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National Responsibility and the Just Distribution of Debt Relief

by

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1. Introduction

The notion of responsibility has been important in the debate on debt relief. A central question in this debate has been whether or not highly indebted poor countries should be held responsible for their sovereign debt. Proponents of debt relief typically argue that this is not fair because many of these countries are highly indebted as a result of borrowing that the population did not consent to, while critics of debt relief argue that countries ought to be held responsible for their national policies including governmental borrowing.

In important respects the debate on debt relief mirrors the recent theoretical debate on distributive justice. In particular liberal egalitarian theories of justice have focused on the necessary conditions for responsibility and on what it means to hold agents responsible. In this paper we shall apply insights from the liberal egalitarian framework in order to analyse some features of recent debt relief programmes such as the Highly Indebted Poor Countries initiative (HIPC). Liberal egalitarian ethics has implications for many aspects of debt relief policy, including the question of what should be the overall level of debt relief. However, this paper is primarily engaged with implications for how debt relief, subject to some specified resources constraint, should be distributed among poor countries. In particular we are engaged with two questions. First, we address the question of what principles should guide the design of a just debt relief programme. Second, we ask whether existing debt programmes, in particular HIPC, adequately express these principles.

An important motivation for these questions is the observation that there is considerable variation in the per capita debt relief given to poor countries and we want to examine whether these differences can be justified. By way of illustration, consider Figure 1, which shows the debt relief per capita in HIPC for the 18 countries that we will study in more detail later in the paper. This variation follows from the fact that the objective of HIPC is to bring the debt of the participating countries down to a "sustainable" level. This objective may be justified by incentive considerations, but it is also important to study whether the resulting distribution of debt relief is fair. Furthermore, if the distribution of debt relief is judged to be unfair the next important question is whether donors adequately compensate by adjusting other aid flows. In order to do so we need study how debt relief is correlated with other types of foreign aid.

Figure 1 about here

These types of questions are equally relevant for more recent initiatives such as the proposed write off by the Group of Eight industrialized countries in 2005 of more than \$40 billion USD of debt owed by the poorest nations. Within such an initiative, it is important to ask to what extent the resulting distribution of debt relief and aid satisfy reasonable principles of justice.

The task of achieving a just and efficient distribution of debt relief, and a just and efficient distribution of aid more generally, raises a number of complex questions. First, one needs to formulate more precisely how to measure the overall situation of a nation. Second, one needs to take into account the effectiveness of a country in applying international aid; and finally, one needs to take into account incentive problems. All these issues have been extensively discussed in the development literature. It is by now well-established that a nation's per capita disposable income is far from a perfect measure of the status of a nation (see for example Sen (1999)), that a stronger focus on aid effectiveness may be in place (Burnside and Dollar (2000)), and that the possibility of debt relief in the future might induce countries to undertake excessive borrowing (Easterly (2002)). Nevertheless, in order to achieve a sharp focus on the question of what constitutes a fair distribution of debt relief and aid, we will narrow our framework and avoid a further detailed discussion of these issues. To simplify, we will use a nation's disposable income per capita as the relevant outcome, and we will assume initially that all recipient countries are equally effective in their use of international aid. Furthermore, we will not study the incentive effects of a fair distribution of debt relief and aid. In the implementation of any debt relief and aid programme, fairness considerations need to be balanced with incentive considerations, but in order to do so we first need to understand the nature of the fairness considerations.

The paper is organized as follows. In Section 2, we provide a brief overview of the liberal egalitarian framework and what implications this framework has for the design of a just debt relief programme. In Section 3, we describe the HIPC programme and highlight its implications for the distribution of debt relief and aid. Section 4 concludes with an evaluation of the HIPC programme and its distributional implications in the liberal egalitarian framework.

