to cover the estimated needs for achieving the MDGs. Such an innovative approach to MDG financing therefore merits more serious political attention than it has received so far, the more so because it could also encourage a shift in energy consumption to more environmentally sound sources. Moreover, at current levels of consumption, a tax perceived on carbon dioxide emitting products would place the

main burden on the richest countries, thereby also implying a compensation for industrial latecomers that will not be able to produce as much carbon dioxide as today's developed countries produced in the past.

Insufficient ODA to finance the MDGs has energized efforts to design “innovative” financing mechanisms.

However, the administrative and political obstacles that are likely to emerge from the introduction of any form of a global tax, and the competition for funding between different development goals and global public goods, mean that the

design, adoption and implementation of any of the above proposals probably would not be sufficiently rapid to meet the agreed targets by 2015. Alternative proposals, more modest in their financial impact, have been discussed following the Paris Conference on Innovative Financing Mechanisms in 2006.¹⁶ The most notable, the Solidarity Levy on Air Travel, so far has demonstrated the greatest progress: 20 countries have committed to implementing the tax and 6 are already implementing it. This tax yielded revenues of approximately 200 million euros in 2007, which are earmarked for fighting diseases such as tuberculosis, malaria and HIV/AIDS.¹⁷ Other mechanisms currently being discussed are advance market commitments for vaccines (AMCs) and private-public partnerships for microfinance. While these proposals have the merit of raising funding, including from possible non-official sources, and they represent encouraging add-ons to existing funding channels, they

do not seem to have the potential to grow into programmes that could meet the remaining needs for MDG financing, even assuming that all the funds raised were directed to those goals. They certainly could not meet the additional financing needed to boost productive investment in the poorest countries to enable these countries to achieve the target of 7 per cent GDP growth, which would significantly narrow the gap in their per capita incomes with the more developed economies.

The increasing importance of private aid flows raises the question of their effectiveness in terms of sectoral allocation, stability and predictability.

Nevertheless, the scope for channelling the increasing private aid towards developing countries seems promising. In six of the seven years between

1998 and 2005 private donations have grown faster than ODA excluding debt relief. Estimates based on OECD-DAC data suggest that private donations from DAC countries to developing countries in 2005 were \$16.5 billion, equivalent to 20 per cent of total ODA excluding debt relief. For example, in the United States, private donations accounted for about 2 per cent of GNI, or around \$250 billion, in 2005. Yet only \$8.5 billion, or less than 4 per cent of this amount, was directed to developing countries through NGOs. In some European economies, private aid flows as a share of GNI are higher than in the United States, while they are less significant in others. This may partly be due to different tax treatments of private donations to international causes across OECD countries.¹⁸ The increasing importance of private aid flows also gives rise to the question of their effectiveness in terms of sectoral allocation, stability and predictability. As private aid is distributed often through “vertical funds” (i.e. funds that support projects in specific areas such as environment or health), it will become ever more important to increase coordination between ODA and private aid flows.

Some observers consider non-DAC official donors to be promising alternative avenues for development cooperation and new sources of development finance for both MDGs and emerging issues of mutual global interest (Das, De Silva and Zhou, 2008). Attention is focused on development cooperation initiatives and contributions by capital-surplus middle-income countries in Asia and Latin America to lower-income developing countries, both in their respective regions and in sub-Saharan Africa. While sometimes labelled as “new” sources of lending to developing countries, a number of these countries,

especially the oil-producers, first emerged on the development cooperation scene some 30 years ago, and have continued to play some role ever since (see, for example, UNCTAD, 1988).

The scale of ODA recently disbursed and pledged by other developing countries is especially significant for a number of recipient countries in Africa, and, as discussed in section B above, it has assumed a more important role overall since 2003. However, non-DAC aid could only make a marginal contribution to closing the official financing gap. Nevertheless, the fact that an increasing number of developing countries have become net exporters of capital indicates that they could provide additional loans, either bilaterally or multilaterally through regional financial institutions, to neighbouring or other developing countries.

As new sources and channels of official development financing gain importance, there is the risk of the aid delivery system becoming more fragmented, and oversight and coordination – both vital to aid effectiveness – more difficult. More comprehensive and consistent information on the concessional lending (and grant) activities of new donors from the South would certainly give greater coherence to the global ODA architecture, in addition to providing alternative criteria and benchmarks for evaluating aid effectiveness. But just as bilateral ODA serves a different function than that of multilateral aid and, as has been shown, some components of ODA are more effective for development than others, so too non-DAC aid can play a role that is additional to, and not a substitute for, scaled-up aid from traditional development partners.

