



**IDA14**

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**Debt Sustainability and Financing Terms  
in IDA14: Technical Analysis of Issues and Options**

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## SELECTED ABBREVIATIONS AND ACRONYMS

CIRR	Commercial Interest Reference Rate
CPIA	Country Policy and Institutional Assessment
DSA	Debt Sustainability Analysis
GDP	Gross Domestic Product
GNI	Gross National Income
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
IMF	International Monetary Fund
MDG	Millennium Development Goals
NPV	Net Present Value
PBA	Performance-Based Allocation

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## **Debt Sustainability and Financing Terms in IDA14: Technical Analysis of Issues and Options**

### **I. INTRODUCTION**

1. This paper follows up on the proposal to make debt sustainability the primary grant eligibility criterion in IDA14, presented to IDA Deputies at the second meeting of the IDA14 Replenishment round in Hanoi, Vietnam, in July 2004.<sup>1</sup> In this approach, the share of grants in total IDA financing emerges from a country by country analysis of the risk of debt distress. Grants would thus be determined at a level responsive to need, rather than being established *a priori* as during the IDA13 period.
2. The joint Bank-Fund new debt sustainability framework<sup>2</sup> provides a systematic basis for the link between debt sustainability and grant eligibility. The Framework Paper's approach - reaffirmed in the joint follow-up paper<sup>3</sup> presented to the Boards of Executive Directors of the Bank and the Fund in September 2004 – links the risk of debt distress to the quality of policies and institutions in low-income countries.
3. Deputies agreed in Hanoi that the use of grants in IDA should be anchored in the assessment of countries' debt sustainability and that the proposal presented by staff provided a basis for developing this approach. They asked for work to test further hypotheses and options with respect to country classification, grant allocation mechanisms and thresholds, and the financing of grants. They also encouraged IDA to engage with the Fund and other Multilateral Development Banks (MDBs) in finalizing its allocation system.
4. This paper responds to those requests by Deputies and is organized as follows. Section II examines a number of different grant eligibility scenarios and their impact on the overall grant share as well as their equity and incentive implications. Section III focuses on grant allocation mechanisms as well as grant financing issues. In particular, it considers the possible implications of introducing an overall “cap” on grants and assesses different options on the use of the resources emerging from the application of a 20% upfront volume reduction on grants, as proposed in Hanoi. Section IV looks into the implications of the joint Bank-Fund follow-up work on the Framework Paper for the allocation of grants in IDA14. Section V presents summary conclusions and Section VI summarizes the key issues for discussion. Updated external debt data and country rankings are presented in Annex 1. Annex 2 addresses equity and incentive issues in the allocation of IDA assistance volumes and terms. Annex 3 describes the formulas and country implications associated with the incorporation of revenues-based debt-burden indicators into the debt-distress classification system. Annex 4 examines the sensitivity of grant allocations to illustrative changes in debt thresholds.

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<sup>1</sup> See IDA (2004a). *Debt Sustainability and Financing Terms in IDA14*, IDA/SecM2004-0327, Washington, D.C., June 24, 2004.

<sup>2</sup> Henceforth referred to as the “Framework Paper”. See IMF and World Bank (2004a). *Debt Sustainability in Low-Income Countries – Proposal for an Operational Framework and Policy Implications*. Washington, D.C., February.

<sup>3</sup> IMF and World Bank (2004b). *Debt Sustainability in Low-Income Countries: Further Considerations on an Operational Framework and Policy Implications*. Washington, D.C., September, henceforth referred to as the “Modalities Paper”.

## II. TESTING ALTERNATIVE GRANT ELIGIBILITY SCENARIOS

5. As described in detail in IDA (2004a, *op. cit.*), the proposed debt-distress-based country ranking system is based on a 4-step process: (i) selection of debt burden indicators; (ii) measuring how countries fare according to those indicators; (iii) establishing a decision rule on how to classify countries based on their relative debt distress level; and (iv) incorporating this information into a classification system that determines the appropriate credit and grant mix for an individual country. On the basis of this ranking system, three different grant allocation mechanisms were presented to Deputies in Hanoi: (a) a “pure” volume approach; (b) a “grant element” approach; and (c) a “modified” volume approach. Box 1 briefly describes the ranking system and Box 2 summarizes the grant allocation mechanisms.

### Box 1. Ranking Countries According to Debt Distress

The country ranking system proposed in Hanoi discussions (as per IDA [2004a], *op. cit.*) takes as its starting point a matrix of policy-dependent debt-burden thresholds from the Framework Paper (IMF and World Bank [2004a], *op. cit.*), shown below:

#### Indicative Policy-Dependent Debt and Debt-Service Thresholds (%)

	Assessment of Institutional Strength and Quality of Policies		
	Strong CPIA <sup>3</sup> 3.6	Medium 2.9<CPIA<3.6	Poor CPIA≤2.9
NPV of debt-to-GDP	60	45	30
NPV of debt-to exports	300	200	100
NPV of debt-to-revenues	250	200	150
Debt service-to-exports	35	25	15
Debt service-to-revenues	40	30	20

Source: "Debt Sustainability in Low-Income Countries: Proposal for an Operational Framework and Policy Implications", SecM2004-0035.

In order to become operational for grant allocation purposes, the matrix needs to be converted into a country ranking system, which is accomplished through a four-step process:

Step 1: Appropriate debt-burden indicators are selected.

- Revenues-based indicators are excluded due to data availability/comparability issues, as well as the risk of moral hazard.
- The following debt ratios are selected: NPV of debt-to-exports, NPV of debt-to-GDP, and debt service-to-exports.

Step 2: Countries' relative positions with respect to the debt-burden thresholds are measured.

- Percentage distances between actual debt-burden indicators and their respective thresholds are calculated.

### Box 1. Ranking Countries According to Debt Distress (cont'd)

Step 3: A decision rule for the debt-burden indicators is established.

- Two variables are computed and compared: (i) the average of the percentages distances of the two stock indicators (NPV of debt-to-GDP and NPV of debt-to-exports ratios) to their respective thresholds; and (ii) the relative distance of the debt service-to-exports ratio to its threshold.
- The number that yields the most conservative (prudent) decision in terms of debt-distress classification is chosen.

Step 4: A “traffic light” is assigned to countries according to the risk of debt distress.

- A “green light” indicates a low risk of debt distress; a “red light” indicates a high risk of debt distress; and a “yellow light” indicates a medium risk of debt distress.

### Box 2. Grant Allocation Mechanisms Discussed in Hanoi

1. The “**pure**” volume approach can be described in two steps:

Step 1: Allocate volumes based on the Performance Based Allocation system, as is currently the practice.

Step 2: Assign grant and credit shares for each country’s volumes, as follows:

- Low risk of debt distress : credits = 100 percent.
- Medium risk of debt distress : grants = 50 percent, credits = 50 percent.
- High risk of debt distress : grants = 100 percent

This approach would maximize volumes today, while addressing debt-sustainability issues upfront through the terms of IDA assistance. However, it has two main shortcomings. First, countries with similar CPIA ratings, income levels and per capita IDA allocations could receive different terms, potentially reducing incentives for countries to adopt prudent debt management strategies. Second, by offering softer terms for poorer-performing debt-distressed countries, without a reduction in volume, the “pure” volume approach would weaken the very strong relationship maintained by IDA between policy performance and the value of resource transfers.

2. The **grant element approach** can be described in three steps, of which the first two are exactly the same as in the “pure” volume approach. The third step is as follows:

Step 3: Volumes are adjusted for each eligibility category:

- 100 percent credit recipients: no volume discount.
- 100 percent grant recipients: 40 percent volume discount. They receive only the equivalent of the grant element (60 percent) of their PBA volumes.
- Recipients of 50 percent grants, 50 percent credits: 40 percent discount on the grants portion, no discount on credits, totaling 20 percent overall discount.

The resulting unallocated envelope could be redistributed, e.g., as grants on the basis of an income criterion, on a *pro rata* basis. The grant element approach avoids the equity and incentive concerns resulting from the “pure” volume approach. However, its large volume reductions (up to 40 percent) to a number of grant recipients may be disruptive to their development programs.

3. The “**modified**” volume approach – proposed by IDA to address the shortcomings of the above approaches - introduces an upfront 20 percent volume reduction on grants. The lower IDA volumes for grant recipients resulting from the upfront volume discount helps reduce the inequity and the disincentive to prudent debt management associated with the “pure” volume approach. In fact, this approach restores much of the policy-responsiveness of the present value of IDA resource transfers lost with the “pure” volume approach. At the same time, it avoids the potentially negative development impact from the more drastic volume reductions implied by the grant element approach.

6. The remainder of this section assesses the impact of different eligibility scenarios on three main aspects of IDA's grant allocation process: (i) the overall grant share; (ii) equity issues in country-grant coverage; and (iii) the incentive structure. Throughout, projected IDA FY05-07 allocation data are used and grant eligibility remains restricted to IDA-only countries. The three variations examined here are: (i) the introduction of additional grant-eligibility categories; (ii) the incorporation of revenues-based debt-burden indicators; and (iii) the use of the 150% NPV of debt-to-exports ratio of the Enhanced HIPC Initiative as the threshold for medium and strong performers, instead of the policy-dependent debt-burden thresholds of the Framework Paper. Subsection D summarizes the merits and weaknesses of those three variations. Subsection E deals with the special cases of Kosovo and Timor-Leste.

7. Throughout this Section, for the sake of simplicity, grant percentage comparisons are mostly made with respect to the "pure" volume approach as presented in Hanoi. As noted in Box 1, the only difference between the "pure" and the modified volume approach is that the latter introduces an upfront volume discount of 20% on grants. It is thus important to bear in mind that, while the "pure" volume approach would generate an overall grant share of 23%, the modified volume approach – after the application of a 20% volume discount – would lead to a grant share of 18%. As will be seen in Section III, different possible uses of the resources created by the volume discount can be conceived – some of which would take the grant share back up to 21%.

#### **A. Introducing Five Grant-Eligibility Categories**

8. The proposal presented in Hanoi was based on the "traffic-light" system with three eligibility categories as discussed in Box 1. Accordingly, countries at low risk of debt distress ("green light") would not be entitled to grants; countries at high risk of debt distress ("red light") would be eligible to 100% of their IDA assistance during IDA14 in the form of grants; and countries at a "medium" risk of debt distress ("yellow light") would be eligible to receiving half of their IDA assistance as grants. This subsection examines the implications for the allocation of IDA grants in IDA14 of using a five-category or "five-light" debt distress classification system.

9. **Methodology.** For this exercise, projected FY05-07 IDA allocations are used, and a three-step process is followed.

10. The first step is to define the cutoffs for the "five-light" system. As shown in Table 1, each eligibility category or "color light", is defined by the percentage distance from the thresholds.<sup>4</sup> For instance, a "blue light" is assigned if countries are between 10 and 25% below the threshold; a "yellow light" corresponds to countries between 10% below and 10% above the threshold; and an "orange light" is given to countries between 10 and 25% above the threshold.

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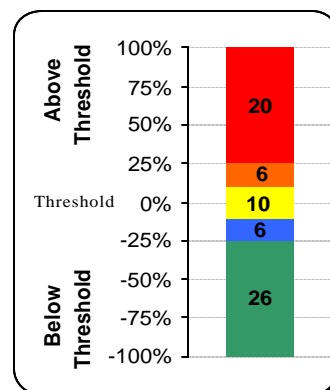
<sup>4</sup> Refer to matrix of policy-dependent debt-burden thresholds in Box 1.



Chart 1. Number of countries by “light” in the “five-light” system

Table 1. Debt distress classification under the “five-light” system

	Distance from the threshold (percentage point)
Red	25% above and higher
Orange	Between 10 and 25% above
Yellow	Between 10% below and 10% above
Blue	Between 10 and 25% below
Green	25% below and lower



Note: Excludes blends and gaps.

11. Second, as shown in Chart 1, the number of countries by color is identified in the sample. There are now 26 “greens” and 20 “reds” as opposed to 34 and 26, respectively, under the existing “traffic light” system. Further, it shows that six “green” countries of the “three-light” system are now “blue” ones and six “red” ones are now “orange”.<sup>5</sup> There is no change in the number of “yellow light” countries. This is because Ethiopia retains its “yellow light” status based on the insights of its available debt sustainability analysis (DSA), following the Hanoi proposal.

12. The third step is to apply a grant allocation mechanism to each country - as presented in Table 2. It indicates that all categories except the “green” are eligible for some level of grants. For instance, a “blue light country”, which would otherwise be grant-ineligible in the “three-light” system, would be eligible for 25% grants (75% credits) under the “five-light” system; an “orange” country, eligible to 100% grants in the “three-light” system, receives 75% grants (25% credits). This increases the number of grant-eligible countries by six compared to the original “three-light” system. On aggregate, 42 out of 82 countries<sup>6</sup> would become eligible for grants as opposed to 36 under the three-light system, therefore increasing country grant coverage.

