

Renard, Robrecht; Cassimon, Danny

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## On the pitfalls of measuring aid

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Discussion Paper No. 2001/69

## **On the Pitfalls of Measuring Aid**

Robrecht Renard and Danny Cassimon\*

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### **Abstract**

Aid (ODA, Official Development Assistance) statistics are routinely produced by the Development Assistance Committee (DAC) of the OECD on the basis of data provided by bilateral donor agencies and using definitions and guidelines that represent a broad donor consensus. The use of new aid instruments, such as debt relief, has led to several changes and additions to DAC procedures over the years, but the underlying principles and methodology has remained unchanged since the early 1960s. Recent World Bank staff research proposes a more radical departure, introducing the concept of EDA, 'Effective Development Assistance'. We use this recent contribution as a starting point to make a more thorough assessment of the methodology used to measure aid in general, and ODA in particular. The methodology is applied to some typical aid instruments, such as tied technical assistance, concessional loans and debt forgiveness. We illustrate that alternative aid measures can make a considerable difference on how we look on aid volumes and trends.

Keywords: development aid, aid accounting, ODA, EDA

JEL classification: F35, O19

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\* University of Antwerp, Belgium

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## Introduction

Development aid as it is understood nowadays is a relatively recent phenomenon. Although its origins can be traced back at least to the famous Marshall Plan for the recovery of Europe after the Second World War, all the notions, instruments and institutions we are now familiar came into full swing in a relatively brief time span in the early 1960s. In 1961, the OECD in Paris set up the Development Assistance Committee (DAC), which, among other things, began to publish annual statistics on aid. These statistics have become an important instrument to monitor performance of the member countries and foster better aid policies. In the statistical tables published by DAC, individual donor efforts are contrasted with each other and measured against commonly agreed targets, such as the share of GNP devoted to aid. Donor practices regarding the commercial tying of aid are also reported on, as are the share of aid going to the poorest countries and other quality indicators.

The publication of the annual aid statistics by DAC has become an occasion for discussing national aid policies in many member countries. Non-governmental organisations (NGOs) seize upon the occasion to comment on the performance of the government in the aid field.<sup>1</sup> The media also report the event, and members of Parliament may question the Minister in charge of development co-operation if the result is deemed to fall short of promises or expectations. The famous 0.7% norm, which expresses the percentage of GNP which individual donor countries ought to provide in aid, has served as a reference, both through time, and across countries. It is fair to conclude that donor governments are judged both internally and externally on the basis of the statistical tables produced by the DAC. The DAC secretariat has done an excellent job of producing such statistics, which, among others, reveal wide divergences in aid among donor countries and a significant turndown in aid flows from the early 1990s onwards.

Given the prominence accorded to DAC statistics in the internal debates on foreign policy in the member countries, and in the mutual discussions with respect to the tricky issue of financial burden sharing among donors, the definitions and methodology underlying the statistics are of more than academic interest. In this respect one may express some misgivings about the donor-driven nature of the whole exercise. After all, will rational donors not wish to see their foreign policy efforts translated into flattering statistics? The political importance of statistics makes them indeed liable to efforts at 'embellishment'.

It is in this light that the present paper wishes to look into some conceptual issues, in particular the recording of technical assistance, concessional loans, and debt forgiveness. We have selected those topics because they have been the subject of some controversy, and we wish to contribute to the debate. The general structure of the paper is as follows. In a first section, some general characteristics of the DAC statistics on aid

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<sup>1</sup> Since a couple of years NGOs bundle their efforts across national borders to produce what may be described an alternative DAC report. See Randel and German (2000). This publication starts from the DAC tables to produce an NGO view on aid policies, If anything, such publications tend to reinforce the importance of DAC statistics.

are recalled (section 1). Next we present what we believe to be a general and consistent framework for measuring aid (section 2). We are convinced that much confusion in the debate stems from an inadequate appreciation of the multiplicity of perspectives that can be brought to bear on the issue. We suggest that five ways of envisaging aid measures can be meaningfully distinguished, and we discuss the main differences and similarities between them. Armed with this theoretical frame of reference, we tackle in turn the tricky issues in aid recording of tied technical assistance (section 3), concessional loans (section 4), and debt forgiveness (section 5). We subsequently illustrate that alternative aid measures can make a considerable difference on how we look on aid volumes and trends (section 6). In the final part of the paper we wrap up the analysis and make some recommendations (section 7).

## **1 DAC principles on aid recording**

The main input for the DAC's statistical production is the annual data submitted, following an agreed format, by the individual member countries. Some verification is performed by the DAC secretariat in Paris. A system of peer reviews lends further creditworthiness to the exercise. It remains the case that aid statistics are wholly generated on the donor side, without systematic involvement of the recipients, and without supervision from more "neutral" institutions, such as the United Nations. In fact, donors dominate the statistics in two ways. First, and as already indicated, all the major data on aid is gathered from the donors, and translated into comparative statistical tables by the DAC secretariat. Secondly, donors set the rules of what is and what is not to be considered aid. This translates in the way the statistical information supplied by the donors is aggregated in overall aid statistics. It is in particular with regard to this second point that we feel that the one-sided donor approach has led to serious weaknesses.

Admittedly donors can not act completely on their own, oblivious to outside opinion. The DAC would lose much of its influence if major users such as multilateral agencies, beneficiary countries, NGOs, the media, or the research community would perceive statistics to be unfair and inaccurate. It has therefore a strong interest in keeping technical standards of reporting high and making sure that the conceptual basis of its definitions carries widespread approval. Also, donor countries would profit unequally from attempts at embellishing the data. For instance, including certain higher income developing countries in the list of recipients may be in the interest of some donors who happen to have special links with them, and therefore spend disproportionately on them, but not of others. This may act as a restraint of sorts on excessively broad definitions of what developing countries are, given that such definitions are decided on by consensus. The same applies to other forms of 'largesse' in the definition or measurement of aid. It must also be remembered that the member countries are represented in DAC by their aid ministries, who often take a more development-oriented position than the governments they represent. Nevertheless, exclusive donor control over the production and especially the conceptual underpinning of aid statistics has bred suspicion and led to occasional charges that DAC casts aside objectivity and rigour in the pursuit of donor interests.<sup>2</sup> In

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<sup>2</sup> For a reply to the criticism that the ODA concept has been diluted over the years by the inclusion of new items, see DAC(2000a: 50).

the rest of this paper we will address this issue with respect to the treatment of tied technical assistance, concessional loans and debt forgiveness.

The most important statistical category used by DAC is Official Development Assistance, usually referred to by its English acronym, ODA. To qualify as ODA, a transaction must satisfy three criteria: emanate from the public sector in the donor country, carry a minimum grant element, and have as its main objective the promotion of development.

The first of those criteria is straightforward and does not lead to much discussion. Note that the public sector includes the central government, but also decentralised authorities down to district and communal level. Further note that, in accordance with this criterion, only the part of aid delivered by NGOs that is publicly funded qualifies as ODA.