F. Conclusions

In order to achieve the MDGs, it is understood that a larger proportion of ODA should be spent for health, education and other social purposes. This kind of ODA is essential and justified in its own right. However, poverty is a phenomenon closely, albeit not exclusively, related to the level of per capita income. Unless ODA helps boost growth, it is unlikely to be effective in reducing poverty in the long-term beyond the MDG target year of 2015. Sustained poverty reduction is not possible exclusively on the basis of income redistribution. It is therefore essential that, in addition to achieving the MDGs through increased ODA in social infrastructure and services, greater efforts be made to raise the level of investment in economic infrastructure and in the productive sectors with a view to increasing domestic value added. This is a necessary means to raising the level of income – and employment – in order to improve income distribution in favour of the poorer segments of the population. To the extent that such investment cannot be financed from domestic resources, because additional imports of capital require more foreign exchange than can be generated through exports, or because the domestic financial system does not provide long-term investment at a reasonable cost, ODA remains critical beyond what is needed for achieving the MDGs.

The composition of aid matters for its overall effectiveness. But it can only be measured meaningfully against clearly specified objectives. It is therefore useful to distinguish between social and human development objectives on the one hand,

and growth objectives with appropriate intermediate targets – such as rates of productive investment – on the other. The first types of objectives can be pursued by increased ODA for projects in social infrastructure and services, whereas progress towards the growth objectives requires a concentration of project aid in economic infrastructure and the productive sectors. This in turn will also serve social and human development objectives in the medium and long term.

In order to achieve sustained poverty reduction, increases in ODA for social infrastructure and services must therefore not be at the expense of ODA for economic infrastructure and productive sectors, al-

though even in these areas there appears to be considerable room for improving aid effectiveness. One way could be to leverage ODA with domestic financing, for example through the creation of institutions that would channel ODA into public and private investment projects financed jointly with domestic financial institutions. This could facilitate

access of potential domestic investors to long-term financing and reduce the credit risk of domestic banks – and thus the spreads they charge – while at the same time helping to build a better functioning system of domestic financial intermediation.

The effectiveness of ODA with respect to growth or to the MDGs also depends on its distribution across countries. It could probably be improved by taking better account of the varying needs of countries and directing further increases in ODA grants to the poorest countries that have the greatest

Unless ODA helps boost growth, it is unlikely to be effective in reducing poverty in the long-term, beyond the MDG target year of 2015.

difficulty in initiating a self-sustaining process of investment and growth. In the past, the geographical distribution of ODA had been governed mainly by criteria other than relative needs in terms of levels of per capita income and human development, or the degree of the fiscal or foreign-exchange gap. As the analysis in this chapter has shown, aid volatility and aid uncertainty may deter growth and could therefore seriously undermine other efforts to make aid more effective. Thus the promises made by donors through the Monterrey Consensus and the Paris Declaration for improving the stability and reliability of aid are more pertinent than ever.

Overall, a considerable financing gap appears to persist with respect not only to MDG-related activities, but also to investments that will be beneficial for growth and structural change beyond the MDGs, let alone for tackling new challenges for developing countries as a result of climate change. It is possible that in the medium term, a combination of innovative mechanisms and the continued growth of private aid flows may increasingly contribute to development finance. However, the only realistic chance of meeting the MDGs between now and 2015 is to dramatically scale up ODA flows and, to the extent possible through multilateral instruments, by an amount at least in the range of \$50–\$60 billion a year.

While greater efforts at increasing the effectiveness of ODA may contribute to narrowing the

financing gap, donors need to continue their efforts to provide more ODA. They need to meet the targets of 0.7 per cent of their GNI going as ODA to the developing countries as a whole, and 0.15–0.20 per cent of GNI going as ODA to the group of LDCs, as reaffirmed in the Monterrey Consensus. In addition, the international community would be well advised to mobilize the necessary solidarity and political will to utilize new and innovative sources of financing to help promote reforms in global economic governance and adjustments to global environmental challenges. At the same time, the developing countries need to redouble their efforts to finance investments out of domestic sources.

The only realistic chance of meeting the MDGs between now and 2015 is to dramatically scale up ODA flows.