<sup>5</sup> Eight “blue” countries are: Chad, Georgia, Grenada (blend), Kenya, Pakistan (blend), Samoa, Tonga and Uganda; seven “orange” countries are: Afghanistan, Cambodia, Dominica (blend), Eritrea, Gambia, Guyana, and Tajikistan.

<sup>6</sup> Excluding debt-distressed blends.

Table 2. Grant Allocation Mechanism under the “Five-Light” System (% of PBA volume)

	Grants	Credits	Total
Red	100	0	100
Orange	75	25	100
Yellow	50	50	100
Blue	25	75	100
Green	0	100	100

13. **Impact on the Overall Grant Share.** The grant share would increase only slightly with the “five-light” system to 23.6% for the projected IDA FY05-07 allocation (compared to 23% in FY05-07 for the “three-light” system).<sup>7</sup> The difference in the grant share between this and the original system is minimal because the total amount of grants allocated to the six “blue light” countries is offset by a higher level of credits to the six “orange-light” countries.

14. **Implications for IDA’s Incentive Structure.** Table 3 shows that the present value of resource transfers resulting from this “five light” system is slightly more policy-responsive than that under the “three-light” scenario. Nonetheless, it is still less policy-responsive than the PBA baseline.

Table 3. Grant Share, Country Grant Coverage, and Performance-Elasticity<sup>8</sup> with the “Five-Light” System

	Grant Share (%)	Number of Grant-Eligible Countries	Policy Coefficient (SDR per capita)
“Three-light” Scenario (“yellow” and “red”)	23.0	36	2.10
“Five-light” Scenario (all but “green”)	23.6	42	2.24
PBA Baseline Scenario			2.75

Note: Figures for the estimated grant share in the projected IDA FY05-07 envelope and the performance-elasticity of the present value of IDA’s resource transfers to its clients do not reflect the upfront volume reduction of 20%.

## B. Incorporating Revenues-Based Debt-Burden Indicators

15. This subsection examines the implications of including the ratios of NPV of debt-to-revenues and debt service-to-revenues in the process of identifying debt-distressed countries.

<sup>7</sup> In case Ethiopia is placed in the “blue” category, thereby becoming eligible for 25% grants only, the grant share becomes 22.1% for the FY05-07 allocation. The reason why the share declines is the large size of allocation for Ethiopia, accounting for about 6% of the total allocation. A 25 percentage point reduction in Ethiopia’s grant allocation lowers the grant share by about 1.5%.

<sup>8</sup> It refers to the relationship between the present value of IDA’s resource transfers and IDA’s performance rating.

16. **Methodology.** To evaluate their implications for the debt-distress-based ranking system, the two ratios are incorporated in very much the same way as the other debt-burden indicators in the Hanoi proposal, that is, as part of composite debt stock and flow (debt service) indicators. More specifically, the debt-to-revenues ratio is incorporated as part of a composite debt stock indicator and the debt service-to-revenues ratio as a part of a composite debt service indicator. The composite debt *stock* indicator is thus the average distance from the relevant thresholds for three debt stock indicators, namely, the NPV of debt-to-exports, NPV of debt-to-GDP and NPV of debt-to-revenues.<sup>9</sup> The applicable thresholds for the revenues-based indicators are those presented in the “Modalities Paper” and in Box 1 above.<sup>10</sup>

17. The same formulation applies to the composite debt *service* indicator. The composite debt service indicator is the average distance from the two debt-service thresholds, namely, the debt service-to-exports and debt service-to-revenues ratios.

18. Having these two composite indicators in place, the same decision rule of the proposal as presented in Hanoi applies, i.e., the number that yields the most conservative or prudent decision on debt-distress classification is chosen. Many countries in the sample breach their respective revenues thresholds to a certain extent. As expected, the exercise results in a somewhat larger number of “red” countries<sup>11</sup> (see Table 4), but the impact of the revenues ratios is moderated by the other ratios included in the composite indices.

Table 4. Number of Countries by “Light” when Revenues-Based Indicators are Included

Debt Distress by Light	“Traffic Light” System as Presented in Hanoi	Revenues Scenario
Green	34	35
Yellow	10	8
Red	26	29

Note: The above excludes blend or “gap” countries.

19. **Impact on the Overall Grant Share.** The number of grant eligible countries becomes 37 as opposed to 36 in the volume approach as presented in Hanoi, leading to a marginally higher grant share (23.9%) for the IDA FY05-07 allocation (see Table 5).

<sup>9</sup> Revenues are defined as central government revenues excluding grants. Refer to Annex 4 for the formulas behind the computations in this subsection.

<sup>10</sup> See Section III for a fuller discussion of the implications of the “Modalities Paper” for IDA’s grant allocation proposal.

<sup>11</sup> See Table A.6. in Annex 3 for the detail on the country implications.

20. Implications for IDA’s Incentive Structure. As shown in Table 5, resource transfers under this scenario seem to be slightly less policy responsive than under the volume approach as presented in Hanoi: an improvement of IDA performance by 1 unit would increase per capita resource transfer in the former by SDR 2.03 as opposed to SDR 2.10 in the latter (see IDA (2004a), *op. cit.*).

Table 5. Grant Share, Country Grant Coverage, and Performance-Elasticity Using Revenues-Based Indicators

	Grant Share (%)	Number of Grant-Eligible Countries (“yellow” and “red”)	Policy Coefficient (SDR per capita)
Volume Approach as in IDA (2004a)	23.0	36	2.10
Revenues Scenario	23.9	37	2.03
PBA Baseline Scenario			2.75

Note: Figures for the estimated grant share in the projected IDA FY05-07 envelope and the performance-elasticity of the present value of IDA’s resource transfers to its clients do not reflect the upfront volume reduction of 20%.

### C. Using the 150% NPV of Debt-to-Exports Ratio of HIPC as the Threshold for Medium and Strong Performers

21. During the IDA14 discussions in Hanoi, an argument was put forward that the HIPC threshold of 150% for the NPV of debt-to-exports ratio (NPV/EXP) should continue to apply, as the HIPC Initiative is still ongoing, effectively suggesting that its eligibility rules should not be superseded by the new debt sustainability framework proposed by the staffs of the IMF and the World Bank. This subsection tests the implications of this argument for the allocation of IDA terms by setting an upper bound NPV/EXP threshold of 150%, while for poor performers a lower NPV/EXP threshold of 100% would still apply. Thus, the key HIPC ratio of 150% is imposed for medium and high performers - although a more conservative ratio of 100% is maintained for poor performers.

22. **Methodology.** Three scenarios were conceived. In the first two scenarios, the 150% NPV/EXP threshold, for equity reasons, is applied to all IDA countries, except, as discussed, to those in the bottom quartile of the CPIA. The third scenario applies the HIPC threshold only to HIPCs, while maintaining the “traffic light” system and the policy-dependent thresholds for all non-HIPCs.

23. The first scenario (“two-light” scenario) maintains only two classification categories: “green light” countries, i.e., those with NPV/EXP below 150% (for poor performers, with NPV/EXP below 100%); and “red light” countries, i.e., those with NPV/EXP at or above 150% (for poor performers, with NPV/EXP at or above 100%). The second scenario (“three-light” scenario) preserves the “yellow band” of the paper presented in Hanoi, that is, a “belt” of –10% and +10% around the respective NPV/EXP thresholds.

24. The third scenario (“hybrid” scenario) combines the first scenario with the “traffic light” system with the policy-dependent thresholds: while IDA-only HIPC countries are subject to the 150% HIPC threshold (but with an NPV/EXP of 100% for poor-performing HIPC countries), the classification and allocation systems presented in IDA(2004a), *op. cit.*, are kept for all other countries.

25. In all cases, grant eligibility is restricted to IDA-only countries. In addition, grant-eligibility categories continue to be defined in accordance with the “traffic light” system, namely, “green light” countries would receive 100% of their IDA assistance as credits; “yellow light” countries would get 50% of their IDA assistance as grants and 50% as credits; and “red light” countries would receive 100% grants from IDA.

26. **Impact on the Overall Grant Share.** Tables 6 and 7 summarize the results of the simulations with the three scenarios, in terms of country classifications and overall grant shares. This exercise yields a large number of “red light” countries. Of these three scenarios, the first generates 44 highly “red light” countries, as shown in Table 6, while the second and the third produce the same number of “red light” countries, 37. This is because most 27 post-Decision Point HIPC countries breach the HIPC threshold of 150% of debt-to-exports ratio. As shown in Table 7, the overall grant share can be as high as 50.6%.

Table 6. Number of Grant-Eligible Countries by “Light” in a “Quasi-HIPC” World

Debt distress light	Traffic Light System” as presented in Hanoi	“Two-light”	“Three-light”	“Hybrid”
Green	34	26	21	29
Yellow	10	0	9	4
Red	26	44	37	37

Note: The above excludes blend or “gap” countries.

Table 7. Grant Share, Country Grant Coverage, and Performance-Elasticity in a “Quasi-HIPC” World

	Grant Share (%)	Number of Grant-Eligible Countries	Policy Coefficient (SDR per capita)
Volume Approach	23.0	36	2.10
“Quasi HIPC” Scenarios	Two light	44	3.15
	Three light	46	3.16
	Hybrid	41	3.17
PBA Baseline Scenario			2.75

Note: Figures for the estimated grant share in the projected IDA FY05-07 envelope and the performance-elasticity of the present value of IDA’s resource transfers to its clients do not reflect the upfront volume reduction of 20%.

27. The grant shares emerging from the above scenarios would therefore be associated with a considerably higher financing shortfall than that associated with the proposal presented to IDA Deputies in Hanoi, thereby increasing the need for donor contributions.<sup>12</sup>

28. Part of the explanation for the higher grant shares in this “quasi-HIPC” world is the fact that a number of post-Completion Point HIPCs with relatively large IDA programs would become grant eligible under this approach. Table 8 summarizes the implications for post-Completion Point HIPC countries that change categories under this scenario:

Table 8. Implications for Affected Post-Completion Point HIPC Countries

	Grant Share in their respective IDA Envelope			Remarks
	“Two-light” and “Hybrid” Scenarios	“Three-Light” Scenario	Volume Approach as per IDA (2004a)	
Benin	0	50%	0	NPV/EXP=145% (medium performer)
Burkina Faso	100%	100%	0	NPV/EXP=233% (strong performer)
Ethiopia	100%	100%	50%	It gets 50% grants in the volume approach because its DSA shows that its NPV/EXP will cross the threshold in IDA14.
Guyana	0	0	100%	NPV/GDP is above the relevant threshold. Its NPV/EXP ratio is only 85%.
Mali	100%	100%	50%	
Mauritania	100%	100%	50%	
Nicaragua	100%	50%	0	NPV/EXP = 161% (strong performer)
Niger	100%	100%	0	NPV/EXP = 176% (medium performer)
Senegal	0	50%	0	NPV/EXP = 138% (strong performer)
Tanzania	100%	50%	0	NPV/EXP = 156% (strong performer)
Uganda	100%	100%	0	NPV/EXP=288% (strong performer)

29. **Implications for IDA’s Incentive Structure.** In this framework, grant eligibility would be extended to a number of comparatively better-performing countries. As a result, the transfers of IDA resources to grant-eligible countries, in present value terms, would be on average more responsive to performance than the PBA baseline itself. This responsiveness to performance would also be considerably stronger than that obtained with the “pure” volume approach presented in Hanoi, as shown in Table 7. Empirical analysis also shows that there would be a considerable increase in the overall concessionality of IDA’s resource transfers resulting from the “two-light” HIPC scenario when compared with the PBA baseline.

#### D. Comparing Different Eligibility Scenarios

30. **The “Five-Light” System.** The “five-light” variation of the modified volume approach effectively introduces a different taxonomy of countries (in terms of concessionality levels) from that of the original “traffic light” system - with smoother transitions between categories. It would allow for an increased country grant coverage and leads to a modest but non-negligible increase in the correlation between resource transfers and performance. On the

<sup>12</sup> See IDA (2004a), *op. cit.*

other hand, the introduction of different allocation categories would likely result in greater managerial complexity at the operational level, and susceptibility to more frequent changes in country debt-distress rankings and resulting country grant percentages. This would thus reduce the predictability of country grant shares from one year to the next. Furthermore, a three-category system is more consistent with the debt distress classifications proposed in the Bank-Fund "Modalities Paper", which also proposes three categories of risk of debt distress, as well as a category of actual distress. Maintaining that correspondence would help ease the transition process to a ranking system fully based on the insights from DSAs (see Section III for more details).