The second criterion is also uncontroversial, at least as far as the underlying principle is concerned. It quite appropriately aims to exclude loans that carry purely commercial conditions. In order to qualify as ODA, a loan must somehow be ‘softened’ by featuring a lower than market interest rate. It can be made even more attractive by a lengthy grace period and a long maturity. To decide whether a loan qualifies as ODA, the DAC proposes the calculation of its grant element. The grant element is calculated by subtracting the net present value of all future debt service obligations from the face value of the loan, and divide through by the latter. The grant element thus calculated varies between 0% (in case of a commercial loan without any subsidy) to 100% (in case of a pure grant). The grant element is an elegant notion that captures well the degree of ‘softness’ of any financial transaction. A simple formula for the calculation of the grant element is

$$\frac{L - \sum_{t=1}^n \frac{R_t}{(1+i)^t}}{L}$$

where:

$L$  : the face value of a loan accorded in the base year (0)

$R_t$  : debt service payment (principal plus interest) in year  $t$

$n$  : the last year in which payments are due

$i$  : the discount rate

The DAC uses an arbitrary 10% discount rate to express the debtor opportunity cost, without any variation over time and without differentiating by creditor country, debtor country, or maturity of the loan. For a transaction to be eligible as ODA the grant element must be 25% or more. What is recorded however is not the grant equivalent of a loan (the face value of the loan multiplied by the grant element), as one might expect, but rather the face value of the loan in the year it is disbursed, and as negative entries the subsequent reimbursements of principal, again in the year they occur. The grant element thus serves as an arbitration criterion but does not itself enter into the calculations. We defer our assessment of these features until later in the paper. At this

point we only draw the attention to the fact that there are alternative ways of recording concessional loans.

The third criterion poses more problems. For how is one to establish development *motivation* on the part of the donor? Development aid is usually pursued for a complex and to some extent contradictory mixture of national objectives in the donor country. It is not easy to disentangle them, let alone to draw a precise line between those actions that are 'purely' development-inspired, or at least sufficiently so, from all the others. Nevertheless, this is precisely what was tried through a very detailed list of instructions (DAC, 2000a). It is here that the major limitations of a donor-dominated approach to aid statistics are situated, as we will argue in more detail later. The directives have been reviewed on a number of occasions, to accommodate new instruments of aid such as debt forgiveness, or new situations, such as the collapse of the former communist bloc in Eastern Europe and the subsequent request of some of the countries involved to become aid beneficiaries. Lengthy debates may precede the acceptance, on a consensual basis, of amendments to the directives, and the result are often better understood as political compromises than as consistent and analytically sound principles of statistical recording. We will come back to this point later in the paper and argue that this is in particular the case for debt forgiveness.

Apart from ODA, other important statistical concepts are Official Aid and Other Official Flows. A lengthy discussion took place at the end of the 1980s and beginning of the 1990s on how to properly account for the efforts by the member countries towards the former communist Eastern European countries who were not on the traditional list of recipients for ODA. As a result, a new category, confusingly labelled Official Aid, was introduced. *Official Aid* is completely analogous to ODA, except for the countries that are its recipients. The distinction is important in view of the 0.7% GNP target. Most donors felt that the inclusion of the Eastern European countries in ODA would lead to a watering down of the promises made towards the traditional aid beneficiaries. Hence the separate statistics and the new label.<sup>3</sup> *Other Official Flows* (OOF) are a residual category for official transactions that do not qualify for inclusion in ODA or Official Aid, because the grant element is below 25% or the primary motivation is not development. Finally, the DAC completes its tables with data on *private flows* on market terms, such as foreign direct investment, bank lending and export credits, and data on *private aid*, mainly by NGOs.

We mention a few smaller points. ODA statistics are basically produced on a disbursement basis, but also sometimes on a commitment basis. We will be mainly interested in the former, which is the more relevant for aid measurement. Also a distinction is made between the aid flowing from the bilateral donors, both to recipient countries and multilateral agencies, and aid flowing from bilateral and multilateral agencies to recipient countries. The two are not identical, because of delays in disbursement by the multilateral agencies, and because some multilateral agencies have other sources of funding than yearly donor contributions. This distinction is not important for the issues dealt with in this paper. Our interest is mainly the measurement of donor effort, so our focus will be on the flows emanating from the bilateral donors.

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<sup>3</sup> A nominative list of the countries eligible for ODA (part I countries) and those eligible for Official Aid (part II countries) has been drawn up. It is subject to regular review by the DAC. This list is contained as an annex in the DAC Statistical Reporting Directives.

Our preoccupation with DAC/OECD statistics throughout this paper is explained by the fact that the organisation has a monopoly position in the interpretation of aid. But can one trust a party with a vested interest to be the only judge? In the first half of the 1970s there were apparently efforts to broaden the discussion to recipient countries. UNCTAD, at that time the multilateral organisation where recipient countries felt best able to defend their points of view, requested a group of experts from both developed and developing countries and the USSR to study the technical concept underlying aid statistics and also the targets in use and to make recommendations. This led to a report by the Secretary-General to the Board of that organisation (UNCTAD, 1975). But not much seems to have been done with the recommendations, and we do not know of any similar exercise being undertaken later on.

UNDP could have offered a challenge, had it so wished. Through its field offices in the recipient countries, it produces yearly statistics from a recipient's perspective. In principle these statistics could form an equally important and complementary data set, both because they are registered at the receiving end, and because they could be based on a more appropriate conceptual basis. In practice they have never acquired the same international status as DAC statistics. There seem to be different reasons for this. Donors often do not communicate crucial information to the recipients. Thus, a recipient country may know that there are  $x$  technical experts from a donor country working in projects, but does not have any information about how much they are being paid. Donors are in general not at all keen to pass on such information to the recipient government. The same may be the case for the value of food aid or emergency medical aid. Moreover, many capital goods and spare parts for bilateral projects enter the country tax free, and no proper accounting of the monetary value is undertaken by customs. For these reasons aid escapes the normal statistical recording procedures in the beneficiary countries. Also, UNDP does not keep a strict supervision on the quality of the statistical reports produced by its local offices, nor does it show much interest in distilling an international comparable data set to be made available to the outside world. A more effective challenge to the DAC has come from recent research on aid effectiveness at the World Bank. In an interesting paper an alternative conceptual basis for aid is being offered (Chang *et al.*, 1999). We will contrast the DAC and World Bank approaches where appropriate.

## **2 A general framework for evaluating aid statistics**

DAC tries to measure aid from the perspective of donor-effort rather than recipient value. This makes sense in view of the public good nature of aid and the related need to ensure joint provision by donors under generally agreed principles of burden sharing. The statistics published by DAC are an important tool to monitor donor compliance with agreed aid volumes and qualitative characteristics such as degree of tying. But one should clearly see the limitations of this choice. For instance, when we wish to measure debt sustainability, DAC statistics may well misrepresent the extent of the problem. In order to address these conceptual issues in more detail, we propose in Table 1 several approaches to measuring aid. The list is not exhaustive. In particular the DAC approach, based on notions of the balance-of-payments, is not included in the table as a separate category. We feel that this approach is analytically less convincing than those presented here. We will subsequently contrast the DAC approach in some detail with the approaches contained in the table and explain our reservations.



Table 1  
Alternative approaches to measuring aid

Perspective	Donor perspective			recipient perspective	
Locus of calculation	<b>cost at origin</b>			<b>value at destination</b>	
	1	2	3	4	5
Object of calculation	Gross budgetary cost	net budgetary cost	economic cost	acquisition value	final value
Description	Repercussion on public sector spending	repercussion on public sector spending and receipts	opportunity cost of not being able to use the same resources in the donor economy	cost of acquiring equivalent goods and services on the world market	repercussion on the recipient country's development
Application 1: tied technical assistance	gross salary paid	net salary = gross salary minus taxes	gross market salary in donor economy	gross salary on world market	gross market salary in recipient economy
Application 2: concessional loan	face value of the loan	yearly net transfer on loan	discounted net transfer on loan (discounted at interest on long term government bills)	discounted net transfer on loan (discounted at borrower-specific world market interest rate)	economic net present value of project funded with the loan
Application 3: debt forgiveness	<b>ODA loans:</b> no recording	<b>ODA loans:</b> yearly net transfers forgiven on ODA loans that would have been serviced	<b>donor-country loans:</b> discounted value of forgiven loan obligation that would have been serviced (discounted at interest on long term government bills)	discounted value of forgiven loan obligation that would have been serviced (discounted at borrower-specific world market interest rate)	economic value of public spending made possible by debt forgiveness
	<b>non-ODA loans:</b> yearly budgetary cost of redemption	<b>non-ODA loans:</b> yearly budgetary cost of redemption	<b>other loans:</b> yearly budgetary cost of redemption		

