# MDG-Consistent Debt Sustainability: How to Ease the Tension between Achieving the MDGs and Maintaining Debt Sustainability 

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#### Abstract

Due to concerns by low-income countries that the Bretton Woods institutions' new debt sustainability framework may lock them into a so-called "low debt - low growth" scenario, the United Nations has called for suggestions for a more MDG-consistent debt sustainability concept. This paper makes suggestions for such a debt sustainability concept by taking progress with achieving the MDGs into account when determining debt ceilings. The proposed new debt sustainability indicators are examples for applying such a new debt sustainability concept for countries that have broadly achieved debt sustainability. The new debt sustainability concept does not apply to countries still facing a debt overhang as these countries need debt relief before any considerations can be made how to increase these countries' debt financing. The paper therefore also reviews alternative approaches to lower these countries' debt service payments.


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## I. Introduction

In spring 2005, the International Monetary Fund (IMF) and World Bank implemented a new debt sustainability framework for low-income countries, which seeks to ease the debt sustainability challenge by providing guidance on new lending to low-income countries whose main source of financing are official loans. The framework has been developed with the intention to better monitor and prevent the accumulation of unsustainable debt and will guide the grant allocation and lending decisions of the International Development Association (IDA) by providing a more systematic basis for analyzing debt sustainability prospects, including individual countries' current and prospective ability to service debt. By providing guidance to both lenders and borrowers on new lending/borrowing decisions the new framework intends to help low-income countries achieve their development objectives while maintaining sustainable levels of debt.

Despite the good intentions, there have been concerns by low-income countries that this new framework will lock them into a so-called 'low debt - low growth' scenario, which implies that attaining the Millennium Development Goals (MDGs) will become unlikely unless there is a substantial increase in long-term grant resources. For most least developed countries, there is indeed an inherent tension between (a) debt-financing national development strategies to achieve the MDGs and (b) maintaining debt sustainability. The concerns to be locked into a 'low debt low growth' scenario have been aggravated by the seemingly emerging consensus among the key donors that MDRI-eligible countries are not supposed to accumulate new debt in the near future, even though their debt levels will in most cases be far below the new framework's thresholds.

This paper introduces a new debt sustainability concept that would allow MDRI-eligible countries to increase their debt-financing while broadly remaining debt sustainable. Three important points need to be stressed from the very beginning to avoid any misunderstanding about this new debt sustainability concept.

- First, considering the fact that the poorest countries will remain to have large portions of their population in poverty for decades to come, even if they do succeed in halving the proportion of people living on less than a dollar-a-day from 1990 to 2015, the applicability of any debt sustainability concept for such countries is doubtful as these countries will continue to have more urgent development expenditures than making any debt service payments. Hence, while the comprehensive adoption of the so-called human development approach of debt sustainability (i.e., the complete debt cancellation for most low-income countries) followed by a grant-financing of required MDG-expenditures would be the first-best solution as it would eliminate these countries' debt, the paper recognizes that current political constraints in donor countries for the needed increase in grant-financing do not seem to make this first-best solution feasible. Similarly, as will be explained in the next section, the options for other non-debt financing also remain limited.
- Second, it is impossible to increase the debt-financing of national development strategies without also increasing a country's indebtedness. However, it is possible to define new debt sustainability criteria for MDRI-eligible countries that justify higher debt levels (traditionally defined). This paper introduces such a new debt sustainability concept for MDRI-eligible countries and makes specific examples for illustrative purposes. The proposed debt sustainability concept is based on the premise that low-income countries
that make progress with achieving the MDGs are typically more debt sustainable than countries that do not make progress. However, the verification of this premise as well as the determination of the new debt sustainability limits would require some empirical verification.
- Third, though the combination of HIPC debt relief, additional post-HIPC Paris Club debt relief, and the Multilateral Debt Relief Initiative (MDRI) have more than removed the external debt overhang for nearly all MDRI-eligible countries, many poor, non-MDRIeligible countries continue to face a debt overhang. As will be explained in more details below, the proposed new debt sustainability concept should not be applied to determine any amount of debt relief to countries that continue to face unsustainable debt.

The paper is structured into four sections and two appendices. Following this introductory section, the second section provides some background by summarizing the notion of fiscal space and by examining the perspective of financing MDG-based national development strategies through resources freed-up by recent debt relief initiatives. The third section proposes and illustrates the new debt sustainability concept: an MDG-consistent concept that helps to ease the tension between (a) debt-financing national development strategies to achieve the MDGs and (b) maintaining debt sustainability. The last section closes with some conclusions and recommendations. Appendix I summarizes the evolution of the debt sustainability concept and reviews some of the debt sustainability criteria currently used, especially within international initiatives. Appendix II summarizes and reviews four possible solutions for dealing with the debt problems many low-income countries continue to face, especially those not eligible for recent debt relief initiatives.

## II. Fiscal Space and Debt Relief

A government can create fiscal space by (a) increasing revenues and/or receiving more grants, (b) reducing expenditures, or (c) borrowing from domestic and/or external sources. ${ }^{1}$ While there are some options government can undertake to increase revenues through increased domestic resource mobilization (see Culpeper and Kappagoda, 2006), the increase in grants is mostly determined by bilateral and multilateral donors. Governments can also cut expenditures that are not critical for achieving the MDGs (especially military expenditures) it seems unlikely that cuts in such expenditures will be sufficient to compensate for the increased expenditures that result from the required major scaling up in public investment. Hence, increased borrowing from domestic and/or external sources should remain an option for those countries that do not face a debt overhang. While domestic debt has the advantage of not carrying an exchange rate risk and may also be useful for building domestic capital markets, the non-concessionality of domestic debt make domestic debt a costly alternative to concessional external borrowing. Indeed, for many poor countries the recent accumulation of domestic debt has become more a problem than a solution. The suggestion to substitute external debt with domestic debt is obviously based on a flawed debt sustainability concept; a concept that typically excludes domestic debt. If including domestic debt in a country's debt sustainability analysis, the substitution of typically

[^1]concessional external debt with typically non-concessional domestic debt makes little sense. While an optimal strategy to create fiscal space would involve policy actions on all three fronts (revenues, expenditures, debt), this paper concentrates on the option available to low-debt countries to increase borrowing from external sources to achieve the MDGs. ${ }^{2}$

Concerns, especially by the IMF have been raised that increased borrowing may jeopardize the sustainability of the government's financial position and that increased aid inflows, even if provided via grants, can have negative macroeconomic implications. For example, Heller (2005) argued that "[f]oreign resource inflows, such as aid, may hurt a country's macroeconomic situation (for example, by raising its real exchange rate and thus reducing its international competitiveness) or cause excessive aid dependency, so that such inflows may need to be limited. A foreign-financed expansion of a specific sector (for example, education) may then imply limits on the magnitude of foreign resources available to other sectors." While there is no evidence that large aid inflows have caused a Dutch disease in low-income countries, ${ }^{3}$ there is a significant tension between achieving the MDGs and long-term debt sustainability if the fiscal space needed for the MDG investments is created through additional internal or external debt. In order to quantify the tension, we first look at the amount of additional financing needed to achieve the MDGs and then at the additional financing that can be expected from debt relief. The difference between the two is what might potentially be financed through additional debt.

## II.1. How Much Financing Will Be Needed to Achieve the MDGs?

While MDG costing exercises are currently ongoing in various countries, there is no perfect aggregate number available. The UK Commission for Africa (2005) estimated that the additional development expenditures needed to achieve the MDGs in Africa amounts to about US\$750 billion over the next ten years; hence, the additional annual development expenditure amount to about US $\$ 75$ billion. ${ }^{4}$ The Report of the UN Millennium Project (2005) has estimated that by 2006 global ODA needs to reach $\$ 135$ billion, up from $\$ 65$ billion in 2002 and $\$ 69$ billion in 2003. ${ }^{5}$ Significant commitments for increased aid have been made at the G8 Summit in Gleneagles in July 2005. The G8 leaders agreed to double aid for Africa by 2010, which was estimated to increase aid for all developing countries by around US\$50 billion per year by 2010. There has been no indication if this increase in aid will be provided through grants or loans, or what the split will be. If provided through loans, the long-term debt sustainability of many developing countries is likely to be threatened if using the currently used debt sustainability indicators. ${ }^{6}$

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## II.2. How Much Financing Can Be Expected from Debt Relief?