2. National responsibility and international equalization

We will analyze the design of debt relief programmes within a liberal egalitarian framework. This framework is particularly appealing in this context because it seeks to combine two fundamental moral intuitions: the ideal of equality and the ideal of agent freedom and responsibility. Both these ideals are expressed in the debt cancellation movement. For example the motto of the Jubilee campaign; "don't owe, won't pay" expresses the idea of responsibility, and at the same time the Jubilee idea of a "fresh start" appeals to considerations of equality. Similarly, the HIPC initiative emphasises that while donors and creditors can help low-income countries achieve debt sustainability, the primary responsibility lies with low-income countries themselves.

The contemporary focus on the relationship between these two ideals in the philosophical literature can be traced back to the seminal work of Rawls (1971), but the ideas of Rawls have been developed further, notably by Dworkin (1981), Arneson (1989), Cohen (1989), Roemer (1993, 1996, 1998), and Fleurbaey (1995a,b,c). The main achievement in the recent literature has been to provide a more precise analysis of how considerations of responsibility can be incorporated in egalitarian reasoning. The dominating modern egalitarian view is that agents, within a framework offering equal opportunities and respecting agent freedom, should be held responsible for their accomplishments.

Liberal egalitarians draw a distinction between what agents should be held responsibility for, so-called *responsibility factors*, and what they should not be held responsible for, so-called *non-responsibility factors*. A liberal egalitarian approach to justice can thus be seen as consisting of two parts. First, the liberal principle that inequalities due to differences in responsibility factors should be accepted, what we name the *principle of responsibility* and second, the egalitarian principle that morally relevant inequalities due to non-responsibility factors should be eliminated, what we name the *principle of equalization*. By way of illustration, in the context of income distribution, if we assume that talent and effort are the only factors that affect a person's pre-tax income and we hold people responsible for their effort but not for their talent, then a liberal egalitarian framework justifies inequalities in income due to differences in effort but not inequalities in income due to differences in talent.

In the context of sovereign states and given that we focus on inequalities in per capita disposable income, we may formulate the following versions of the two principles defining the liberal egalitarian framework.

The principle of international equalization: International inequalities in per capita disposable income due to differences in non-responsibility factors should be eliminated.

The principle of national responsibility: International inequalities in per capita disposable income due to differences in responsibility factors should be accepted.

We believe that these two principles are extremely plausible ideals. However, many standard approaches to debt relief violate one or both of these conditions. By way of illustration, consider the view that debt relief should be given to the countries that are most effective in their use of international aid. Given that a country's ability to use aid in an efficient manner partly depends on non-responsibility factors, such a policy would violate the principle of international equalization. Similarly, the view that debt relief always should be distributed equally among poor countries would violate the principle of national responsibility as long as we think that countries should be held responsible for some of the factors that affect their outcome.

It is, however, not obvious how these two principles should be interpreted and how they can be combined. In particular, the implications of the liberal egalitarian framework for considerations of international debt relief will depend on where we draw the cut between responsibility and non-responsibility factors.

2.1. What should nations be held responsible for?

According to international law, governments are generally responsible for repaying the sovereign debts acquired by their predecessors. It has been argued that so-called "odious debts" constitute an exception to this general rule. According to the "odious debts" doctrine, debts are odious and thus not legally enforceable claims when the following conditions hold i) the population has not consented to the transaction, ii) it has not benefited from it, and iii) the creditor was aware of the absence of consent and benefit (see Khalfan, King, and Thomas 2003 for details). However, this doctrine is controversial among international lawyers, and we will furthermore argue that from a normative point of view it is too strict. Within a liberal egalitarian framework, where the aim is to combine the ideal of equality and the ideal of agent freedom, the most common answer to the question of where we should draw the responsibility cut, is to say that agents should be held responsible for factors under their control, but not for factors outside their control.