Table 1 presents five different approaches to measuring aid, from left to right, in increasing order of sophistication. From a conceptual point of view, the more we move to the right in the table, the better the measures become. Unfortunately, the more we move to the right, the more difficult calculations also become. A brief overview of the measures is presented in what follows, starting from the left of the table. For the donor, development aid obviously involves some costs. We distinguish three ways of expressing these costs to the donor. First and most simply, one may look at *gross* budgetary outlays. This is presented in column 1. A more complete picture is presented in column 2, according to which aid is calculated as the *net* budgetary cost. The justification is that aid gives rise to reverse financial flows, in particular debt service paid by beneficiaries on previous concessional loans, which constitutes budgetary income to the public sector of the donor economy. As these return flows are triggered off by previous loans, it seems logical to subtract them. Nevertheless there is something to be said for also looking at gross budgetary spending. Debt service receipts can be expected to flow to the Treasury and not to be transferred to the budget of the Aid Ministry as a matter of course. For this reason the reverse financial resources that flow back to the donor economy do not augment the budgetary means available for development aid, and therefore do not alleviate the aid efforts by the aid department. Although this perspective is not without relevance, it narrows down the view to a single ministerial department and its Minister. All in all, the net budgetary cost approach is preferable over a gross budgetary cost approach.

The third approach is the most comprehensive from a donor perspective, and in this sense the most desirable. It focuses on the economic cost to the donor economy of the resources devoted to development aid. The same resources cannot be put to another use by the donor economy and this carries an opportunity cost. This notion is broader than the previous two because the economy-wide effects of aid may not be expressed correctly by government spending.

There must also be some economic, political or other perceived *benefits to the donor*, otherwise it is difficult to explain that development aid takes place at all. Apart from the satisfaction which generosity bestows on a donor, such benefits may relate to world political stability, expansion of trade opportunities, diminished military threats by “rogue states”, containment of undesirable phenomena as illegal migration, drug trafficking, or the spread of tropical contagious diseases. We do not even try to list the principle of measurement of such benefits in the table, as they can not be quantified in any convincing way. But the rational donor will somehow weigh the costs and benefits and proceed to the level of aid where marginal cost equals marginal revenue.

The last columns presented in Table 1 take an aid recipient perspective. The fourth approach takes as its object of calculation the acquisition value of aid. More specifically: what is the cost of acquiring on the world market similar goods and services as those obtained through free or subsidised aid. That will depend on the nature of the goods and services concerned, the situation on the world market, and the risks associated with doing business with the recipient country in question.

The fifth and in many ways most sophisticated approach is to assess the final use value of development aid. Aid is justified if it brings development, or at least contributes to it in a significant way. It makes therefore a lot of sense to try to gauge the development impact of aid. This has been the topic of heated theoretical and empirical debate ever since the early 1960s when aid as we know it now started in earnest. Of all the

approaches listed in the table it is by far the most ambitious one. What emerges from the literature, not surprisingly, is that it is very difficult to establish the impact of development aid. Although many valiant efforts to evaluate some aid categories have been undertaken,<sup>4</sup> it would be an almost impossible task to do so systematically, especially if the intention is to provide timely and comprehensive data that will serve the same purpose as the present DAC publications. What efforts do exist are essentially based on detailed and time consuming ex post studies, either at the macroeconomic level or at the project level. On an ex ante basis, such calculations would be largely speculative. Nevertheless, the approach is included in the table, as a reminder of one of the crucial things one would ideally like to measure. In the debate on aid measurement, the difficulty of measuring value at destination has been invoked to concentrate on the more realistic efforts of measuring cost at origin. This argument carries less weight when applied to the intermediary approach presented in column 4, which is far less ambitious and daunting than an assessment of final value, yet at the same time quite distinct from donor perspectives.

Table 1 contains several applications of the five approaches. Before discussing them in turn, a general remark is in order. We do not have the ambition in this paper to give a complete set of guidelines for statistical reporting. Rather we indicate the underlying principles, and illustrate with examples how our proposals lead to sometimes strikingly different results from those of the DAC, and how they relate to other methodologies for measuring aid.

### **3 Technical assistance**

#### **3.1 The conceptual basis**

Technical assistance relates to short and long-term experts from the donor countries working in developing countries, scholarship programmes and some other forms of human capital contributions. DAC has always included technical assistance in aid statistics, and at first sight there is no reason why it should not do so. The World Bank, however has expressed reservations, judging much bilateral technical assistance to be of dubious development value and excessively expensive. Researchers from the World Bank, in a paper in which an alternative aid measure is calculated, propose to drop technical assistance altogether (Chang *et al.*, 1999). Given that technical assistance comprises a significant share (around one fourth) of bilateral aid, it is worthwhile to pursue this matter further. Is there a good reason to measure technical assistance differently from the way DAC does? Indeed, is the suggestion to drop it altogether from the statistics more appropriate?

For illustrative purposes we take the case of a long-term expert put at the disposal of the recipient country. We further assume that the technical assistance is tied to procurement in the donor country, i.e. that the expert has to be a citizen of the donor country. This latter assumption allows to distinguish more clearly between the different approaches

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<sup>4</sup> See for instance Cassen (1994) and World Bank (1998).

presented in the table. The gross budgetary cost, considered in column 1, consists of the gross salary paid from the aid budget of the donor. This is straightforward and calculation should not prove to be difficult. But the fact that aid is tied suggests that the expert may well be more expensive than necessary. The second approach is equally uncontroversial and should be manageable. As the expert is liable to income taxes in the donor country, these are subtracted to obtain the net budgetary cost of the technical assistance.<sup>5</sup>

Turning to the economic cost to the donor economy, the third approach in the table, standard practice would be to take the gross salary paid in the private sector of the donor economy for such an expert. The underlying idea is that in a well-functioning labour market the (gross) salary cost to the employer will be a fair indication of the marginal productivity of the expert.

The fourth approach focuses on the cost to the recipient economy if it could freely hire an expert wherever it wanted. The appropriate measure would be the gross salary of someone of comparable qualifications hired on the world market. It could be that the labour market from which the expert is drawn is internationally not competitive, whether as a consequence of protection or otherwise. Hiring an expert from the world market would under such circumstances be less expensive than the economic cost to the donor economy of providing the expert. Indeed, this is what one would a priori expect to be the case with tied aid. Tying is essentially a form of export protectionism, and as such it can be expected that the salaries will exceed those on the world market, leading to the described discrepancy between our third and fourth measures. The difference between the two in fact expresses the allocative cost of tying, the loss being borne by the recipient.

Turning to the last column in Table 1 and the fifth approach to valuing aid, the real worth of the technical expertise to the recipient country would depend on the productivity of the expert in the project or job he or she is going to hold. An indirect indication of the value of this to the recipient economy could be gauged from the gross salary paid in the private competitive sector of its economy. But an economic impact evaluation of the project or programme in question would be necessary to get a precise estimate.

