

The Quality of Aid Statistics What We Should Be Measuring, and Why We Don't

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SUMMARY

Measuring the size of international development aid is no easy matter. All sorts of definitional and statistical issues arise, and there are inevitably grey areas surrounding a concept that is so politically and normatively charged. This paper proposes a coherent framework for alternative aid measures. Against this background the statistics on aid published annually by the OECD are being assessed. The analysis focuses on three categories of aid: technical assistance, soft loans and debt relief. It is argued that lack of rigour and consistency considerably weaken the relevance of aid statistics for policy makers and researchers.

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I. 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. The 0.7% ODA to GNI benchmark is widely used to monitor donor generosity. 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 aid policies in many member countries. Non-governmental organisations (NGOs) seize upon the occasion to comment on the performance of the government¹. 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. 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.

These statistics reveal, among others, wide divergences in aid among donor countries and a significant turndown in global aid flows in the early 1990s, a trend cautiously reversed in the last couple of years. Does the recent change in global volumes reflect donor efforts to comply with the Millennium Development Goals (MDGs) to halve poverty by 2015, or is this just statistical noise due to changes in the relative use of different instruments of intervention and the way they are accounted for in ODA statistics?

Given this prominence accorded to the ODA statistics published by the DAC, the definitions and methodology underlying the statistics are of more than academic interest. In this paper we look into some conceptual issues, in particular regarding the recording of technical assistance, concessional loans, and debt forgiveness, all of which

have been the topic of some controversy. The general structure of the paper is as follows. In a first section, some general characteristics of the DAC statistics on aid are recalled (Section I). Next we present a general framework for measuring aid (Section II). 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 measuring aid can be meaningfully distinguished, and we discuss the differences and similarities between them. Armed with this theoretical frame of reference, we tackle in turn the recording of technical assistance (Section III), concessional loans (Section IV), and debt forgiveness (Section V). In the discussion, we refer not only to how these aid interventions are treated in the DAC statistics, but, when appropriate, also discuss the virtues and pitfalls of an alternative concept that was developed at the World Bank (Chang, Fernandez-Arias and Servén (1999)). In the final section of the paper we wrap up the analysis and conclude (Section VI).

A. DAC principles on aid recording

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, they set the rules of what is and what is not to be considered aid. Secondly, the main input for DAC statistical output is the annual data, submitted by the individual member countries. Some verification is performed by the DAC secretariat in Paris, and a system of peer reviews lends further creditworthiness to the exercise.

Admittedly donors cannot completely snub outside opinion. The DAC would lose much of its influence if major users would perceive statistics to be inaccurate or unfair. It has therefore an interest in keeping technical standards of reporting high and ensuring that the conceptual basis of its definitions carries broad approval. Also, member countries are typically represented in DAC meetings by representatives of their aid ministries, who often take a more development-oriented position than the governments they represent. Nevertheless, exclusive donor control over the production and the conceptual underpinning of aid statistics breeds the suspicion that DAC will cast aside objectivity and rigour in the pursuit of donor interests².

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 having been undertaken since then.

UNDP could have offered a challenge, had it so wished. In effect its field offices produce aid statistics per recipient country. 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. Apart from the fact that donor field missions may be reluctant or unwilling to provide information, say, on the cost of tied technical assistance, UNDP itself has not kept 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. We will look more closely at one paper that offers an alternative conceptual basis for aid (Chang, Fernandez-Arias and Servén (1999)).

The most important statistical category used by DAC is Official Development Assistance, usually referred to by its English acronym, ODA³. We restrict our discussion to this category. 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 grant element is calculated by subtracting the net present value of all future debt service obligations from the face value of the loan, and dividing 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 loans. The DAC uses an arbitrary 10% discount rate to express the opportunity cost. 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), 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.

The third criterion poses more problems. 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 is tried through a very detailed list of statistical reporting directives (DAC (2000a)). It is here that the major limitations of a donor-dominated approach to aid statistics are situated. 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. 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.

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 (OA) is completely analogous to ODA, except for the countries that are its recipients. The distinction is important in view of the 0.7%GNI 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 label⁴. 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.