A prominent interpretation of this position is that agents should only be held responsible for free and informed choices, which in an international context can be understood as saying that a population should only be held responsible for policy choices that they have given their informed consent to. Agents should in other words only be held responsible for those factors they are responsible for. This is fully in line with the first part of the odious debt definition. The liberal egalitarian approach, however, does not take into account the questions of benefit and creditor awareness when deciding whether a population should be held responsible for their sovereign debt. Certainly, whether a country has benefited from the sovereign debt will be of relevance for the further analysis of how to deal with illegitimate debt in the distribution of debt relief and aid, but this is an independent issue which should not be confused with the question of whether we should hold the country responsible for its sovereign debt. Similarly, within a liberal egalitarian framework, there is no basis for arguing that whether we hold a country responsible or not for sovereign debt should depend on the degree of creditor awareness of the situation in the country at the time when the debt was contracted. It may very well be the case that the degree of creditor awareness should affect the total amount of transfers from rich to poor countries and the distribution of the cost of a debt relief programme among rich countries, but these are again very different issues that should be clearly distinguished from the question of were to draw the responsibility cut.

It is also important to note that the liberal egalitarian approach to the responsibility cut is much broader than the odious debt approach. It does not confine itself only to considering whether countries should be held responsible for their sovereign debt but makes a more general classification that covers all factors that affect the situation of a country. Factors that fall paradigmatically into the non-responsibility category would be factors such as geographical or climatic conditions and colonial history. The paradigmatic example of factors that are viewed as non-responsibility factors would be national policies that the population has consented to in a well-functioning democracy.

A problem with the consent approach to responsibility in an international context is that there is often strong disagreement within a country about many policy decisions, including decisions on contracting sovereign debt. Even in well functioning democracies with informed voters there will typically be a minority – and sometimes even a majority - that disagrees with the national policy. Holding a country responsible for its policies will therefore, without other initiatives, necessarily involve holding individuals who disagree with these policies

responsible as well. This is clearly not an unproblematic implication, and we might think that this kind of group responsibility should be apportioned differently among the individuals in society (see Basu (2000) for a more general discussion of this issue). We will not pursue a further analysis of this problem here, and therefore in the following we will study the implications of the following liberal egalitarian view on responsibility: Nations (and the individuals within the nation) should be held responsible for national policies that are formulated and decided through democratic procedures, but not for factors outside democratic control.

2.2. Implications for debt relief

It may be tempting to think that all it takes to justify giving priority to debt relief within a liberal egalitarian framework is to establish that a country should not be held responsible for its sovereign debt. However, to see that this is a fallacy, consider the hypothetical situation where *all* factors affecting a country's situation, including the debt level, are viewed as non-responsibility factors. In this case, the principle of national responsibility is vacuous. Any inequality among the poor countries would be due to differences in non-responsibility factors, and the principle of international equalization would not provide any justification for a particular focus on the most indebted countries.

Most people would of course reject the extreme view that countries never should be held responsible for anything. Most people would also reject the view that countries are responsible for all factors that affect their situation except their debt level. However, this latter view is the only position that could justify a single-minded focus on indebtedness in the distribution of international aid. If other factors than debt levels also are viewed as non-responsibility factors, then justice requires that these factors, at least ideally, are taken into account when international aid or debt relief is distributed. Clearly the current debt relief initiatives are not about ideal justice. But even in a discussion of second-best policies, we need to have a clear picture of the ideal world in order to be in a position to evaluate the various policies available to us.

Consequently, we will argue that the debate on debt relief needs to move beyond a discussion of whether countries should be held responsible for their sovereign debt or not. We need a more careful and broader classification of which factors a country should be held responsible for and not. It is beyond the scope of this paper to outline a detailed proposal in this respect,

but we will show that the liberal egalitarian framework can be used to critically evaluate the fairness of debt relief programs such as HIPC.

