New DAC Rules on Debt Relief – A Poor Measure of Donor Effort

Euan Ritchie

Abstract

The Development Assistance Committee (DAC) recently produced a long-awaited set of rules for how debt relief on loans should be scored as Official Development Assistance (ODA). Unfortunately, the rules suffer from a number of statistical problems: different measurement bases are mixed up even measuring the same loans; similar loans extended at different times are treated differently; loans can score as much as grants, even if partially or fully repaid; and more ODA can be scored for forgiveness than borrowers actually owe. The one unifying feature is that the new rules are very flattering for donors' ODA figures. The DAC needs to take these rules back to the drawing board, or lose credibility.

Keywords: Debt relief, ODA rules, ODA loans, aid rules, aid loans, discount rates, Development Assistance Committee (DAC), debt sustainability.

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A. New debt rules are confused and confusing

After years of wrangling, the Development Assistance Committee (DAC) – the organisation that decides on the definition of Official Development Assistance (ODA) and is housed at the Organisation for Economic Cooperation and Development (OECD) – has decided on a new set of rules (DAC 2020, henceforth referred to as the "new rules") for how ODA should be recorded on loans that go bad. The need for new rules arose when the DAC decided to "modernise" ODA by making changes to the definition that they suggested would better reflect donor effort (DAC "Modernisation of the DAC…"). The most significant change was to how loans are recorded. Previously, the face value of loans was recorded, but as of 2018, ODA loans are measured by their subsidy element, or "grant equivalent".

Given that the problem had been debated for several years, the announcement that rules had been finalised was welcome. Unfortunately, they are difficult to make sense of, and it isn't clear what the new rules actually measure. They certainly do not measure what the recipient country receives: their central grant equivalent methodology more generally produces purely notional quantities. No country actually receives a flow equal to the grant equivalent estimated by the new debt relief rules.

But it is also hard to argue that the new rules measure donor effort. They claim that "the method does not generate more ODA for a loan and subsequent debt relief than a standard grant would generate" (new rules, p.2). Yet this appears to be not true for relief on non-ODA loans, and for ODA loans it can still allow donors to score as much ODA from loans and subsequent relief as they could from grants of the same value, even when substantial repayments have already been made. In addition, otherwise identical loans made at different times count for different amounts.

After outlining the differences in how loans – and subsequent debt relief – are recorded under the old and new systems, this paper argues that aside from being overly generous to donors, the new rules suffer from the following problems:

1. Scoring any relief on ODA loans as ODA is inconsistent with risk-adjusted discount rates. These rates are used to calculate the grant equivalent of loans and are higher for countries that are perceived as riskier. This allows more ODA to be scored upfront the riskier a loan is perceived to be, and so it is inconsistent to score additional ODA when risks are realised.

2. Fiscally, they favour loans over grants, as even after years of receiving repayments of principal, it is still possible to record as much ODA as if a grant had been made.

3. The transition between the systems gives rise to bizarre anomalies: for many loans made before 2018, the fact that they are now mainly paid back allows *more,* not less ODA to be scored.

4. The 'ceiling' that applies to scoring debt relief on ODA loans – ensuring that the sum of the value of debt relief and the original grant equivalent does not exceed the original face value – doesn't seem to apply to non-ODA loans, which means that in many cases loans that were not originally intended to be developmental/concessional will score far more ODA than either ODA loans or even grants.

5. For loans in arrears (which is commonly the case for forgiven loans) the new rules allow donors to score more ODA for relief than is actually owed, meaning that a grant that entirely covers the debt would score for less ODA.

This list is not intended to be a comprehensive list of statistical problems with the new system. However, together they demonstrate that there are serious issues with the new rules. Internal inconsistencies, mixing up different bases of measurement even when scoring debt relief on the same loan, and double counting of risk make these new rules conceptually confusing, and it is not clear what they actually measure. It is clear however, that they will give a much more flattering picture of 'donor effort' than the old system. The new rules provide 10 examples of debt relief. Appendix 3 compares ODA scored from debt relief under the old and new systems, and finds that the new system is significantly more generous to donors.

B. Old and new ways of recording ODA loans

1. Scoring ODA loans

In the old methodology, recording concessional loans was simple. When disbursed, the face value was recorded (the actual flow of money that changed hands) and as repayments of principal were made in subsequent years, these were recorded as negative ODA. Payments of interest were not deducted, and so the total ODA recorded over the duration of a loan would be zero.

The new methodology for counting ODA loans instead counts the "grant-equivalent". This is equal to the difference between the face value of the loan, and the present value of future repayments. To calculate the latter, discount rates are used which are supposed to reflect the risk of lending to different income levels. The discount rates for lending to least developed countries (LDCs) or low-income countries (LICs) is 9 percent, and the discount rates for lending to (LMIC) lower and (UMIC) upper middle-income countries are 7 percent and 6 percent, respectively. Lending at an interest rate lower than these discount rates means that the present value of future payments is lower than the face value of the loan, i.e. the loan is concessional. This means that a loan at a 6 percent interest rate would be viewed as concessional for an LIC, and a grant equivalent could be recorded, but it would not if it went to an UMIC (in addition, there is a concessionality threshold, below which no ODA is recorded, (DAC 2014a)).

These discount rates are supposed to reflect the risk of lending. They have come under criticism for being generous to donors (Scott, 2019), especially in the current environment of low interest rates, too crude (the grant equivalent of loans to Bangladesh and Zambia would be calculated using the same discount rate, despite the latter having a much higher risk of debt distress (IMF 2020)) and not corresponding to any real world flows. However, the OECD argue that this system better reflects "donor effort", describing it as "a fairer method to record ODA" (OECD 2014, p.4).

Throughout this paper, the same example, based on the standard case presented in the DAC paper itself, is used to illustrate differences between the two systems. This is an ODA loan to an LDC of 300, with an interest rate of two percent. The loan will be repaid over the course of 18 years, with payments of the principal beginning in year 6, but with interest paid throughout. Table 1 summarizes this information, and shows the ODA that would be recorded under both systems. As this loan is used in all further examples, it is worth explaining in full.