TABLE 1
Official Development Assistance and Official Aid (disbursements in current prices and dollars)

| | 1985- 1986 average | 1990- 1991 average | 1997 | \$ million 1998 | 1999 | 2000 | 2001 |
|---|--------------------------|--------------------------|---------------|--------------------|---------------|---------------|---------------|
| I. Official Development Assistance (ODA) | 32 296 | 54 813 | 48 497 | 52 084 | 56 428 | 53 734 | 52 336 |
| 1. Bilateral grants and grant-like flows | 18 534 | 34 393 | 31 282 | 32 465 | 33 922 | 33 028 | 33 409 |
| of which: Technical co-operation | 6 420 | 11 835 | 12 888 | 13 056 | 13 036 | 12 767 | 13 602 |
| Developmental food aid | 1 323 | 1 609 | 1 081 | 919 | 1 045 | 1 180 | 1 007 |
| Emergency & distress relief | 628 | 1 738 | 2 165 | 2 787 | 4 414 | 3 574 | 3 276 |
| Debt forgiveness | 291 | 5 167 | 3 122 | 3 012 | 2 277 | 1 989 | 2 271 |
| Administrative costs | 1 098 | 2 059 | 2 719 | 2 814 | 3 049 | 3 083 | 2 964 |
| 2. Bilateral loans | 4 669 | 6 515 | 1 147 | 2 739 | 3 956 | 3 021 | 1 613 |
| 3. Contributions to multilateral institutions | 9 093 | 15 614 | 16 068 | 16 880 | 18 551 | 17 685 | 17 314 |
| II. Other Official Flows to Part I countries | 2 519 | 7 846 | 6 125 | 13 491 | 15 477 | -4 537 | - 549 |
| ODA as % of GNI | 0.33 | 0.33 | 0.22 | 0.23 | 0.24 | 0.22 | 0.22 |
| III. Official Aid (OA) | | | 5 331 | 6 040 | 6 468 | 6 853 | 5 574 |
| OA as % of GNI | | | 0.02 | 0.03 | 0.03 | 0.03 | 0.02 |

Source: DAC 2002 Development Cooperation Report, Tables 2 and 38

Table 1 provides an overview of ODA, both in amount, by type and as a percentage of GNI for the years 1985-6, 1990-1 and the period 1997-2001. For the latter period data on OA are also available, and they have been included in Table 1 in summary form.

DAC tries to measure aid from the perspective of the donor rather than that of the recipient. This makes sense in view of the public good nature of aid and the need to ensure joint provision by donors under generally agreed principles of burden sharing. But one should clearly see the limitations of this choice. If, for instance, we wish to study the effectiveness of aid for recipient countries, we need data that accurately reflect resources received, and DAC statistics may well misrepresent these.

Moreover, it must be noted that the DAC often refers to balance-of-payments concepts with reference to its own aid recording practices. This seems to serve a didactic purpose. Donors have to submit balance-of-payments data to the OECD and the IMF on a yearly basis, and are supposed to be familiar with the notions involved. DAC apparently feels that it is useful if the same notions are used as a reference in its own guidelines⁵. The reference to the balance-of-payments however does not provide a macroeconomic justification for the underlying DAC-rules on statistical reporting. The balance of payments is an extremely useful foreign exchange bookkeeping device that however does not allow drawing direct conclusions about the real cost of aid transactions.

We first present a general framework of alternative approaches to evaluate aid in the next section. We will subsequently contrast the DAC approach in some detail with the other approaches contained in the table and explain our reservations.

B. A general framework for evaluating aid statistics

Table 2 presents from left to right five different approaches to measuring aid, in increasing order of sophistication. 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 one. A more complete picture is presented in column two, according to which aid is calculated as the net budgetary cost. The justification is that aid gives rise to reverse financial flows, for instance debt service paid by beneficiaries on previous concessional