Even though debt relief initiatives typically have been justified by the claim that countries are not responsible for their sovereign debt, it is interesting to note that the justification of a debt relief initiative does not necessarily have to rely on such a view. This point relates to a general confusion in the normative literature, where liberal egalitarianism is not clearly distinguished from what is often referred to as the luck egalitarian approach to justice (see for example Anderson, 1999). Luck egalitarians argue that agents should be held accountable for the actual consequences of their choices. In other words: if people have poor or otherwise inadequate lives because of decisions or actions for which they are responsible, then outsiders have no obligations of justice to intervene.

However, the luck egalitarian approach violates the principle of equalization (see Bossert (1995), Fleurbaey (1995b, c), and Bossert and Fleurbaey (1996)). To illustrate, consider a situation where the actual consequences of sovereign debt partly depend on factors we do not want to hold countries responsible for. In this situation, if we hold countries accountable for the actual consequences of their sovereign debt, then we will sometimes also hold them responsible for their non-responsibility factors. This will in turn violate the principle of international equalization where countries that are identical with respect to all responsibility factors might end up with different net disposable income per capita.

Consequently, given a liberal egalitarian framework, the principle of national responsibility has to be interpreted differently from what has been proposed in the luck egalitarian tradition. There is a substantial technical literature on how exactly to formulate the principle of responsibility within a liberal egalitarian framework (Cappelen and Tungodden (2003), Cappelen and Tungodden (2004) and Tungodden (2005)), but the general idea is that agents should be responsible for the *fair* consequences of their choices. Consequently, the liberal egalitarian framework may justify a focus on the most indebted countries even if they are held responsible for their sovereign debt, if the countries have not experienced the fair consequences of borrowing.

This last point shows the importance of clearly separating the question of whether a country should be held responsible for its sovereign debt and the question of whether a country has

benefited from it. The odious debt definition only justifies a focus on whether a country has benefited from its sovereign debt if the population did not consent to the transaction. But as the liberal egalitarian framework makes clear, to focus on the lack of benefit may be equally appropriate within a framework where we hold the countries responsible for their sovereign debt but acknowledge that the outcome of a debt transaction has been affected by factors beyond the country's control.

3. The distributional implications of HIPC

HIPC is the largest recent effort at providing debt relief by the international community and we want to address the question of whether this programme satisfies reasonable principles of justice such as the principle of international equalization and the principle of national responsibility. In order to do so we first describe the programme in more detail and then highlight its implications for the distribution of debt relief and aid.

The World Bank and the International Monetary Fund (IMF) launched HIPC in 1996. It was replaced by the enhanced HIPC in 1999. HIPC is a set of procedures for granting debt relief to poor countries with high debt levels that demonstrate a willingness to undertake reforms deemed necessary to reduce the likelihood of future debt problems as well as to redirect public spending towards social expenditure. More specifically, a requirement for eligibility is that the country is poor enough to qualify for assistance from the concessional facilities of the World Bank and the IMF. As regards the debt criteria, the net present value (NPV) of the public and publicly guaranteed (PPG) debt must in principle exceed 150% of the country's exports after the application of traditional debt relief, essentially granted by the bilateral official creditors organised in the so-called Paris Club. However, there is an additional opportunity for countries that are very open or generate a lot of government revenue; if their PPG-debt does not exceed the threshold with respect to exports but amounts to more than 250% of government revenue, they are eligible. The third requirement is that countries must establish and maintain track-records of policy reform with respect to both macroeconomic stability and poverty reduction.

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¹ For a description, see e.g. Andrews et al. (1999). For assessments and evaluations from various angles, see Jubilee Research (2003), Martin (2004), and World Bank (2003).

² The International Development Association (IDA) and the Poverty Reduction and Growth Facility (PRGF), respectively.

³ Very open is defined as having an export-to-GDP ratio of at least 30%; the government revenue threshold is 15% of GDP.