There have been various stages and initiatives for debt relief, starting with traditional Paris Club debt relief in the 1980s (of which much was in the form of debt rescheduling), HIPC debt relief (of which much was legalizing debt relief that was anyway not paid previously), and the MDRI (which truly provided additional resources for poverty reduction investments). Based on preliminary estimates, the benefits of the MDRI to the first 18 completion point HIPCs over the next 10 years (2006-2015) amounts to US $\$ 8.5$ billion, of which US $\$ 7.2$ billion are estimated to benefit the first 14 African completion point HIPCs. Assuming that all African HIPCs would reach the HIPC completion point within the next 5 years, the total debt service savings from the MDRI to Africa are estimated to add up to about US\$10 billion during 2006-2015. Comparing these US\$10 billion in MDRI debt relief over the next 10 years to the additional development expenditures needed to achieve the MDGs in Africa (which are estimated to amount to about US $\$ 750$ billion over the next ten years) shows that the direct financial contribution of the MDRI remains small (a little over one percent!) to the actual additional financing needs of Africa. ${ }^{7}$ The small size of the direct financial impact can also be illustrated by comparing the average annual debt service savings of the next ten years (US\$1 billion) with the overall ODA provided in 2003 to sub Saharan Africa (US\$23.8 billion). Similarly, considering the goal to double aid to sub Saharan Africa by 2010, debt relief is likely to play only a small role. The contribution of debt relief is even less likely to be significant in other regions as there are less than ten non-African HIPCs (see IMF and IDA, 2006). See also Moss (2006) for similar conclusions on the impact of the MDRI.

## III. MDG-Consistent Debt Sustainability

Based on the discussion provided in Annex I, the minimum criteria for any useful debt sustainability indicators would be to be at least consistent with macroeconomic theory. Hence, fiscal debt sustainability should include all (domestic and external) public debt, while external debt sustainability indicators should include all (public and private) external debt. Overall debt sustainability indicators should include all forms of debt (public-domestic, public-external, and private-external). Hence, six debt sustainability indicators that are at least consistent with macroeconomic theory are:

- the ratio of debt service on all public debt to government revenues and grants;
- the ratio of debt service on all external debt to exports of goods and services;
- the ratio of debt service on all debt to gross national income (GNI);
- the ratio of the NPV public debt to government revenues and grants;
- the ratio of the NPV external debt to export of goods and services; and
- the ratio of NPV total debt to GNI.

[^3]However, beyond the inconsistency problem of currently used debt sustainability indicators, even debt sustainability indicators consistent with macroeconomic theory would suffer from not being linked to the MDGs. The IMF and World Bank's new debt sustainability approach has started to take policy performance and institutional factors into account; the direct linkage to MDG-based development strategies remains however non-existent.

## III.1. Logic behind the MDG-Consistent Debt Sustainability Concept

To understand the logic of the subsequently proposed MDG-consistent debt sustainability indicators, one must undertake a major change in the mindset of the purpose of defining debt sustainability indicators. The following debt sustainability indicators are not proposed to determine any amount of debt relief. Instead, their purpose is to determine how much more debt a country can take on for achieving the MDGs while broadly maintaining debt sustainability. The underlying rationale is to consider the achievements of MDGs as assets that allow a country to remain debt sustainable even though the traditional financial debt sustainability indicators increase beyond the currently acceptable limits.

Consistent with the rationale to consider the achievements of MDGs as assets that allow a country to remain debt sustainable, the new element of MDG-consistent debt sustainability indicator is to explicitly adjust traditional financial debt sustainability indicators for achievements of MDGs. For example, a country that has achieved universal primary education is likely more debt sustainable than a country in which only 50 percent of children go to school. However, instead of arbitrarily adjusting the existing debt sustainability threshold, the suggestion is to systematically adjust the debt sustainability indicators for the progress made in achieving MDGs. While the exact adjustments to be made remains open to debate and empirical verification of what levels are indeed sustainable, the principle of making the adjustment directly in the debt sustainability indicator (instead of allowing for a higher debt ratio) has the advantage of making debt distress levels more comparable across countries of different debt distress levels.

## III.2. Concrete Examples of the MDG-Consistent Debt Sustainability Concept

It is suggested that an explicit adjustment is made in the until now solely financial debt sustainability indicators, whereby the adjustment is to divide the debt indicators by an MDGindex. The MDG-index takes progress made with achievements of certain MDG-targets into account. Taking data constraints as well as analytical constraints into account, the index proposed here on a preliminary basis is a composite of the following four MDG targets:

- Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day (measured by its first indicator: proportion of population below $\$ 1$ (1993 PPP) per day).
- Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling (measured by its first indicator: net enrolment ratio in primary education).
- Target 5: Reduce by two thirds, between 1990 and 2015, the under-five mortality rate (measured by its first indicator: under-five mortality rate).
- Target 6. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (measured by its first indicator: maternal mortality ratio).

While other MDGs and MDG-targets could be added, we have limited the calculation of the proposed MDG-index to these four targets as they strike some balance between (a) reflecting the core of MDGs with (b) analytical simplicity and data constraints. The calculation of each subindex is simply the percentage to which each target has been achieved. For example, if a country had achieved all four targets, each sub-index would be 100. If a country has not made any progress in any of the four targets, each sub-index would be 0 . While more research would be useful to determine the relative importance of the MDG targets included in the MDG-index, it is currently proposed that each of these four sub-indices carry the same weight for the calculation of the overall MDG-index by simply adding them up. Though the simple addition of the four indictors might imply some bias due to the possible correlation of achieving one target with achieving another target, a preliminary review seems to indicate that such a bias is small as there are large differences across countries with achieving different MDG targets.

Hence, the overall MDG-index may be defined as follows:
MDG-index $=1+\left(\begin{array}{c}\text { Percentage } \\ \text { of Target } 1 \\ \text { achieved } / 100\end{array}+\begin{array}{c}\text { Percentage } \\ \text { of Target } 3 \\ \text { achieved } / 100\end{array}+\begin{array}{c}\text { Percentage } \\ \text { of Target } 5 \\ \text { achieved } / 100\end{array}+\begin{array}{c}\text { Percentage } \\ \text { of Target } 6 \\ \text { achieved } / 100\end{array}\right) / 8$

The first fixed addend of 1 has been put into the calculation formula to ensure that the MDGindex has a minimum of 1 ; the sum of the four elements reflecting the four MDG targets are divided by eight to ensure that the MDG-index has a maximum of 1.5 . Hence, the MDG-index takes a value of 1 if a country has made zero (or negative) ${ }^{8}$ progress in achieving the four MDGtargets; it takes a value of 1.5 if a country has fully achieved all four MDG-targets. As will be shown in more details below, a maximum value of 1.5 seems to be acceptable with some of the previous empirical work on sustainable debt levels, though more empirical work would be needed to determine the exact maximum value the MDG index should take on.

The MDG-consistent debt sustainability indicator is identical to that of traditional financial debt sustainability indicators for countries that have made zero progress in achieving the MDGs, while it lowers the value of the newly defined debt sustainability indicator subject to progress made in achieving the MDGs. In cases a country has fully achieved the MDGs, the newly defined debt sustainability indicators take on two-thirds of the value of the of traditional financial debt sustainability indicators. As will be shown in more details below, this allows such countries to significantly increase their debt-financing for MDG investments while remaining debt sustainable.