31. **Revenues-Based Indicators.** The introduction of revenues-based indicators leads to a more inclusive debt-distressed based country ranking system – thus further reducing errors of exclusion – and to slightly more generous grant shares. However, serious issues remain with respect to revenues-based indicators. The strong reservations outlined in the Hanoi paper need to be restated. First, the debt-to-revenues ratio is a less reliable indicator of a country's ability to service foreign-exchange-denominated external debt (as compared to the debt-to-exports ratio), since most low-income countries collect fiscal revenues in domestic currency. Second, fiscal revenues are subject to deficient statistical information, different budgetary accounting standards across countries, under-reporting, and sheer unavailability in some cases. Finally, from an incentive point of view, a high debt-to-revenues ratio may also indicate - if not encourage - a low revenue collection effort, potentially leading to a "free rider" problem in which international grant financing would be mobilized to correct a fiscal weakness - which would be better dealt with by expanding the tax base or improving revenue administration.

32. **A HIPC-Like Threshold.** The introduction of a HIPC-like threshold as a criterion to allocate grants would considerably increase country grant coverage. However, it would not be consistent with the findings of the recent work by IMF and Bank staff in that the risk of debt distress varies in accordance with changes in the qualities of countries' policies and institutions.

33. Indeed, focusing on an across-the-board HIPC threshold - i.e., ignoring country specificities - would significantly increase errors of exclusion and inclusion. As noted in the Framework Paper, "using a threshold value that does not take country-specific differences into account can lead to substantial type I and type II errors by wrongly classifying non-distress episodes as debt-distress episodes and vice-versa" (IMF and World Bank [2004a], *op. cit.*, p. 55).<sup>13</sup>

34. In addition, by ensuring grant eligibility for post-Decision Point HIPCs through the adoption of a HIPC threshold, focus would be placed on countries where the risk of debt distress has been (or will be, when Completion Point is reached) substantially *reduced* by the application of the HIPC framework. This would likely *weaken* the relationship between

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<sup>13</sup> An alternative approach is to reduce the spread of the policy-dependent thresholds for the NPV of debt-to-exports ratio, currently between 100% and 300%, and with e.g., a HIPC threshold of 150% as the midpoint. This case is examined in Annex 4. The simulations reported in that annex are for illustration only, and are not based on a rigorous re-examination of the analytical underpinnings for the thresholds derived in the Framework Paper.

present or prospective debt distress risk (as opposed to *past* debt overhang) and grant eligibility.

35. The use of a HIPC-like threshold would also make it more difficult to ensure IDA's long-term financial strength, given the substantially higher overall grant share that it would imply. In summary, the potential benefits this approach might generate (e.g., keeping a policy-elasticity of resource transfer similar to that associated with the PBA baseline) seem to be outweighed by the problems it introduces (e.g., weakening the link between grant eligibility and risk of debt distress).

### **E. Special Transitional Cases**

36. Management proposes that an exceptional 100% grant eligibility be considered for Kosovo and Timor-Leste. For the former, grant eligibility would be justified on the grounds of its status.<sup>14</sup> The latter is the only country still eligible for post-conflict grants under IDA13 that would not be grant eligible under the debt-distress-risk criterion under IDA14, for lack of reliable external debt information. Grant eligibility for Timor-Leste is proposed to be gradually phased out during the IDA14 period, to avoid a sudden shift of status vis-à-vis the other IDA13 grant-recipient countries under the post-conflict criterion.

37. Grants in IDA14 would still be primarily determined by debt sustainability considerations, with the special cases representing only 1.2% of the overall grant allocation using the projected FY05-07 data. Under the modified volume approach, grants based on non-debt-distress eligibility criteria would also be subject to a 20% volume discount.

## **III. ALLOCATION MECHANISMS AND GRANT FINANCING ISSUES**

38. This Section provides further analysis on a number of key grant allocation and financing issues raised by Deputies in Hanoi. Possible implications of introducing an overall "cap" on grants are discussed in Subsection A. Subsection B briefly discusses general equity and incentive considerations – addressed in more detail in Annex 2. In subsection C, different potential uses of the resources generated by the 20% upfront volume reduction are considered.

### **A. A Cap on Grants**

39. In the IDA13 Replenishment agreement, the IDA Deputies determined that the share of grants in overall IDA13 resources should be in the range of 18 to 21%, distributed across five grant categories. The proposal for IDA14 represents a simplification of the IDA13 agreement, with the grants share to be endogenously determined on the basis of countries' risk of debt distress. This means, however, that there is a possibility that the share of grants could be higher (or lower) than the 23% that is currently estimated under the "pure" volume approach as countries debt indicators change. In Hanoi, some Deputies expressed a concern that a high share of grants would be incompatible with the objective of maintaining IDA's financial

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<sup>14</sup> Kosovo is part of Serbia and Montenegro under United Nations administration.



strength and requested that staff examine the possibility of introducing an overall cap on grants.

40. First, it is important to note that barring an unforeseen shock that would cause an upward shift in debt indicators for a number of IDA countries at the same time, the grants share is likely to experience only relatively minor fluctuations during the IDA14 period. These fluctuations could have several causes, including new information arising from country DSAs and adjustments in the policy dependent debt-burden indicators.<sup>15</sup> There is a possibility that the level of grants could be lower than what is now forecast, e.g., if the recent experience of economic growth in IDA countries continues.

41. A key consideration is the *level* of such a cap. If the grant percentage in IDA14 reached the cap level, hence making the cap binding, the grant allocation outcomes would no longer be entirely endogenous, and it would be necessary to subject the results of the proposed grant allocation system to additional decision rules, to, in effect “ration” the grants. We briefly examine below three possible options for dealing with a situation in which the cap becomes binding.

42. One option would be to convert the grant percentages in the “red” and “yellow” categories into “inequalities”, that is, IDA-only “red light” and “yellow light” countries would receive up to 100% and 50% of their IDA assistance, respectively, in the form of grants. If there was a clear risk that the cap may be reached, then “red light” countries would still receive most, but not all, of their IDA assistance in the form of grants. Likewise, “yellow light” countries would receive a greater proportion of their IDA assistance – more than 50% - in the form of credits than under the modified volume approach. In contrast, without a perceived risk of reaching the cap, countries would receive their normal grants and/or credit allocations, in accordance with the modified volume approach as presented in Hanoi (that is, 100% grants for “red light” countries and 50% grants for “yellow light” ones). This mechanism would preserve countries’ IDA assistance envelopes *in nominal terms* as determined by the PBA and the modified volume approach. However, in practice, this would mean that countries would be exposed to a slightly higher risk of debt distress, as IDA would be providing somewhat less grants and more credits to “red light” and “yellow light” countries than under the modified volume approach.

43. A second option would be to maintain the policy of providing 100% grants to “red light” IDA-only countries and 50% grants to “yellow-light” IDA-only countries, even if the cap on grants becomes binding. In this case, in order to comply with the cap, overall *volumes* to grant eligible countries would need to be reduced by scaling back their grant allocations. The resulting “overflow” of resources would be redistributed among “green light” countries as credits. In contrast to the previous case, IDA would not provide credits to countries in excess of the volume indicated by their risk of debt distress. Also, “green light” countries would receive credit resources over and above their PBA allocations. Since the latter countries are generally better performers, the relationship between policy performance and IDA’s resource transfers in present value terms would likely be strengthened. However, this option would lead to a somewhat lower transfer of resources to debt-distressed countries than under the modified

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<sup>15</sup> As noted, Annex 4 presents an exercise on the impact of changes in the thresholds on the grant share.

volume approach, potentially hurting their chances to achieve the Millennium Development Goals.

44. A third option would involve "active management" of the overall grant percentage, similar to the mechanism prevailing in IDA13, where the grant share was monitored from year to year, with the objective of being kept within a 18% - 21% range. For IDA14, the baseline would be the projected grant share for IDA14. A 5% buffer within which to manage the grant share over the three years of IDA14 would then be established relative to the baseline grant share. If the demand for grants, as determined by the IDA14 grant allocation model, increases in year one, the grant allocation for that year would be frontloaded from years two and three. If the same happens in year two, the grant allocation would be frontloaded from year three, while at the Mid-Term Review for IDA14 Deputies would be consulted on how to deal with the issue, for example, through the options examined above.

45. The above considerations highlight the fact that, while a possible cap would need to be determined at a level consistent with maintaining IDA's financial strength over time, this level should not unduly distort the allocation outcomes produced by a fully endogenous grant-eligibility system.

## **B. Equity and Incentive Considerations**

46. While the PBA (by construction) deals with incentives (performance) and per capita income, the allocation of terms in IDA14 is proposed to focus on debt distress. It would be thus incorrect to assess the grant allocation process without reference to the PBA, and to expect it to solve for equity, incentive, and debt sustainability issues simultaneously and by itself.

47. A main consideration is thus that the process of allocation of terms does not unduly weaken the PBA's incentive system nor introduce an element of "regressiveness", in the sense that relatively poorer countries would end up with less resources in present value terms vis-à-vis their PBA allocation once they become grant-eligible.

48. As discussed in IDA (2004a), the alternative grant element approach, which would allocate to grant recipient countries only the grant equivalent of their nominal IDA allocation, outperforms the "pure" volume approach on economic incentive grounds. It is, however, hard to reconcile the sharp 40% reduction with IDA's MDG-related objectives. The lower discount under the modified volume approach, on the other hand, helps to both reduce the inequity and the disincentive to prudent debt management and avoid the potentially negative development impact stemming from more drastic volume reductions, as contemplated in the grant element approach. IDA's proposed modified volume approach thus goes a long way towards maintaining the policy-responsiveness of the present value of IDA's resource transfers.

49. In addition, preliminary empirical analysis indicates that the volume approach – both in its "pure" and in its modified formulation – does not introduce "regressive" elements into the distribution of IDA resources, that is, the present value of resource transfers will tend to be higher than that resulting from the before-grants PBA baseline, particularly for countries at the lower end of the income spectrum. These issues are taken up in detail in Annex 2.

### **C. Potential Uses for the Resources from the Volume Discount**

50. As noted in the Hanoi proposal, the application of a 20% upfront volume reduction on grants under the modified volume approach would generate for reallocation an amount estimated at SDR 926 million on the basis of the projected IDA FY05-07 allocation. Similar to the grant financing modalities agreed<sup>16</sup> for IDA13, funds would be set aside to finance the foregone service and commitment charges resulting from IDA14 grants. In the case of foregone charge income on IDA13 grants, such funds will come from donor contributions in IDA14 which will be additional to donors' regular IDA14 contributions. To finance foregone charge income on IDA14 grants, this subsection examines the case in which the required funds would be drawn from the volume discount on grants. In present value terms, these funds would correspond to 45% of the discount amount (or a 9% volume reduction on grants). This amount could be invested in IDA countries at harder terms, as an alternative to investing in IDA's liquid assets. The remaining portion of the volume discount (55% of the discount amount, equivalent to a 11% volume discount) would be allocated to IDA countries. Four different allocation scenarios are discussed here. In this subsection, the two components of the 20% volume discount – the one set aside for grant financing (9% reduction) and the other available for possible reallocation (11% reduction) - are treated separately.

#### ***Using a 9% volume reduction for grant financing***

51. To ensure adequate financing of IDA for foregone reflows due to IDA14 grants, the use of grant financing resources would need to follow two general principles: (i) achieving a rate of return on investment that is similar to the discount rate applied to calculate the net present value of reflow losses; and (ii) matching the investment horizon to the long-term cash flow profile from foregone reflows under IDA credits. In calculating the cost of IDA14 grants, management applied a 6% discount rate, representing both the long-term return on IDA's liquid assets and also the fixed-rate equivalent of the IBRD lending rate.

52. As set out in the paper prepared for the February 2004 meetings in Paris, which addressed the use of donor contributions for IDA13 grant financing, IDA could lend out available grant financing resources at harder terms to IDA/IBRD blend countries and to IDA 'gap' countries. Furthermore, in partnership with the IFC, IDA could participate in loan syndications or lending for infrastructure projects.<sup>17</sup> In view of the limited volume of resources which would become available through the suggested 20% volume reduction on IDA14 grants, it is proposed that only lending at harder terms be considered in the context of IDA14.

53. To reduce the credit risks associated with investing IDA's grant financing resources, it is proposed to allocate the additional lending volumes for blend countries below the operational per capita income cut-off of \$895, but with adequate creditworthiness for IBRD lending. This may benefit in particular those countries with low per capita IDA allocation in relation to their performance. Since these resources would be additional to any existing

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<sup>16</sup> IDA (2004b). *Modalities of IDA13 Grant Financing. Technical Note.* IDA/SecM2004-0379, May 26.