Under the **old system**, ODA in the initial year is 300 (the face value of the loan). Each repayment is scored as negative ODA, so in the final year, if the entire loan is repaid, net ODA over the period is zero. Interest is not deducted. Under the **new system**, to calculate the value of ODA in the disbursement year, the net present value of future payments is calculated (including interest payments). As this loan is to an LDC the discount rate used to calculate the present value of the repayments is nine percent. Their sum is equal to 154, and this is subtracted from the face value of 300 to obtain the ODA grant equivalent reportable in the initial year of 146. Unlike the old system, this is the only ODA recorded: no subtractions are made for repayments. The logic of this is that the grant equivalent reported upfront is a once-and-for-all estimate of the likely cost of the loan to the donor, taking account both of the scheduled repayments, and of the risk that the donor may not receive some or all of them.

Table 1. measurement of ODA loans, old (flow) and new (grant equivalent) systems

Face value	300
Interest rate	0.02
Discount rate	0.09
Duration	18
Grace period	6

	Payments			Grant equivalent calculations		ODA	
Year	Principal	Interest	TOTAL	*Discount factor*	NPV of payments	Flow	GE
2019				*1*		300	146
2020		6.0	6.0	*1.09*	*5.5*		
2021		6.0	6.0	*1.19*	*5.1*		
2022		6.0	6.0	*1.30*	*4.6*		
2023		6.0	6.0	*1.41*	*4.3*		
2024		6.0	6.0	*1.54*	*3.9*		
2025	23.1	6.0	29.1	*1.68*	*17.3*	-23.1	
2026	23.1	5.5	28.6	*1.83*	*15.7*	-23.1	
2027	23.1	5.1	28.2	*1.99*	*14.1*	-23.1	
2028	23.1	4.6	27.7	*2.17*	*12.8*	-23.1	
2029	23.1	4.2	27.2	*2.37*	*11.5*	-23.1	
2030	23.1	3.7	26.8	*2.58*	*10.4*	-23.1	
2031	23.1	3.2	26.3	*2.81*	*9.4*	-23.1	
2032	23.1	2.8	25.8	*3.07*	*8.4*	-23.1	
2033	23.1	2.3	25.4	*3.34*	*7.6*	-23.1	
2034	23.1	1.8	24.9	*3.64*	*6.8*	-23.1	
2035	23.1	1.4	24.5	*3.97*	*6.2*	-23.1	
2036	23.1	0.9	24.0	*4.33*	*5.5*	-23.1	
2037	23.1	0.5	23.5	*4.72*	*5.0*	-23.1	
				Total	*154.0*	**0.0**	**146.0**

2. Debt relief on ODA loans

When ODA loans went bad under the old system, reporting was generally simple: nothing happened[1]. Lenders would simply stop receiving – and so stop counting – repayments. If the balance on the loan were forgiven, then subsequent net ODA would be higher than if repayments had continued, not because any additional ODA was recorded but only because the anticipated negative ODA flows would not be recorded (see table 2). Similarly, if loans were rescheduled, all this would mean is that the repayments, and therefore the negative ODA, would be recorded in later periods.

This was only true for ODA loans that were not in arrears, however. Forgiveness of loans that did not originally count as ODA (either Other Official Flows (OOF), export credits or other private loans taken over by the official sector) would score ODA as the amount forgiven, reflecting the nominal benefit to the recipient. There were also special rules for loans in arrears, allowing forgiven missed interest payments on ODA loans to count as new ODA. However, to simplify, we remain focused on the loan example in table 1.

What do the new rules say?

The new rules are far more complicated, and the way they are presented is more complicated still (cf. Appendix 2). There are several different scenarios, each with multiple steps required in calculation. For the purposes of illustration therefore, we stick with the example in table one and imagine that the loan was entirely forgiven in year 10 (2029), i.e. after four years of principal payments. (It is worth noting that this is unlikely: usually there would be a period in which the loan is in arrears before a decision to entirely forgive. We come back to this in the context of non-ODA loans in a later section).

Debt relief on ODA loans is calculated according to a three-step process:

1. Calculate the present value of the remaining originally scheduled payments, discounting at the appropriate rate. In our example this is nine percent, given that the loan is to an LDC.

2. Subtract the present value of new schedule of payments agreed as part of debt relief. In our example this is zero, as the loan has been entirely forgiven. Call the difference the "new grant equivalent".

3. Add this new grant equivalent to the original (146 in our case). If the total is less than the face value of the original loan, then the new grant equivalent is recorded as ODA. If it is more, then a "ceiling" is applied, and the difference between the face value and the original grant equivalent is recorded. In our case therefore, the

[1] Unless there were arrears, on interest or principal.

maximum amount that could be recorded is 154, as anything higher would exceed the ceiling when added to the original ODA recorded.

In our example, we first calculate the net present value of remaining payments at a discount rate of nine percent. This is equal to 168. Clearly, 168 + 146 >300, and so the ceiling bites. This means that the amount of ODA recorded for forgiving this loan is the maximum of 154.