TABLE 2
Alternative approaches to measuring aid

| Perspective | donor perspective | | | recipient perspective | |
|---|--|---|--|---|---|
| | cost at origin | | | value at destination | |
| Locus of calculation | 1 | 2 | 3 | 4 | 5 |
| <i>object of calculation</i> | gross budgetary cost | net budgetary cost | economic cost | acquisition value | final value |
| <i>Description</i> | 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 |
| <i>application 1: tied technical assistance</i> | 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 |
| <i>application 2: concessional loan</i> | 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 |
| <i>application 3: debt forgiveness</i> | <i>ODA loans:</i> no recording | <i>ODA loans:</i> yearly net transfers forgiven on ODA loans that would have been serviced | <i>donor-country loans:</i> 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 |
| | <i>non-ODA loans:</i> yearly budgetary cost of redemption | <i>non-ODA loans:</i> yearly budgetary cost of redemption | <i>other loans:</i> yearly budgetary cost of redemption | | |

loans, which constitutes budgetary income to the public sector of the donor economy. As these return flows are triggered off by previous aid, it seems logical to subtract them. The third approach is the most comprehensive from a donor perspective, and in this sense the most desirable if the purpose is to register donor efforts consistently. 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. To be sure, donors perceive some economic, political or other benefits; otherwise it is difficult to explain that development aid takes place at all. Apart from the rather benign satisfaction of bestowing generosity on other countries, and the somewhat less benign one of imposing one's view on them, such benefits may relate to world political stability, expansion of trade opportunities, diminished military threat, or the containment of illegal migration or drug trafficking. As such benefits cannot be quantified in any meaningful way, we do not even try to list the principle of measurement in the table.

The last columns in Table 2 take an aid recipient perspective. The fourth column 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 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 column assesses the final use value of development aid. The development impact of aid has been the topic of heated theoretical and empirical debate. Of all the approaches listed in the table it is by far the most ambitious one. Although many valiant efforts to evaluate aid components have been undertaken⁶, it would be an almost impossible task to do so on a continuous basis, 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 Table 2, as a reminder of what one would ideally like to measure.

We do not argue here that there is one single best way of measuring aid flows. In fact all of the methods described in Table 2 have some advantages and disadvantages. For instance, there is no a priori reason to prefer a donor perspective to a recipient perspective, or vice versa. Both are relevant for different purposes. If one wants to measure donor effort, as the DAC purports to do, then a donor perspective is surely appropriate. Although we suggest that under such circumstances the method described in column three offers the best methodological buy, there may nevertheless be good reasons to go for column one or two instead. The method proposed in column three has the particular disadvantage of all discounting procedures: it conflates intertemporal resource flows into single, a-historical numbers. If one wishes to record the actual, year-to-year flows between donors and recipients, then the methods described in column two may be the preferred one. And for pragmatic reasons, column one may be selected. If, on the other hand, one wishes to measure how much resources recipients get, then column four looks the natural choice. And, admitting that this is not realistic, if the aim is to know what they get out of it, column five provides at least the principles for calculation. The main point we wish to make in this paper is precisely that there are different perspectives that can legitimately be brought to bear on the issue of aid measurement. We will argue that the aid statistics published by the DAC and the World Bank do not always differentiate clearly between these perspectives and that consequently their statistics are not always coherent. Not surprisingly, users of aid statistics also end up being caught in the confusion.

III. TECHNICAL ASSISTANCE

A. *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 includes technical assistance in aid statistics, and at first sight there is no reason why it should not do so. The World Bank excludes technical assistance from most of the statistics it publishes. Chang, Fernandez-Arias and Servén (1999) also propose to drop technical assistance. Given that technical assistance comprises a significant share

(around one fourth) of bilateral aid, it is worthwhile to pursue this matter further.

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 that country. This latter assumption allows to distinguish more clearly between the different approaches presented in the table. The gross budgetary cost, considered in column one, consists of the gross salary paid from the aid budget of the donor. The second approach is equally uncontroversial: 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.

Turning to the economic cost for the donor economy, the approach behind the third column in the table 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. There is no a priori reasoning why the salary actually paid by the aid implementing agency would be different from the national market, so the results of column one and three may well be very close.

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. As we assume that the technical assistance we wish to measure is tied, it may well be that its cost exceeds that on the world market, leading to the discrepancy described between our third and fourth measures. The difference between the two in fact expresses the resource allocation cost of tying, the loss being borne by the recipient. Turning to the last and fifth column in Table 2, 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.