### **3.2 Technical assistance in aid statistics**

Note first that, as explained in the previous section, each of the five approaches may lead to a different numerical value. Where do we have to situate published aid statistics? DAC takes the view that technical assistance personnel has to be fully taken into

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<sup>5</sup> There can be some discussion on social security payments. As they are in principle an anticipated payment, under the form of an insurance premium, for future financial transfers to the expert from the budget in terms of health spending, retirement pension and the like, it would seem to be incorrect to also subtract them. If however it is felt that present social security contributions are in excess of future financial services rendered, e.g. because of some solidarity mechanism whereby the rich (to which our expert presumably belongs) contribute a more than their proportionate share to the social security system, it would be correct to subtract the surplus above future services expected as an implicit tax which reduces the net budgetary cost to the public sector.

account in aid statistics. To be precise, DAC uses what corresponds to our first approach: gross budgetary cost. It is not clear why it does not take the second approach, which would require some more data, but would also give a more correct view of the real donor effort of aid. It would allow treating untied technical assistance somewhat more favourably than the tied variety, in line with DAC principles.<sup>6</sup> It would also fit in better with the balance-of-payments notions which DAC claims underscores its approach to measurement.<sup>7</sup> Not that we are convinced that balance-of-payments notions are all that helpful here, as we will presently explain, but at least it would show consistency on the part of DAC.

Economists at the World Bank take a more critical view of technical assistance. The World Bank includes the data on technical assistance of DAC in its major publications, in particular *World Development Indicators* and *Global Development Finance*. But it remains sceptical about its worth. Witness the following technical explanation provided: ‘Technical cooperation expenditures do not always directly benefit the economy to the extent that they defray costs incurred outside the country on the salaries and benefits of technical experts and the overhead costs of firms supplying technical services’. (World Bank 2000a: 345). The reasoning seems to refer to a balance-of-payments framework. It is indeed correct that much of technical assistance does not show up in the balance-of-payments of the recipient government. But that does not matter all that much. The balance-of-payments is basically a foreign exchange bookkeeping device that has many useful applications but that does not express adequately either the cost to the donor or the benefits to the recipients of aid transactions. In this particular case it fails to express the gain to the recipient economy of not having to hire an equivalent expert on the world market, as indicated in column 4 of Table 1.

Chang *et al.* (1999), in a World Bank research paper, address the issue more squarely. Including technical assistance grants by its full value is regarded by the authors as a major shortcoming of present DAC practices, because ‘...the donor benefits from payments received in return for the technical assistance supplied, and this may greatly reduce the donor’s net financial cost’ (p.4). And further: ‘the inclusion of technical assistance in aid aggregates is highly questionable, due to its *quid pro quo* nature’ (p.8). It is not clear what the argument really means. That some revenue will flow back to the donor economy in the form of taxes and another part will be spent in the donor economy, is of no immediate relevance from the perspective of opportunity cost of resources forgone. Opportunity cost should be measured by the value of the services of the technical assistance staff no longer available to the donor economy. At best, the change in aggregate spending is an indirect effect that influences opportunity cost calculations only in the extreme Keynesian case of a demand-starved economy. In the latter case the spending by the expert in his own country, although not the taxes he pays, may lessen the cost to the donor economy. The argument however rests on a highly

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<sup>6</sup> It could be argued that subtracting taxes should not apply to the case of untied technical assistance where an expert from the donor country would nevertheless be selected. Under a regime of tied aid the flow-back is intended and ought to colour our appreciation of donor effort, whereas under a regime of untied aid it is purely accidental, and therefore ought not.

<sup>7</sup> An annex dealing with the correspondence between DAC recording of aid and balance-of-payments notions in the organisation’s reporting directives does not address the issue of technical co-operation personnel. See DAC (2000a). This is surprising, since what the DAC records in this respect definitely does not correspond to balance-of-payments practice.

unconvincing assumption about the economy. Note that if the World Bank line of reasoning is taken, one would have to exclude *all* tied aid, not just technical assistance.

A better explanation of the reluctance at the World Bank to consider technical assistance as part of development aid would be that the value of technical assistance is considered so poor that it is better to drop it altogether. The argument in this case is that there is no final use value worth mentioning, and therefore technical assistance should not be recorded, whatever its cost to the donor. To refer back to Table 1, this would draw the attention to the last column. If there is doubt that a category of spending has genuine value to the recipient, there is no good reason to include it. There has been some legitimate concern about the role of technical assistance in aid. In particular, attention has been drawn to the fact that donor imposed technical assistance may stand in the way of local ownership and thus long term sustainability.<sup>8</sup> But to jump from this to the conclusion that all technical assistance is useless and that it should be excluded from aid statistics altogether, is difficult to maintain.

We conclude this section by stating that the DAC is right in including technical assistance in its aid statistics. Its approach of measuring gross budgetary cost has the advantage of being simple to implement, although it is at odds with the balance-of-payments approach DAC claims to adhere to. We argue that net budgetary cost, whereby income taxes paid by tied technical assistance personnel are subtracted, would be the more consistent approach for DAC to follow. Even after this correction, such a measure will in general fail to express the economic cost to the donor. To capture the latter the free market wage of technical experts has to be estimated. Admittedly, this might be cumbersome to implement in the context of DAC, and may lead to inaccurate reporting. The World Bank study is wrong in excluding technical assistance altogether. A practical compromise would be to reduce the gross budgetary cost by a fixed percentage, say 50%, in tables which aim to reflect the real cost of technical assistance.

## **4 Concessional loans**

### **4.1 The conceptual basis**

Turning to concessional loans, DAC has a fairly complex approach to their measurement. Researchers at the World Bank suggested a different track, and they have shown that calculation of their alternative measure, labelled Effective Development Assistance (EDA) is feasible (Chang *et al.*, 1999) in the sense of being amenable to empirical calculation. We wish to comment on this debate, all the more so since it is crucial to understand the third topic we wish to address, i.e. the treatment of debt forgiveness.

Concessional loans give rise to an initial financial flow from donor to recipient when the loan is disbursed. Later, the opposite occurs as the recipient country starts servicing debt. We turn again to Table 1. The table registers, from left to right, the principle of

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<sup>8</sup> See e.g. DAC (1996: 13).

calculation for the five approaches of measurement proposed. The logic behind column 1 is simple: the initial loan outlay measures the gross budgetary cost to the donor. No further recording is in order. A concessional loan is not treated differently from a grant of the same amount. Obviously this gives an incomplete picture of what really happens, and of the cost to the donor, but it is in accordance with the object of calculation. Column 2 broadens the picture by also taking debt service into account. The net budgetary cost to the donor reflects the initial loan disbursement and the subsequent reimbursement of loan principal and interest charges. Every element of this multi-annual financial flow is registered in the year it occurs. If we sum over the years, we get the undiscounted net transfer of the loan. Note that this transfer will be negative from the donor point of view, indicating a contribution of the recipient to the donor, quite the opposite of what one might expect. Column 3 addresses the economic cost to the donor economy. Discounting is applied to the net financial transfer in order to bring the opportunity cost of capital for the donor economy into the picture. We suggest discounting at the interest on long term government securities, the rate that the public sector has to pay to raise resources through the capital market.<sup>9</sup> The resulting net present value (NPV) will be lower than the face value of the loan, reflecting the soft nature of the latter.<sup>10</sup>

We do not account for the possibility of defaulting by the recipient country. This is anticipated in the financial markets by a borrower-specific risk premium that we do not suggest to include in the discount rate. Although defaulting has been an important occurrence during the 1980s and onwards, we base our approach on *ex ante* ODA. If defaulting occurs, it will give rise either to unintended aid, which need not be recorded, or to voluntary debt forgiveness by donors, which should be recorded. We return to this important issue in a subsequent paragraph. Note that because of discounting the total effect of a concessional loan is registered in the year the loan is disbursed. No further entries in future years are required.