[^4]
## Table 1: Achievements on Four MDG Targets

|  | Bangladesh |  | Ghana |  |  | Tanzania |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015, the proportion of people whose income is less than one dollar a day (measured by its first indicator: proportion of population below $\$ 1$ (1993 PPP) per day). | First Last <br> available <br> available  <br> year with year with <br> data: 1992 data: 2000 <br> 35.9 36 | Achievement of Goal (in \%) 0 | First available year with data: 1992 $18.2$ | Last available year with data: 1999 $44.8$ | Achievement of Goal (in \%) 0 | First available year with data: 1991 $48.5$ | Last available year with data: 2000 $57.8$ | Achievement of Goal (in \%) 0 |
| Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling (measured by its first indicator: net enrolment ratio in primary education). | First <br> available Last <br> available <br> year with <br> year with <br> data: 1999 data: 2004 <br> 89.5 93.8 | Achievement of Goal (in \%) $41$ | First available year with data: 1991 $53.7$ | Last available year with data: 2005 <br> 65 | Achievement of Goal (in \%) $24$ | First available year with data: 1990 $49.4$ | Last available year with data: 2005 $91.4$ | Achievement of Goal (in \%) $83$ |
| Target 5: Reduce by two thirds, between 1990 and 2015, the underfive mortality rate (measured by its first indicator: under-five mortality rate). | First Last <br> available available <br> year with year with <br> data: 1990 data: 2004 <br> 149 77 | Achievement of Goal (in \%) 72 | First available year with data: 1990 122 | Last available year with data: 2004 $112$ | Achievement of Goal (in \%) 12 | First available year with data: 1990 161 | Last available year with data: 2004 126 | Achievement of Goal (in \%) 33 |
| Target 6. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (measured by its first indicator: maternal mortality ratio). | First Last available available year with year with data: 1990 data: 2000 850380 | Achievement of Goal (in \%) 83 | First available year with data: 1990 740 | Last available year with data: 2000 540 | Achievement of Goal (in \%) 41 | First available year with data: 1990 770 | Last available year with data: 2000 1500 | Achievement of Goal (in \%) 0 |

Source: Raw data downloaded from the United Nations website for the MDG indicators (http://mdgs.un.org/unsd/mdg/Default.aspx) on September 8, 2006. Achievement calculated based on first and last available years, not taking time period between years into account.

A complementary option would be to add indicators reflecting a country's increased payment capacities like increased public investment rates into the MDG index. While some of these more economic indicators have the advantage of being more consistent with traditionally defined financial debt sustainability indicators, it should be recognized that there is no guarantee that increased investments will produce the intended results as many internal and external factors can influence the outcome. Indeed, history has shown that both debtors and creditors are typically too optimistic in projecting payment capacities of low-income countries. Hence, the limitation of the MDG index to actual achievements (in terms of MDGs) is a more secure approach than projecting highly uncertain future payment capacities. Anyway, while more research would be useful to define economic indicators reflecting a country's increased payment capacities, it is likely the case that there is a high correlation between increased public investments and achieving the MDGs as long as public investments are targeted at achieving the MDGs. Hence, the use of such indicators reflecting a country's increased payment capacities is likely not that different than using indicators reflecting the actual achievements of MDGs. In any case, the important point is to adopt more MDG-consistent debt sustainability indicators that reflect that countries achieving the MDGs are less likely to face debt distress than countries that do not make progress with achieving the MDGs; the exact definition of the MDG index is subject to more discussion and research.

## III.3. Illustrations of the MDG-Consistent Debt Sustainability Concept

We use the latest available data on progress with achieving the MDGs for Bangladesh, Ghana, and Tanzania to illustrate the MDG-consistent debt sustainability. The first two columns for each country listed in Table 1 provide the raw data for the four MDG indicators. The third column calculates the percentage progress made for each of the four MDG indicators.

Table 2 shows how the MDG-index would change the NPV debt-to-government revenue ratio for the hypothetical case that each country is at the 250 percent limit of the traditionally defined NPV debt-to-government ratio. We use a hypothetical NPV debt-to-government ratio of 250 percent for each country simply to better illustrate the impact of progressing with achieving the MDGs.

| Table 2: MDG-Index and Debt Levels |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Bangladesh | Ghana | Tanzania |
| MDG-indx | 1.25 | 1.10 | 1.14 |
| Debt level <br> using the MDG-consistent <br> debt sustainability criterion <br> and an hypothtical NPV debt- <br> to-revenue ratio of 250 <br> percent. | 201 | 228 | 218 |

Source: Calculations based on MDG achievements provided in Table 1 and an hypothetical NPV debt-to-revenue ratio of 250 percent.

As Table 2 shows, within this three-countries example, Bangladesh is the country that would be allowed to go furthest with debt-financing MDG investments and poverty reduction expenditures as it has made the most progress in achieving the MDGs. Given that we assumed for comparison purpose that the NPV debt-to-government revenue ratio is 250 percent for each country, none of the countries would be able to accrue any further debt if using the traditional NPV debt-to-government ratio. However, using the MDG-consistent debt sustainability concept, each country will gain some additional fiscal space.

## III.4. Concrete Examples of MDG-Consistent Debt Sustainability Indicators

Given the problems related to the traditionally defined NPV public external debt-togovernment revenue ratio, a better debt sustainability indicator would be to divide the public debt service-to-government revenue plus grants ratio by the MDG index. That is, we would divide the ratio of debt service on all public debt to all government revenues plus grants as follows:

$$
\begin{gathered}
\text { MDG-consistent fiscal debt } \\
\text { service indicator }
\end{gathered}=\left(\frac{\text { debt service on all public debt }}{\text { government revenues plus grants }}\right) / \begin{aligned}
& \text { MDG } \\
& \text { index }
\end{aligned}
$$

It would make sense to also apply this MDG-consistent debt sustainability concept for an overall fiscal debt indicator, that is, to define an MDG consistent overall fiscal debt ratio as follows:


While more research will need to be undertaken to determine the sustainable levels of these two indicators, a rough approximation based on similar existing indicators and initiatives seem to indicate that levels of the MDG-consistent fiscal debt service indicator above 10 percent and levels of the MDG-consistent overall fiscal debt indicator above 250 percent seem inconsistent with least-developed countries' aim to use scarce resources for poverty reduction expenditures.

The MDG-consistent debt sustainability concept could also be applied for external debt service and overall external debt indicators. The MDG-consistent debt sustainability concept can then be applied to determine the upper threshold for fiscal and external debt sustainability as well as for the purpose of keeping post-completion point HIPCs at their current levels of indebtedness while still allowing these countries to continue borrowing as long as they make progress with achieving the MDGs.

## III.5. How Much Fiscal Space Would the New Concept Provide?

Given that the suggested MDG-index ranges from 1.0 (for the case of zero achievement) to 1.5 (for the case a country has fully achieved all four MDG-targets), a linear distribution from zero achievement in 1990 to the full achievement in 2015 would imply that the index increases by 0.02 every year from 1990 to 2015. Applying this annual increase in the MDG index to the MDG-consistent overall fiscal debt indicator and a country that (a) grows at 5 percent and (b) has a concessionality level
of 50 percent for its newly contracted debt, the country would be able to contract initially ${ }^{9}$ an additional nominal debt of about 10 percent of its GNI per year. In other words, for a country that has a revenue plus grants-to-GNI level of 20 percent and spends half of its total expenditures on achieving the MDGs, the example implies that the country could initially double its poverty reduction expenditures, and continue to double them every year compared to the base year.

## III.6. Limited Usefulness for Non-Progress Countries

It should be stressed that the newly defined MDG-consistent debt sustainability is of no use to countries that have made no progress in achieving the MDGs since 1990. There actually are some conflict and post-conflict countries that have regressed in terms of achieving the MDGs, even though there may be some doubt about the accuracy of the 1990 data. The MDG-consistent debt sustainability does not imply that countries that do not make progress with achieving the MDGs have no need for additional developmental resources. Such countries are likely to have very high needs for debt-financing, the problem however is that there is little justification for increasing the indebtedness (traditionally defined) of such countries as any increase in debt-financing will likely be ineffective. One critical mandate for such countries would be to first improve their institutions and policies and to finance major development initiatives through grants and cuts in non-essential expenditures (like for example military expenditures).

One partial solution for overcoming the problem of post-conflict countries having very high needs for debt-financing while not being able to show progress with the MDGs that would justify higher debt levels (traditionally defined) could be to use the last conflict year (instead of 1990) as the base year for the calculation of the progress made with achieving the MDGs. For example, once Sudan has successfully resolved the Darfur crisis, it will first of all need a very substantial debt relief package in order to remove the huge debt overhang the country will face. After that, it would not need to wait with debt-financing new poverty-reducing expenditures until is has made up the deterioration in MDGs since 1990, but could start with debt-financing povertyreducing expenditures as soon as it makes progress compared to the year the crisis will have been resolved.