Debt relief has played an important role in ODA through the HIPC Initiative, and in particular since 2003. However,

there is no clear evidence that it has been additional to other forms of aid, as called for in the Monterrey Consensus. Such additionality is indispensable, because while debt stock reduction can alleviate the debt-servicing burden in the future, it has a very limited effect on the capacity of governments to increase their expenditure in the period in which it is granted, although it is fully counted as ODA in that period. Full additionality would not only improve the chances of beneficiary countries to meet their growth and social objectives, including those set by the MDGs, it would also increase the possibility of these countries to achieve and maintain a level of debt that is sustainable, an issue taken up in greater detail in the next chapter. ■

Notes

- 1 The following are examples of the financing commitments submitted by individual G-8 members: the EU will almost double its ODA between 2004 and 2010; both Germany and Italy have undertaken to reach 0.51 per cent ODA/GNI in 2010 and 0.7 per cent ODA/GNI in 2015; France announced its intention to raise its ODA/GNI to 0.5 per cent in 2007 and to 0.7 per cent in 2012, and the United Kingdom announced its aim to reach the 0.7 per cent target by 2013. Canada committed to double its international assistance between 2001 and 2010 and Japan to raise its ODA by \$10 billion until 2010. Specific commitments were made for increasing aid to sub-Saharan Africa including by the United States, which proposed doubling its aid to that region between 2004 and 2010 (G-8, 2005).
- 2 For a survey, see Bacha, 1990.
- 3 Regrettably, data on real exchange rates is not available for all the developing and transition economies for which the changes in the current-account balance between 1992–1996 and 2002–2006 were examined. However, among 47 of the countries identified as experiencing a deterioration in their current account, only 8 saw an appreciation of their real exchange rate of more than 10 percentage points. In 15 of these countries the current account swing was negative despite a depreciation of the real exchange rate of more than 10 percentage points. The remaining 24 countries had movements in the real exchange rate of less than 10 percentage points. Looking at the LDCs for which the relevant data are available, 11 out of 19 saw a negative swing in their current account in spite of a real exchange rate depreciation.
- 4 As measured by different indicators, the MDGs seek to: (i) eradicate extreme poverty and hunger; (ii) achieve universal primary education; (iii) promote gender equality and empower women; (iv) reduce child mortality; (v) improve maternal health; (vi) combat HIV/AIDS, malaria and other diseases; and (vii) ensure environmental sustainability.
- 5 All ODA data in this chapter are ODA by DAC members, unless otherwise indicated. The 22 DAC countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.
- 6 See DAC Statistical Reporting Directives, DCD/DAC (2007) 34, April 2007: 12, para. 35.
- 7 If a transaction satisfies the condition of at least a 25 per cent grant element, which is calculated at a rate of discount of 10 per cent, the entire amount of the loan is reported as ODA. Within this broad definition, ODA transactions can take the form of, for example, goods in kind, services rendered, technical advice and training, emergency food aid, humanitarian assistance, financing for foreign exchange students, or contributions to multilateral development agencies.
- 8 Over the period 1996–2005, the top 10 non-DAC creditors, in order of magnitude of their total concessional lending, were: Kuwait, China, the Russian Federation, Saudi Arabia, the United Arab Emirates, the Republic of Korea, Turkey, the Bolivarian Republic of Venezuela, India and Poland.
- 9 Earlier econometric analyses of debt relief additivity in the period between the 1970s and 2001 have been inconclusive (see, for example, Ndikumana, 2004; Birdsall, Classens and Diwan, 2002; Powell, 2003; and Hepp, 2005).
- 10 Views on governance range from an instrumental view, which evaluates public administrations by the efficacy with which they achieve objectives that are in the societal interest, to a normative view, which evaluates public administrations by the way in which they pursue these objectives, as well as the objectives themselves. The latter view – which is reflected in the World Bank’s indicators on governance – often equates good governance with the

- democratic decision-making process and liberal economic objectives.
- 11 The principal proponents of the World Governance Indicators – the World Bank’s broader framework for measuring the quality of governance and institutions around the world – have addressed some of its allegedly most persistent weaknesses, arguing that critiques have been either conceptually incorrect or empirically unsubstantiated (Kaufmann and Kraay, 2008).
 - 12 The United Nations Millennium Project was established in 2002 as an independent advisory body to identify strategies to achieve the MDGs, particularly in those countries deemed to be far off-course in progress. The *Sachs Report* synthesizes the analyses prepared by the 10 task forces established under the project.
 - 13 Based on this reasoning, the Third Programme of Action for the LDCs for the Decade 2001–2010 emphasized a series of infrastructure goals, as well as concrete economic goals, including a target growth rate of 7 per cent per annum and a targeted investment rate of 25 per cent of GDP.
 - 14 A comprehensive assessment of various proposals for innovative financing instruments has been undertaken by the World Institute for Development Economics Research of the United Nations University (UNU/WIDER) in cooperation with the United Nations Department for Economic and Social Affairs (see http://www.wider.unu.edu/research/projects-by-theme/development-and-finance/en_GB/innovative-sources-for-development-finance/; and Atkinson, 2004).
 - 15 This was discussed by UNCTAD already in 1996, when it was observed that “such a tax, which has also attracted interest as a potential source of revenue for various internationally agreed purposes, presents a series of difficult, though not necessarily insuperable, problems. Decisions would be necessary concerning the locations at which the tax would be imposed, the level of the tax and the coverage of instruments” (*TDR 1996*: 174–175).
 - 16 In the aftermath of this ministerial meeting, the Leading Group on Solidarity Levies to Fund Development was established with the mandate to develop mechanisms for raising funds for MDG projects.
 - 17 According to information obtained directly from Leading Group Secretariat.
 - 18 Unlike most other EU countries, the two countries with the highest reported share of private aid flows in GNI, Ireland and the Netherlands, allow tax deductions for contributions to cross-border charities.