Turning to the value at destination, the acquisition value is again the NPV of the loan, using however a discount rate that represents the cost of raising an equivalent loan on world markets. Whether this discount rate will be higher or lower than the one used in the previous calculation depends on the borrowing country risk premium in world capital markets, which is now included, and on any difference between the risk free interest rate in world capital markets (as given by, say, LIBOR) and the interest on long term government securities in a particular donor country.<sup>11</sup> Finally, it is also possible in principle to calculate the value of the loan to the recipient. Assuming the loan finances

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<sup>9</sup> As pointed out by Chang *et al.* (1999) the interest rate will differ according to the time frame of the government security. An interest rate must be selected from bonds whose maturity matches that of the loan being offered to the recipient country. Ideally, the discount rate referred to in column 3 will therefore differ be maturity specific.

<sup>10</sup> Note that the NPV equals the face value of the loan if the discount rate equals the interest rate on the loan. The difference between the face value and the NPV, discounted at opportunity cost of capital, therefore reflects the grant equivalent of the loan from a donor perspective.

<sup>11</sup> Risk premiums vary a lot from country to country, and according to the type of transaction. Certain developing countries are even excluded from borrowing on the private international market altogether. To be feasible, a proposal to measure the value of concessional loans to recipients would have to start from a classification of developing countries according to their degree of creditworthiness, and assign an average risk premium to every group of countries.

productive investment, and abstracting from the vexed issue of fungibility, the economic net present value of the project funded provides us with the proper outcome of the final value from a recipient perspective, as suggested in column 5 of Table 1.

## 4.2 Concessional loans in aid statistics

Again, what is the practice in aid statistics? DAC has a dual approach. On the one hand it calculates the grant element of any concessional loan, in order to ensure that it passes the 25% test for inclusion in ODA. The discount rate set by DAC in the calculations of the grant element is an arbitrary 10%. There is no differentiation according as to donor country. Given that the relevant interest rates have differed significantly from donor to donor, and in most cases have been well below 10%, the DAC simplification is not very convincing.

The actual recording of the transaction is however not based on any discounted measure, but rather on the year-by-year net flows of the loan, following the budgetary approach applied in practice by DAC. In particular, the outflow of a loan and all the subsequent return flows of principal repayments are recorded, but interest payments are excluded, in line with the underlying notion of *net resource flows*. As such this measure is situated somewhere in between the calculations suggested in columns 1 and 2 in Table 1. It is net, but not in the full sense of the word, because of the exclusion of interest payments.

There is a double justification offered by the DAC for using net resource flows on debt rather than the more complete *net transfers* on debt, which we suggested in our column 2. The first is that net transfers, when summed over the life span of the loan would show a negative result for the donor, as already indicated above. This, the DAC has argued, would be quite illogical, given the concessional nature of the loans involved. The second argument is that treating principal repayment different from interest payments corresponds to balance-of-payments practice. Neither argument is really convincing. As to the first argument, the DAC does not escape the problem: as the reimbursement of principal is deducted in its calculations, the net effect through time of any fully reimbursed concessional loan is zero, which, if more convincing than a negative result, still underestimates the value of the transactions, as correctly pointed out by Chang *et al.* (1999). After all, we are dealing with concessional loans, and this fact should transpire in our statistical measures. The contradiction the DAC finds itself in here is related to its refusal to use a discounted measure of donor cost. As for the second argument, the balance-of-payments practice of registering interest payments as factor payments under the current account, and loan principal payment and reimbursement as changes in the capital account is quite logical, but is hardly relevant to the discussion of aid measurement. The balance-of-payments is simply not the appropriate tool for measuring either the net budgetary effect of a transaction or its opportunity cost to the donor economy.

The World Bank paper, Chang *et al.* (1999), starts from the principle of donor opportunity cost. This corresponds to what is proposed in column 3 of Table 1 in the present paper. The authors include all public loans in their calculations, whether they



pass the 25% grant element test of the DAC or otherwise,<sup>12</sup> with the exclusion of loans for military purposes, the latter in accordance with the DAC criterion that military aid fails the test of development intention. To do so they calculate the NPV of some 40,000 loans from the data set of the World Bank, which they show to be very consistent with the DAC data set on public loans,<sup>13</sup> and which covers almost all the concessional loans included in the DAC statistics. The discount rate used depends on the donor country concerned and on the maturity on the loan, as ideally it should. The grant equivalent of the loans, thus calculated, is commensurable with the other components that are included in ODA statistics. In this way a consistent data set is generated that offers new insights in the level and dynamics over time of development aid.<sup>14</sup>

## 5 Debt forgiveness

### 5.1 The conceptual basis

DAC treats debt forgiveness under certain conditions as new aid, and therefore includes it in its ODA statistics. Are the rules used to do so analytically adequate? Again there is some controversy, both within and outside DAC. In this section we address the issue.

Table 1 provides a summary presentation on how we feel debt forgiveness should be registered under alternative measures of aid. As in the earlier discussion, the simplest measure relates to the gross budgetary cost, reported in column 1. Here, forgiveness of previous ODA-loans does not give rise to any registration. The reason is straightforward: we monitor budgetary outflows, not inflows. Whether an ODA loan is serviced, cancelled or defaulted is therefore immaterial in this metric. If on the other hand the donor uses the aid budget to alleviate non-ODA debt this has a clear incidence on gross budgetary spending, and should be accounted for. For instance, the donor may buy privately held debt on the secondary market and redeem the claim. Or he may extinguish debt held by the national export credit agency, and pay some sum in compensation to the latter. What should be registered is the actual budgetary spending related to such operations, rather than the debt ultimately being forgiven. The former may be lower if the donor buys debt stock at a discount, as is customary in the secondary market of debt paper.

Column 2 expands on the budgetary approach by also focusing on the effect of aid forgiveness on return flows to the donor that will influence his net budgetary cost. To any spending on non-ODA debt forgiveness, already reported in column 1, we must therefore add something for forgiveness of previous ODA-loans. Only those financial flows the borrower country would have actually serviced in the absence of debt relief come into focus. For if a borrower does not service his debt, forgiveness has no impact

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<sup>12</sup> They therefore do not distinguish between ODA, Official Aid, or OOF.

<sup>13</sup> The DAC uses the OECD's Creditor Reporting System (CRS), the authors the World Bank's own Debtor Reporting System (DRS) as their principal source of information.

<sup>14</sup> We refer the reader to the Chang *et al.* (1999) paper for a full presentation of the results and comments.

on the lender's net budgetary position, even if it has legal and administrative consequences to the donor.<sup>15</sup> If on the other hand debt forgiveness concerns service charges that the borrower would have honoured in the absence of debt forgiveness, there is a net budgetary loss to the lender that should be recorded. As in the previous applications, effects are registered on a yearly basis, pertaining to the calendar years in which the budget is actually affected. To get the overall effect over time, one just adds the annual effects.

The economic cost to the donor of debt forgiveness is addressed in column 3. As in the previous section of concessional loans, discounting is used to bring the opportunity cost of capital into the picture. What is discounted is the debt service of past public lending to developing countries which is being forgiven, and which would have been serviced in the absence of such forgiveness. The discount rate is the same as in the case of concessional loans in this column, and represents the cost to the borrower of raising money in its domestic capital market. Because of the discounting procedure, which brings all future effects back to a given base year, debt forgiveness is registered in full in the year the decisions comes into force. No future entries have to be made. Another consequence is that the distinction between ODA and non-ODA loans disappears. It is replaced by the distinction between debt claims held by the donor country, irrespective of the public or private character of the claimant, and loans held by agents outside the donor country. In the latter case the cost to the donor economy is whatever it takes to acquire the debt paper in view of its ultimate extinction.