## IV. Conclusion and Recommendations

The HIPC initiative, additional post-HIPC Paris Club debt relief and the MDRI have left the world's poor countries at very different levels of indebtedness. Most of those that qualify for these debt relief initiatives will end up with far lower debt levels than those poor countries excluded from these initiatives. At the same time, even the debt relief to be provided under these initiatives will usually not provide sufficient resources to carry out the needed development strategies to reach the MDGs. Instead, the newly defined debt sustainability framework of the IMF and World Bank may lock these and other low-income countries into a 'low debt - low growth' scenario.

Being fully aware of the inherent tension between debt-financing national development strategies to achieve the MDGs and maintaining debt sustainability, the paper suggests a new MDG-consistent debt sustainability concept that would allow

[^5]countries to increase their debt-financing as long as they make progress towards achieving the MDGs. The main logic behind such an extension of the traditional debt sustainability concept is that countries progressing with achieving the MDGs are able to remain debt sustainable at higher debt ratios (traditionally defined) than countries that do not make progress with achieving the MDGs.

The newly suggested debt sustainability criterion is currently limited to progress with four MDG targets. The main reasons for this limitation are due to simplicity and data constraints. It is however easily possible to add or exchange MDG indicators to the newly suggested MDG-consistent debt sustainability criterion as more data on progress with MDG targets becomes available. The exact definition of the suggested criterion is also subject to debate and further research. The important point is that the suggested concept of MDG consistent debt sustainability indicators is more consistent with reaching the MDGs than the currently existing debt sustainability indicators. Yet, it would be important to undertake more research on the exact definition of such alternatively defined debt sustainability indicators. Such additional research would also be useful to convince a possible skeptical audience, including domestic and foreign investors, about the superiority of the newly suggested indicators as it is crucial that the increase in traditionally defined debt levels be not interpreted as creating a debt overhang.

Once the international community has come to some agreement on the exact definition of such MDG-consistent debt sustainability indicators, it would make sense for the BWI and other multilateral development banks as well as bilateral donors to replace the current financial indicators with MDG-consistent debt sustainability indicators. It would also make sense to replace the currently purely financial debt sustainability indicator within the $8^{\text {th }}$ MDG with an MDG-consistent indicator, that is, to replace the third indicator of target 15 (Dealing Comprehensively with the Debt Problems of Developing Countries through National and International Measures in Order to Make Debt Sustainable in the Long Term) with an MDG-consistent debt service to government revenue ratio.

Looking at the fragile debt sustainability of many, mostly non-MDRI low income countries, it would be critical to extend the eligibility for the MDRI to all very poor countries, for example, all countries that have both GDP per capita levels below $\$ 300$ and an HPI- 1 above 40. The availability of natural resources could also be taken into account, as it should have implications for the long-term debt sustainability and debtfinancing options. In any case, more emphasis needs be put on the proper recording and spending of funds from resources in resource-rich countries, see Wurthmann (2006). Another suggestion is to adopt universally the human development approach, which is however also the most costly and thus most under-funded proposal. Hence, elements of other proposals may be appropriate until the international community has gotten its act together to provide the necessary resources to achieve the MDGs and until all poor countries are included in the MDRI. For example, a relatively low-cost suggestion would be to increase the HIPC eligibility (and thus the MDRI eligibility) by dropping the current threshold requirements for the HIPC Initiative's fiscal window. Another relatively low-cost suggestion would be to adopt debt service payment caps for a limited time to all countries with, for example, 30 percent or more of their population living below $\$ 1$ a day.

In addition to using alternative debt sustainability indicators, there also are some options to change MDG-based national development strategies. Depending on the binding debt indicator, these alternative development strategies will need to center on either export growth or fiscal policy improvements. Export growth will be critical if external debt indicators are the binding constraint; fiscal policy improvements, covering both the expenditure and the revenue side, will be critical if fiscal debt indicators are the binding constraints.

Finally, there might also be options to emphasis national development strategies that use more foreign direct investment (FDI) and less debt-financing instruments. Though there is some doubt about the usefulness of FDI (see for example, Kosack and Tobin (2006)), the majority view (see for example, Lipsey (2002)) remains that FDI is a useful addition if not alternative to debt-financing. As a recent UNCTAD (2005, pp. 82-83) report on 'Rethinking the Role of Foreign Direct Investment" has concluded:

FDI can play a constructive role [...] by transferring capital, skills and know -how. However, not only is attracting FDI not the same thing as development, but it seems clear from the findings in this report that whether it contributes to development depends on macroeconomic and structural conditions in the host economy. To date, and in the context of two decades of liberal reforms, FDI seems to have reinforced a pattern of adjustment that privileges external integration at the expense of internal integration, typified by the establishment of enclave economies. [...] A more development-conscious framework must be mindful of all the possible channels whereby FDI can impact, both positively and negatively, on domestic economic performance, including through the balance of payments, local financial markets, and market structure; it must provide the means to manage the pro-cyclical and herd-type tendencies of investors; and it must, above all, be situated in relation to the fundamental process of capital accumulation, structural change and technological upgrading which are the ultimate drivers of catch-up growth.

The last sentence in the quote above applies as much to debt-financing as to FDI, and replacing the currently solely financial debt sustainability concept with an MDGconsistent debt sustainability concept would be useful in this regard.

## Appendix I

## Problems with Current Debt Sustainability Concepts and Indicators

Debt sustainability is a term often used without a precise definition, neglecting the various dimensions and categories of debt. A country can face debt sustainability problems related to its (a) short-term and/or long-term debt, (b) internal and/or external debt, and (c) public and/or private debt. While many low-income countries face multiple debt problems, there are differences in magnitudes related to different levels of short-term versus long-term debt, internal versus external debt, and public versus private debt. This appendix summarizes the evolution of debt sustainability concepts and reviews then the appropriateness of debt sustainability indicators as they are currently used (a) in the HIPC Initiative, (b) the IMF's and World Bank's new debt sustainability framework, and (c) the United Nations’ MDGs. It reviews problems related to their definition, macroeconomic consistency, and adequacy.

## A-I.1. Summary of Evolution of Debt Sustainability Concepts

The determination of a country's debt sustainability is far from being an optimal concept or approach. Looking at the history of debt sustainability concepts, the initial approach-as determined in the early decades of the last century-was to compare the capacity to pay with the accumulation of debt, which then resulted in a static comparison of the growth rate with the interest rate, which is also known as the golden rule. While having the advantage of being simple, the limitations of such a comparison are obvious as such a simplistic rule ignores differences in debt service payments due to grace periods and differences in repayment terms, all factors that can have substantial implications for a country's debt sustainability. Hence, the simplistic comparison of a country's average growth rate with the debt's average interest rate was soon replaced by more dynamic debt sustainability concepts using an intertemporal budget constraint, and finally culminated in a debt sustainability concept looking at the repayment capacity and debt service payments over an infinite horizon, see for example Buiter (1995) and Cuddington (1997).

However, while such intertemporal debt sustainability concepts imply theoretical improvements, infinite horizon debt sustainability concepts have proven to be of little practical use in developing countries, mostly due to the difficulty to determine future payment capacities. Hence, practitioners preferred to use debt sustainability concepts that compare current debt levels with current indicators of payment capacity, like debt-to-GNI, debt-to-export, and debt-to-revenue ratios. Obviously, comparing current debt levels (either nominal or as the sum of discounted future debt service payments of currently disbursed and outstanding debt) with a current value of payment capacity is a poor indicator for predicting a country's future debt sustainability. Yet, this weak concept made nevertheless sense as there is no fixed value at which a country's debt is sustainable or unsustainable. Hence, sufficiently high current debt levels can be considered to provide some indication about a country's longer-term debt sustainability. Furthermore, given the immense uncertainties related to making predictions about future payment capacities, the theoretically poor concept of comparing the current NPV debt to current values of payment capacity may provide more accurate indications about a country's debt sustainability than trying to determine a countries future payment capacity.