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DETAILS ON ECONOMETRIC STUDIES

1. Econometric analysis of the impact of ODA on growth

The econometric analysis for the aid-growth relationship discussed in the main text covers a large panel data set for 162 developing countries for the period 1975–2006. Using stationarity-transformed data and panel data methods, various specifications were employed, of which only one result is presented in this annex. Details on the exact data definitions and data sources are given further below.

For the analysis, disaggregated ODA is being used with the following regression:

$$\begin{aligned} \Delta GDP^{pc} = & \alpha + \beta_1 Aid_1 + \beta_2 Aid_2 + \beta_3 Aid_3 + \beta_4 Aid_4 \\ & + \beta_5 Aid_5 + \beta_6 AidVolatility + \beta_7 AidUncertainty \\ & + \beta_8 Population + \beta_9 PerCapitaIncome + \\ & \beta_{10} PrimaryEducation + \beta_{11} Investment + \\ & \beta_{12} FDI + \beta_{13} Openness + \beta_{14} Governance + \\ & \beta_{15} Reform + \beta_{16} LDC + \beta_{17} War + \varepsilon \end{aligned}$$

where ΔGDP^{pc} is per capita GDP growth, $Aid_{1,3}$ is sectoral aid, Aid_4 is general budget support, and Aid_5 is debt relief. Aid_1 refers to aid in social infrastructure and services, Aid_2 is aid flowing into economic infrastructure, and Aid_3 is aid for productive sectors. A proxy for *Education* is the primary education completion rate, which is more suited than the often employed school enrolment rates. *Investment* is the

gross investment to GDP ratio, while *FDI* is the ratio of foreign direct investment to GDP. *Openness* is the ratio of trade to GDP. As standard governance indicators such as the World Bank's CPIA are not available for an analysis for the period 1975–2006, *Governance* is measured by the index of democratic accountability of the *International Country Risk Guide* of the PRS Group. *Reform* measures the change in bureaucratic quality as well as corruption. As this is clearly only a partial measure of governance, its coefficient must be evaluated with care, especially when comparing with previous studies on this subject. *War* and *LDC* are dummy variables.

Estimators are derived using the generalized method of moments (GMM). Technically, GMM-based dynamic panel data estimators take into account the presence of unobserved fixed country-specific effects and an autoregressive dependent variable. While static estimators based on ordinary least squares (OLS) are biased in this setting, GMM has proven to be consistent and asymptotically efficient. System GMM is especially appropriate with small samples as well as highly persistent series. Economically, this technique deals with policy and structural changes in the data set. Estimated parameters are invariant to policy regimes and free of

Table 5.A1

**THE IMPACT OF DISAGGREGATED
ODA ON ECONOMIC GROWTH**

<i>Variable</i>	<i>Coefficient</i>	<i>Standard error</i>
Constant	0.09	0.11
Aid 1: social infrastructure and services	0.15	0.37
Aid 2: economic infrastructure	0.40	0.01***
Aid 3: production sectors	0.54	0.42
Aid 4: general budget support	0.43	0.80
Aid 5: debt relief	0.09	0.03***
Aid volatility	-0.01	0.48
Aid uncertainty	-0.74	0.00***
Population	0.09	0.01***
Income per capita	0.26	0.42
Primary education	0.60	0.21***
Investment	0.02	0.59
FDI	-0.43	0.45
Openness	-0.40	0.59
Governance	0.36	0.24
Reform	0.20	0.75
LDC	0.10	0.00***
War	0.57	0.24**

Note: For definitions of variables and sources, see explanatory notes at the end of this annex.

** Significant at 5 per cent.

*** Significant at 1 per cent.

endogenous expectational issues. Hence, the method is useful for focusing on an analysis of subsequent “aid regimes” (e.g. pre- and post-transition phase, pre- and post-MDG commitments).¹

The results presented in table 5.A1 give a comprehensive insight into the growth-related effects of

ODA. Most notably, there is a positive, large and significant correlation between aid for economic infrastructure and economic growth. By contrast, aid for social infrastructure and services has, as would be expected, a relatively small and insignificant immediate effect on economic growth. But, as highlighted in this chapter, it may actually be more appropriate to measure the effectiveness of social aid by its contribution to social development, rather than by its effects on economic growth. The effect of debt relief on economic growth is positive and statistically significant, but small, which is to be expected, as debt relief often does not come as “fresh”, additional money but rather as write-offs of – partially unserviced – debt stocks.