The HIPC was later replaced by the so-called enhanced HIPC were the debt criteria became less strict, allowing both more countries to qualify as well as greater relief for the participants. Moreover, the fix three year period between entering became flexible and performance-related. In combination with the provision of interim relief this brought faster debt relief. Finally, while performance initially was wholly focussed on macroeconomic stability and structural reforms, in line with the original goal of debt sustainability, it was broadened to include planning for poverty reduction and targets for social spending, thus adding a poverty dimension to the programme⁴

There are currently 28 HIPC countries, of which 18 have completed the procedures and exited from the mechanism.⁵ Although it is a small sample, we focus on the latter in the following since these are the countries for which the total committed debt relief is fully known. The countries in our sample are listed in Table 1 together with the month in which they entered (the decision point) and exited (the completion point) the mechanism. The economic data pertains to the year of each country's decision point, which is 2000 for 16 of the 18 countries. Our measure of debt relief is the present value at the decision point of the commitments made by creditors at the completion point. To be comparable, the other data must therefore also be for the year in which the countries were allowed into the programme. For ease of interpretation, we show the data in constant 2000 USD. However, as shown in the regressions below adjusting for purchasing power parity does make a difference even in a sample consisting of developing countries only. Most of the 18 countries are low-income countries. The only exceptions are Bolivia, Guyana, and Honduras. As might be seen, there is a tenfold difference in the GDP per capita of the poorest (Ethiopia) and richest (Bolivia) country in the sample. The ratio of the per capita PPG-debt of the most indebted country (Guyana) to the least indebted one (Ethiopia) is approximately 18 to 1.

Table 1 about here

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⁴ Prior to entering the programme, the country must now have a three-year track record of macroeconomic stability, as well as having prepared an interim Poverty Reduction Strategy Paper (PRSP) and cleared its arrears. To qualify for the full amount of debt relief potentially available, the country must have completed a PRSP, implemented it satisfactorily for a year, carried out structural and social reforms, and maintained macroeconomic stability under a PRGF-programme.

⁵ Since we completed the first draft of this paper, both the total number of HIPCs and the number of participants having reached the completion point have increased by one (Cameroon reached the completion point in May 2006). In addition, 11 countries are potentially eligible for the programme.

Going beyond descriptive statistics, the first observation to make is that there is a positive correlation (0.61) between per capita debt relief and per capita GDP as reported in Table 1.6 That is, richer participating countries get more relief in absolute terms. This could be a result of the fact that there also is a positive correlation between debt per capita and GDP per capita. It therefore interesting to check whether there is a negative correlation between income and debt relief controlling for debt levels, implying a conditional redistributive effect of HIPC. Table 2 reports the regressions, where we see that an additional 100 dollars in sovereign debt per capita corresponds to an increase in debt relief of about 60 dollars (regressions 1 and 2). This number is somewhat smaller if we adjust for purchasing power parity (regressions 3 and 4). However, it is still sizeable: the point estimate implies that about one half of any difference in debt is in effect forgiven. More interesting is the fact that contingent on debt levels there does not seem to be any statistically significant correlation between per capita debt relief and GDP per capita. Thus, the HIPC programme does not bring greater debt relief to poorer countries.

Table 2 about here

Debt relief is only one part of the total aid flow to poor countries. In order to evaluate the fairness of a debt relief program it is therefore necessary study how the distribution of debt relief interacts with the overall distribution of aid. Donors could for example adjust other aid flows to take account of the fact that the distribution of debt relief is not poverty-focussed. We construct a measure of per capita aid excluding debt relief by subtracting Debt Forgiveness Grants from the net Official Development Assistance (ODA) each country receives from all donors. In Table 3, we regress this variable on debt relief and GDP, both measured per capita. In the first two regressions there is a statistically significant effect of income on per capita aid. However, the effect is very small and it becomes insignificant when we use the PPP-data. This indicates that at best donors do not compensate relatively poor HIPC-countries for their poverty. Moreover, there is a strongly positive effect on other aid flows from debt relief

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⁶ This estimate is significant at the 1% level.