## A-I.2. The HIPC Framework's Debt Sustainability Indicators

Compared to the repeated debt reschedulings under traditional debt relief mechanisms, the HIPC Initiative has been a break-through due to (1) the calculation of debt relief based on debt sustainability criteria and (2) the inclusion of debt relief from all creditors (even though it turned out that not all creditors have indeed participated). Yet, the same reasons that made the HIPC Initiative a break-through have also turned out to be some of the HIPC Initiative's main problems: (1) the use of inappropriate eligibility and debt sustainability criteria and (2) the HIPC Initiative has run into financing problems that are likely to lead to negative implications on equally poor, though non-HIPC eligible countries, see Sanford (2004). Furthermore, compared to actual debt service payments of the early 1990s, the HIPC Initiative has turned out to provide until recently no reduction in actual debt service payments.

Gunter (2002 and 2003) has provided a detailed analysis of the HIPC framework showing that in addition to using inappropriate eligibility criteria, ${ }^{10}$ the HIPC framework also uses inappropriate and arbitrary debt sustainability criteria. The HIPC framework defines the most indebted countries as those that continue to face unsustainable debt after the full use of traditional debt relief mechanisms, whereby it assumes that a country's external debt is sustainable if the NPV debt-to-export ratio is under 150 percent (which is called the export criterion). Only in cases where a country has both (a) an export-to-GDP ratio of at least 30 percent and (b) a government revenue-to-GDP ratio of at least 15 percent, the HIPC framework considers also a fiscal window, whereby it is assumed that a country's debt is sustainable if the NPV debt-to-government revenue ratio is under 250 percent. This definition implies three critical problems: First, given that most HIPCs are netimporters of goods and services, the debt-to-export criterion does not make much sense other than giving some rough indication of debt levels. Second, there is neither a theoretical nor an empirical foundation for the required thresholds for the HIPC framework's fiscal window. Third, there are other useful debt criteria (for example, debt-to-GNI levels) that have been neglected in the HIPC framework.

## A-I.3. The BWIs' New Debt Sustainability Framework

The Bretton Woods institutions' (BWIs') new debt sustainability framework for lowincome countries is a major step forward compared to the debt sustainability framework of the HIPC Initiative by recognizing, for example, the problematic of using country- and time-specific discount rates for the net present value (NPV) calculation of the debt. The most important step forward builds on the theoretical and empirical contribution by Kraay and Nehru (2003 and 2006) that the quality of policies and institutions of debtor countries is a major determinant for their capacity to carry debt. One of the key problems however is to use the World Bank's Country Policy and Institutional Assessment (CPIA) to measure the quality of policies and institutions of debtor countries. For more details and a critique of the BWI's new debt sustainability, see Kitabire and Karbanda (2006). Furthermore, while the framework recognizes the relevance of domestic debt, the framework continues to focus on the external debt-to-export criterion and is vague in taking domestic debt into account.

[^6]
## A-I.4. The Debt Sustainability Indicators of the $8^{\text {th }}$ MDG

The three debt sustainability indicators for target 15 ("Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term") of the $8^{\text {th }} \mathrm{MDG}$ are determined as:

- total number of countries that have reached the enhanced decision and completion points under the HIPC Initiative,
- debt relief committed under HIPC Initiative, and
- debt service as a percentage of exports of goods and services.

While the first two indicators are relatively clearly defined, the third indicator requires some clarifications. Looking at the more detailed definition (see also Box 1), the indicator is more accurately defined as "External Debt Service as a Percentage of Exports of Goods and Services (including factor income)". The bolded additions are important to emphasize as some countries have considerable amounts of domestic debt as well as substantial amounts of factor incomes, mostly in form of remittances. The exclusion of domestic debt is consistent with the definition of the HIPC debt sustainability indicators; the inclusion of factor income is a difference compared to the definition of the HIPC framework's external debt sustainability indicator. However, overall, the third debt sustainability indicator shares the same problem as the HIPC framework's external debt sustainability indicator and could therefore be improved.

## Box 1: Detailed Definition of the Debt Service Indicator of the MDGs

"Debt Service as a Percentage of Exports of Goods and Services" is the third indicator of target 15 (Dealing Comprehensively with the Debt Problems of Developing Countries through National and International Measures in Order to Make Debt Sustainable in the Long Term) within the $8^{\text {th }}$ MDG (Develop a Global Partnership for Development). The components of this third indicator are defined as follows.

## - External Debt Service:

Principal repayments and interest payments actually made to nonresidents in foreign currency, goods or services. "Long-term" refers to debt that has an original or extended maturity of more than one year.
Reference: World Bank. Global Development Finance, Vol. 2, Co untry Tables. Washington, D.C., annual. (p. xvii).

- Exports of Goods and Services:

Sales, barter, or gifts or grants of goods and services from resident to non -residents. However, where exports of goods are valued f.o.b., the costs of transportation and ins urance up to the border of the exporting country are included in exports of goods. Other transactions involving a mixture of goods and services, such as expenditures by foreign travellers in the domestic market, may all have to be recorded under services in the rest of the world account.
Reference: United Nations, Commission of the European Communities, International Monetary Fund, Organisation for Economic Cooperation and Development, and World Bank. System of National Accounts 1993 (SNA 1993). Series F, No. 2, Rev. 4 (United Nations publication Sales No. E.94.XVII.4). (paras. 14.88 and 14.90).

- Income (Balance of Payments):

Compensation of employees covers wages, salaries, and other benefits, in cash or in kind, and includes those of border, seasonal, and other nonresident workers (e.g., local staff of embassies). Investment income covers receipts and payments of income associated, respectively, with holdings of external financial assets by residents and with liabilities to nonresidents. Investment income consists of direct investment income, portfolio investment income, and other investment income.
Reference: International Monetary Fund. Balance of Payments Manual, Fifth Edition. Washington, D.C., 1993 (paras. 169-170).

Source: United Nations Statistics D ivision website: http://unstats.un.org/unsd/mi/mi_goals.asp

An additional point is that Target 15 is not limited to HIPCs (it was intended to cover all developing countries), but the first two indicators beneath it are limited to the HIPC subset. The HIPC scheme was meant to provide a permanent exit from unsustainable debt so the first indicator is relevant to that subset (even if the scheme has failed in this respect). Moreover, the second indicator - on aggregate debt relief committed - has no metric linking it to sustainability.

## Appendix II <br> Suggestions for Countries Still Facing a Debt Problem

While the 10 percent level of the MDG-consistent fiscal debt service indicator and the 250 percent level of the MDG-consistent overall fiscal debt indicator could also serve as maximum levels for a new debt reduction initiative that is based on all least developed countries' poverty-level instead of on the mostly income-based HIPC criterion, the provision of debt relief based on MDG-consistent debt indicators would imply that countries that have made more progress with achieving the MDGs would get less debt relief than countries that have made less progress. Hence, the definition of MDG-consistent debt indicators would not be fair for the determination of the amount of debt relief a country should get, especially as many countries have already benefited from initiatives that have not used MDG-consistent debt indicators.

Using more traditional approaches, there are four different suggestions to deal with countries that still face a debt problem. While many of such countries are non-HIPC and non-MDRI-eligible countries, the problems/delays some HIPCs face with reaching the enhanced HIPC decision and completion points makes them de facto non-HIPC countries for which additional solutions might be needed. The first suggestion useful for mostly non-HIPCs facing a debt problem is to make adjustments in the HIPC eligibility and debt sustainability criteria. A second suggestion would be to delink the eligibility for the MDRI from the HIPC eligibility. The third suggestion would be to establish debt service payment caps. The fourth suggestion would be to adopt the so-called human development approach to debt sustainability. The following four sub-sections present the most critical issues of each suggestion without discussing the various advantages and disadvantages of each suggestion. The four suggestions are not necessarily alternative solutions. For example, it would be possible to adopt the first three suggestions simultaneously.