The acquisition value of debt relief is again treated analogously to concessional loans. Debt relief consists of foreign exchange payments the borrowing country no longer has to make, and its economic consequences are similar to those of a new loan with similar maturity and conditions. Column 4 provides the principle of calculation and differs from the economic cost to the donor in the proposed discount rate. The cost of acquiring loans on the world market is often higher for the borrower because of the risk premium he will have to pay, but may be offset by the fact that the base interest in the world market may be lower than in the debt-forgiving country. Another difference is that it is immaterial from the perspective of the debtor country whether the debt forgiveness concerns donor country loans or loans held by other actors.

To complete the picture, column 5 specifies the final value of debt reduction to the recipient. This depends on the type of spending to which it gives rise. The basis is again debt that would have been serviced but is now forgiven, and the benefits include the direct value of the public spending, or tax reduction, which it triggers off, plus any indirect effects related to debt reduction. Although the principle is easy enough, actual calculation may prove daunting, especially if performed when the debt forgiveness first becomes effective.

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<sup>15</sup> What we should measure is the difference between the budgetary position in the presence and absence of debt reduction. Cancelling debt that would not have been serviced may be extremely useful for a variety of reasons, but it has no net budgetary impact, and there is therefore no justification in reporting it.

## 5.2 Debt relief in aid statistics

Having set out the principles we believe ought to underscore the registration of debt relief, we now turn to the reality of aid statistics. Again DAC and World Bank approaches are contrasted. DAC rules are contained in a set of guidelines that are regularly updated (DAC, 2000b). We are mainly interested in ODA and the related Official Aid, and will not go further into the statistical treatment of Other Official Flows (OOF) or Private Flows. An important distinction made by DAC is whether the cancellation or reduction of loan obligations relates to previous ODA-loans or not. Starting with the latter, a further distinction has to be made: non-ODA loans can be either claims held by the public sector in the donor country, or be held by a third party, e.g. the private sector or a multilateral organisation.

In the case of third-party debt, what is recorded is the actual outlay made by the public sector to the third party to facilitate the forgiveness. This will be lower than the face value of outstanding loan obligations when a discount is being applied, as is typically the case in the secondary market for private debt. In this case, DAC recording is in accordance with the principles set out in columns 1 and 2 of Table 1. Although the calculation proposed in column 3 of Table 1 differs from what is prescribed in columns 1 and 2, it may well lead to a very similar outcome if the private creditor and the donor belong to the same country. The reason is that the value in the secondary market is based on the discounted value of expected future debt service payments. The only difference is that column 3 suggests to use a discount rate applicable to the public sector, whereas the discount rate applied to calculate market value will be the one applicable to private sector operators. When the third party is a multilateral agency or a private sector operator from outside the donor country, the DAC rule is again in accordance with the principles set out in column 1, 2 and 3 of Table 1, the only effect on the donor economy being on its budget.

Let us now turn to the case of donor-owned non-ODA debt, i.e. debt obligations held by the public sector of the donor country. The typical example are debt claims held by the donor's official export credit agency (ECA). Let us first specify what the principles of Table 1 would be in this particular case, in particular in columns 1 to 3. The rule following from column 1 or 2 would be simply to record the effective budgetary spending associated with the debt forgiveness. Take the case of debt reductions granted as a consequence of Paris Club agreements (in application of, say, Naples or Lyon conditions, or the HIPC-initiative). If no actual compensation is being paid to the ECA from the national budget, the logic underlying columns 1 and 2 suggests that no ODA be recorded. If and when compensation is being paid out however, it is recordable as ODA. If we look at the full economic cost rather than just the budgetary cost to the donor economy, as is done in column 3, we calculate the sum of all forgiven loan obligations that would have effectively been serviced in the absence of debt forgiveness, suitably discounted at a public sector interest rate.

What are the DAC rules in these cases of ECA debt forgiveness or other non-ODA operations within the donor public sector? DAC allows donors to record the nominal value of the outstanding part of the loan forgiven, at least if development motivation can

be reasonably established.<sup>16</sup> The result is bound to be a considerably higher ODA figure than Table 1 suggested, for two reasons. First, and in contrast to the budgetary logic of columns 1 and 2 of Table 1, DAC would record the value of the loan forgiven even if no actual budgetary compensation is paid out to the ECA. Another way of putting this is to say that DAC assumes that ECAs are fully integrated in the public budget, or that their deficits are automatically covered by it, claims that are both problematic. Secondly, and in contrast to the economic logic of column 3 of Table 1, DAC does not take into consideration that a considerable part of the ECA claims forgiven would not have been serviced. Together, these two differences may well lead to a considerable overestimate of the cost to the donor of debt forgiveness.

Finally we turn our attention to the treatment of forgiveness of donor-owned ODA-debt. The DAC has an approach that is somehow situated between those of gross and net budgetary cost, in column 1 and 2 respectively. As previously discussed, the DAC uses a notion of “net” which does subtract return flows on principal, but not return flows on interest. Specifically, when a debtor country pays back on a concessional loan, the principal repayment is subtracted from ODA, while the interest repayment is ignored. When ODA debt is forgiven, the principal repayment does not take place and therefore has not to be subtracted. In other words, no special rule is required beyond the normal recording of ODA.<sup>17</sup> To makes matters more complicated, DAC in fact allows for two non-equivalent reporting procedures, possibly because no consensus could be reached on the matter.<sup>18</sup> Most donors report debt cancellation in the year the debt cancellation comes into force, as a lump sum equivalent to the face value of the outstanding debt plus interest payments due during the year of cancellation and interest arrears. Germany, and for some loans also France and Portugal, still report on a year-to-year basis, whereby future interests originally due but now cancelled are reported. The latter procedure seems somehow inconsistent as interest payments are elsewhere explicitly excluded from ODA statistics. Whichever approach is followed, chances are that the DAC-recording seriously overstates the economic cost to the donor. As suggested in column 3 of Table 1, the discounted value of forgiven future debt obligations ought to be calculated, taking into consideration only such payments that would have been made

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<sup>16</sup> This will be the case whenever the operation takes place in the context of the Paris Club, or when a suitable bilateral agreement exists with the recipient country. According to DAC (2000b) development motivation is not present when debt claims are just scrapped because they are deemed unrecoverable. In reality the distinction between the two situations is not as clear-cut. Surely much of the debt forgiveness in the Paris Club is inspired by the donor community’s appreciation that the debt burden of most poor countries has become totally unsustainable, and thus essentially unrecoverable. If you cannot recover your money, you may as well try to make a gesture out of it. A gesture which is all the more satisfying to the donor for being essentially costless, in the sense of not giving rise to additional financial resources being made available to the debtor countries.

<sup>17</sup> Actually, DAC requests donor countries to record any ODA debt cancellation as a grant, offset by a fictive repayment of the same amount by the debtor country. The authors of the World Bank study interpret this to mean that debt cancellation does not have any effect on ODA (Chang *et al.*, 1999: 8, footnote 9). We think this is a mistake. It is true to say that debt forgiveness has the same effect on ODA as defaulting, and thus makes no difference when the cancelled debt would not have been serviced. In case the debt would have been effectively serviced, the DAC reporting rule however leads to a higher ODA than if it had not been serviced.

<sup>18</sup> DAC rules are even more Byzantine than reported here. DAC distinguishes between commitment and disbursements, and for reasons unclear to us the treatment is not symmetrical. We restrict ourselves here to disbursements, which are more important in ODA statistics.

in the absence of the cancellation. The present value of scheduled future payments on any concessional loan will be lower than the nominal value of the outstanding debt. If we consider only effective payments, the figure will come down further.