B. Technical assistance in aid statistics

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. This would allow treating untied

technical assistance somewhat more favourably than the tied variety, in line with DAC principles⁷. It would also fit in better with the balance-of-payments notions, which DAC claims underscores its approach to measurement⁸. Not that we are convinced that balance-of-payments notions are all that helpful here, but at least it would show consistency on the part of DAC.

The World Bank takes a more critical view of technical assistance. As already indicated it drops technical assistance altogether from its aggregate measures of resource transfers (e.g. World Bank (2002)). Chang, Fernandez-Arias and Servén argue that including technical assistance grants by their full value is 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" ((1999):4). And further: "the inclusion of technical assistance in aid aggregates is highly questionable, due to its quid pro quo nature" ((1999):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 costs 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. Note that if this line of reasoning is taken, one would wish to exclude all tied aid, not just technical assistance.

To sum up, the DAC is right in including technical assistance in its aid statistics. Its approach of measuring gross budgetary cost has the double advantage of being simple to implement and to correspond closely to the economic cost to the donor, 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. On the other hand, we feel there is no convincing argument to drop technical assistance from aid statistics, as the World Bank tends to do.

IV. CONCESSIONAL LOANS

A. *The conceptual basis*

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 2. It registers, from left to right, the principle of calculation for the five approaches of measurement proposed. The logic behind column one 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 the cost to the donor. Column two 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. All elements of this multi-annual financial flow are registered in the year their 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 three 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. One could discount at the interest on long term government securities, the rate that the public sector has to pay to raise resources through the capital market⁹. The resulting net present value (NPV) will be lower than the face value of the loan, reflecting the soft nature of the latter¹⁰.

The possibility of defaulting by the recipient country is anticipated in the financial markets by a borrower-specific risk premium. We do not suggest including such premiums in the discount rates. Defaulting has been an important occurrence during the 1980s and onwards, but it can better be handled in another way. If defaulting occurs, it will give rise either to what Chang, Fernandez-Arias and Servén, (1999) aptly call ‘unintended aid’, which need not be recorded, or to voluntary debt forgiveness by donors, which should be recorded, as discussed more fully below.

Turning to the value at destination, the acquisition value is again the NPV of the loan, but using 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. Finally, it is possible in principle to calculate the value of the loan to the recipient. Assuming the loan finances productive investment, and abstracting from the vexed issue of fungibility, the economic net present value of the project funded would express the final value from a recipient perspective, as suggested in column five of Table 2.

B. *Concessional loans in aid statistics*

The DAC recording of concessional (minimum 25% grant element) ODA-loans is based on the year-by-year net flows of the loan. 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 one and two in Table 2. We do not find this treatment satisfactory, and prefer the notion of net transfers, i.e. deducting both principal reimbursement and interest charges from new loans.

Chang, Fernandez-Arias and Servén starts from the principle of donor opportunity cost. This corresponds to what is proposed in column three of Table 2 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 otherwise¹¹, 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 loans¹², 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 aid¹³.

V. DEBT FORGIVENESS

A. *The conceptual basis*

As in the earlier discussion, the simplest measure relates to gross budgetary cost, reported in the first column of Table 2. 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. 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 two allows for the effect of aid forgiveness on return flows. To any spending on non-ODA debt forgiveness, already reported in column one, 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 on the lender's net budgetary position, even if it has legal and administrative consequences to the donor¹⁴. 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 three. As with 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 being forgiven, provided it would have been serviced in the absence of such forgiveness. The discount rate is the same as in the

case of concessional loans, 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 decision comes into force. No future entries have to be made.

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 four 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 five 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 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 will prove daunting.

B. Debt relief in aid statistics

In DAC statistics it matters whether the cancellation or reduction of loan obligations relates to previous ODA-loans or not. Starting with the latter, a further distinction is 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.