<sup>17</sup> IDA (2004c). *Further Options for IDA13 Grant Financing*, paras 12-19, IDA/SecM2004-0039, January 29.

country allocations under IDA's performance-based allocation system, IDA could offer these funds at harder than regular IDA terms.<sup>18</sup>

54. Demand for this window would be a function of the interest rate to be charged in comparison with other financing alternatives available to blend countries. It is proposed to maintain the standard maturity and grace period applicable for blend countries and charge a fixed interest rate in the range of 3-5% per annum, in addition to standard IDA service and commitment charges. Therefore, the level of concessionality would be higher than for IBRD loans, but lower than under IDA's current terms applicable to blend countries.

55. Given the rather low potential commitment volumes involved of up to SDR 200 million per year, over the three years of IDA14, harder-term lending by IDA to blend countries would not be expected to have a material impact on the demand for IBRD lending.

### *Options for using the portion of the volume reduction available for reallocation*

56. **Reallocating on the basis of an income criterion.** One possibility is that this portion of the resources from the volume discount – 55% of the total discount amount, or SDR 509.4 million as per the projected FY05-07 allocation - be distributed on a *pro rata* basis to countries with per capita income at or below e.g., US\$ 360.<sup>19</sup> The income-based volume boost could be interpreted as an *ex ante* cushion to help protect the poorest countries against shocks.

57. Two distinct cases could be considered, both generating a volume boost for all countries with per capita income below the threshold. One case reallocates these resources *solely in the form of grants*. This yields a final overall grant share of 21% in the projected FY05-07 allocation, and would make an additional 11 countries grant-eligible<sup>20</sup> (See Table A.5 for further detail on the countries). However, the share of grants in these 11 countries' total IDA assistance volumes - using the projected FY05-07 allocation as the basis – would be low at 4.6%. The other case distributes the resources from the volume discount *in accordance with the terms determined by the "traffic light" system* - that is, there would be no newly-grant-eligible country. A lower grant share is obtained: 19% for the projected IDA FY05-07 allocation.

58. Since such newly grant-eligible countries are mostly non-debt distressed countries with relatively higher CPIAs, the first option further strengthens the relationship between the present value of IDA resource transfers and the IDA performance rating - moving closer to the PBA baseline. This can be seen in Chart 2 below.

59. In contrast to an *ex ante* and automatic distribution of such resources as a cushion against shocks, an alternative would be to use them to set up a facility to help provide an *ex post* volume response to actual shocks as they occur. Access to this facility would be restricted

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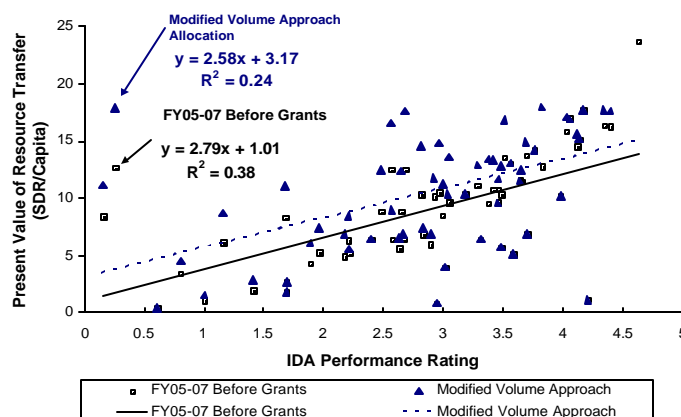
<sup>18</sup> Note that even the "harder terms" proposed would still fall within IDA's mandate under its Article of Agreement of providing financing on terms that "bear less heavily on the balance of payments than conventional loans".

<sup>19</sup> This income cutoff was also adopted as one of the grant-eligibility criterion in IDA13.

<sup>20</sup> Bangladesh, Burkina Faso, Chad, Ghana, Kenya, Madagascar, Mozambique, Nepal, Niger, Tanzania, and Uganda.

to the poorest countries, so that an income cutoff would still apply. As in the *ex ante* distribution case, such resources could be either fully provided as grants or in accordance with the terms defined on the basis of recipient countries' risk of debt distress.

Chart 2. Resource Transfer and Policy Responsiveness: Reallocating Part of Resources from the Volume Discount as Grants under an Income Criterion



60. **Setting aside resources for grants-based HIV-AIDS operations.** Another possibility is to use the resources from the volume discount to support HIV-AIDS operations, similar to the IDA13 provision for that purpose. In this case, countries which would be grant-eligible on the basis of debt sustainability would *not* be entitled to additional HIV-AIDS grants; those would come from their grant allocation emerging from the debt sustainability criterion. Rather, the resources would be used only in IDA countries which would not be grant-eligible on the basis of debt sustainability. For those countries, such resources would be additional to their PBA allocation. As with the previous option, the maximum grant share would be 21%, although in practice this limit would only be reached if there was sufficient demand from non-debt-distressed or blend/gap countries.

61. A key concern with this option is potential uncertainty with respect to the level of demand for HIV-AIDS IDA grants coming from countries which would be ineligible for grants according to the debt-distress criterion. Preliminary estimates of such potential demand for the FY05-08 period<sup>21</sup> amount to approximately SDR 445 million (US\$650 million, of which US\$230 million programmed for FY05). The portion of the resources from the volume discount available for reallocation would seem therefore more than sufficient to cover such financing needs.

62. **Creating an incentive mechanism to reward stronger export performance.** A third option would be to use the available 55% of the resources from the volume discount to establish an incentive system whereby export performance would be rewarded. Finding the right metric for export performance would be key, since the objective is to provide an incentive for export diversification rather than to provide an unnecessary reward for windfall gains from

<sup>21</sup> Although FY05 is not within the IDA14 period, it was included in the analysis to cater to the possibility of slippages of specific operations from FY05 to FY06.

commodity price increases. Such a system would be compatible with the Framework Paper's underlying view that debt distress is caused primarily by slow growth rather than by excessive accumulation of debt. It would also be consistent with the notion that the NPV of debt-to-exports ratio is the most appropriate indicator of debt burden from the point of view of countries' repayment capacity. However, one potential drawback of this option is the availability of current export data, which generally become available with a lag. Assuming full reallocation of the available resources, an overall grant share of 21% in the projected FY05-07 allocation would result.

63. **Fully utilizing the resources from the volume discount for a harder-term lending window.** A fourth possibility would be to fully utilize the resources from the 20% upfront volume reduction on grants for a harder-term lending window, along the lines presented in paragraphs 51 to 55. This would have a strong and positive impact on IDA's grant financing, and would reduce the grant share to 18%. Therefore, this option would bring about the very stark trade-off between country grant coverage and the financing of IDA grants.

#### **IV. IMPLICATIONS OF THE BANK-FUND "MODALITIES PAPER" FOR THE ALLOCATION OF IDA GRANTS**

64. The "Modalities Paper" (IMF and World Bank [2004b], *op. cit.*), which is being discussed by the Boards of Executive Directors of the Fund and the Bank in September 2004, further elaborates on operational features of the proposals contained in the Framework Paper. It also reaffirms the basic approach of the Framework Paper with respect to the assessment of countries' susceptibility to debt distress, which will be supported by policy-dependent debt-burden thresholds<sup>22</sup> as well as DSAs and stress tests. Furthermore, it addresses modalities for collaboration between the Bank and the Fund in the preparation of DSAs, implications for the operational work in both institutions, and the treatment of domestic debt.

65. This Section discusses the implications for the allocation of grants in IDA14 of two aspects of the "Modalities Paper": (i) the use of DSAs as the main source of debt-distress rankings for IDA; and (ii) the treatment of public domestic debt.

##### **A. DSAs and Debt-Distress Ratings**

66. As noted in the Hanoi proposal (IDA (2004a), *op. cit.*), the two pillars of the Framework Paper are directly relevant to the allocation of IDA grants: (i) a set of *indicative* thresholds of external debt-burden indicators which take into account countries' policies and institutions as well as their vulnerability to exogenous shocks; and (ii) the actual and projected behavior of debt-burden indicators as indicated in DSAs, both under a baseline and plausible shock scenario. Countries' classification on the basis of debt distress is thus expected to ultimately rest on the full implementation of both pillars of the Framework Paper.

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<sup>22</sup> The policy-dependent thresholds for the NPV of debt-to-revenues ratio in the "Modalities Paper" are higher than those presented in the Framework Paper, as revenues are measured exclusive of grants in the former. This difference is taken into account in the analysis of Section II and Annex 3 of the present paper. All other thresholds in the "Modalities Paper" remain the same as in the Framework Paper.

67. Until DSAs along the lines set out in the Framework Paper are available, IDA will rely on a debt classification system in which the thresholds are *binding* rather than indicative. This reflects the need to establish a rules-based system with which to allocate a given resource envelope. Such system is described in detail in IDA (2004a, *op. cit.*) and in summary form in Box 2 of the present paper.

68. A practical approach to the transition to a full DSA-based ranking system will involve using insights emerging from existing DSAs to inform the decision on how to classify countries, which could potentially alter a country's grant eligibility category<sup>23</sup>. To the extent that the currently proposed debt classification system provides a basically sound assessment of countries' risk of debt distress, the structure of grant eligibility and the overall grant share are not expected to be affected in a major way once a DSA-based ranking system becomes fully operational - though the position of individual countries may change as a result of the assessment contained in the DSAs.

69. The "Modalities Paper" also proposes slightly nuanced debt-distress classifications, presented in Box 3.

### **Box 3. Debt Distress Classifications Proposed in the "Modalities Paper"**

The "Modalities Paper" proposes four categories and related criteria to guide the assessment in DSAs:

**Low risk:** All debt indicators are well below the relevant policy-based thresholds. Alternative scenarios and stress tests do not result in indicators breaching thresholds in any significant way. The country is currently meeting debt service obligations.

**Moderate risk:** While the baseline scenario does not indicate a breach of thresholds, alternative scenarios and stress tests show a substantial rise in the debt service ratio over the projection period nearing the thresholds and/or a breach of debt stock ratios. The country is currently servicing its debt but has, on occasion, run sporadic arrears to individual creditors.

**High risk.** The baseline scenario indicates a breach of debt stock and/or service ratios over the projection period. This is exacerbated by the alternative scenarios/stress tests. The country is running sporadic arrears and/or has a history of default.

**In debt distress:** Current debt stock and service ratios are in significant and/or sustained breach of thresholds. The country is running arrears to multiple creditors and/or poses a significant risk of defaulting on its debt service obligations in the absence of major debt reduction/restructuring.

70. The classifications proposed in the "Modalities Paper" are largely consistent with the "traffic light" system for IDA grants and are clearly based on the same analytical foundation. Such consistency could help maintain the predictability of the overall costs of IDA14 grants as the transition from the "traffic light" system to a DSA-based system unfolds. In effect, the "high risk" and "in distress" categories broadly correspond to the "red light" category in the "traffic light" system, with the difference that the latter would classify countries that breach the threshold by a small margin (i.e., within 10%) as "yellow light". In the same vein, the

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<sup>23</sup> As in the case of Ethiopia. See IDA (2004a), *op. cit.*

“moderate risk” category would not involve a breach of thresholds except possibly in stress tests. IDA’s currently proposed “yellow band” is constructed so as to straddle the relevant thresholds – both above and below them. The rationale for such “yellow band” is precisely to cater to borderline cases for which DSAs and associated stress tests are not available.

71. Assuming that a DSA-based rating system becomes fully operational in the future, the risk categories under IDA’s proposed “traffic light” system could be refined along the lines described in Box 3, but that would not significantly change the proposed IDA grant framework.

## **B. The Treatment of Public Domestic Debt**

72. The “Modalities Paper” recognizes that domestic debt is indeed a serious concern for a number of low-income countries, but notes that its integration into the debt sustainability framework is not straightforward. First, comprehensive historical series on low-income country domestic debt are not generally available. Second, domestic and external debt present markedly different characteristics which are inimical to a more joint treatment. These differences include: (i) the terms on which these two types of debt are often provided to governments, with domestic debt usually being costlier; (ii) the different factors that would cause a situation of distress for domestic debt vis-à-vis external debt - while domestic debt is more subject to market-related risks, external debt in low-income countries may come with “strings attached” in the form of specific conditions or activities; and (iii) domestic and external debt have different economic implications in terms of their relative impact on interest rates, exchange rates, and investment and saving decisions.

73. Therefore, the “Modalities Paper” recommends that comprehensive public debt thresholds – taking also into account public domestic obligations - should not be developed for broader debt sustainability purposes as they would likely send out misleading signals. Thus the paper proposes that the public domestic debt component of the framework should be treated separately from the external debt one, and that such treatment should be tailored to country circumstances. It also points out that the best way of dealing with public domestic debt is in the context of countries’ macroeconomic framework, particularly as part of Fund-supported programs.<sup>24</sup> For IDA, therefore, the right context for the domestic debt question is the CPIA-based assessment of policy performance, rather than attempting to incorporate domestic debt into the external debt sustainability framework.