## A-II.1. Adjustments to HIPC Eligibility Criteria

Having extended the sunset clause for HIPC debt relief for the fourth time in September 2004, the BWIs aimed at closing the HIPC Initiative to new entrants by binding the Initiative's eligibility criteria to the end-2004 data. Hence, in April 2006, the BWIs re-examined the list of countries that might be eligible for debt relief under the HIPC Initiative (see IMF and IDA (2006)). While a few countries were added to the previous list of HIPCs, there are 30 countries (see Table 3) that are both poorer (using the UNDP's human poverty index (HPI-1)) ${ }^{11}$ and more indebted (using the NPV debt-to-GNI ratio) ${ }^{12}$ than the least poor and least indebted eligible HIPCs. Please note that the debt data refers always to pre-MDRI levels.

Given the serious conceptional flaws in the HIPC framework's debt sustainability criteria, it would be useful to replace the current debt sustainability criteria with more fiscal sustainability-based debt criteria, particularly if debt relief is linked more closely to the achievement of the MDGs. This could partly be achieved through:

[^7]- eliminating the two threshold ratios for the applicability of the fiscal window (i.e., the requirements of having an export-to-GDP ratio of at least 30 percent and a government revenue-to-GDP ratio of at least 15 percent); and
- abolishing the inappropriate NPV debt-to-export criterion and concentrate instead on fiscal debt sustainability criteria and overall (GDP-based) debt sustainability criteria.

Table 3: Poverty and Indebtedness Levels of Countries not Eligible for HIPC and MDRI Debt Relief

| Country ${ }^{\text {a/ }}$ | HPI-1 | b/ |
| :--- | :---: | :---: |
| NPV debt-to-GNI ${ }^{\text {c/ }}$ |  |  |
| Algeria | 21.3 | 32 |
| Angola | 41.5 | 68 |
| Bangladesh | 44.1 | 26 |
| Belize | 16.7 | 109 |
| Cambodia | 41.3 | 68 |
| Cape Verde | 18.7 | 46 |
| Djibouti | 29.5 | 45 |
| Egypt | 30.9 | 32 |
| El Salvador | 15.9 | 54 |
| Guatemala | 22.9 | 23 |
| India | 31.3 | 18 |
| Indonesia | 17.8 | 61 |
| Kenya | 35.4 | 34 |
| Lesotho | 47.6 | 44 |
| Maldives | 16.6 | 42 |
| Mongolia | 18.5 | 86 |
| Morocco | 34.5 | 39 |
| Nigeria | 38.8 | 71 |
| Oman | 21.1 | 18 |
| Pakistan | 37.1 | 35 |
| Papau New Guinea | 40.5 | 66 |
| Philippines | 16.3 | 73 |
| South Africa | 30.9 | 17 |
| Swaziland | 52.9 | 27 |
| Tunisia | 18.3 | 79 |
| Vanuata | 24.7 | 35 |
| Viet Nam | 21.2 | 39 |
| Yemen | 40.3 | 37 |
| Zimbabwe | 45.9 | 33 |
| Memorandum Items: |  |  |
| a) |  |  |
| Least poor eligible HIPC: |  |  |
| Bolivia |  |  |
| Least indebted eligible HIPCs: |  |  |
| Burundi |  |  |
| Rwanda |  |  |
| botes and Data Sources: |  |  |
| a/ The list follows the HDR 2005 classification. The list excludes the three countries (Bhutan, |  |  |
| Lao PDR, and Sri Lanka) that technically meet the HIPC eligibility criteria at end-2004 but |  |  |
| have indicated that they do not wish to avail themselves of the Initiative. The list includes |  |  |
| countries which are considered to be not eligible though a final decision has not been made |  |  |
| due to marginal data inadequacies (Bangladesh and Myanmar). |  |  |
| b/ Human Poverty Index-1; see UNDP (2005). |  |  |
| Net Present Value of external public and publicly-owned debt-to-gross national income |  |  |
| (GNI); see World Bank (2006) |  |  |
|  |  |  |

## A-II.2. Delinking MDRI-Eligibility from HIPC-Eligibility

Proper adjustments to HIPC eligibility criteria could significantly increase the number of HIPCs, which would then also be eligible for debt relief under the MDRI. However, given the many remaining problems of the HIPC Initiative, it would also make sense to delink the eligibility for debt relief under the MDRI from the HIPC eligibility. While the debt levels of some HIPCs were already lower than those of equally poor non-HIPCs before the adoption of the MDRI, linking the MDRIeligibility to the HIPC eligibility raises serious equity issues, see Bird and Milne (2003), Killick (2004), and Gunter, Rahman and Wodon (2007). Hence, it would be important to base the eligibility for the MDRI based on resource needs to make the necessary investments to achieve the MDGs instead of the highly flawed HIPC eligibility criteria.

## A-II.3. Debt Service Payment Caps

One prominent proposal, especially in the United States (U.S.), is the suggestion that the debt service payments of the world's poorest countries should be limited to 10 percent ( 5 percent for countries experiencing major public health emergencies) of the revenue their governments receive from internal sources. The United States adopted legislation in May 2003 requiring the Administration to seek agreement with other countries to put these limits on HIPC debt payments into effect. Please see Box 2 for the record of U.S. legislative initiatives towards this goal.

While the U.S. legislation makes a distinction in the level of debt service payment caps of 5 percent (for countries suffering a public health crisis) and 10 percent (for countries not suffering a public health crisis), the subsequent analysis uses a uniform 10 percent external public debt service payment cap in order to reduce the distortions of such different payment caps for the analysis. Due to data gaps, the analysis also excludes debt service payments on domestic debt. As Table 4 shows, many HIPCs would not benefit from a 10 percent debt service payment cap as their external debt service was projected to be below 10 percent. The number of countries with debt service levels above 10 percent would however increase if we would include debt service on domestic debt. In any case, the fact that some HIPCs and many equally poor non-HIPCs continue to pay debt service in excess of 10 percent of their government revenues constitutes a challenge to these countries' poverty reduction focus.

Furthermore, a cap on debt payments would protect all poor countries (eligible for debt service payment caps) against deteriorations in the world economy as these countries' debt payment obligations would be adjusted to lower levels of government revenues. Likewise, without payment caps, many poor countries remain highly vulnerable to currency depreciations as external debt service payments are generally determined in hard currencies. The proponents of payment caps worry that, without some sort of mechanism to automatically reduce countries' debt payment obligations, many poor countries could find themselves in a situation where their debt burdens were unsustainable.

## Box 2: Legal Initiatives in the United States

The proposal to cap the debt payments of the HIPCs may have first appeared in a congressional context during the $106^{\text {th }}$ U.S. Congress in a bill (H.R. 1095) titled the "Debt Relief for Poverty Reduction Act of 1999." Introduced by Representatives Jim Leach and John LaFalce, the bill proposed that the net present value of the debt owed by HIPCs should be reduced to a level less than 150 percent the value of their annual exports and that the debt of HIPCs should be reduced to a level where "the amount of annual payments due on such publicly guaranteed debt [shall be] not more than 10 percent of the amount of annual revenue received by the government of the country from internal sources." a The U.S. House of Representatives Banking Committee reported the bill favorably on November 18, 1999. ${ }^{\text {b }}$ The bill was referred to the House International Relations Committee, which however took no action on it.

In 2002, Representative Christopher Smith proposed legislation (H.R. 4524), with six cosponsors, which again included limits on annual debt service of HIPCs and limited debt payments to 10 percent of the annual revenue the HIPCs received from internal sources. It also said that the debt payments of HIPCs experiencing a "severe public health crisis" should be capped at 5 percent of government internal revenue. The bill said that, in funding this plan, the international financial institutions shall "give priority" to using their own resources. A similar bill (S. 2210) was introduced to the U.S. Senate by Senator Joseph Biden and five cosponsors.

The Senate Foreign Relations Committee included the debt ceiling calculation and debt payment caps in S. 2525, its version of major legislation concerning HIV/AIDS, tuberculosis, and malaria, introduced by Senator John Kerry). The Committee also added that provision in H.R. 2069, legislation on the same topic adopted by the House (with no HIPC payments provisions) the previous December. ${ }^{\text {c }}$ The Senate approved that legislation on July 12, 2002, but no further action was taken before the close of the $107^{\text {th }}$ Congress.