The analysis also shows a large and statistically significant negative effect of aid uncertainty on economic growth. The obtained negative parameter emphasizes once again that implementation of the international agreements reached in the Paris and Rome Declarations on Aid Effectiveness and Harmonization is key.

Population growth has a small and significant effect on economic growth, whereas education has been found to have a large and statistically significant effect. The educational variable exhibits a comparatively large estimated coefficient when compared to earlier studies on the same subject, which is most likely due to the analysis being based on school completion rather than enrolment rates.

Governance, as defined here, has not been found to have a significant impact on growth. Furthermore, the table shows no correlation between growth and openness or growth and FDI. Other definitions of openness to trade, and a breakdown of FDI into its subcomponents may yield different results.

2. Econometric estimates of the additionality of debt relief

This annex section describes a statistical exercise aimed at testing whether debt relief brings additional resources or crowds out other forms of ODA. The statistical tests measure additionality from the point of view of both donors and recipients. Since declarations at various G-8 meetings have called for an increase in ODA, it is unlikely that the estimations presented in this annex here are biased against finding additionality. Indeed, if donor countries had delivered on their promises of increasing aid net of debt relief, the estimates would be biased towards finding additionality.

Additionality from the donors' perspective

In order to test whether donors that grant debt relief give less aid that is not related to debt relief, it is possible to estimate the following regression:

$$ODANET_{i,t} = \alpha DR_{i,t} + \beta X_{i,t} + \mu_i + \varepsilon_{i,t}$$

Where ODANET is official development assistance net of debt relief provided by country i in year t , DR is debt relief offered by country i in year t . Both ODANET and DR are measured as a share of GNI of the donor country. X is a matrix of control variables, and μ_i is a country fixed-effect that controls for all possible donor-specific, time-invariant country characteristics (the model is also estimated with random effects and time-fixed effects). The model is estimated using data for 21 countries that are members of OECD DAC.² ODA and debt relief are measured using DAC data.

The parameter of interest is α . This parameter measures the relationship between debt-relief and non-debt-relief ODA. A point estimate of α equal to zero would indicate that there is no relationship between debt relief and ODANET, and that debt relief is additional. A positive value of α indicates that debt relief crowds in aid. This result, in which debt relief is more than additional, would suggest that donors realize that some countries need both debt relief *and* more resources. A negative value of α indicates that debt relief crowds out aid and that it is not fully additional.

The results reported in table 5.A2 suggest that debt relief is not fully additional. In particular, columns 1–4 show that each dollar of debt relief crowds out between 22 and 28 cents of non-debt-relief-related ODA.³

Additionality from the recipients' perspective

Additionality from the recipients' perspective is estimated using an approach similar to the one described above. The model is exactly the same, but all variables are now measured from the recipients' side and the set of controls in the matrix X is different.⁴ The results obtained by estimating the equation from the recipients' and from the donors' point of view may differ for two reasons: the unit of analysis is different and developing countries receive ODA from both non-DAC donors and from various multilateral institutions.⁵

Table 5.A2

REGRESSION RESULTS WITH DEPENDENT VARIABLE: DONOR'S ODA NET OF DEBT RELIEF AS A SHARE OF DONOR'S GNI				
<i>(Only HIPC years)</i>				
	(1)	(2)	(3)	(4)
DR/Y	-0.23 (1.88)*	-0.28 (2.13)**	-0.22 (1.77)*	-0.28 (2.09)**
Ln(GNIPC)	1.55 (3.50)***	2.08 (1.74)*	1.42 (3.20)***	1.30 (0.98)
RER	0.03 (0.41)	0.04 (0.48)	0.04 (0.49)	0.06 (0.63)
GOVBAL	-0.01 (2.12)**	-0.01 (2.57)**	-0.01 (2.57)**	-0.01 (2.94)***
Constant	-3.23 (3.12)***	-4.44 (1.60)	-2.93 (2.83)***	-2.64 (0.86)
No. of observations	166	166	166	166
No. of countries	21	21	21	21
Estimation method	Random effects		Fixed effects	
Year fixed effects	No	Yes	No	Yes

Note: For definitions of variables and sources, see explanatory notes at the end of this annex.

Absolute values of t statistics in parentheses.

* Significant at 10 per cent.