## **V. CONCLUSIONS**

74. In Hanoi, Deputies asked staff to undertake further analysis on hypotheses and options with respect to country rankings, grant allocation mechanisms and thresholds, and financing of grants. This paper responded to those requests. Three main variations and associated eligibility scenarios were examined: (i) the introduction of additional grant-eligibility categories; (ii) the

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<sup>24</sup> The “Modalities Paper” states that “in countries where domestic debt is a major macroeconomic issue, Fund programs have been responsive in their analyses and design” (IMF and World Bank [2004b], *op.cit.*, Annex I, p. 3).



incorporation of revenues-based debt-burden indicators; and (iii) the use of the 150% NPV of debt-to-exports ratio of the Enhanced HIPC Initiative as the threshold for medium and strong performers, instead of the policy-dependent debt-burden thresholds of the Framework Paper.

75. This paper also investigated possible uses for the resources that would be generated by the volume discount associated with the modified volume approach, if adopted. Part of these resources (45%), representing the present value of IDA's foregone charges on grants, could be used to establish a harder-term lending window for IDA/IBRD blend countries in IDA14. Possible options for reallocating the remainder (55%) of such resources would be: (i) reallocating such funds on the basis of an income criterion; (ii) setting aside funds for grants-based HIV/AIDS operations in IDA countries not otherwise eligible for grants; (iii) creating an incentive mechanism to reward stronger export performance; and (iv) strengthening the proposed harder-term lending window by using 100% of the resources from the volume discount for grant financing.

76. The broad conclusion is that, while different approaches have some merits, the recommendation made in Hanoi, that a three-category modified volume approach be adopted for the allocation of grants in IDA14, on balance provides the best combination of analytical justification, inter-country equity, and relative operational simplicity. Deputies' guidance is also sought on the possible uses suggested in this paper for the resources from the 20% volume discount on grants.

## VI. ISSUES FOR DISCUSSION

77. Deputies may wish to comment on the paper's conclusion that a three-category modified volume approach with a 20% upfront volume reduction on grants on balance confirms the approach proposed in Hanoi.

- Do Deputies agree that the potential advantages brought about by a "five-light" system are insufficient to compensate for the increased managerial and operational complexity as well as the potential variability in country ratings that would be introduced in IDA14?
- Do Deputies agree that the issues associated with other options considered – the introduction of revenues-based indicators, and the use of the current main HIPC threshold for medium and strong performers – on balance would not warrant the adoption of such alternatives for the allocation of grants in IDA14?
- Do Deputies judge that Kosovo and Timor-Leste should be considered eligible for grants in IDA14, and that Timor-Leste's eligibility should be phased out over the IDA14 period?
- Do Deputies consider that an overall cap on grants should be introduced in order to preserve IDA's financial strength into the future? If so, how should such a mechanism be operationalized?

78. Deputies have examined the pros and cons of different potential uses of the resources generated by the proposed 20% upfront volume reduction in grants.

- Deputies may wish to express their views on the use of the fees and charges-related portion (45%) of the total volume cut to establish a harder-term lending window in IDA14.
- Deputies may wish to comment on the three options put forward regarding the use of the remainder (55%) of the total volume cut: (i) reallocating such funds on the basis of an income criterion; or (ii) setting aside funds for grants-based HIV/AIDS operations in IDA countries not otherwise eligible for grants; or (iii) creating an incentive mechanism to reward stronger export performance; or (iv) strengthening the proposed harder-term lending window by fully using 100% of the resources from the volume discount for grant financing.

## ANNEX 1. TABLES

Table A.1. Policy-Dependent Debt and Debt-Service Thresholds Applied to Low-Income Countries

	NPV/GDP <sup>1/</sup>	NPV/EXP <sup>2/</sup>	NPV/REV <sup>6/</sup>	DS/EXP <sup>2/</sup>	DS/REV <sup>6/</sup>
<b>Strong (CPIA&gt;=3.60)</b>	60	300	350	35	40
Cape Verde	42.0	155.3	232.5	12.7	19.0
Sri Lanka	47.0	125.7	297.5	11.7	27.7
St. Lucia <sup>3/</sup>	61.3	106.5	261.7	6.9	16.9
St. Vincent and the Grenadines <sup>3/</sup>	46.9	95.3	179.2	7.4	14.0
Uganda	33.1	288.4	310.8	1.4	1.5
Grenada <sup>3/</sup>	71.7	136.9	314.9	11.8	27.2
Tanzania	23.1	156.2	216.3	0.2	0.3
Armenia	31.7	133.3	235.2	13.2	23.3
Maldives	32.8	44.0	113.6	4.8	12.4
Samoa	64.3	211.2	287.0	9.8	13.3
Bhutan	58.4	267.0	352.9	4.9	6.5
Mauritania	79.9	213.2	348.9	2.4	4.0
Nicaragua	38.8	161.1	276.0	1.1	1.9
Senegal	38.8	138.3	241.1	0.7	1.2
Honduras	46.8	124.5	298.7	16.0	38.4
India <sup>3/</sup>	16.1	119.9	140.9	19.0	22.3
Vietnam	32.3	64.9	183.7	6.8	19.1
Pakistan <sup>3/</sup>	43.7	256.8	281.6	27.6	30.3
Burkina Faso	23.3	233.2	189.9	1.8	1.4
Ghana	41.0	101.1	175.4	5.8	10.1
Indonesia <sup>3/</sup>	75.7	199.6	477.1	25.9	61.9
Madagascar	31.0	293.6	314.6	15.3	16.4
Yemen, Rep.	34.1	87.0	201.9	4.2	9.7
<b>Medium (2.90&lt;CPIA&lt;3.60)</b>	45.0	200.0	275.0	25.0	30.0
Azerbaijan <sup>3/</sup>	18.2	46.5	93.8	7.8	15.8
Bangladesh	23.2	159.5	274.1	10.5	18.0
Bolivia <sup>4/</sup>	37.7	196.4	246.3	1.4	1.8
Nepal	31.2	123.0	300.4	7.0	17.2
Benin	29.6	145.4	214.6	1.4	2.0
Mali	43.4	178.6	334.9	0.8	1.5
Bosnia and Herzegovina <sup>4/</sup>	33.9	135.5	85.3	12.0	7.6
Rwanda	39.7	540.6	394.8	17.3	12.6
Serbia and Montenegro <sup>4/</sup>	78.4	448.3	..	5.5	..
Albania <sup>4/</sup>	18.5	106.2	159.8	7.1	10.7
Dominica <sup>3/</sup>	74.6	143.4	272.1	8.4	15.9
Kenya	37.0	153.4	156.1	15.5	15.7
Lesotho	59.2	130.7	148.9	20.3	23.2
Cameroon	53.4	184.0	364.4	13.6	26.9
Mongolia	56.6	119.8	338.5	8.8	24.8
Malawi	46.6	175.7	339.3	7.3	14.0
Zambia	116.3	423.1	788.1	30.5	56.8
Kyrgyz Republic	81.3	225.7	645.4	29.4	84.1
Mozambique	34.5	74.6	308.2	0.3	1.1
Guyana	80.1	85.2	278.6	1.1	3.6
Ethiopia	25.9	163.2	122.4	11.4	8.5
Moldova	76.2	169.1	543.8	31.3	100.7
Georgia	41.5	171.7	470.1	16.0	43.9
Gambia, The	76.0	104.8	427.7	6.8	27.8
Niger	26.6	176.1	356.8	3.1	6.3
Chad	31.6	217.4	486.3	10.3	23.1
Guinea	45.1	176.2	432.7	16.7	41.0
Sierra Leone	90.8	771.5	1111.5	24.8	35.7
Cote d'Ivoire	80.4	210.9	512.5	18.6	45.2
Djibouti	37.0	98.3	169.5	5.4	9.3
Tonga	36.0	171.7	148.2	9.5	8.2
Eritrea	52.6	253.0	152.9	7.6	4.6
Vanuatu	23.4	37.0	108.3	1.5	4.3
Cambodia	66.7	156.1	668.8	1.3	5.7
Tajikistan	74.3	120.4	821.0	10.6	72.4

	NPV/GDP <sup>1/</sup>	NPV/EXP <sup>2/</sup>	NPV/REV <sup>6/</sup>	DS/EXP <sup>2/</sup>	DS/REV <sup>6/</sup>
<b>Poor (CPIA&lt;=2.90)</b>	30.0	100.0	200.0	15.0	20.0
Congo, D.R.	147.3	818.9	3283.7	90.3	362.2
Congo, Rep.	162.1	201.3	635.2	1.0	3.1
Burundi	104.4	1324.8	741.7	41.1	23.0
Papua New Guinea <sup>3/</sup>	85.9	108.4	351.8	12.5	40.7
Lao PDR	85.2	291.1	872.4	9.1	27.2
Nigeria <sup>3/</sup>	72.3	153.3	166.6	7.3	7.9
Guinea-Bissau	211.3	735.7	1171.7	23.9	38.0
Comoros	75.0	567.0	769.0	14.2	19.2
Sao Tome and Principe	223.4	681.2	1237.9	37.0	67.3
Uzbekistan <sup>3/5/</sup>	44.8	132.7	99.5	22.4	16.8
Togo	84.1	263.6	645.9	3.0	7.3
Sudan	117.4	857.3	1896.1	1.3	2.8
CAR	71.2	704.2	837.3	0.8	1.0
Haiti	23.3	174.4	271.4	5.8	9.1
Angola	86.1	131.3	431.1	11.6	38.0
Zimbabwe <sup>3/</sup>	47.1	194.0	209.0	2.9	3.1
Solomon Islands	54.1	104.3	192.0	4.6	8.4
Liberia	438.7	1765.7	3508.4	0.6	1.3
Myanmar <sup>5/</sup>	0.8	164.9	20.6	15.3	1.9
Afghanistan	11.3	202.8	..	0.0	..

Notes:

1/ In ratios, both the numerator and denominator refer to 2002 data

2/ In ratios, the numerator refers to 2002 data and the denominator refers to the three-year average of 2000-2002.

3/ Blend-term country.

4/ Hardened-term country.

5/ No IDA allocation for FY05-07.

6/ In ratios, the denominator refers to the five-year average of 1998-2002, due to the lack of data availability.

.. Not available.

\* Grey highlights indicate ratios above the indicative thresholds.

\* Ratios are in percent.

\* Exports comprise the total value of goods and services exported as defined in the IMF balance of Payment.

\* Numerators (debt and debt service) for completion-point HIPC's are the current numbers received from the Debt Department. Uganda's NPV-of-debt data reflects the latest version of its DSA (subject to an approval).

\* NPV-of-debt data for decision point HIPC's do not reflect unconditional delivery of debt relief under the initiative.

Table A.2. Percentage Distances from Indicative Thresholds and Rankings Based on Individual Indicators