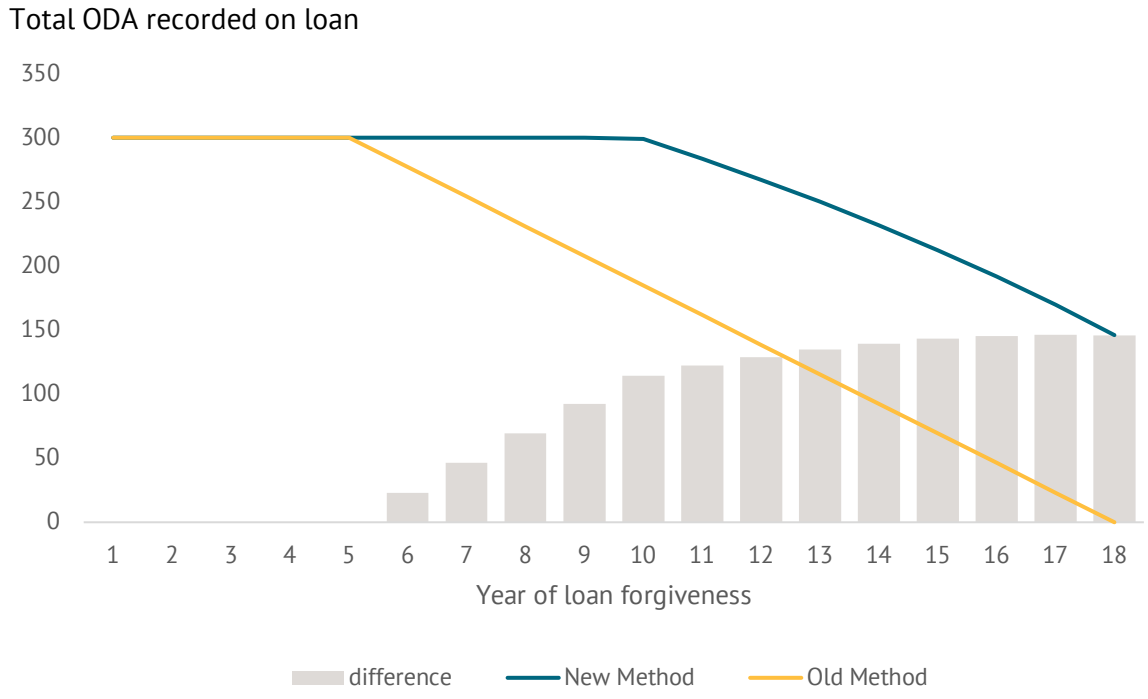
Table 2. ODA scored when ODA loan forgiven in 2029, old (flow) and new (GE) rules

	Scheduled payments		Actual payments (Principal + interest)		GE calculations		ODA	
Year	Principal	Interest	*(received)*	*(forgiven)*	*New discount*	*NPV (forgiven)*	Flow	GE
2019							300	146
2020		6.0	6.0					
2021		6.0	6.0					
2022		6.0	6.0					
2023		6.0	6.0					
2024		6.0	6.0					
2025	23.1	6.0	29.1				-23.1	
2026	23.1	5.5	28.6				-23.1	
2027	23.1	5.1	28.2				-23.1	
2028	23.1	4.6	27.7				-23.1	
2029	23.1	4.2		27.2	*1.00*	*27.2*		154
2030	23.1	3.7		26.8	*1.09*	*24.6*		
2031	23.1	3.2		26.3	*1.19*	*22.1*		
2032	23.1	2.8		25.8	*1.30*	*20.0*		
2033	23.1	2.3		25.4	*1.41*	*18.0*		
2034	23.1	1.8		24.9	*1.54*	*16.2*		
2035	23.1	1.4		24.5	*1.68*	*14.6*		
2036	23.1	0.9		24.0	*1.83*	*13.1*		
2037	23.1	0.5		23.5	*1.99*	*11.8*		
					Total	*167.8*	**208**	**300**

How does this compare to the old system? In short, the new system is much more generous. If the same loan had been cancelled in year 10 under the old system, then the total amount of ODA recorded on the loan would have been 208 (the original 300, with four repayments subtracted) compared to 300 under the new (original grant equivalent of 146 plus new capped grant equivalent of 154). The difference increases over time, as demonstrated in Figure 1, which shows the total value of ODA recorded on the loan in each period if the borrower defaults just after that year's payment. The orange line shows how much net ODA the old system would have recorded over the life of the loan if the borrower defaulted just after that year's payment. Clearly, when repayments start, the net ODA starts to fall, and after the payment in the final year, the loan has been entirely repaid so net ODA is zero.

The new system is shown by the blue line. If the borrower defaults within the grace period, then the total ODA recorded is the same under both systems. However, under the new system the ceiling does not bite until after year 10, i.e. well after the borrower has started repaying the loan principal. Intuitively, this is because over the first few years of the loan, the net present value of future payments increases. The first principal repayments are closer and so are discounted less than they were when the loan was extended. The NPV of future payments is highest just before the first principal payments, even though by this point interest has already been paid. The effect of this is that while under the old system reportable ODA from debt forgiveness would start declining as soon as principal repayments started, this tends to be delayed under the new system.

Figure 1. Difference between ODA recorded on ODA loan, new and old method (loan as in table 1)



C. What's wrong with the new methodology?

This section continues with the same example to explore a number of ways in which the new system lacks coherence. As stated, these are not necessarily the only problems with the new methodology, but together they raise serious questions about the new rules, and their implications for the integrity of ODA.

1. The risk of default is already priced in

It has been repeatedly noted, both inside (DAC 2014b, annex 2 para. 14) and outside the DAC (see e.g. Roodman 2014, Poel & Craviotto 2020), that it is inconsistent to both adjust for the risk of default on a loan in choosing discount rates to calculate the ODA on loans, and to give extra credit to donors when loans do in fact default.

As mentioned above, the discount rates are supposed to take into account the level of lending risk. Lending at six percent to an LDC could count as ODA, whereas it couldn't when lending to an UMIC; this is because lending to LDCs is riskier. Loans are only concessional when the interest rate charged does not fully compensate donors for the risk they take. Another way of saying this is that the expected value of future payments is less than the face value of the loan, and in fact the grant equivalent can be seen as the difference between the face value and the expected repayments.

To see this, imagine that the risk-free rate – the rate that could be obtained on a (hypothetical) perfectly safe investment – is zero (a reasonable assumption under current circumstances). In this case, the discount factor (one divided by the (1 + discount rate), shown in column 4 in table 1) is essentially the probability that the donor will receive the payment that year. The figure 154 is what the donors implicitly expect to receive on average; conversely, the grant equivalent of 146 is what they expect to **lose** on average. (This is explored more in the appendix).

In expectation therefore, the amount of ODA recorded for loans under the new and old systems should be roughly the same. The old system subtracts repayments as they come, but not all of them will and so net transfers from donors to recipients will end up being positive. Under the new system, this risk is "built-in" to the initial calculation. They should be similar. Seen in this light, to record *any* debt relief at all on ODA loans made under the new system is clearly double counting.

Under the new rules, there are situations in which donors receive more than they implicitly expect to, and yet still add more ODA in the event of the default. In our example above, the loan is entirely forgiven in year 10. But the discount rate of nine percent used implies that the probability of reaching year 10 without default is less than 50 percent. The probability of receiving the last payment is only around 20 percent.