** Significant at 5 per cent.

*** Significant at 1 per cent.

The results reported in the first five columns of table 5.A3 show that most of the coefficients are positive (the exceptions being column 2 and 3), but rarely statistically significant. This is consistent with full additivity but no crowding-in effect. However, when the model is estimated with a statistical technique that puts less weight on outliers (columns 6–10), most coefficients become negative (the exception being column 6) and, in some cases, are marginally significant. Thus, when outliers are controlled for, there is some weak evidence that debt relief crowds out other forms of ODA, even when additivity is measured from the recipient's point of view.

Table 5.A4 focuses on the post-2000 period, and again finds that ordinary least square regressions do not yield a statistically significant correlation between debt relief and other forms of ODA (columns 1–5). When outliers are controlled for (columns 6–10), the model yields mixed results. The regressions that include the face value of the stock of debt suggest that debt relief crowds out other forms of aid. The regressions that include the net present value of the stock of debt show a crowding-in effect of debt relief.

Taken together these results suggest that, when measured from the recipients' perspective, there is no clear indication that debt relief crowds in or crowds out other forms of aid. Moreover, there is no evidence that, as claimed by the World Bank (see section C.3 of this chapter), debt relief has become more additional in the post-2000 period.

Table 5.A3

REGRESSION RESULTS WITH DEPENDENT VARIABLE: ODA NET OF DEBT RELIEF RECEIVED BY HIPCs, 1996–2006										
<i>(Fixed-effect estimates)</i>										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DR/Y	0.07 (1.09)	-0.01 (0.15)	-0.01 (0.25)	0.02 (0.40)	0.02 (0.37)	0.04 (1.34)	-0.06 (1.75)*	-0.05 (1.77)*	-0.02 (0.74)	-0.03 (1.03)
PPG/Y t-1		0.08 (4.71)***	0.08 (4.50)***				0.06 (7.23)***	0.05 (5.97)***		
Ln(GNIPC)		-0.02 (0.46)	-0.02 (0.44)	-0.05 (0.97)	-0.05 (0.99)		-0.09 (3.41)***	-0.08 (3.17)***	-0.10 (3.68)***	-0.09 (3.65)***
SEAT UN SC		0.03 (1.17)	0.03 (1.16)	0.03 (1.27)	0.03 (1.32)		-0.01 (0.83)	-0.01 (0.66)	-0.01 (0.80)	-0.01 (0.57)
INST		0.01 (2.56)**	0.01 (2.28)**	0.01 (2.38)**	0.01 (2.09)**		0.00 (1.61)	0.00 (0.84)	0.00 (1.35)	0.00 (0.49)
Ln(POP)		0.22 (4.10)***	0.28 (2.00)**	0.28 (5.31)***	0.35 (2.51)**		0.11 (4.29)***	0.31 (4.88)***	0.15 (5.52)***	0.35 (5.42)***
NPVPPG/Y t-1				0.09 (4.17)***	0.10 (4.10)***				0.07 (6.40)***	0.06 (5.78)***
ARR/Y t-1	-0.01 (0.44)	-0.04 (1.66)*	-0.03 (1.50)	-0.07 (2.60)***	-0.07 (2.52)**	-0.04 (4.58)***	-0.09 (7.84)***	-0.08 (7.81)***	-0.12 (7.85)***	-0.11 (7.83)***
Constant	0.14 (23.68)***	-1.76 (3.66)***	-2.36 (1.79)*	-2.12 (4.22)***	-2.78 (2.10)**	0.10 (10.36)***	-0.38 (1.55)	-2.16 (3.75)***	-0.59 (2.34)**	-2.39 (4.05)***
No. of observations	260	248	248	246	246	260	248	248	246	246
No. of countries	28	27	27	27	27	28	27	27	27	27
Year fixed effects	No	No	Yes	No	Yes	No	No	Yes	No	Yes
Controlling for outliers	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

Note: For definitions of variables and sources, see explanatory notes at the end of this annex.

Absolute values of t statistics in parentheses.

* Significant at 10 per cent.