⁷ These two data series are taken from the online version of International Development Statistics, which is based on data collected by Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) from its member countries as well as other sources. While the subtraction of the principle and interest due in the decision point year that has been cancelled might also remove some debt relief that is unrelated to HIPC from our data, this is unlikely to matter given the scale of that programme.

⁸ That poorer countries get more aid is one of the main findings of the aid allocation literature, c.f. Alesina and Dollar (2000), Boone (1996), Cashel-Cordo and Craig (1997), and Chauvet (2002).

regardless of whether the data is adjusted for purchasing power or not. That is, countries that get less debt relief are not compensated by higher levels of conventional aid. To the contrary, they also receive smaller non-debt-related transfers. The effects are large. We see that another 100 dollars of debt relief yields an increase of 10-11 dollars in regular aid.⁹

Table 3 about here

The HIPC-countries are typically highly indebted because they have received a lot of aid in the form of loans, and the HIPC programme might therefore be construed as a retroactive adjustment of aid terms. However, for this to be an explanation of why high levels of debt relief go together with high current levels of other forms of aid, the allocation of aid must be fairly constant over time.¹⁰

4. Discussion

The HIPC programme does not bring greater debt relief to the worst of countries. If all factors affecting a countries net disposable income are non-responsibility factor then this would imply that the HIPC program is unfair. However, the ideal of liberal egalitarian ethics is not simply to equalize income, the ideal is to hold agents responsible for factors under their control, but not for factors outside their control. In this section we evaluate HIPC against the two principles of justice presented in section 2.

It is useful to distinguish three ways in which the HIPC violates principle of international equalization and the principle national responsibility. First, the criterion of debt sustainability introduces a critical level for the debt-over-exports ratio. The aim of the programme is to reduce the debt level for countries that are above this level, but not for countries below it. For any view on what factors a country should be held responsible for, this feature of HIPC violates either the principle of international equalization or the principle of national responsibility or both. The HIPC programme implies that countries are not held responsible for policies or institutions that increase their debt-to-exports ratio if this ratio already is above

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⁹ These results continue to hold even if one tries to correct for the fact that our measure of debt relief is not directly comparable to the flow concept of aid and that, as pointed out by Cohen (2000), the net present value of the debt relief exaggerates the gain to a country since presumably much of the debt would not have been serviced in any case.

¹⁰ Aid flows tend to be highly volatile and reflect current donor preferences. See Bulir and Hamann (2003) and Pallage and Robe (2001).

the critical level, but they are held fully responsible for such policies as long as they are below this level. There are obvious efficiency arguments against the use of such threshold values, but here we are only concerned with the unfairness it introduces. To the extent that debt and exports partly are determined by factors under national control and partly by factors outside it, the HIPC programme implies that countries are held responsible for too little if they are above the critical level and they are held responsible for too much if they are below this level. To illustrate this point, consider two equally poor countries that are on different sides of the debt sustainability threshold. The country that has a debt ratio above the sustainability level will not be held responsible for national policies or institutions that move it further away from debt sustainability. A country that has a debt ratio below the sustainability level will not be compensated for factor outside its control that moves it closer (but not beyond) the critical level of debt sustainability.

The specific debt sustainability criterion, i.e. the debt over exports ratio, is a second source of unfairness in the HIPC programme. Countries with a small export sector relative to the size of the economy will typically benefit from such a definition, but there seems to be no compelling normative reason why this should be the case. Factors that to a large extent are outside a countries control such as its population and its geographic size will typically affect how large the export sector is compared to the size of the economy. Countries with a larger export sector relative to their economy will thus be held responsible for factors outside their control. This problem has partly been addressed by introducing other criteria allowing economies that have a high export-to-GDP ratio to be included in the programme. However, the general point is simply that this ratio does not capture all the relevant differences in a countries ability to sustain a given debt level.