It might be argued that when defaults occur, donors should be able to score ODA if they received less than they anticipated (as implied by the discount rates). This would be a

reasonable proposition, although very different from what the new rules stipulate. It would also require deducting from ODA repayments *in excess* of what was expected. In our example above, the donor received 144 in repayments before forgiveness, slightly less than 'expected', leaving room for a small amount of ODA to be recorded. If the default occurred a year later, then total repayments would have been 171, above the 'expected' value of 154, and the donor would have needed to deduct ODA.

But how realistic is it to imagine that donors would agree to both increase and decrease their reported grant equivalents on loans according to how they performed in practice? We judge that it is quite unrealistic. The main reason is that for many countries, the discount rates are very generous (Vietnam's 10y government bond yield is currently 2.7% (World Government Bonds, accessed 21 Sep 2020), and yet a discount rate of seven percent applies when calculating the grant equivalent of loans to Vietnam given its LMIC status). This produces inflated upfront estimates of grant equivalents, implying that most would require negative adjustment as repayments would exceed expectations.

Yet if donors are not prepared to accept negative adjustments for loans that perform above expectations, they cannot claim additional credit for loans that perform below expectations. This means that the only reasonable alternative is that debt relief simply shouldn't be recorded on ODA loans under the grant equivalent system, as the DAC itself implicitly promised at the outset:

Changing the ODA measurement from net flows to risk-adjusted grant equivalents will also change the basis for reporting on debt relief of official loans. Given that the new system would value upfront the risk of default on ODA loans, ***the eventual forgiveness of these loans would no longer be reportable as a new aid effort****.* (DAC 2014c, p.2-3)

2. Loans can score same ODA as grants, but cost donors less

Notwithstanding the claim made by the document that ODA from loans must never count for more than from a grant, donors can record the same amount of ODA from a loan as from a grant even when the fiscal effort has been significantly less.

This is obvious from the example above, in the event that a borrowing LDC country defaults on a loan of 300 in year 10. In this scenario, the amount of ODA recorded is equal to 300 in total, 146 from the original grant equivalent, and 154 from the "capped grant equivalent" of future payments in the event of default. This is the same amount of ODA recorded as if a grant had been given, despite the fact that principal repayments of 92 have been made, and total payments of 143 (nearly half the value of the original loan). Table 3 shows an abbreviated form of table 2 and includes a comparison with a grant. The repayments columns, in italics, are not included anywhere as ODA, negative or positive. But it is unlikely that either the donor or recipient are indifferent to such flows.

Table 3. ODA recorded: loan forgiven in year 10

	Actual values				Present value in year 10 at 2%		
	Loan ODA	*Repayments*	Grant ODA	*Discount*	Loan ODA	*Repayments*	Grant ODA
2019	146		300	*0.82*	178.0		365.7
2020		*6.0*		*0.84*		*7.2*	
2021		*6.0*		*0.85*		*7.0*	
2022		*6.0*		*0.87*		*6.9*	
2023		*6.0*		*0.89*		*6.8*	
2024		*6.0*		*0.91*		*6.6*	
2025		*29.1*		*0.92*		*31.5*	
2026		*28.6*		*0.94*		*30.4*	
2027		*28.2*		*0.96*		*29.3*	
2028		*27.7*		*0.98*		*28.2*	
2029	154			*1.00*	154.0		
Total	300	*144*	300	**Total PV**	332.0	*153.9*	365.7

It might be argued that this ignores inflation and the time value of money. This is true, but doesn't change the overall picture. To take this into account, the original amounts in 2019 (the disbursement year) should be converted into 2029 prices. To do this requires a discount rate. But this discount rate *should not* be the discount rate used to calculate the original the original grant equivalent. This is because that discount rate (nine percent for LDCs) takes into account the risk of not receiving payments. But when looking backwards, all of the payments are certain: there is no 'risk' to past payments. The discount rate should rather be some form of the donor's cost of capital. For any feasible value of this, donors will score more ODA per real dollar of effort if they give loans rather than grants.

The second half of table 3 shows the 2029 present values (PV) of the loan and grant amounts using a two percent discount rate; generous in the current low interest environment. Total ODA recorded under the new system is assessed as 332 in PV terms for the forgiven loan, compared to 366 if a grant had been made. But whereas the grant only

scores 34 more than the forgiven loan, the lender has received far more back on the loan before it was forgiven, i.e. 154. On a reasonable PV basis, the donor only gets 10% more ODA credit for an outright grant than for a loan on which it recouped almost half the amount lent.

This doesn't make sense from either the recipient's, or the donor's perspective. From the recipient's perspective, a grant of 300 is clearly preferable to a loan of 300 followed by repayments of 144 over 10 years. From the donor's perspective, even in present value terms, a grant of 300 is a higher fiscal effort than a loan of 300 made 10 years ago, followed by 144 in repayments over the period. The amount of ODA recorded in each case should not be the same, or even similar.

3. The higher the repayment, the higher the net ODA recorded

Perhaps the strangest result that arises from the new methodology for reporting debt relief on pre-2018 loans is that the more a loan has been repaid, the more scope there is for counting additional ODA. This arises from the ceiling introduced, in combination with the transition between the two systems. The new rules are clear that total ODA recorded cannot exceed the face value of the original loan. According to the old methodology, the face value of loans was recorded when disbursed, at which time the total value of (net) ODA recorded on the loan is 300, and so there is no room for any more ODA under the ceiling, regardless of how much debt is forgiven. But any repayments then counted as negative ODA, reducing the total net amount recorded on the loan, and leaving space under the ceiling for more ODA to be counted from debt relief. Consider three cases:

- **A**: First, let's say that the loan is entirely forgiven before any repayments are made. Given that the total value of ODA is already the face value (no repayments have been subtracted) we are already at the ceiling and no further ODA can be recorded. Debt forgiveness will not generate ODA.

- **B**: Second, assume that repayments have been made, but that these occurred after 2018. As discussed, these repayments won't be recorded because of the transition to the new methodology. So, before the debt forgiveness, the amount of ODA recorded is already at the ceiling of 300.

- **C**: Finally, assume that a number of repayments had already been made on the loan, before 2018. As these repayments were recorded under the old system, they count as negative ODA, and so in calculating the total net ODA claimed on the loan so far, they need to be subtracted from the face value. This means that total ODA recorded is under the ceiling by exactly the amount of these repayments. In table 1, repayments before 2018 were equal to 46, and so there is scope for 46 more to be recorded in a debt relief operation.