** Significant at 5 per cent.

*** Significant at 1 per cent.

Table 5.A4

**REGRESSION RESULTS WITH DEPENDENT VARIABLE: ODA NET OF DEBT RELIEF
RECEIVED BY HIPCs, 2000–2006**

(Fixed-effect estimates)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DR/Y	0.02 (0.37)	-0.01 (0.24)	-0.03 (0.66)	0.03 (0.59)	0.03 (0.60)	-0.05 (1.41)	-0.06 (1.88)*	-0.07 (1.98)*	0.06 (1.94)*	0.16 (4.77)***
PPG/Y t-1		0.08 (2.44)**	0.10 (3.02)***				0.06 (3.57)***	0.07 (3.39)***		
Ln(GNIPC)		-0.04 (0.32)	-0.13 (0.93)	-0.09 (0.70)	-0.20 (1.55)		0.07 (1.05)	-0.04 (0.63)	0.03 (0.57)	-0.23 (3.73)***
SEAT UN SC		0.00 (0.07)	0.02 (0.47)	0.01 (0.25)	0.02 (0.73)		-0.00 (0.10)	-0.00 (0.08)	0.00 (0.06)	-0.00 (0.18)
INST		0.01 (0.82)	0.01 (1.58)	0.01 (0.96)	0.01 (1.97)*		-0.00 (0.57)	0.00 (0.13)	-0.00 (0.52)	0.01 (2.37)**
Ln(POP)		0.02 (0.10)	-0.94 (2.55)**	0.24 (1.60)	-0.69 (2.06)**		-0.01 (0.17)	-0.68 (3.36)***	0.00 (0.03)	-0.72 (3.96)***
NPVPPG/Y t-1				0.10 (2.80)***	0.16 (3.50)***				0.06 (3.14)***	0.11 (4.43)***
ARR/Y t-1	0.04 (1.37)	0.02 (0.87)	0.02 (0.61)	-0.02 (0.47)	-0.05 (1.35)	0.01 (1.04)	-0.08 (5.05)***	-0.09 (5.26)***	-0.10 (5.93)***	-0.04 (2.18)**
Constant	0.15 (20.60)***	0.20 (0.17)	9.46 (2.75)***	-1.53 (1.22)	7.73 (2.40)**	0.43 (39.33)***	0.04 (0.06)	6.62 (3.72)***	0.13 (0.24)	8.17 (4.98)***
No. of observations	132	104	104	104	104	132	104	104	104	104
No. of countries	28	27	27	27	27	28	27	27	27	27
Year fixed effects	No	No	Yes	No	Yes	No	No	Yes	No	Yes
Controlling for outliers	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

Note: For definitions of variables and sources, see explanatory notes at the end of this annex.
Absolute values of t statistics in parentheses.

* Significant at 10 per cent.

** Significant at 5 per cent.

*** Significant at 1 per cent.

Explanatory note on table 5.A1**DEFINITIONS OF VARIABLES AND SOURCES FOR REGRESSION ON AID AND GROWTH**

<i>Variable</i>	<i>Definition</i>	<i>Source</i>
GDP growth per capita	GDP growth per capita (constant 2006 \$)	World Bank, <i>World Development Indicators</i> database
Aid 1: social infrastructure and services	Social infrastructure and services, series 450.100.I (constant 2005 \$, gross disbursements)	OECD-IDS
Aid 2: economic infrastructure	Economic infrastructure, series 450.200.II (constant 2005 \$, gross disbursements)	OECD-IDS
Aid 3: production sectors	Production sectors, series 450.300.III (constant 2005 \$, gross disbursements)	OECD-IDS
Aid 4: general budget support	General budget support, series 510.VI.1 (constant 2005 \$, gross disbursements)	OECD-IDS
Aid 5: debt relief	Action related to debt, series 600.VII (constant 2005 \$, gross disbursements)	OECD-IDS
Aid volatility	Standard deviation of the total ODA/GDP ratio	UNCTAD secretariat estimates, based on OECD-IDS
Aid uncertainty	Standard deviation of the error of a first-order autoregressive forecasting equation of the difference between commitments and disbursements	UNCTAD secretariat estimates, based on OECD-IDS
Population	Log of total population	<i>UNCTAD Handbook of Statistics</i> database
Income per capita	GDP per capita (constant 2006 \$)	World Bank, <i>World Development Indicators</i> database
Education	Primary education (completion rate)	UNESCO, <i>World Education Indicators</i> , online.
Investment	Gross capital formation (per cent GDP)	World Bank, <i>World Development Indicators</i> database
FDI	Net inflows of foreign direct investment (per cent GDP)	<i>UNCTAD Handbook of Statistics</i> database
Openness	Total trade (exports plus imports of goods and services, per cent GDP)	World Bank, <i>World Development Indicators</i> database
Governance	Measure of democratic accountability	PRS Group, <i>International Country Risk Guide</i>
Reform	Measure of bureaucratic quality and corruption	PRS Group, <i>International Country Risk Guide</i>
LDC	LDC dummy variable	UN classification
War	Dummy variable measuring internal and external conflict	UNCTAD secretariat estimate, based on PRS Group, <i>International Country Risk Guide</i>

Explanatory note on tables 5.A2, 5.A3 and 5.A4**DEFINITIONS OF VARIABLES AND SOURCES FOR REGRESSION
ON DEBT RELIEF AND AID ADDITIONALITY**