The World Bank authors (Chang *et al.*, 1999) take a very different view. In presenting their revised estimates of aid, labelled Effective Development Assistance (EDA), they state that debt relief “amounts to an ex-post modification of the debt service schedule that involves involuntary aid” (Chang *et al.*, 1999:9, italic in the original text). They define aid as *ex ante*, explicitly intended, and thus argue that debt relief should not be considered in the EDA metric. This brings us back to the previously discussed distinction between a write-off of a bad loan because it is simply non-collectable (not reportable as ODA) and purposeful actions to provide debt relief (reportable as ODA). The DAC allows for both possibilities, and leaves it to some extent to the reporting countries to determine which one applies. The guidelines in this respect are fairly lenient. For instance, it is sufficient for a debt relief action to be undertaken in the context of a Paris Club agreement, for it to be reportable as ODA, at least if the grant element condition is met. The World Bank authors take the view that all debt relief, including Paris Club operations, is essentially unintended and thus outside EDA. Debt relief, in this view, reflects the acceptance by the donors that their loans have gone bad, rather than any conscientious effort to come to the help of the recipient countries.<sup>19</sup>

We conclude that both the DAC-rules on debt forgiveness as the alternative measure proposed by the World Bank authors are unbalanced. We think that more appropriate reporting rules can be established, and that data should not prove more difficult to collect than under the present system, except for the part of a loan that would not have been serviced in the absence of debt forgiveness. On this latter issue, useful information can be collected in secondary markets for debt paper, in particular the discounts being applied. We also have the history of defaulting on public loans to guide us, and debt sustainability studies performed in the framework of HIPC. Some simplifications will have to be carried out, e.g. applying one of three or four standard discounts, depending on the type of debt and the conditions under which it is extinguished.

## **6 Alternative aid measures: do they matter in practice?**

How would the suggestions made in the previous sections affect aid statistics? Let us take the three issues in the order we discussed them. First of all, it is difficult to assess what the opportunity cost of technical assistance, most of which is tied, is to the donor economies. To our knowledge no reliable studies exist that estimate the excess cost that tying imposes. If we apply the guestimate of a 20% excess cost for tied aid often cited in the literature<sup>20</sup> to technical assistance, we would have to lower ODA by more than 2.5 billion US\$ in recent years, or some 5%. This would be correct if we wish to ascertain the opportunity cost to donors of technical assistance. The acquisition value for

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<sup>19</sup> Note that the World Bank authors are implicitly referring to debt within the donor country’s public sector when they make the claim that debt relief does not belong in EDA. It is unlikely that they would wish to argue that e.g. contributions to the World Bank to allow this institution to extend relief to HIPC countries should be excluded from EDA.

<sup>20</sup> See Jepma (1994).

recipients may well be lower still, given the availability of cheaper technical expertise outside donor countries.

If we decide to correct for tied technical assistance, the same logic should be applied equally to tied project aid, commodity aid, and the like. The problems to implement such calculations are political more than technical. First, the DAC should produce better statistics on the degree of bilateral aid tying. At present the statistics do not seem to be quite reliable, and are incomplete. The principle should be that any bilateral transaction that is not explicitly untied, with attendant procedures for international competitive bidding, should be regarded as tied. The proof would thus be fully with the donor countries. To the tied fraction of bilateral aid, a discount must then be applied to bring the value down to something expressing the opportunity cost to the donor economy. As argued before, some simplifications will be necessary in order to determine the range of discounts being practised. We feel that the major obstacle to such an exercise is the unwillingness of the donor community to admit that tying indeed reduces the cost of aid, and to put a value on it. If a more neutral body were to decide on aid statistics, and especially on their aggregation in an overall measure of donor effort, this might have happened a long time ago.

Turning to concessional loans, Chang *et al.* (1999) show that their EDA measure differs significantly from ODA, both in absolute value and trend. Replacing year-to-year budget repercussions of concessional loans, as in ODA statistics, by grant equivalents does not lead to spectacular differences if a 10% discount rate is used, according to the authors. If however market based discount rates are used, as proposed by the authors, the NPV approach has a significant effect that increases rapidly through time. For instance, whereas in 1985 the EDA measure of official loans is close to 2 billion US\$ lower than the corresponding ODA measure of official loans, by 1995 it is more than 9 billion US\$ lower, both measured in 1995 constant prices.<sup>21</sup>

How would the forgoing analysis on debt forgiveness impact on statistics? Table 2, provides some information on debt forgiveness reported by bilateral donors as part of their ODA for the period 1993-1998 (disbursements). A breakdown by donor country is provided in the lower part of the table. In the whole period more than 19 billion US\$ worth of debt relief was reported by the bilateral donors, equivalent to 3.2 billion US\$ per year or 5.9% of total ODA. It further appears that debt relief is very concentrated: more than two thirds is provided by France (45%), Japan (12%) and Germany (10%). The United States which had reported massive military debt relief in 1991 and 1992, leading to criticism by some DAC members to the effect that military aid, including the cancellation of military debt, should not be reportable as ODA, is only in fourth position in 1993-1998, with debt relief at only half the level of Japan.

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<sup>21</sup> Based on a visual reading of figure 4.4 in Chang *et al.* (1999: 35).

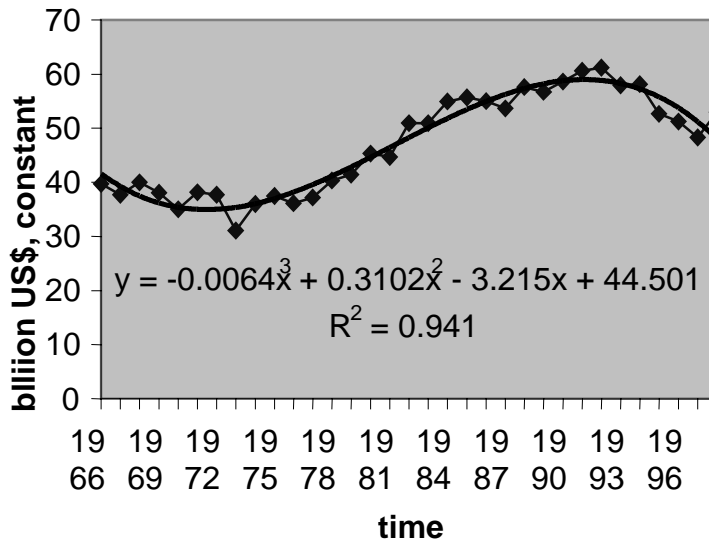
Table 2

	1993	1994	1995	1996	1997	1998
<b>Million US\$, disbursements</b>						
total DAC ODA	56486	59152	58926	55438	48324	51888
of which: bilateral debt forgiveness	2701	3452	3724	3398	3122	3012
bilateral debt forgiveness as % ODA	4.78	5.84	6.32	5.80	6.46	5.80
Composition of bilateral debt forgiveness						
<b>Million US\$, disbursements</b>						
Australia	4.6	4.3	5.2	6.9	14.3	12.7
Austria	19.8	24.7	38.5			
Belgium	5.5	76.2	62.3	62.0	54.5	121.5
Canada	183.6	4.9	124.8	128.0	58.3	77.5
Denmark	5.1	56.6	175.4	27.0	17.1	13.5
Finland	18.8		25.8			0.8
France	848.0	2063.1	1592.1	1462.0	1546.2	1220.7
Germany	79.9	192.6	389.6	773.9	337.5	178.7
Italy	370.3	14.1	168.6		19.8	269.1
Japan	266.1	410.6	515.9	422.0	273.0	381.3
Netherlands	101.9	119.6	175.2	217.9	158.5	75.7
Norway	12.7	47.2	41.2	43.9	32.4	
Portugal	6.0	21.3	26.1	36.0	45.1	44.7
Spain	3.2	67.0	61.0	120.5	80.3	147.1
Sweden	24.3	17.5	5.7	16.8		8.1
Switzerland	33.1	30.3	57.9		14.6	
United Kingdom	51.1	76.5	130.4	80.8	295.3	422.5
United States	667.0	226.0	128.0		175.0	38.2
TOTAL DAC	2701.0	3452.4	3723.6	3397.7	3122.0	3011.9

Source: DAC

We have argued that the values reported are by DAC an overestimate, but we do not agree with the position in Chang *et al.* (1999) that all debt forgiveness should be eliminated from aid statistics. We have no strong basis to suggest a percentage by which the DAC figures must be reduced to give a correct expression of the cost of debt forgiveness to donors. If the true cost would be half the DAC value, we would have to lower ODA by 1.6 billion US\$ on average in the period 1993-1998. Note that this would also affect the long-term trend of ODA unfavourably, as debt forgiveness has grown in importance during the 1990s compared to earlier decades. Figure 1 plots real ODA between 1966 and 1998 as recorded by DAC, but without any of the changes suggested in this section. A correction for debt relief along the lines suggested here would accentuate the downward kink that can be observed around 1991.