Table 4 demonstrates these three cases, with three loans with the same terms, but different timings, and in each case entirely forgiven in year 2020. The shading indicates the period

under which the new methodology is used. Negative values indicate flows from the recipient to the donor.

Table 4. Cash flows (principal) and ODA recorded

(Loan forgiven in year 2020)			
Year	A	B	C
2010			300
2011			
2012			
2013		300	
2014			
2015			
2016	300		-23.1
2017			-23.1
2018			-23.1
2019		-23.1	-23.1
2020		-23.1	-23.1
Principal paid	0	-46.2	-115.4
Principal forgiven	300	253.8	184.6
ODA recorded from debt relief	0	0	46
Total ODA recorded	*300*	*300*	*300*

At the bottom of the table, the total principal paid and forgiven is recorded (which sum to the face value), along with ODA recorded, both for forgiveness, and in total. It is hard to argue that this picture is coherent. In each case, the total ODA forgiven is the same despite the amount owed varying substantially. For debt relief, only case C records positive ODA, despite being the case with the smallest amount of principal forgiven. In other words, the correlation between the amount forgiven and amount of ODA recorded is actually negative for such loans.

Table 4 also draws attention to another problem: which is that ODA is being recorded for forgiveness, on loans that, as far as ODA recording is concerned, have effectively already been "forgiven". With the transition from the old to the new system, there was around $180 billion in ODA loans outstanding. Repayments on this debt stock are no longer being

deducted as they come in, which is as if every one of them is being forgiven as it falls due. As such, what grounds are there for counting additional ODA for actually forgiving these amounts?

4. The ceiling doesn't seem apply to non-ODA loans

Much is made in the document about the ceiling, and how this means that loans will never count for more than grants (a hard claim to defend given the above demonstrations). But this ceiling is not mentioned at all for non-ODA loans, and in fact, the word 'ceiling' only appears after non-ODA loans have been discussed.

In the new rules, the simplest case of debt relief is given in Case A (new rules p.6). A loan of 300 has been disbursed to a low-income country, and one repayment has been made of 23, before the loan defaults. Crucially, there are no payments in arrears. Given that no ODA was recorded when the loan was disbursed, the full value of principal written off is recorded, so ODA for this debt forgiveness is 277. This is odd, partly because unlike in all other cases, this is a flow concept and there is no mention of the grant equivalent. It is true that OOF loans are recorded as flows (unlike ODA loans) but given that the rescheduling of an OOF loan is also calculated using the grant equivalent measure under the rules, it is odd that forgiveness is measured as a flow, and makes the resulting debt relief figures hard to interpret.

It is also wholly unrealistic**.** The scenario outlined is that the borrower makes several years of interest payments and one principal payment on time, and then the rest of the loan is forgiven. In practice, donors do not typically write-off commercial loans that are still performing. Much more likely is that the borrower will start to miss payments, entering 'arrears', and interest on these arrears will accumulate at a penalty rate which is much higher than the original. After a few years of missed payments and interest accumulating, the donor may eventually give up on the prospect of being repaid in full, and forgive or reschedule some or all of the loan. But by this point, the nominal amount owed may far exceed the original face value of the loan.

This is why the omission of a ceiling on non-ODA loans is so important. Most debt relief occurs on non-ODA loans or export credits. And most of the time the amount 'forgiven' is much higher than the face value of the loan. This was also true under the old system of recording loans and debt relief, and is the reason for the huge spike in ODA in the mid-2000s. At its peak in 2005, debt relief accounted for $24 billion, or over 20% of total ODA. The actual loans that generated this huge sum were far smaller. If they had originally been given as grants the ODA recorded would have been a fraction of the eventual amount scored.

A ceiling would have been a useful corrective for this phenomenon. Consistent with the intention behind the new methodology, it would ensure that the ODA recorded on debt relief on non-ODA loans would at least to some extent reflect donor effort. Yet, unlike ODA loans, there is no mention of a ceiling. So, while the claim that "loans must never

score more than equal-sized grants" looks very tenuous for ODA loans, it is indefensible for non-ODA loans.

5. More can be forgiven than is actually owed

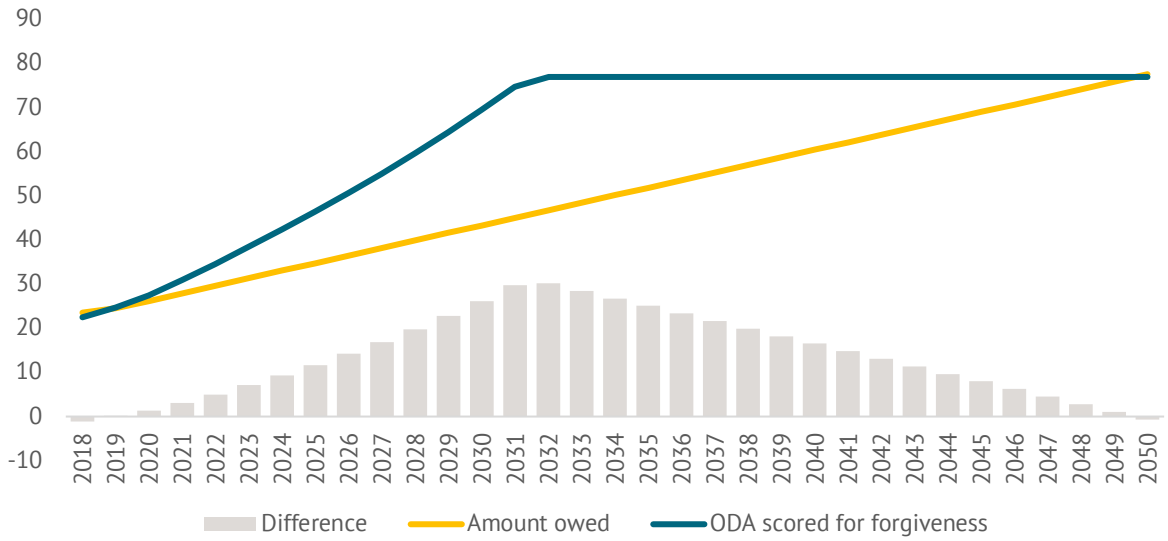
Finally, in the case of loans which have gone into arrears, the value that donors are able to score as ODA in some debt relief operations exceeds the value they are actually owed. So, if they were to provide a grant to the borrower covering the full value outstanding, this would score *less* ODA than forgiving the debt, even though these are functionally exactly the same.