In March 2003, Representatives Christopher Smith of New Jersey and Barney Franks of Massachusetts introduced a new bill (H.R. 1376) seeking to limit the HIPCs’ debt payments to 5 percent or 10 percent of government revenues. However, the bill also authorized the Administration to seek adoption of any further benchmark for limiting debt payments-in lieu of the 5 percent/ 10 percent caps-if it would yield substantially the same results.

In May 2003, the House and Senate passed and the President signed on May 27 a new bill, HR. 1298, the United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 (Public Law 108-25). This requires the Secretary of the Treasury to seek agreement with other major international financial institution (IFI) members on changes in the HIPC initiative. Enough debt should be forgiven to reduce debt payments within three years to no more than 150 percent of exports and the annual payment due on public and publicly guaranteed debt should be no more than 10 percent of a government's annual revenu e from internal sources ( 5 percent for countries suffering a public health crisis). It said that other benchmarks, such as a percentage of GNP, could be used if they would yield substantially equivalent results.

## Notes:

(a) Quoted from Section 3 of H.R. 1095, proposing a new Section 1623 of the International Financial Institutions Act, subsection (a)(5)(B).
(b) House Report 106-483, Part I.
(c) H.R. 2069 titles the "Global Access to HIV/AIDS Prevention, Awareness, Education, and Treatment Act of 2001." H. Rept 107-137, reported July 12, 2001; passed on December 11, 2001.

Table 4: Debt service savings based on a 10\% cap, 2003-2005

|  | (in millions of US\$) |  |  |  | (in percent of GDP) |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |  | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ |
| Benin | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Bolivia | 102.5 | 100.6 | 125.3 |  | 1.1 | 1.0 | 1.2 |
| Burkina Faso | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Cameroon | 53.9 | 49.3 | 30.9 |  | 0.5 | 0.5 | 0.3 |
| Chad | 18.2 | 5.1 | 0.0 |  | 1.0 | 0.3 | 0.0 |
| Congo, Dem. Rep. | 89.4 | 143.4 | 151.9 |  | 1.5 | 2.4 | 2.4 |
| Ethiopia | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Gambia, The | 9.7 | 5.0 | 5.6 |  | 2.1 | 1.0 | 1.1 |
| Ghana | 69.0 | 0.0 | 0.0 |  | 1.1 | 0.0 | 0.0 |
| Guinea | 50.9 | 38.4 | 24.0 |  | 1.5 | 1.1 | 0.7 |
| Guinea-Bissau | 0.9 | 1.5 | 0.0 |  | 0.4 | 0.6 | 0.0 |
| Guyana | 21.8 | 10.8 | 8.1 |  | 2.7 | 1.3 | 0.9 |
| Honduras | 97.3 | 50.1 | 40.8 |  | 1.3 | 0.6 | 0.5 |
| Madagascar | 2.1 | 15.0 | 7.8 |  | 0.0 | 0.3 | 0.1 |
| Malawi | 31.5 | 0.0 | 7.4 |  | 1.5 | 0.0 | 0.3 |
| Mali | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Mauritania | 21.5 | 26.1 | 25.0 |  | 1.8 | 2.1 | 1.9 |
| Mozambique | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Nicaragua | 49.8 | 20.8 | 26.1 |  | 2.0 | 0.8 | 1.0 |
| Niger | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Rwanda | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Sao Tome and Principe | 1.8 | 0.1 | 0.0 |  | 3.4 | 0.2 | 0.0 |
| Senegal | 36.3 | 21.6 | 9.1 |  | 0.7 | 0.4 | 0.2 |
| Sierra Leone | 3.6 | 18.6 | 6.5 |  | 0.4 | 2.0 | 0.7 |
| Tanzania | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Uganda | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 |
| Zambia | 118.4 | 151.4 | 133.9 | 2.8 | 3.4 | 2.9 |  |
| Sum of 27 HIPCs | $\mathbf{7 7 8 . 6}$ | $\mathbf{6 5 7 . 9}$ | $\mathbf{6 0 2 . 4}$ |  |  |  |  |
| Average of 27 HIPCs |  |  |  | $\mathbf{0 . 7}$ | $\mathbf{0 . 6}$ | $\mathbf{0 . 5}$ |  |

Source: Calculations by author based on World Bank Global Development Finance, 2003; whereby the 2003-05 GDP levels are calculated based on a uniform GDP growth rate of 5 percent per annum; data for debt service and debt service-to-government revenues are based on the 2003 HIPC Progress Report.

The proponents of debt service payment caps also believe that steps should be taken to put all poor countries on a more equal footing. Proponents of payment caps want limits on payments such that no poor country will need to spend a major share of its government budget on debt service. Others maintain, however, that the difference in debt service to government revenues can be attributed to differences in the level of government revenues. Critiques of payment caps therefore argue that a cap on debt service based on government revenue will benefit mostly countries whose
governments have the smallest flow of revenues (relative to GDP) drawn from domestic sources. For example, while Senegal was projected to pay nearly twice the amount Guinea was projected to pay on external debt service during 2003-05 (\$427 million versus $\$ 237$ million), Senegal was projected to save far less (during 2003-05) from a 10 percent-debt-service-cap than Guinea ( $\$ 67$ million versus $\$ 113$ million) as Senegal's government-to-GDP ratio was projected to be around 21 percent while that of Guinea was projected to be around 12 percent.

While examples like this one exist, the data does overall not support the critiques of payment caps. Among the 27 HIPCs that had reached at least the enhanced decision point by September 2003, two of the three HIPCs with the highest nominal debt service savings from a 10 percent-debt-service-payment-cap have high or medium levels of government revenues-to-GDP ratios (Bolivia: 19.7 percent and Zambia: 16.3 percent). While nominal debt service savings are not useful to compare among countries of very different economic sizes, looking at debt service savings as percent of GDP (see the second set of columns in Table 4) provides even less support to the critiques of payment caps as (a) Zambia (the HIPC with the highest percentage savings) has an average revenue-to-GDP ratio and (b) Guyana (the HIPC with the fourth highest percentage savings) has the second highest revenue-to-GDP ratio.

In any case, given the negative incentives such payment caps may have on a government's revenue collection, it might make sense to switch to payment caps defined (a) on historical values of government revenues or (b) in terms of GDP. Birdsall and Williamson (2002) suggest a debt service-to-GDP ratio of 2 percent in order to avoid rewarding low-revenue HIPCs. Yet, given that low government revenues are many times due to structural and historical reasons, it might make sense to give some consideration to the apparent differences in medium-term tax collection capacities.

The proposal to cap debt payments focuses on the share of government revenue received from internal sources. The proposal does not consider other sources of income poor countries may have to fund their debt service. As Table 5 shows, for many poor countries, the current inflow of grants is considerable in terms of internal revenues. Among the 27 HIPCs listed in Table 5, the percentage of grants (excluding technical cooperation grants) to revenues ranged from about 10 percent (Cameroon) to about 172 percent (Mozambique). Some of these grants were subsidizing the national budgets; others are funding off-budget programs, which are not included in the government financial data. Technical cooperation grants, which provide foreign expert help to the recipient country on an "in kind" basis, varied between 4.5 percent (Cameroon) to 83 percent (Sao Tome \& Principe) of government revenues.

It is suggested that the sum of (a) government revenues and (b) grants that are provided to a government for the purpose of reducing poverty is taken into account in the formula for capping debt service payments as such grants provide as much a source for poverty-reducing expenditures as government revenues. Looking only at internal revenues when adopting a ceiling on debt service payments could aggravate the already highly inequitable results of the HIPC Initiative and the MDRI.