Figure 1  
Net ODA from DAC countries



Source: DAC

## 7 Conclusions and recommendations

Official Development Assistance or ODA is a statistic with a strong political and moral significance that serves as a yardstick in judging the international aid effort of western countries. But there are intricate statistical and economic problems related to its measurement. Notwithstanding those challenges, the DAC secretariat has managed over the years to produce statistics of ODA, its components and related resource flows, which have been widely accepted and helped to focus and clarify the discussion in national and international settings. The importance of reliable aid statistics with a widespread legitimacy can hardly be overestimated. It is difficult to imagine a debate on aid policies being conducted in national Parliaments, at multilateral conferences, or in the media, without some use being made of aid statistics generated by DAC. In this sense DAC has done an important, even invaluable job.

We have argued in this paper that there are serious weaknesses in the DAC statistics. This is important, for if statistics are not quite as correct and reliable as they could be, this may considerably bias our understanding of aid. Among others, inaccurate statistics may lead to errors regarding the overall levels of aid, its trend over time, or the ranking of different donors. We are not so worried about the last issue. One of the complaints we have voiced in this paper is that the DAC is too dominated by donors, with insufficient involvement by other parties such as beneficiary countries or multilateral organisations. But there are two things a donor club will be happy to pay attention to: that members do not cheat when reporting aid, and that the rules do not favour one of



the members at the expense of the others. We are more concerned about other dimensions of aid statistics, in particular that there may be a tendency by donors collectively to report excessive levels of aid and to be too optimistic about its long-term trend. Even more damaging would be the existence of recording rules that entice a perverse behaviour on the part of donors, by rewarding with identical levels of ODA the substitution of low quality for high quality aid. We think that all of these may occur, and should be corrected for.

We concentrated on three important areas of ODA, namely technical assistance, concessional loans and debt forgiveness. In general, we found the DAC approach conceptually rather confusing. The ideal perspective, we argued, is an opportunity cost approach from the donor point of view. If this is not possible, the net budgetary cost offers a second best alternative. Least attractive, but easiest to calculate, would be a set of statistics based on gross budgetary cost. If the perspective is not the cost to the donor, but the benefit to the recipient, the acquisition value approach offers a more realistic alternative to measuring the final use value. The DAC approach does not seem to measure either of these categories. DAC says to favour a balance-of-payments approach, but it fails to apply it consistently, in particular in the area of technical assistance. More importantly, we do not see the merit of this concept from the point of view of aid measurement. A balance-of-payments approach does not yield reliable opportunity cost estimates, nor does it capture budgetary costs well.

As regards *technical assistance*, more in particular tied technical assistance personnel, the DAC measures gross budgetary cost. We disagree, and as an improvement we favour the net budgetary cost obtained by subtracting income taxes from gross salaries. Still better would be to measure the gross salary of a technical expert in the private sector of the donor economy. We reject the solution practised in a World Bank study (Chang *et al.*, 1999) to drop technical assistance altogether. Our recommendations follow from this analysis. DAC should switch to a net budgetary cost approach of measuring technical assistance, and stimulate research on the discrepancy between such an improved measure and the opportunity cost approach. This boils down to a study of the cost of the tying of technical assistance, something it should have no difficulties with.

More complicated is the treatment of *concessional loans*. The DAC has the merit of having introduced the notion of grant element, which allows distinguishing among loans based on their degree of concessionality. But the DAC has stopped short of applying this notion to the full. In this respect we agree with the proposal by Chang *et al.* (1999) to measure the grant equivalent of loans, by multiplying the face value of the loan by its grant element. One of several advantages is that this allows adding soft loans and grants without encountering methodological problems. The World Bank researchers have shown that it is possible to go back in time and have provided corrected data as far back as 1975. It should be possible for the DAC, with its extensive data from the Creditor Reporting System, to complement the calculations of the World Bank team and provide a time series of grant equivalents of soft loans and corrected ODA. This is also our recommendation in this regard. We equally endorse the proposal by the World Bank authors to replace the 10% discount rate by a more realistic rate, varying from country to country and even transaction to transaction.

Technically the most complex, and politically the thorniest question is the recording of *debt forgiveness*. At present the highly indebted low-income countries pay back several

billions of US\$ every year in debt service on their public debt, all the while defaulting on many other loans to the same public sector creditors. On the other hand they receive large amounts of grants, technical assistance and new loans, so that the net financial transfers remain highly favourable to them. Given the fact that both debt relief and traditional aid are decided on by the same donor governments, debt relief may well be financed by reducing traditional aid, leaving net financial transfers unchanged, or even reduced. This is especially likely if debt relief is recordable as ODA on highly favourable terms, in a context of strong political pressure to grant debt relief and of dwindling aid budgets. We fear that the present DAC recording principles for donor-owned debt, combined with the high profile of the campaign for debt relief to HIPC countries, may well contribute to such an outcome. The proposal by the World Bank authors not to record debt relief as ODA is the other extreme, and equally unjustified.

The cause of disagreement, as argued in this paper, is the decision by DAC to allow donors to register the forgiveness of some donor-owned debt at face value. Let us imagine a donor who is considering whether or not to forgive a publicly owned non-concessional debt with a non-amortised face value of 100 million US \$. The cost to the donor, expressed in present value terms, is 40 million \$, because only part of the loan will be serviced in the absence of debt relief. Allowing the donor to record the debt forgiveness as ODA for the full amount of 100 million US \$ would provide an inappropriate incentive to replace traditional aid by the forgiveness of debt claims that would not have been serviced anyway. The perversity derives not from the fact that in this way the cost to the donor is reduced while ODA remains untouched, but rather from the fact that the value of aid to the beneficiary is reduced. This is so because the value of debt relief to the beneficiary depends on the debt service he would have effectively paid, not on what is legally due, exactly as it is for the cost to the donor.<sup>22</sup>

Our main recommendation is that DAC should only record as ODA that part of debt relief that would have been effectively paid back. In this way its statistics will be in line with the opportunity cost approach to the donor and the acquisition value approach to the beneficiary. This raises a serious technical challenge, for there is no way of observing the counterfactual, namely what would have been paid in the absence of debt forgiveness. Useful information can be however derived from the study of secondary markets for debt paper, from the trends in defaulting on public debt, or from debt sustainability analysis undertaken by the Bretton Woods institutions for the countries in question. On the basis of such information the member countries of DAC ought to be able to decide on a 'discount' to be applied to the nominal value of a debt forgiveness to bring the calculation in line with the opportunity cost to the donors.

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<sup>22</sup> The value of debt forgiveness to the beneficiary is not discussed in detail in this paper. See Cassimon and Renard (forthcoming).

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Katajanokanlaituri 6 B, 00160 Helsinki, Finland

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