When a payment is missed (the loan goes into arrears), the new rules stipulate that that payment should be inflated to its "net present value" in the year of relief, using the DAC's discount rates. This is the grant equivalent methodology working in reverse, i.e. whereas the original grant equivalent calculation on a loan *divides* expected future payments by a discount factor to convert them into present value at the outset, the new debt relief calculation *multiplies* the value of missed past payments and therefore inflates them by the same factor. For example, imagine that an LDC misses the final payment on a loan – going into arrears – but the loan is not officially forgiven until a year later. In calculating ODA to be scored, the final payment is a year late and is therefore inflated by one year using the discount rate of 9 percent, i.e. it is multiplied by 1.09.

Already, this is inconsistent with the fact that the DAC discount rates used to calculate upfront grant equivalents on loans include risk premia. There can only be risk associated with future payments. Risk-adjustment factors in discount rates reflect the ex-ante degree of doubt about whether payments will actually be made. Once the time for a payment has passed, both parties know whether it has been made or not. No doubt about it remains, and so it does not appear logical to revalue payments in arrears using risk-adjusted rates.

But perhaps more importantly, revaluing arrears to the date of debt treatment also means that for such loans, it will generally be the case that the amount of ODA scored for debt relief will exceed the amount forgiven. For every year between a missed payment and eventual forgiveness, the new method effectively re-values the missed payments using the relevant DAC discount rate (1.09 in the case of LDCs). There will usually be penalty charges on amounts in arrears, but unless they compound at the same rate, a gap will emerge between amount owed and the amount the new method calculates as forgiven. This is clear in Case 7 in the new rules. Although in the example presented there, the amount forgiven is *just* below the amount owed as a result of the ceiling (76.9 compared to 77.5) this wouldn't have been true in any prior year. If – in the same example – the loan had been forgiven in year 2032, the amount scored as ODA would be 65 percent higher than the amount the borrower actually owed at that date. Figure 2 compares this difference over time.

Figure 2. Case 7 of new rules: amount of ODA scored, and amount owed, by year of forgiveness



In Case 7, the discrepancy between ODA scored and amount owed peaks in the year the ceiling is first reached, i.e. 2032. Thereafter, the ceiling prevents the discrepancy from widening indefinitely. But this highlights that the ceiling is only addressing a symptom of more fundamental problems with the rules, and not very satisfactorily. The fact that such a wide gap can emerge between the amount owed and the amount scored as forgiven should trigger a rethink about the defensibility of the new rules. It is also interesting that in presenting this scenario, the OECD chose 2050 as the year of debt relief. This is the very first year after the ceiling bites in which it succeeds in holding ODA reporting below the amount the borrower actually owes.

In fact, this fundamental flaw in the OECD's method – its tendency to score ODA for forgiving non-existent debt – does not appear in any of the four forgiveness Cases the OECD presents. In Cases A and 1, there are no arrears available to be inflated, and in Cases 3 and 7, the ceiling fortuitously reduces reportable ODA to less than the amount actually owed, hiding the discrepancy that would otherwise have appeared.

D. Conclusion: Go back to drawing board or lose credibility

Since the OECD announced the change to a new methodology for counting loans, how to account for debt relief has been a thorny issue (Scott, Nov 2019) that the DAC has struggled to resolve. The new rules concerning debt relief were supposed to put this issue to bed. Instead, they simply highlight and exacerbate many of the problems that have already made the change to the new system controversial. The new rules are not a good measure either of what recipients gain, or the effort that donors make. They are internally inconsistent, and create incentives both to favour loans over grants, and rescheduling over forgiveness, at a

time when debt distress of ODA-eligible countries is a real concern. Far from being a "fairer method to record ODA", they appear overly generous towards DAC lenders, and arguably (Poel, 2020) risk distorting the amount of assistance which is actually recorded. There are at least three reasons why this is concerning:

- First, if the rules governing ODA reporting seem incoherent, this undermines the integrity of, and confidence in ODA. This is especially important at a time when some DAC members are threatening to abandon use of the internationally agreed definition. If the rules don't make sense, this gives them cover to do so.

- Second, there is a risk of erroneous conclusions being drawn by researchers and observers about the effect of ODA and the resources available to recipients. Future researchers examining ODA trends may not have the time or inclination to invest in understanding the new rules and their possible impact, and could easily be misled by the published figures.

- Third, and perhaps most worryingly, the new rules could shift donor preferences towards less-concessional ODA, given that it is treated favourably under the new rules. In recent years, grant-based financing has fallen as a percentage of total ODA, despite rising concerns about debt-distress of many ODA-eligible countries. In this context, double-counting the risk of lending and scoring equivalent amounts of ODA for grants and forgiven/rescheduled loans is unhelpful.

What would be better? As mentioned, the simplest and most credible solution would be to ignore debt relief for ODA loans, as there is no reason to include it when the discount rates already account for risk. This conclusion has been obvious to many for some time, including the DAC (as mentioned). The fact that this has been ignored, forgotten, or glossed over in the new rules is troublesome, and for the sake of transparency the DAC should at least release all discussions and information that shows how they arrived at this set of rules.

For non-ODA loans, if the DAC wants ODA to really reflect donor effort then a good place to start would be to apply a ceiling equal to the original face value, so that, just as for ODA loans, donors could not score more for a loan than they would have if they had given the money as a grant. In the longer term, a true grant-equivalent system would only record the real cost to donors of relieving non-ODA debt. This would mean, for official debt, counting only the actual taxpayer outlay involved in providing relief; and for private debt, only government pay-outs to private debtors, less all premia that governments receive each year to guarantee such debt.

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Appendix 1. Discount rates and default risk

The discount rates stipulated by the OECD for measuring the grant equivalent of loans are supposed to reflect the risk of lending to different income groups. This appendix explores the level of risk that these actually imply, and what this suggests in terms of measuring debt relief.