Finally, the HIPC programme, and a single minded focus on debt relief more generally, can be seen as unfair because it contributes to a distribution of total aid that is unfair. The correlation between foreign aid and debt relief implies that different sources of poverty are treated very differently. Poverty that is due to sovereign debt is to a large extent eliminated while poverty that is due to other sources is to a large extent accepted. From a fairness point of view, taking the liberal egalitarian framework as the point of departure, this pattern can only be justified if one takes the extreme position that poor countries should be held fully responsible for all factors affecting their situation except for sovereign debt. While there are good arguments for why poor nations sometimes should not be held responsible for their

sovereign debt, it is hard to see why the same arguments should not also apply to many other factors that affect a country's net disposable income. If highly indebted poor countries are seen as not responsible for their sovereign debt, then it is unreasonable to hold the same countries responsible for factors such as geographical and climatic conditions or colonial history.

The fundamental moral intuition that motivates liberal egalitarian ethics is that agents should be responsible for factors under their control, but not for factors outsider their control. The two liberal egalitarian principles that capture this idea provide, as we have shown, a framework for critical analysis of how debt relief is distributed. It is beyond the scope of this paper to answer the question of how a debt relief program should be designed so that it would satisfy both these principles. It should, however, be pointed out that the answer to this question would depend critically on a careful analysis of what factors nations should be held responsible for and what factors they should not be held responsible for. If no factors are viewed as responsibility factors then we should simply try to equalize the effect of non-responsibility factors by giving debt relief and other types of aid to the worst-off countries. More realistically, we would want to hold even poor nations responsible for some factors, for example certain national policies and institutions. The challenge is then to ensure they are only held responsible for these factors and not also for factors outside national control.

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Tables and Figures

 Table 1: Decision Point Year Statistics for HIPC-Countries Having Reached the Completion Point

Country	Decision point	Completion point	GDP per capita	Aid per capita exclusive of debt relief	PPG-debt per capita	Per capita net present value of debt relief
Benin	Jul, 2000	Mar, 2003	362.4	33.5	231.7	42.6
Bolivia	Feb, 2000	Jun, 2001	1008.9	55.3	497.3	156.5
Burkina Faso	Jul, 2000	Apr, 2002	230.7	13.2	111.8	49.1
Ethiopia	Nov, 2001	Apr, 2004	99.0	16.4	82.6	30.1
Ghana	Feb, 2002	Jul, 2004	303.4	24.5	290.5	107.7
Guyana	Nov, 2000	Dec, 2003	939.0	111.9	1488.0	778.7
Honduras	Jun, 2000	April 2005	921.6	64.7	684.6	86.1
Madagascar	Dec, 2000	Oct, 2004	249.8	19.2	276.7	53.9
Mali	Sep, 2000	Mar, 2003	223.5	23.5	246.4	49.7
Mauritania	Feb, 2000	Jun, 2002	355.2	72.4	809.8	235.2
Mozambique	Apr, 2000	Sep, 2001	208.3	38.0	256.9	114.4
Nicaragua	Dec, 2000	Jan, 2004	778.8	109.3	1083.1	652.3
Niger	Dec, 2000	Apr, 2004	167.4	17.9	135.8	61.8
Rwanda	Dec, 2000	Apr, 2005	234.9	41.2	149.0	90.3
Senegal	Jun, 2000	Apr, 2004	458.9	38.4	335.0	51.2
Tanzania	Apr, 2000	Nov, 2001	269.4	23.8	177.7	60.1
Uganda	Feb, 2000	May 2000	253.3	31.2	131.2	43.1
Zambia	Dec, 2000	Apr, 2005	327.5	62.0	450.0	252.8
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Notes: All data in constant 2000 USD.

Sources: Own calculations based on data from World Bank World Development Indicators on CD-rom 2005, OECD International Development Statistics Online, and IMF and IDA (2005).