Table 5: Grants to 27 HIPCs (1995-1997 average)

|  | Percent of reve | government nues | Percent | of GDP |
| :---: | :---: | :---: | :---: | :---: |
|  | Grants, excluding technical cooperation | Technical cooperation grants | Grants, excluding technical cooperation | Technical cooperation grants |
| Benin | 25.4 | 13.6 | 6.4 | 3.4 |
| Bolivia | 19.2 | 12.5 | 4.7 | 3.1 |
| Burkina Faso | 47.4 | 23.6 | 9.4 | 4.7 |
| Cameroon | 8.3 | 4.8 | 2.4 | 1.4 |
| Chad | 53.7 | 26.1 | 7.7 | 3.7 |
| Congo, Dem. Rep. | 21.4 | 10.2 | 2.4 | 1.2 |
| Ethiopia | 30.3 | 12.6 | 7.2 | 3.0 |
| Gambia, The | 40.2 | 19.5 | 6.2 | 3.0 |
| Ghana | 21.7 | 11.3 | 3.1 | 1.6 |
| Guinea | 44.1 | 16.9 | 4.6 | 1.8 |
| Guinea-Bissau | 122.4 | 101.4 | 21.1 | 17.5 |
| Guyana | 34.1 | 7.3 | 13.6 | 2.9 |
| Honduras | 7.1 | 6.6 | 2.3 | 2.2 |
| Madagascar | 60.0 | 23.4 | 9.0 | 3.5 |
| Malawi | 37.9 | 27.7 | 7.6 | 5.5 |
| Mali | 30.2 | 18.8 | 8.6 | 5.4 |
| Mauritania | 47.8 | 15.2 | 15.1 | 4.8 |
| Mozambique | 98.7 | 37.3 | 27.0 | 10.2 |
| Nicaragua | 60.9 | 19.5 | 24.6 | 7.9 |
| Niger | 62.7 | 33.6 | 9.3 | 5.0 |
| Rwanda | 228.4 | 46.4 | 33.7 | 6.8 |
| Sao Tome \& Principe | 143.2 | 128.2 | 49.6 | 44.4 |
| Senegal | 28.5 | 15.7 | 7.0 | 3.9 |
| Sierra Leone | 60.4 | 20.1 | 9.2 | 3.1 |
| Tanzania | 36.8 | 20.9 | 6.9 | 3.9 |
| Uganda | 44.8 | 19.0 | 5.9 | 2.5 |
| Zambia | 43.0 | 21.8 | 8.9 | 4.5 |
| Source: World Bank, Global Development Finance. |  |  |  |  |

## A-II.4. Human Development Approach to Debt Sustainability

The human development approach to debt relief has originally been suggested by Northover, Joyner and Woodward at CAFOD in 1998. ${ }^{13}$ It argues that most of the world's poorest countries have an unsustainable debt as countries with a large proportion of their population living in absolute poverty have a more urgent need to spend their resources on poverty reduction than on debt service. Given the large amounts of resources needed to achieve the MDGs, the human development approach to debt sustainability is generally associated with the suggestion to forgive all remaining HIPC debt, see especially Sachs (2002).

A detailed proposal along these lines has been made by Berlage, Cassimon, Dreze, and Reding (2004). Recognizing that primary needs of human development are not met in many poor developing countries and that the HIPC Initiative is not sufficient to

[^8]resolve the debt overhang problem, they suggest a 15 -year program that is targeted at implementing the MDGs while eliminating all of the outstanding debt for a set of 49 poor countries. As Berlage et al. point out, given that the concern for human development applies to all poor countries, heavily indebted or not, they suggest to add 7 non-HIPCs with a 1997 Human Development Index below 0.5: Bangladesh, Bhutan, Djibouti, Eritrea, Haiti, Nepal, and Nigeria.

While it may look like that the human development approach implies 100 percent debt cancellation, Greenhill and Sisti (2003) have shown that the human development approach to debt sustainability does not always require 100 percent debt reduction. The paper by Spratt (2006) implies another detailed suggestion on how to adopt the human development approach to debt sustainability. It also provides some useful calculations for which countries might need 100 percent debt relief. Anyway, unlike the MDRI (which covers 100 percent debt cancellation by the African Development Fund (AfDF), IDA, and IMF) the human development approach asks only to cancel the debt as far it is needed to allow the sum of internal government revenues and external grants to be sufficient to reach the MDGs. To avoid any misunderstanding, the point is not that the MDRI provides too many resources to the currently MDRIeligible countries. The problem with the MDRI is however an equity issue across poor countries of scarce development resources and the possibility of providing too much debt relief could arise if the eligibility for the MDRI gets significantly extended.

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[^0]:    * This paper has been drafted for a joint UNDESA/UNDP initiative on options to define more MDG-consistent debt sustainability concepts. The paper was started while being a Senior Research Economist in the Research Division of the African Development Bank Group (AfDB) until end-July 2006, and completed while being President of the Bangladesh Development Research Center (BDRC). The author thanks Gouda Abdel-Khalek, Yilmaz Akyüz, Paul Ladd, Kamal Malhotra, Manuel (Butch) Montes, Roy Rathin, Benu Schneider and the participants of the UNDESA/UNDP Roundtable on 'Debt Sustainability and the Millennium Development Goals' on October 30, 2006 for useful comments on earlier drafts. Some thoughts on debt service payment caps have been influenced from previous work jointly undertaken with Jonathan Sanford. The views expressed here are those of the author alone and should not be associated with the AfDB, the BDRC, or any UN agency. Comments are welcome to be sent to the author at: president@bangladeshstudies.org.

[^1]:    ${ }^{1}$ In addition to these traditional ways of creating fiscal space, useful and complementary suggestions have been put forward recently by Roy, Heuty and Letouzé (2006), concentrating on alternative fiscal policy rules that would foster an enabling reform for scaled up public investments that aim at allowing borrowing by governments for the sole purpose of financing net public investments.

[^2]:    ${ }^{2}$ See Dervis and Birdsall (2006) for the proposal to create a Stability and Social Investment Facility (SSF) to help high-debt emerging market countries.
    ${ }^{3}$ See especially IMF (2006) as well as Barder (2006) and McKinley (2005).
    ${ }^{4}$ The US $\$ 750$ billion are based on the UK Commission for Africa's estimate of additional annual public expenditure needed to implement each item of the Commission's package in full's estimate of additional annual public expenditure needed to implement each item of the Commission's package in full.
    ${ }^{5}$ The UN Millennium Project (2005, pp. 239-240) numbers are based on estimations that "a typical low-income country in 2006 will need to invest around $\$ 70-\$ 80$ per capita in capital and operating expenditures toward meeting the MDGs. Since investment can be scaled up only gradually, the financing will be lower at the beginning of the period and rise to $\$ 120-\$ 160$ per capita toward the end of the period. A rising share of these investments will be financed through domestic resource mobilization, which we project to increase sharply by up to four percentage points of GDP. Still, most low-income countries will experience an MDG financing gap of 10-12 percent of GDP that will need to be financed through official development assistance."
    ${ }^{6}$ It remains to be seen whether these pledges will be met.

[^3]:    ${ }^{7}$ Given that not all African countries that formed the MDG cost estimates are HIPC- and MDRI eligible countries, the benefits from debt relief are obviously larger to HIPC- and MDRI-eligible countries. However, as Weeks and McKinley (2006) showed, in the case of Zambia, HIPC debt relief will result in less fiscal space and projected MDRI debt relief will only marginally expand fiscal space.

[^4]:    ${ }^{8}$ While it is theoretically possible to take negative progress into account, it is suggested not to penalize such countries. Hence, negative progress in one or more targets is simply considered to be zero progress in achieving those targets.

[^5]:    ${ }^{9}$ The result applies only for the initial years, as the decreasing concessionality level of the newly contracted debt would need to be taken into account in later years.

[^6]:    ${ }^{10}$ The HIPC framework defines the poorest countries as tho se that are only eligible for highly concessional assistance from the International Development Association (IDA), and from the IMF's Poverty Reduction and Growth Facility (PRGF). This mainly nominal -GDP-per-capita-based poverty criterion completely neglec ts that poverty is a multi-dimensional phenomena and does not even take into account that there are differences in purchasing power among countries.

[^7]:    ${ }^{11}$ The least poor country eligible for HIPC debt relief is Bolivia, with an HPI of 13.9.
    ${ }^{12}$ The least indebted countries eligible for HIPC debt relief are Burundi and Rwanda, each with a NPV debt-to-GNI ratio of 15 percent.

[^8]:    ${ }^{13}$ See Northover (2001) for a more detailed description.