To think about this, we calculate what the payments on a hypothetical loan would be under two different interest rates: the "**risk-free rate"** (the rate of interest on an investment with no risk of default) and **nine percent** (discount rate on loan to LICs). This hypothetical loan to an LDC is the same as in the example used throughout this paper: a loan for **300**, with a duration of **18 years**, and a grace period of **six years** (i.e. payments on principal start at the beginning of year 6, although interest is paid throughout). Assume that the principal is repaid in equal instalments, which is the most common structure of ODA loans.

What is the risk-free rate? In reality, there is no such thing: every investment has some level of risk even if tiny. However, for several years now, the long-term bond rates of Japan, France, and Germany, the main ODA lenders, have been approximately zero. The payment schedule for a hypothetical loan with zero interest is shown in the column A in table A1.

Column B shows the payment schedule for the loan at 9 percent. During the grace period, only the interest is paid (0.09*300 = 27), after which the principal is paid in equal chunks, and the interest accruing each period gradually falls. In contrast to Column A, these payments are not certain, hence the higher return. So, what annual default rate would give the same expected present value as the loan at the risk-free rate?

This value is the is the "implied default risk" and can be calculated as follows:

1 - (1 + risk free rate) / (1 + discount rate) = 1 – 1/1.09 = **8.3%**

This means that, as each year goes by, there is 8.3 percent less chance that the country will make its expected payments. This compounds over time, so that the chance of receiving the first payment is significantly higher than receiving the final payment (column C). Multiplying the scheduled payments by the probability gives the expected value, in column D.

Table A1. Payment schedules for risk-free and 9% loans

	A	B	C	D
year	risk free (0%)	schedule (9%)	*probability*	Expected value
1	0.0	27.0	*0.92*	24.8
2	0.0	27.0	*0.84*	22.7
3	0.0	27.0	*0.77*	20.8
4	0.0	27.0	*0.71*	19.1
5	0.0	27.0	*0.65*	17.5
6	23.1	50.1	*0.60*	29.9
7	23.1	48.0	*0.55*	26.3
8	23.1	45.9	*0.50*	23.0
9	23.1	43.8	*0.46*	20.2
10	23.1	41.8	*0.42*	17.6
11	23.1	39.7	*0.39*	15.4
12	23.1	37.6	*0.36*	13.4
13	23.1	35.5	*0.33*	11.6
14	23.1	33.5	*0.30*	10.0
15	23.1	31.4	*0.27*	8.6
16	23.1	29.3	*0.25*	7.4
17	23.1	27.2	*0.23*	6.3
18	23.1	25.2	*0.21*	5.3
Totals	300	624		300

Note: Totals for A and D are net present values

At the bottom of the table are total repayments. For Loan A, at zero per cent, these are the same as the amount lent, i.e. 300. Since these payments are considered to be without risk, 300 is also their net present value after risk is taken into account. For Loan B, the scheduled payments amount to 624, but after adjusting for risk at 9 percent a year, expected payments are only 300 (Column D). Comparing A and D shows that the nine percent interest rate charged on the loan is just enough to compensate the lender for the risk of default: the

expected present value of each loan is equal. This is by construction: the default risk of 8.3% is 'implied' by the discount rate of nine percent, given our assumption about the risk free rate. Comparing the totals of columns B and D reveals that the lender would expect to lose more than half the value of the scheduled payments.

With a risk-free rate of zero, a nine-percent discount rate implies a default risk of 8.3%. But for this to qualify as an ODA loan, the interest rate must be below nine percent. Table A2 imagines the same loan, but with an interest rate of two percent, the payments for which are shown in column X.

Table A2. payment schedule and expected value, 2% loan to LIC

	X	Y	Z
year	schedule (2%)	*probability*	expected
1	6.0	*0.92*	5.5
2	6.0	*0.84*	5.1
3	6.0	*0.77*	4.6
4	6.0	*0.71*	4.3
5	6.0	*0.65*	3.9
6	29.1	*0.60*	17.3
7	28.6	*0.55*	15.7
8	28.2	*0.50*	14.1
9	27.7	*0.46*	12.8
10	27.2	*0.42*	11.5
11	26.8	*0.39*	10.4
12	26.3	*0.36*	9.4
13	25.8	*0.33*	8.4
14	25.4	*0.30*	7.6
15	24.9	*0.27*	6.8
16	24.5	*0.25*	6.2
17	24.0	*0.23*	5.5
18	23.5	*0.21*	5.0
Total	372		154

Although the payments are lower because the loan is concessional, we are still assuming that this loan is to an LDC with a benchmark rate specified by the DAC of 9 percent, implying the same default risk as above (i.e. 8.3 percent). So, the probabilities shown in column Y are the same as in column C in table 1. As before, the next column calculates the expected value of these payments, and discounts these to the present value at the risk-free rate, i.e. zero.

The NPV of column Z is 154. This is the expected value of payments to be made on a loan with this structure with a two percent interest rate. Subtracting this from the face value of

the loan, gives the **grant equivalent of 146 (300-154)**. This is the ODA recorded in year zero. This presentation is an oversimplification, but nevertheless illustrates the logic behind the discount rates.

Debt relief under the new system

Having outlined how loans are scored, we now explore what happens when they go bad. Essentially, even after having received substantial repayments, donors can still record roughly the same amount of ODA as they would have if the original disbursement was a grant.

Imagine that the loan referred to above - at 2 percent – was forgiven just before the payment in the eleventh year (which is therefore not discounted). This is shown in table A3, along with the original probability, and the cumulative payments already made.