	Percentage Distances from Indicative Threshold			Ranking of Debt Distress <sup>3/</sup>		
	NPV/GDP	NPV/EXP	DS/EXP	NPV/GDP	NPV/EXP	DS/EXP
<b>Strong (CPIA&gt;=3.60)</b>						
Cape Verde	30.0	48.2	63.7	1	1	1
Sri Lanka	21.7	58.1	66.6	1	1	1
St. Lucia <sup>1/</sup>	-2.2	64.5	80.3	2	1	1
St. Vincent and the Grenadines <sup>4/</sup>	21.9	68.2	78.7	1	1	1
Uganda	44.8	3.9	96.0	1	2	1
Grenada <sup>1/</sup>	-19.4	54.4	66.3	3	1	1
Tanzania	61.5	47.9	99.4	1	1	1
Armenia	47.2	55.6	62.3	1	1	1
Maldives	45.4	85.3	86.3	1	1	1
Samoa	-7.1	29.6	72.0	2	1	1
Bhutan	2.7	11.0	85.9	2	1	1
Mauritania	-33.2	28.9	93.0	3	1	1
Nicaragua	35.3	46.3	96.9	1	1	1
Senegal	35.4	53.9	98.0	1	1	1
Honduras	22.0	58.5	54.3	1	1	1
India <sup>1/</sup>	73.2	60.0	45.8	1	1	1
Vietnam	46.1	78.4	80.7	1	1	1
Pakistan <sup>1/</sup>	27.1	14.4	21.1	1	1	1
Burkina Faso	61.2	22.3	94.9	1	1	1
Ghana	31.6	66.3	83.4	1	1	1
Indonesia <sup>1/</sup>	-26.1	33.5	26.0	3	1	1
Madagascar	48.4	2.1	56.2	1	2	1
Yemen, Rep.	43.1	71.0	88.0	1	1	1
<b>Medium (2.90&lt;CPIA&lt;3.60)</b>						
Azerbaijan <sup>1/</sup>	59.6	76.8	68.7	1	1	1
Bangladesh	48.5	20.2	58.0	1	1	1
Bolivia <sup>2/</sup>	16.2	1.8	94.3	1	2	1
Nepal	30.6	38.5	71.9	1	1	1
Benin	34.1	27.3	94.5	1	1	1
Mali	3.5	10.7	96.7	2	1	1
Bosnia and Herzegovina <sup>2/</sup>	24.7	32.3	51.8	1	1	1
Rwanda	11.8	-170.3	30.9	1	3	1
Serbia and Montenegro <sup>2/</sup>	-74.3	-124.2	77.9	3	3	1
Albania <sup>2/</sup>	58.8	46.9	71.5	1	1	1
Dominica <sup>1/</sup>	-65.8	28.3	66.4	3	1	1
Kenya	17.9	23.3	38.1	1	1	1
Lesotho	-31.5	34.7	18.7	3	1	1
Cameroon	-18.7	8.0	45.6	3	2	1
Mongolia	-25.9	40.1	64.9	3	1	1
Malawi	-3.5	12.2	71.0	2	1	1
Zambia	-158.4	-111.5	-21.9	3	3	3
Kyrgyz Republic	-80.6	-12.8	-17.6	3	3	3
Mozambique	23.3	62.7	99.0	1	1	1
Guyana	-77.9	57.4	95.6	3	1	1
Ethiopia	42.5	18.4	54.5	1	1	1
Moldova	-69.3	15.4	-25.2	3	1	3
Georgia	7.9	14.2	35.8	2	1	1
Gambia, The	-68.8	47.6	72.7	3	1	1
Niger	40.8	12.0	87.5	1	1	1
Chad	29.7	-8.7	58.7	1	2	1
Guinea	-0.3	11.9	33.2	2	1	1
Sierra Leone	-101.8	-285.7	1.0	3	3	2
Cote d'Ivoire	-78.7	-5.4	25.6	3	2	1
Djibouti	17.9	50.8	78.4	1	1	1
Tonga	19.9	14.1	62.2	1	1	1
Eritrea	-16.8	-26.5	69.6	3	3	1
Vanuatu	48.0	81.5	94.1	1	1	1
Cambodia	-48.2	22.0	94.7	3	1	1
Tajikistan	-65.2	39.8	57.5	3	1	1

	Percentage Distances from Indicative Threshold			Ranking of Debt Distress <sup>3/</sup>		
	NPV/GDP	NPV/EXP	DS/EXP	NPV/GDP	NPV/EXP	DS/EXP
<b>Poor (CPIA&lt;=2.90)</b>						
Congo, D.R.	-391.0	-718.9	-502.1	3	3	3
Congo, Rep.	-440.4	-101.3	93.4	3	3	1
Burundi	-247.9	-1224.8	-174.2	3	3	3
Papua New Guinea <sup>1/</sup>	-186.3	-8.4	16.4	3	2	1
Lao PDR	-183.9	-191.1	39.5	3	3	1
Nigeria <sup>1/</sup>	-141.1	-53.3	51.6	3	3	1
Guinea-Bissau	-604.4	-635.7	-59.2	3	3	3
Comoros	-150.0	-467.0	5.5	3	3	2
Sao Tome and Principe	-644.6	-581.2	-146.9	3	3	3
Uzbekistan <sup>1/</sup>	-49.2	-32.7	-49.1	3	3	3
Togo	-180.4	-163.6	80.2	3	3	1
Sudan	-291.4	-757.3	91.6	3	3	1
CAR	-137.3	-604.2	94.5	3	3	1
Haiti	22.3	-74.4	61.1	1	3	1
Angola	-187.0	-31.3	22.9	3	3	1
Zimbabwe <sup>1/</sup>	-56.9	-94.0	80.9	3	3	1
Solomon Islands	-80.4	-4.3	69.4	3	2	1
Liberia	-1362.4	-1665.7	95.7	3	3	1
Myanmar	97.4	-64.9	-2.1	1	3	2
Afghanistan	62.5	-102.8	100.0	1	3	1

Notes:

.. not available.

1/ Blend-term country.

2/ Hardened-term country.

3/ Based on option 2 of the classification system, whereby “1” indicates green light, “2” yellow light, and “3” red light (see Annex 2.C in IDA (2004)).

**Table A.3. Composite Index for Ranking Countries According to Debt Distress**

	Percentage Distances from Indicative Threshold				Debt Distress
	NPV/GDP	NPV/EXP	Two-Stock Average (a)	DS/EXP (b)	Country Ranking <sup>3/</sup>
<b>Strong (CPIA&gt;=3.60)</b>					
Cape Verde	30.0	48.2	39.1	63.7	1
Sri Lanka	21.7	58.1	39.9	66.6	1
St. Lucia <sup>1/</sup>	-2.2	64.5	31.1	80.3	1
St. Vincent and the Grenadines <sup>1/</sup>	21.9	68.2	45.1	78.7	1
Uganda	44.8	3.9	24.3	96.0	1
Grenada <sup>1/</sup>	-19.4	54.4	17.5	66.3	1
Tanzania	61.5	47.9	54.7	99.4	1
Armenia	47.2	55.6	51.4	62.3	1
Maldives	45.4	85.3	65.3	86.3	1
Samoa	-7.1	29.6	11.3	72.0	1
Bhutan	2.7	11.0	6.8	85.9	2
Mauritania	-33.2	28.9	-2.1	93.0	2
Nicaragua	35.3	46.3	40.8	96.9	1
Senegal	35.4	53.9	44.6	98.0	1
Honduras	22.0	58.5	40.2	54.3	1
India <sup>1/</sup>	73.2	60.0	66.6	45.8	1
Vietnam	46.1	78.4	62.2	80.7	1
Pakistan <sup>1/</sup>	27.1	14.4	20.8	21.1	1
Burkina Faso	61.2	22.3	41.7	94.9	1
Ghana	31.6	66.3	49.0	83.4	1
Indonesia <sup>1/</sup>	-26.1	33.5	3.7	26.0	2
Madagascar	48.4	2.1	25.3	56.2	1
Yemen, Rep.	43.1	71.0	57.0	88.0	1
<b>Medium (2.90&lt;CPIA&lt;3.60)</b>					
Azerbaijan <sup>1/</sup>	59.6	76.8	68.2	68.7	1
Bangladesh	48.5	20.2	34.4	58.0	1
Bolivia <sup>2/</sup>	16.2	1.8	9.0	94.3	2
Nepal	30.6	38.5	34.5	71.9	1
Benin	34.1	27.3	30.7	94.5	1
Mali	3.5	10.7	7.1	96.7	2
Bosnia and Herzegovina <sup>2/</sup>	24.7	32.3	28.5	51.8	1
Rwanda	11.8	-170.3	-79.2	30.9	3
Serbia and Montenegro <sup>2/</sup>	-74.3	-124.2	-99.2	77.9	3
Albania <sup>2/</sup>	58.8	46.9	52.8	71.5	1
Dominica <sup>1/</sup>	-65.8	28.3	-18.7	66.4	3
Kenya	17.9	23.3	20.6	38.1	1
Lesotho	-31.5	34.7	1.6	18.7	2
Cameroon	-18.7	8.0	-5.4	45.6	2
Mongolia	-25.9	40.1	7.1	64.9	2
Malawi	-3.5	12.2	4.3	71.0	2
Zambia	-158.4	-111.5	-135.0	-21.9	3
Kyrgyz Republic	-80.6	-12.8	-46.7	-17.6	3
Mozambique	23.3	62.7	43.0	99.0	1
Guyana	-77.9	57.4	-10.3	95.6	3
Ethiopia	42.5	18.4	30.4	54.5	2
Moldova	-69.3	15.4	-26.9	-25.2	3
Georgia	7.9	14.2	11.0	35.8	1
Gambia, The	-68.8	47.6	-10.6	72.7	3
Niger	40.8	12.0	26.4	87.5	1
Chad	29.7	-8.7	10.5	58.7	1
Guinea	-0.3	11.9	5.8	33.2	2
Sierra Leone	-101.8	-285.7	-193.8	1.0	3
Cote d'Ivoire	-78.7	-5.4	-42.1	25.6	3
Djibouti	17.9	50.8	34.3	78.4	1
Tonga	19.9	14.1	17.0	62.2	1
Eritrea	-16.8	-26.5	-21.7	69.6	3
Vanuatu	48.0	81.5	64.8	94.1	1
Cambodia	-48.2	22.0	-13.1	94.7	3
Tajikistan	-65.2	39.8	-12.7	57.5	3

	Percentage Distances from Indicative Threshold				Debt Distress Country Ranking <sup>3/</sup>
	NPV/GDP	NPV/EXP	Two-Stock Average (a)	DS/EXP (b)	(a) or (b), according to the decision rule
<b>Poor (CPIA&lt;=2.90)</b>					
Congo, D.R.	-391.0	-718.9	-555.0	-502.1	3
Congo, Rep.	-440.4	-101.3	-270.9	93.4	3
Burundi	-247.9	-1224.8	-736.4	-174.2	3
Papua New Guinea <sup>1/</sup>	-186.3	-8.4	-97.4	16.4	3
Lao PDR	-183.9	-191.1	-187.5	39.5	3
Nigeria <sup>1/</sup>	-141.1	-53.3	-97.2	51.6	3
Guinea-Bissau	-604.4	-635.7	-620.1	-59.2	3
Comoros	-150.0	-467.0	-308.5	5.5	3
Sao Tome and Principe	-644.6	-581.2	-612.9	-146.9	3
Uzbekistan <sup>1/</sup>	-49.2	-32.7	-40.9	-49.1	3
Togo	-180.4	-163.6	-172.0	80.2	3
Sudan	-291.4	-757.3	-524.4	91.6	3
CAR	-137.3	-604.2	-370.7	94.5	3
Haiti	22.3	-74.4	-26.0	61.1	3
Angola	-187.0	-31.3	-109.1	22.9	3
Zimbabwe <sup>1/</sup>	-56.9	-94.0	-75.4	80.9	3
Solomon Islands	-80.4	-4.3	-42.3	69.4	3
Liberia	-1362.4	-1665.7	-1514.0	95.7	3
Myanmar	97.4	-64.9	16.2	-2.1	2
Afghanistan	62.5	-102.8	-20.2	100.0	3

Notes:

1/ Blend-term country.

2/ Hardened-term country.

3/ Based on option 2 of the classification system, whereby “1” indicates green light, “2” yellow light, and “3” red light (see Annex 2.C in IDA (2004)).



**Table A.4. Debt Distress Rankings and Grant Allocations by Country, Using the Volume Approach\***

Country	Per Capita Income (2002)	Debt Distress Country Ranking (2002)	Grants as a Share of IDA Allocation (percent)	Grant Classification in IDA 13 <sup>6/</sup>
<b>Strong (CPIA&gt;=3.60)</b>				
Cape Verde	1,290	1	0	
Sri Lanka	840	1	0	Post -Conflict
St. Lucia <sup>1/</sup>	3,840	1	0	
St. Vincent and the Grenadines <sup>1/</sup>	2,820	1	0	
Uganda	240	1	0	Debt Vulnerable
Grenada <sup>1/</sup>	3,500	1	0	
Tanzania	280	1	0	Per capita income <= \$360
Armenia	790	1	0	
Maldives	2,090	1	0	
Samoa	1,420	1	0	
Bhutan	590	2	50	
Mauritania	340	2	50	Per capita income <= \$360
Nicaragua	437	1	0	
Senegal	470	1	0	
Honduras	920	1	0	
India <sup>1/</sup>	480	1	0	
Vietnam	430	1	0	
Pakistan <sup>1/</sup>	410	1	0	
Burkina Faso	220	1	0	Debt Vulnerable
Ghana	270	1	0	Per capita income <= \$360
Indonesia <sup>1/</sup>	710	2	0	
Madagascar	240	1	0	Per capita income <= \$360
Yemen, Rep.	490	1	0	
<b>Medium (2.90&lt;CPIA&lt;3.60)</b>				
Azerbaijan <sup>1/</sup>	710	1	0	
Bangladesh	360	1	0	Per capita income <= \$360
Bolivia <sup>2/</sup>	900	2	0	
Nepal	230	1	0	Per capita income <= \$360
Benin	240	1	0	Debt Vulnerable
Mali	380	2	50	Per capita income <= \$360
Bosnia and Herzegovina <sup>2/</sup>	1,270	1	0	
Rwanda	230	3	100	Debt Vulnerable
Serbia and Montenegro <sup>2/</sup>	1,400	3	0	
Albania <sup>2/</sup>	1,380	1	0	
Dominica <sup>1/</sup>	3,180	3	0	
Kenya	360	1	0	Per capita income <= \$360
Lesotho	470	2	50	
Cameroon	560	2	50	
Mongolia	440	2	50	
Malawi	160	2	50	Debt Vulnerable
Zambia	330	3	100	Debt Vulnerable
Kyrgyz Republic	290	3	100	Debt Vulnerable
Mozambique	210	1	0	Debt Vulnerable
Guyana	840	3	100	
Ethiopia <sup>5/</sup>	100	2	50	Debt Vulnerable
Moldova	460	3	100	
Georgia	720	1	0	
Gambia, The	280	3	100	Debt Vulnerable
Niger	170	1	0	Debt Vulnerable
Chad	220	1	0	Per capita income <= \$360
Kiribati <sup>3/</sup>	810	NA	0	
Guinea	410	2	50	
Sierra Leone	140	3	100	Post -Conflict
Cote d'Ivoire	610	3	100	Post -Conflict
Djibouti	900	1	0	
Tonga	1,410	1	0	
Eritrea	160	3	100	Post -Conflict
Vanuatu	1,080	1	0	
Cambodia	280	3	100	Per capita income <= \$360
Tajikistan	180	3	100	Debt Vulnerable