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 is a debt claim held by the donor's official export

credit agency (ECA). Let us first specify what the principles of Table 2 would be in this particular case, in particular in columns one to three. The rule following from column one or two 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, Cologne or HIPC conditions). If no actual compensation is being paid to the ECA from the national budget, the logic underlying columns one and two 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 three, 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? DAC surprisingly allows donors to record the full nominal value of the outstanding part of the loan forgiven, if development motivation can be reasonably established¹⁵. The result is bound to be a considerably higher ODA figure than what we have suggested above, and this for two reasons. First, and in contrast to the budgetary logic of columns one and two of Table 2, DAC would record the value of the loan forgiven even if no actual budgetary compensation is paid out to the ECA. Secondly, and in contrast to the economic logic of column three of Table 2, DAC does not take into consideration that a considerable part of the ECA claims forgiven would not have been serviced. Together, these two differences 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 one and two 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 ODA¹⁶. To make matters more complicated, DAC in fact allows for two non-equivalent reporting procedures, possibly because no consensus could be

reached on the matter¹⁷. 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. A few countries apparently 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 three of Table 2, the discounted value of forgiven future debt obligations ought to be calculated, taking into consideration only such payments that would have been made 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 number will come down further.

Chang, Fernandez-Arias and Servén take the radically opposite view that all debt relief, including Paris Club operations, is essentially unintended and thus should not be measured as aid. To them, debt relief 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.

We would conclude that both the very lenient DAC-rules on debt forgiveness and the very strict measure proposed by the World Bank authors are, within their own different logic, 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 HIPC¹⁸.

VI. CONCLUDING COMMENTS

How would the suggestions made in the previous sections affect aid statistics? If, as a rough guess, we suppose that all technical assistance

is tied, and apply the often used estimate of a 20% excess cost of aid tying Jepma (1994) to the particular case of tied technical assistance, we 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 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 of course be applied equally to all categories of tied aid, such as projects. The problems in performing such calculations are political more than technical.

Turning to concessional loans, Chang, Fernandez-Arias and Servén (1999) have shown that their measure differs significantly from ODA, both in absolute value and, significantly, evolution through time. 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. 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 Chang, Fernandez-Arias and Servén measure of official loans is close to 2 billion US\$ lower than the corresponding ODA measure, by 1995 it is more than 9 billion US\$ lower, both measured in 1995 constant prices¹⁹.

How would the forgoing analysis on debt forgiveness impact on statistics? For the year 2000 for instance, DAC (2003) reports ODA debt relief (bilateral plus contributions to the HIPC Trust Fund) of slightly more than \$ 2 billion, roughly 4% of total ODA for that year. Much of it is recorded at face value. The alternative presented by Chang, Fernandez-Arias and Servén (1999) would be to drop most of this sum from ODA statistics. Our position is somewhere between those two extremes. Given the growing importance of debt relief, as witnessed by the HIPC initiative, debt forgiveness is bound to become more important in the future. In this respect the over-generous DAC reporting rules give donors an inappropriate incentive to replace genuine new resources with the cancellation of debt that would not have been serviced anyway²⁰.

To conclude, Official Development Assistance (ODA) and its cousin Official Aid (OA) are statistics with a strong political and moral significance that serve as a benchmark in judging the international aid effort of donor countries. They are also frequently used by the research community. On the whole, we found the DAC approach conceptually con-

fusing. The most convincing way to capture a donor perspective, we argued, is an opportunity cost approach. The disadvantage is that discounted values hide the actual year-to-year resource flows. Measures based on the net budgetary cost do not suffer from this particular weakness, but do not succeed in aggregating grants and loans in a convincing manner. Least attractive, but easiest to calculate, are 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 fascinating alternative. It may be difficult to calculate, but not nearly as impossible, as would, admittedly, be the effort to measure final use value. We have ventured to show that the DAC approach does not to measure any of these categories consistently. DAC says to favour a balance-of-payments approach, but it fails to apply it consistently. More importantly, we do not see the merit of this concept from the point of view of aid measurement. An alternative approach, developed at the World Bank by Chang, Fernandez-Arias and Servén (1999) offers fascinating insights, but also suffers from some weaknesses. As frequent users of aid statistics, we would like to see statistical material that allows to choose one of several perspectives, as described in this paper, according to the need. It is a pity that the DAC seems more interested in trying to placate the donors with Byzantine rules rather than provide the outside world with consistent data.