Table 2: Regressions for Debt Relief per Capita

	1	2	3	4
Debt per	0.61***	0. 61***	0.52***	0.52***
capita	(0.08)	(0.11)	(0.09)	(0.15)
GDP per	-0.17	-0. 17	0.01	0.01
capita	(0.11)	(0.15)	(0.15)	(0.23)
Constant	-23.60	-23.60	-196.19	-196.19
	(33.80)	(27.32)	(143.73)	(147.15)
\mathbb{R}^2	0.87	0.87	0.90	0.90
No. Obs	18	18	18	18

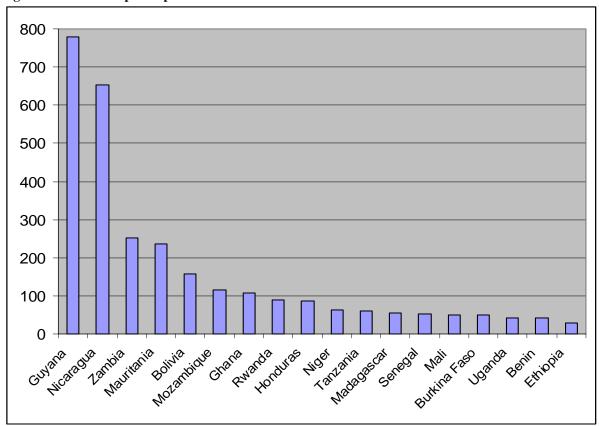
Notes: Regressions 1-2 are based on data in constant USD. Regressions 3-4 are based on data adjusted for purchasing power parity. Regressions 2 and 4 control for heteroscedasticity. Standard errors in parenthesis (robust standard errors in regressions 2 and 4). *** means that coefficient is significant at the 1% level.

Table 3: Regressions for per Capita Aid excluding Debt Relief

	1	2	3	4
Debt relief per capita	0.10***	0.10***	0.11***	0.11***
	(0.02)	(0.02)	(0.02)	(0.02)
GDP per capita	0.03***	0.03***	0.02	0.02
	(0.01)	(0.01)	(0.02)	(0.01)
Constant	14.36***	14.36***	65.62**	65.62***
	(4.34)	(4.16)	(22.96)	(19.74)
R^2	0.89	0.89	0.88	0.88
Number of observations	18	18	18	18

Notes: Regressions 1-2 are based on data in constant USD. Regressions 3-4 are based on data adjusted for purchasing power parity. Standard errors in parenthesis (robust standard errors in regressions 2 and 4). *** means that coefficient is significant at the 1% level; ** at the 5% level.

Figure 1: Debt Relief per Capita in HIPC in constant 2000 USD



Source: Authors' own calculations.

Data appendix

The source for most of the data is the World Bank's World Development Indicators on CD-ROM 2005. The exceptions are the aid data, which is taken from OECD's International Development Statistics Online, and the data on the net present value of committed debt relief to the HIPC-countries that have reached the completion point, which is from Table 1 in IMF and IDA (2005). As the net present values of debt relief are in terms of the decision point year only, we use data from that year for the other variables too. Where necessary, the raw data has been converted into per capita values using population data from World Development Indicators on CD-ROM 2005. Data in current USD has been converted into purchasing power parity (PPP) values by using the ratio of the PPP conversion factor to the official exchange rate. Aid excluding debt relief is calculated by subtracting the item "Debt Forgiveness Grants" from the flows of net Official Development Assistance (ODA).

Table A1: Summary Statistics for the PPP-data

Variable	Obs	Mean	Std. Dev.	Min	Max
Population (mill.)	18	14. 8	15.0	759 000	65.8
GDP	18	1495.8	978.6	516.6	4043.0
Total debt	18	1943.6	2003.8	408.8	7792.0
PPG-debt	18	1600.4	1638.0	340.8	6407.2
Net present value of debt relief	18	647.9	905.6	114.3	3352.8
Aid excluding debt relief	18	171.3	126.6	45.7	481.7
Total aid	18	187.5	148.0	48.5	565.5
Debt relief share	18	36.0	15.3	12.6	60.6

Note: Per capita values.