Country	Per Capita Income (2002)	Debt Distress Country Ranking (2002)	Grants as a Share of IDA Allocation (percent)	Grant Classification in IDA 13 <sup>6/</sup>
<b>Poor (CPIA&lt;=2.90)</b>				
Congo, D.R.	90	3	100	Post -Conflict
Congo, Rep.	700	3	100	Post -Conflict
Burundi	100	3	100	Post -Conflict
Papua New Guinea <sup>1/</sup>	530	3	0	
Lao PDR	310	3	100	Debt Vulnerable
Nigeria <sup>1/</sup>	290	3	0	
Guinea-Bissau	150	3	100	Debt Vulnerable
Comoros	390	3	100	
Sao Tome and Principe	290	3	100	Debt Vulnerable
Uzbekistan <sup>1/</sup>	460	3	0	
Togo	270	3	100	Per capita income <= \$360
Sudan	350	3	100	
CAR	260	3	100	Per capita income <= \$360
Haiti	440	3	100	
Angola	660	3	100	Post -Conflict
Zimbabwe <sup>1/</sup>	484	3	0	
Solomon Islands	570	3	100	
Liberia	150	3	100	
Myanmar	322	2	0	
Somalia	150	NA	0	
Timor-Leste <sup>3/</sup>	430	NA	0	Post -Conflict
Afghanistan	278	3	100	Post -Conflict
Kosovo <sup>4/</sup>	1,290	NA	100	Post -Conflict
Total grants in IDA as a share of IDA resources (percent)			23.0	

Notes:

\* As in IDA 13, it is assumed that blend and hardened-term countries would be excluded from grant eligibility.

1/ Blend-term country (100% credits).

2/ Hardened-term country (100% credits).

3/ No data on debt available. 100% credits assumed.

4/ Part of Serbia and Montenegro under UN administration. 100% grants assumed.

5/ As per discussion in Box A.1 in Annex 2, Ethiopia is classified as a yellow light country insofar as its post-completion point HIPC DSA indicates that it will move to a medium debt distress category within the IDA 14 period (FY06-08).

6/ Grant share by classification in IDA 13 is the following:

- Debt vulnerable and post conflict: 29% in FY03 and 34% in FY04,
- Poor (per capita income<=\$360): 17% in FY03 and 20% in FY04.

**Table A.5. Volume Changes Resulting from the Modified Volume Approach plus the Reallocation of Resources from the Volume Discount**

Volume Change	Specification of countries		Number of countries	Country
	Light	Per Capita Income		
5% increase	Green	PCI≤\$360	11	Bangladesh, Burkina Faso, Chad, Ghana, Kenya, Madagascar, Mozambique, Nepal, Niger, Tanzania, Uganda
5% reduction	Yellow	PCI≤\$360	4	Ethiopia, Malawi, Mali, Mauritania
10% reduction	Yellow	PCI>\$360	5	Bhutan, Cameroon, Guinea, Lesotho, Mongolia
15% reduction	Red	PCI≤\$360	18	Afghanistan, Burundi, Cambodia, Central African Rep., Congo DR, Eritrea, The Gambia, Guinea-Bissau, Kyrgyz Republic, Lao PDR, Liberia, Rwanda, Sao Tome & Principe, Sierra Leone, Sudan, Tajikistan, Togo, Zambia
20% reduction	Red	PCI>\$360	9	Angola, Comoros, Republic of Congo, Cote d'Ivoire, Guyana, Haiti, Kosovo, Moldova, Solomon Islands

## ANNEX 2. PERFORMANCE, INCOME, AND DEBT DISTRESS IN IDA'S ALLOCATION SYSTEM

**Introduction.** This annex starts from the premise that the full implications of the allocation of IDA terms can only be understood in conjunction with the allocation of IDA volumes through the Performance-Based Allocation (PBA) system. Together, the PBA *plus* the determination of the terms of IDA support would form what one could call more generally the “IDA Allocation System”. The two parts of the IDA Allocation System - by determining both SDR volumes and grant eligibility - generate a single resource transfer value for each country, which will in effect be its per capita resource transfer from IDA *in present value terms*.

Different parts of IDA's allocation system can then deal with different variables: while the PBA (by construction) deals with incentives (performance) and per capita income, the allocation of terms is made free to deal with debt distress. It would be inappropriate to assess the grant allocation process without reference to the PBA, and to expect it to solve for equity, incentive, and sustainability issues simultaneously (the Tinbergen problem – too many policy goals for too few instruments). Only the IDA allocation system as a whole can generate sufficient instruments to deal with those trade-offs.

A main consideration is thus that the process of allocation of terms does not unduly weaken the PBA's incentive system nor introduces “regressive” elements in the distribution of resources in present value terms to countries. IDA's proposed modified volume approach goes a long way towards maintaining the policy-responsiveness of the present value of IDA's resource transfers. In addition, preliminary empirical analysis indicates that the volume approach – both in its “pure” and in its modified formulation – does not seem to introduce regressive elements into the distribution of IDA resources.

In what follows, this annex elaborates further on the articulation between the two parts of the IDA Allocation System, as well as on the empirical results referred to above.

**The PBA as an Income-Sensitive Incentive System.** The PBA is an incentive system that also caters to countries' needs, whereby “IDA's resources are allocated on the basis of the IDA Performance Rating (PR) – ensuring that good performers get a higher share of IDA's available resources – and, to a lesser extent, GNI per capita.”<sup>25</sup> In turn, the IDA Country Performance Rating is calculated as follows. First, for each country, a weighted average of the CPIA (80%) and the ARPP<sup>26</sup> (20%) is calculated. Second, this number is multiplied by a “governance factor”, which in turn is derived from six governance-related items of the CPIA plus the procurement practices criterion of the ARPP. IDA allocations in per capita terms are then determined as follows:

$$\text{Per Capita Allocation} = f(\text{PR}^{2.0}, \text{GNIPC}^{-0.125}),$$

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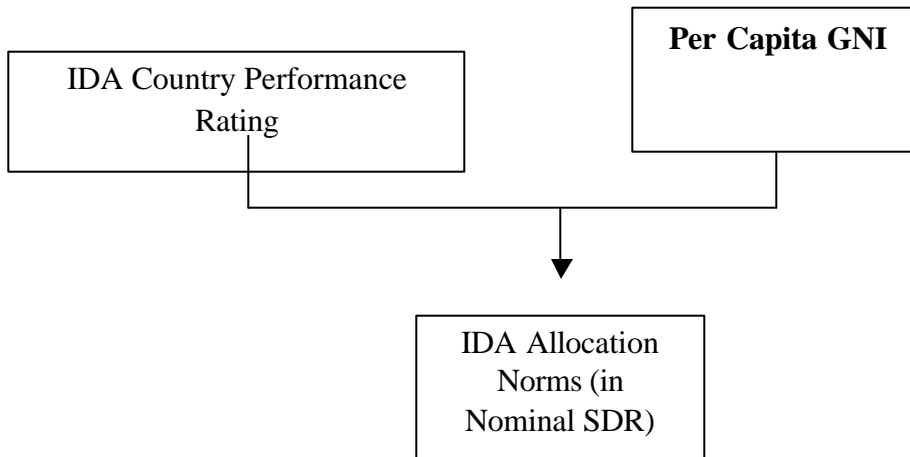
<sup>25</sup> See IDA (2003). *Allocating IDA Funds Based on Performance. Fourth Annual Report on IDA's Country Assessment and Allocation Process*. Washington, D.C., March.

<sup>26</sup> The Bank's Annual Report on Portfolio Performance index.

where PR is the IDA Country Performance Rating and GNIPC is per capita gross national income.

Chart A.1 below presents a simplified<sup>27</sup> picture of the income and incentive pillars of the PBA:

**Chart A.1. The Income and the Incentive Pillars of the PBA**

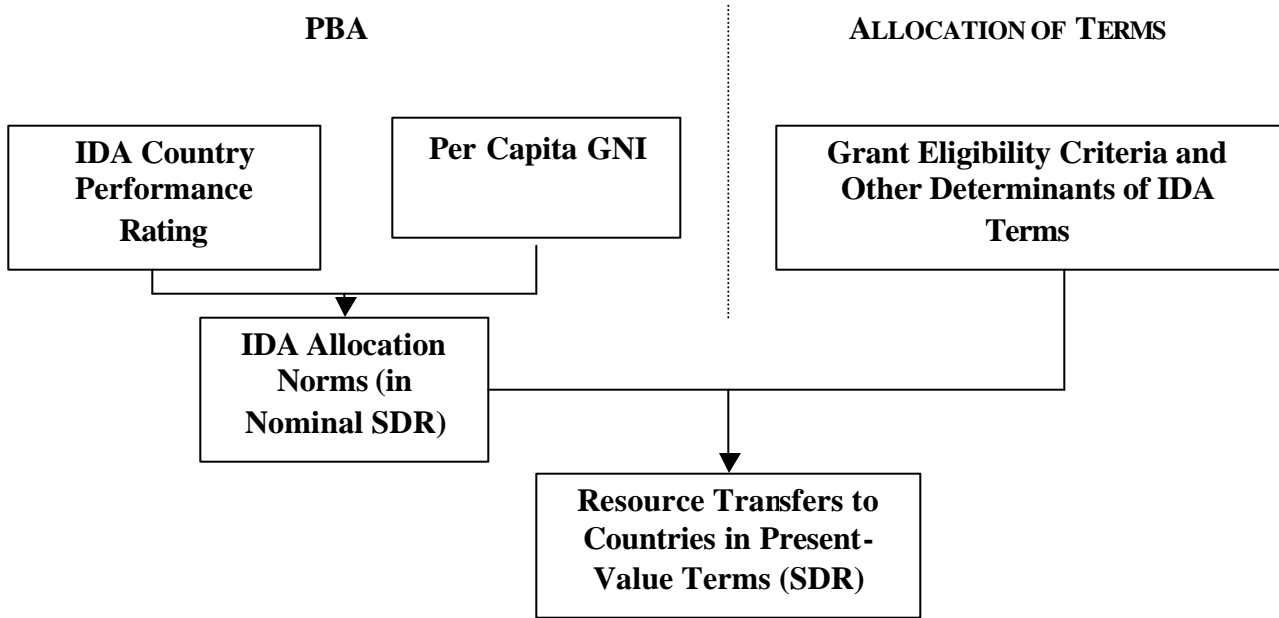


**Grant Eligibility in IDA14 and the IDA Allocation System.** As noted in the introduction, the PBA and the process of allocation of terms – which jointly can be termed the IDA Allocation System – together determine, for each country, the present value of its IDA support. These relationships are depicted in Chart A.2 below. The left-hand-side panel, representing the PBA, shows how IDA Allocation Norms are determined, as per chart 1. The right-hand-side panel shows how grant eligibility and the allocation of terms more generally interact with the nominal SDR allocations, effectively generating countries’ per capita resource transfer from IDA *in present value terms*.

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<sup>27</sup> Abstracting from post-conflict and blend adjustments.