NOTES

1. Since a couple of years NGOs bundle their efforts across national borders to produce what may be described as an alternative DAC report. See Randel, German and Ewing (2002). 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.
2. 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).
3. The data are published in the DAC annual report DAC (2003). Many DAC documents and statistics discussed in this paper can be freely downloaded from the OECD website (www.oecd.org).
4. 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. The updated list can be downloaded from the DAC website.
5. The Directives include an annex 3 which explains in detail the similarities and divergences between the DAC rules and balance-of-payment practice.
6. See for instance Cassen (1994), World Bank (1998) and the work that has been done within the EADI Working Group on Aid Policy and Performance, such as e.g. Stokke and Berlage (1992).
7. 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.

8. 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 DAC (2000a). This is surprising, since what the DAC registers in this respect definitely does not correspond to balance-of-payments practice.
9. As pointed out by Chang, Fernandez-Arias and Servén (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 three will therefore be maturity specific.
10. 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.
11. By so doing the distinctions made by DAC between ODA, OA and Other Official Flows disappear from view.
12. 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.
13. We refer the reader to the Chang, Fernandez-Arias and Servén (1999) paper for a full presentation of the results and comments.
14. 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.
15. 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 transfers.
16. 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. Chang, Fernandez-Arias and Servén ((1999): 8, Note 9) interpret this to mean that debt cancellation does not have any effect on ODA. 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.
17. 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.
18. See Cohen (2000) for an econometric analysis suggesting that donors should record only a very tiny fraction (around ten per cent) of HIPC debt relief as ODA.
19. Based on a visual reading of Figure 4.4 in Chang, Fernandez-Arias and Servén ((1999):35).

20. As such, internationally-agreed increases in ODA targets, such as those needed to meet the Millennium Development Goals (MDGs) in 2015, might be corrupted by this over-recording of debt reduction. Therefore, debt relief proposals that explicitly focus on the MDGs, such as the PAIR proposal (Berlage et.al. (2003)), strongly advocate a modification of the current DAC accounting rules on debt relief.

REFERENCES

- Berlage, L., Cassimon, D., Drèze, J. and Reding, P., 2003, Prospective Aid and Indebtedness Relief: A Proposal, forthcoming in *World Development*.31, 10, October 2003).
- Cassen, R., 1994, *Does Aid Work*, (Oxford, Clarendon Press).
- Chang, C.G., Fernandez-Arias, E. and Servén, L., 1999, *Measuring Aid Flows: a New Approach*, Policy Research Working Paper 2050, (Washington D.C., World Bank).
- Cohen, D., 2000, *The HIPC Initiative: True and False Promises*, *OECD Development Centre Technical Paper No. 116*, (Paris: OECD).
- DAC, 1989, *Resources for Development: a Short Guide to DAC Statistics*, DCD/89.5, (Paris, OECD).
- DAC, 1996, *Shaping the 21st Century: the Contribution of Development Co-operation*, (Paris, OECD).
- DAC, 2000a, *DAC Statistical Reporting Directives*, DCD/DAC(2000)10, (Paris, OECD).
- DAC, 2000b, *Handbook for Reporting Debt Reorganisation on the DAC Questionnaire*, DCD/DAC(2000)16, (Paris, OECD).
- DAC, 2003 *Development Co-Operation Report 2002*, *The DAC Journal*, Vol 4 No 1, (Paris: OECD).
- Jepma, C.J., 1994, *Inter-Nation Policy Co-Ordination and Untying of Aid*, (Aldershot, Avebury).
- Randel, J., German, T. and Ewing, D, eds., 2002, *The Reality of Aid 2002*, (Manila, Ibon Foundation, Inc).
- Renard, R. and Cassimon, D., 2001, *On the Pitfalls of Measuring Aid*, UNU/WIDER Discussion Paper 2001:69, (Helsinki, UNU/WIDER).
- Stokke, O. and Berlage, L., eds, 1992, *Evaluating Development Assistance: Approaches and Methods*, (London, Frank Cass).
- UNCTAD, 1975, 'The Concepts of the Present Aid and Flows Targets', Report by the Secretary General, TD/B/493/Rev.1, (New York, UNCTAD).
- World Bank, 1998, *Assessing Aid: What Works, What Doesn't and Why*, (Oxford, Oxford University Press).
- World Bank, 2002, *Global Development Finance 2002*, (Washington D.C, World Bank).