<i>Variable</i>		<i>Definition</i>	<i>Source</i>
Donors			
ODA	Official development assistance	Net ODA, including debt relief; current prices (\$ million)	OECD-IDS
DR	Debt relief given by donors	Debt forgiveness total; current prices (\$ million), net disbursements	OECD-IDS
GOVBAL	Fiscal balance	Budget balance as share of GNI	OECD
Ln(GNIPC)	Logarithm per capita GNI	Logarithm of per capita GNI (\$)	OECD
RER	Real exchange rate variation	Deviation of the real exchange rate from its long-run average	IMF, <i>International Financial Statistics</i> ; and JP Morgan
Recipients			
ODA	Official development assistance	Net official development assistance from all donors, including debt relief	OECD-IDS
DR	Net debt relief	Net debt relief from all donors	OECD-IDS
DR1	Debt relief received by recipients	Principal forgiven + interest forgiven (\$)	World Bank, <i>Global Development Finance</i> database
Ln (GNIPC)	Logarithm per capita GNI	Logarithm per capita GNI; PPP (constant 2000 international \$)	World Bank, <i>World Development Indicators</i> database
PPG	Public and publicly guaranteed external debt	Public and publicly guaranteed external debt, total	World Bank, <i>Global Development Finance</i> database
GNI	GNI	GNI (current \$)	World Bank, <i>World Development Indicators</i> database
ARR	Arrears	Principal arrears on debt outstanding (LDOD) + interest arrears on LDOD	World Bank, <i>Global Development Finance</i> database
Ln(POP)	Logarithm population	Logarithm of total population	<i>UNCTAD Handbook of Statistics</i> database
INST	Freedom House Index	Freedom measure, measured on a scale of 0 to 12, with 0 representing the lowest degree of freedom, and 12 the highest	http://www.Freedomhouse.org
Seat UN SC	UN Security Council seat	UN Security Council seat, with 0 representing no security council seat, and 1 representing Security Council seat	http://www.un.org/sc/members.asp
HIPC	HIPC	HIPC countries, with 0 representing no HIPC, and 1 representing HIPC	World Bank classification

Notes

- 1 The analysis was repeated with a static panel analysis with fixed and random effects, which did not significantly change results.
- 2 The sample does not include Luxembourg (the 22nd DAC country) because some of the control variables are missing. The control variables include the log of GNI per capita of the donor ($\ln\text{GNIPC}$), the real exchange rate of the donor (RER) and the budget deficit of the donor (GOVBAL).
- 3 Column 1 presents random-effect estimates without year fixed effects, column 2 reports random-effect estimates with year fixed effects, column 3 reports fixed-effect estimates without year fixed effects, and column 4 reports fixed-effect estimates with year fixed effects. The regressions of table 5.A2 are restricted to the HIPC period (i.e. 1996–2006), if additional years are included, the crowding-out effect ranges between 27 and 30 per cent.
- 4 The control variables include: the initial level of debt as a share of GNI (both in nominal and present value terms: PPG/Y and NPVPPG/Y respectively), the log of GNI per capita ($\ln(\text{GNIPC})$), a dummy variable that takes value 1 when the country has a seat in the United Nations Security Council (SEAT UN SC), a variable that measures institutional quality (INST), the log of population ($\ln(\text{POP})$), and arrears as a share of GDP (ARR/Y). All regressions are estimated using a fixed-effects model. A random-effects model yields similar results.
- 5 Composition effects can play an important role in explaining different results when additionality is measured from the two sides. Consider the following example. In the world there is only one donor and there are ten recipients. In year t , the donor gives \$1,000 million of aid net of debt relief and no debt relief; in year $t+1$ the donor gives \$970 million of aid net of debt relief and \$100 million of debt relief. When additionality is evaluated from the donor's point of view, $\alpha = -0.3$ (1 dollar of debt relief crowded out \$0.3 of other forms of aid). Looking from the recipients' point of view, and assuming there is one large recipient and there are nine small recipients, in year t each of the small recipients receives \$10 million of aid, the large recipient receives \$910 million of aid, and nobody receives debt relief. In year $t+1$, each of the small recipients receives \$10.1 million of aid net of debt relief and the large recipient receives \$879.1 million ($879.1 = 970 - 90.9$) of aid net of debt relief. Moreover each small recipient receives \$1 million of debt relief and the big recipient receives \$91 million ($91 = 100 - 9$) of debt relief. Hence, the small recipients have $\alpha = 0.1$ and the big recipient has $\alpha = -0.34$ ($-0.34 = (879.1 - 910)/91$). Since there are nine small recipients and one big recipient, the average value of α is 0.056.