Table A3. Debt relief on new ODA loans, default immediately before year 11 payment

year	schedule (2%)	*probability at y0*	cumulative payments	expected future payments
1	6.0	*0.92*	6.0	
2	6.0	*0.84*	12.0	
3	6.0	*0.77*	18.0	
4	6.0	*0.71*	24.0	
5	6.0	*0.65*	30.0	
6	29.1	*0.60*	59.1	
7	28.6	*0.55*	87.7	
8	28.2	*0.50*	115.8	
9	27.7	*0.46*	143.5	
10	27.2	*0.42*	**171**	
11	26.8	*0.39*		26.8
12	26.3	*0.36*		24.1
13	25.8	*0.33*		21.8
14	25.4	*0.30*		19.6
15	24.9	*0.27*		17.7
16	24.5	*0.25*		15.9
17	24.0	*0.23*		14.3
18	23.5	*0.21*		12.9
	372		**ODA recorded:**	**153**
			ODA recorded year 0	**146**
			Total ODA recorded:	**299**

Summarising the above, it is clear how generous this way of scoring debt relief is to donors. The total value of ODA recorded is roughly the same as if the loan had actually been a grant.

But not only has the donor already received more than half the face value of the original loan back in payments already, it has received ***more than it implicitly expected to when issuing the loan*** (as long as one assumes a risk-free rate of zero, although the same is possible under different risk-free rates). Compare the cumulative payments from table A3 (171), with the net present value of column Z in table 2 (154). Using the OECD's 9 percent discount rate, the loan had an expected value to the donor of 154, and the implicit odds of receiving payments after year 8 were less than 50:50. In the event, the donor received 171, which is 17 more than expected. Rather than adding more ODA to account for relief, one could argue that the donor should report 17 of negative ODA, since it received that much more than its previous ODA reporting implied that it expected.

Appendix 2. Equivalent formulation of new rule for ODA loans

In this paper, the new method has been described as the net present value of the difference between the new and old payment schedules (subject to the ceiling). However, the OECD presents it in a different, but (usually) mathematically equivalent way. Ignoring the ceiling, the new ODA scored on a forgiven ODA loan is equal to:

1) $$new\ ODA = \sum_{t=c}^{T} \frac{R_t}{(1+d)^{t-c}}$$

Where T is the final period of the loan (i.e. equal to the loan duration) and c refers to the current period, and R refers to the repayment due. So for example, if the 18 year loan described in this report defaulted in year 7, the new ODA recorded would be the repayment due in year 7 (R_t) plus the repayment due in year 8 discounted by one period ($R_{t+1} / (1+d)$), plus the repayment due in year 9 discounted two periods ($R_{t+2} / (1+d)^2$) and so on.

For the alternative method, compare this to the calculation of the original grant equivalent (GE) which is the difference between the face value (FV) and net present value of future payments:

$$GE = FV - \sum_{t=1}^{T} \frac{R_t}{(1+d)^t}$$

The second term can be split into repayments that are eventually paid (R_t) and those that are eventually written off (R_t^*) following a default just before the repayment in year **c**:

$$GE = FV - \sum_{t=1}^{c-1} \frac{R_t}{(1+d)^t} - \sum_{t=c}^{T} \frac{R_t^*}{(1+d)^t}$$

This is all expressed in "year 0 values". In order to express in the value of money in the year of treatment, the above expression is "inflated" using the DAC discount rates, i.e. by multiplying by $(1+d)^c$:

$$GE(1+d)^c = FV(1+d)^c - \sum_{t=1}^{c-1} (1+d)^{c-t} - \sum_{t=c}^{T} \frac{R_t^*}{(1+d)^{t-c}}$$

The final term is equal to the net present value of the (forgiven) future payments evaluated at the year of treatment and using the DAC discount rates. Therefore, rearranging, the value of ODA recorded (again, ignoring the ceiling) can also be written as:

2) $$new\ ODA = FV(1+d)^c - GE(1+d)^c - \sum_{t=1}^{c-1}(1+d)^{c-t}$$

Although the new rules do refer to formula 1), for the main presentation of their examples, they use the equivalent formula 2). The formula may appear strange, given that the original face value and grant equivalent are inflated by a discount rate which takes into account risk, and there is no risk associated with payments already made. If treatment occurs before any default, this is unimportant given the mathematical equivalence to formula 1). However, in cases where the loan is in arrears (for example, case 7 in the new rules, or example 5 in section 2 of this paper) it becomes significant, as the value of payments in arrears get inflated to the year in which relief occurs. In other words, ODA scored for relief on a loan with no arrears can be calculated in a completely "forward-looking" way, for which risk-adjusted rates are appropriate at least in theory. ODA scored for loans in arrears on the other hand, depend at least in part on inflating values from years in the past: if there is one year's worth of principal in arrears, then this will be inflated to the year of default by the discount rate. This means that the amount outstanding on the loan gets inflated by a high, fixed discount rate from the year of default to the year of treatment. As shown in example 5 in this paper, it can lead to more being counted as forgiven than is owed.

Appendix 3. Comparison between old and new rules

The new rules provide worked examples of how ODA would be scored for debt relief under 10 different scenarios. However, at no point do they make a comparison with the old rules for recording loans and debt relief. Such a comparison would be helpful for those seeking to understand the implications of the changes, and so this appendix seeks to fill this gap.

Table A4 sets out the amount of ODA recorded under the 10 scenarios under both the new rules, and our estimate of the ODA reportable under the old rules. Any issues arising from the transition are ignored, i.e. for the new rules, it is assumed that loans were entirely disbursed after 2018. The terms and recipient of the loan are assumed to be exactly the same as in the worked examples provided.

- For cases 1 to 6, the example is for a 2 percent loan of 300 to an LDC, with a duration and grace period of 18 and 6 years, respectively.
- For case 7, the example is for a 2 percent loan of 100 to an LMIC, with a duration and grace period of 18 and 6 years, respectively.
- For non-ODA cases (A-C) the loan is of 300 to an LDC, but other terms are not given (as they are not relevant for calculation of ODA under new rules).

In the majority of cases, the new rules appear more generous, often by large amounts. This is unsurprising given the issues discussed in this paper. In combination with the new system of valuing performing loans – which always awards positive ODA over the life of the loan as

opposed to zero under the old system – the new debt relief rules provide a powerful incentive for donors to favour loans over grants.

Table A4. Comparison of total ODA credit under old and new rules

	Old	New	Difference (new minus old)
ODA loans			
Case 1	277	300	23
Case 2	0	198	198
Case 3	289	300	11
Case 4	0	218	218
Case 5	0	237	237
Case 6	0	162	162
Case 7	101	100	-1
Non-ODA loans			
Case A	277	277	0
Case B	0	150	150
Case C	0	0	0