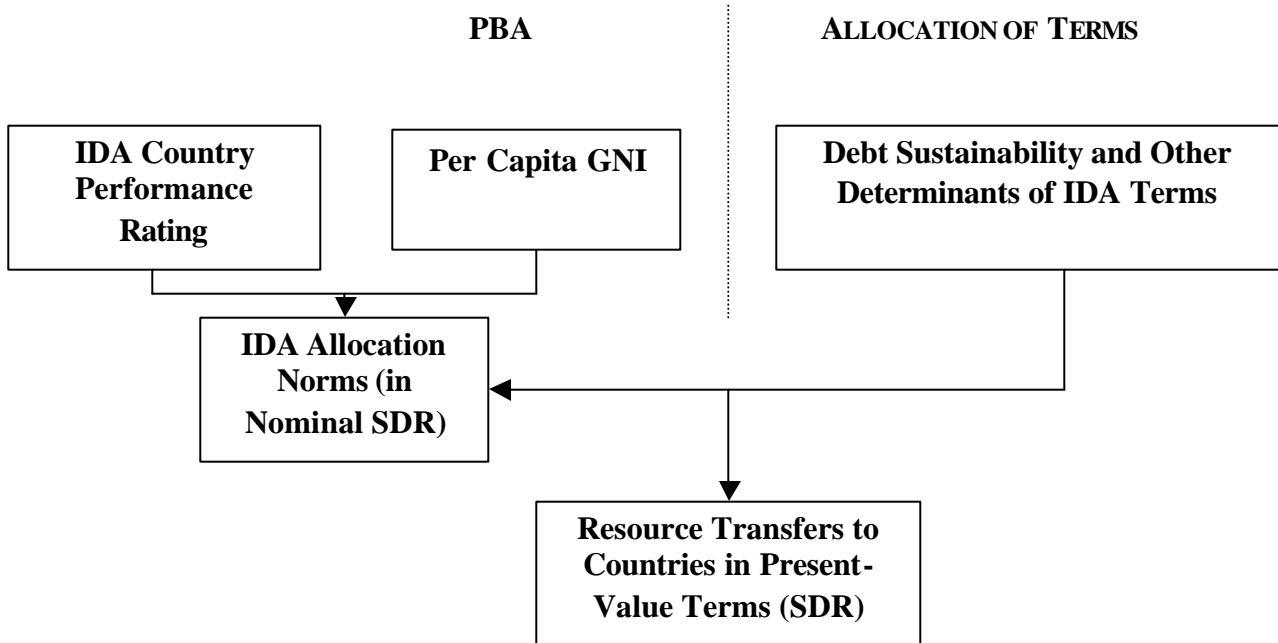
Chart A.2. The IDA Allocation System



As discussed in detail in the proposal discussed with IDA Deputies in Hanoi<sup>28</sup> (July 9-11, 2004), grant eligibility in IDA14 is proposed to respond to countries' risk of debt distress. This introduces a third exogenous variable in the IDA Allocation System - debt sustainability - which in combination with the IDA Allocation Norms will determine, for each country, the present value of its three-year IDA allocation. In addition, the volume discounts on grants associated with the modified volume approach would imply that even the IDA Allocation Norms (in nominal SDR) would be *directly* affected by the allocation of terms as well. This is illustrated in Chart A.3:

<sup>28</sup> See IDA (2004a). *Debt Sustainability and Financing Terms in IDA14*. Washington, D.C., June.

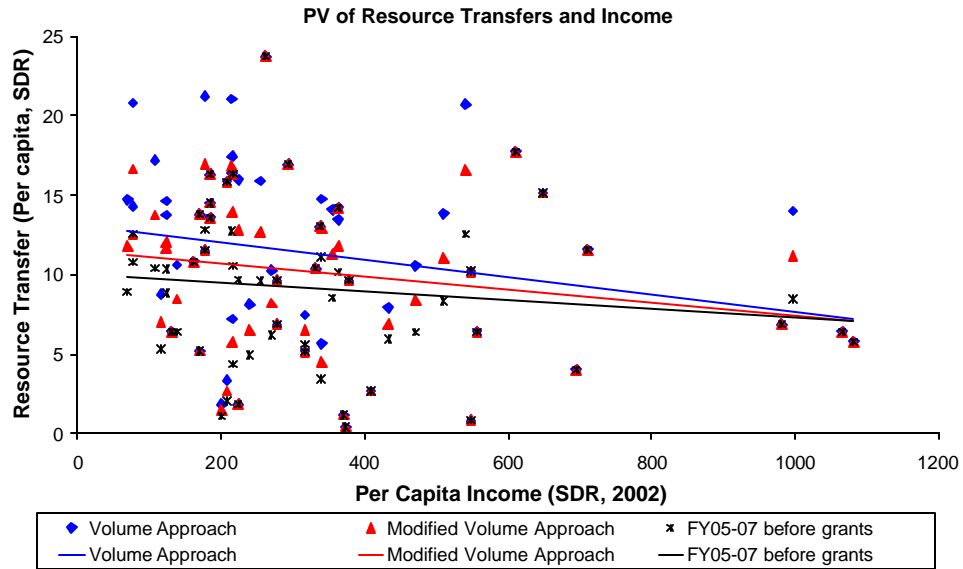
Chart A.3. Debt Sustainability and the IDA Allocation System



**Implications for IDA’s Incentive Structure.** A first concern is to verify whether IDA’s debt-distressed-based grants allocation system weakens the incentive system embedded in the PBA. This was discussed in detail in the IDA14 proposal discussed in Hanoi (IDA [2004a], *op. cit.*, Annex 4), and this note will not elaborate further on that. Here it suffices to say that the modified volume approach restores much of the before-grants policy-responsiveness of the present value of IDA resource transfers that would have been lost with a “pure” volume approach. In addition, variants of the modified volume approach – such as reallocating part of the resulting resources from the volume discount on the basis of an income criterion and/or creating a greater continuum of grant-eligibility categories – further increase the performance-elasticity of resource transfers, closer to the before-grants level. Therefore, it can be said that IDA’s proposed grant allocation mechanism – the modified volume approach - does not unduly weaken the built-in incentive system of the PBA.

**Implications for the Income-Sensitivity of IDA’s Allocations.** The second concern is to gauge whether IDA’s proposed grant allocation mechanism introduces “regressive” elements that would affect the relationship between per capita income and the present value of resource transfers. The FY05-07 before-grants PBA baseline is regressed against per capita income, generating as expected a negatively-sloped regression line. For a grant allocation mechanism to be regressive (progressive), the corresponding regression line would have to be flatter (steeper) than that of the PBA baseline, reflecting a lower (higher) sensitivity of resource transfers to per capita income. Chart A.4 below compares the resulting regression lines for both “pure” and modified versions of the volume approach with that for the PBA baseline:

Chart A.4. Income-Sensitivity of the Present Value of Resource Transfers



Although results may differ for individual countries, *on average both versions of the volume approach are more income-sensitive than the PBA baseline, indicating that both are more “progressive” than the latter.* That is, in both cases, the present value of resource transfers will tend to be higher than that resulting from the before-grants PBA baseline, particularly for countries at the lower end of the income spectrum. The volume discount under the modified volume approach reduces this sensitivity somewhat compared to the “pure” volume approach, but this clearly illustrates the trade-offs IDA faces in determining volumes and terms for its clients: the modified volume approach reduces income-sensitivity vis-à-vis the “pure” volume approach, but restores to some extent the performance-elasticity lost with the latter.



### ANNEX 3. REVENUES-BASED INDICATORS: FORMULAS AND COUNTRY IMPLICATIONS

**A. Formulas.** The following formulas have been applied to the calculation of the composite indicator in the simulations with revenues-based indicators:

$$C_{it}^{debtstock} = \frac{D_{it}^X + D_{it}^{GDP} + D_{it}^{Rev}}{3}, \text{ where}$$

$$D_{it}^X = -\frac{\left(\frac{NPV}{X}\right)_{it} - \left(\frac{NPV}{X}\right)^*}{\left(\frac{NPV}{X}\right)^*},$$

$$D_{it}^{GDP} = -\frac{\left(\frac{NPV}{GDP}\right)_{it} - \left(\frac{NPV}{GDP}\right)^*}{\left(\frac{NPV}{GDP}\right)^*},$$

$$D_{it}^{Rev} = -\frac{\left(\frac{NPV}{Rev}\right)_{it} - \left(\frac{NPV}{Rev}\right)^*}{\left(\frac{NPV}{Rev}\right)^*},$$

where  $C_{it}^{debtstock}$  indicates the composite debt stock indicator at time  $t$  for country  $i$ ,  $D_{it}^X$  represents the distance of the country  $i$ 's debt-to-export ratio at time  $t$  from the respective threshold, the variable with asterisk (\*), and so on. The same formulation applies, *ceteris paribus*, to the composite debt service indicator. The composite debt service indicator is the average distance from the two debt-service thresholds, that is, the debt service-to-exports and debt service-to-revenues ratios.

**B. Country Implications.** Table A.6 shows in detail the changes in country grant eligibility emerging from the introduction of a revenues-based variation, as discussed in the main text.

Table A.6. Countries Changing “Lights” when Using Revenues-Based Indicators

	Baseline (Volume Approach)	Incorporating NPV/REV, DS/REV
Afghanistan	3	3
Albania	1	1
Angola	3	3
Armenia	1	1
Azerbaijan	1	1
Bangladesh	1	1
Benin	1	1
Bhutan	2	2
Bolivia	2	1
Bosnia and Herzegovina	1	1
Burkina Faso	1	1
Burundi	3	3
Cambodia	3	3
Cameroon	2	3
Cape Verde	1	1
CAR	3	3
Chad	1	3
Comoros	3	3
Congo, Dem. Rep.	3	3
Congo, Rep.	3	3
Cote d'Ivoire	3	3
Djibouti	1	1
Dominica	3	3
Eritreo	3	2
Etiopía	2	2
Gambia, The	3	3
Georgia	1	3
Ghana	1	1
Grenada	1	1
Guinea	2	3
Guinea-Bissau	3	3
Guyana	3	2
Haiti	3	3
Honduras	1	1
India	1	1
Indonesia	2	3
Kenya	1	1
Kyrgyz Republic	3	3
Lao PDR	3	3
Lesotho	2	1
Liberia	3	3
Madagascar	1	1
Malawi	2	2
Maldives	1	1

	Baseline (Volume Approach)	Incorporating NPV/REV, DS/REV
Mali	2	2
Mauritania	2	2
Moldova	3	3
Mongolia	2	2
Mozambique	1	1
Myanmar	2	1
Nepal	1	1
Nicaragua	1	1
Niger	1	1
Nigeria	3	3
Pakistan	1	1
Papua New Guinea	3	3
Rwanda	3	3
Samoa	1	1
Sao Tome and Principe	3	3
Senegal	1	1
Serbia and Montenegro	3	3
Sierra Leone	3	3
Solomon Islands	3	3
Sri Lanka	1	1
St. Lucia	1	1
St. Vincent and the Grenadines	1	1
Sudan	3	3
Tajikistan	3	3
Tanzania	1	1
Togo	3	3
Tonga	1	1
Uganda	1	1
Uzbekistan	3	3
Vanuatu	1	1
Vietnam	1	1
Yemen, Rep.	1	1
Zambia	3	3
Zimbabwe	3	3

- Note: Highlights indicate the change in category by option as opposed to the baseline (the volume approach as per IDA[2004a]).

#### ANNEX 4. THE SENSITIVITY OF GRANT ALLOCATIONS TO CHANGES IN THE DEBT-BURDEN THRESHOLDS

In this annex, the sensitivity of the overall grant share and country grant coverage to changes in the policy-dependent debt-burden thresholds is assessed. *Only changes in the thresholds for the NPV of debt-to-exports ratio are considered here.* The simulations reported in this annex are for illustration only, and are not based on a rigorous re-examination of the analytical underpinnings for the thresholds derived in the Framework Paper.<sup>29</sup>

Table A.7 below shows a narrower range – with a 150%, HIPC-like, mid-point - for the NPV of debt-to-exports ratio thresholds, and compares them with the original Framework Paper thresholds.

Table A.7. An Illustrative Set of Alternative Thresholds for the NPV of Debt-to-Exports Ratio

Performance	Original Framework Thresholds	Illustrative Thresholds
Strong	300	<b>200</b>
Medium	200	<b>150</b>
Low	100	<b>100</b>

The main implications of this exercise would be:

- The number of “yellow light” countries would increase to 15 and “red” ones to 38 from 12 and 32, respectively, in the volume approach.<sup>30</sup> This would lead to a total of 43 grant-eligible countries.
- The new grant share would become 31.4% for projected IDA FY05-07 allocation.
- More than 80% of the total grant amount would be allocated to the Africa region.
- Applying a 20% upfront volume reduction would increase the policy coefficient from SDR 2.54 per capita to SDR 2.66 (a one-unit improvement in the IDA performance rating would thus increase the present value of per capita resource transfers by SDR 2.66). This coefficient is estimated to become even stronger when part of the discount is reallocated to the poorest in the form of grants, that is, SDR 2.85.

<sup>29</sup> See IMF and IDA (2004a, op. cit.). Broadly speaking, lower thresholds could be interpreted as the result of a lower tolerance to the risk of debt distress.

<sup>30</sup> More specifically: a) Nine “green light” countries under the volume approach change their classification to “yellow”. They are: Chad, Georgia, Granada (blend), Kenya, Madagascar, Pakistan (blend), Samoa, Tonga and Uganda; and b) six “yellow light” countries under the volume approach become “red light”. They are: Bhutan, Cameroon, Ethiopia, Indonesia, Malawi and Mauritania.