



Application of the Performance Based Allocation System to Fragile States

Published by:

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Technische Zusammenarbeit (GTZ) GmbH
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June 2007

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List of Acronyms

| | |
|----------|--|
| PBA | Performance Based Allocation |
| IDA | International Development Association |
| GNI | Gross National Income |
| GNP | Gross National Product |
| GDP | Gross Domestic Product |
| CPIA | Country Policy and Institutional Assessment |
| MDBs | Multilateral Development Banks |
| WB | World Bank |
| OECD-DAC | Organisation for Economic Co-operation and Development – Development Assistance Committee |
| LICUS | Low-Income Countries Under Stress |
| EC | European Commission |
| EDF | European Development Fund |
| DFID | Department for International Development |
| ODA | Official Development Assistance |
| PPP | Purchasing Power Parity |
| ADB | Asian Development Bank |
| AfDB | African Development Bank |
| AusAID | The Australian Government's overseas aid programme |
| UNDP | United Nations Development Programme |
| CPIA | Country Policy and Institutional Assessment |
| USAID | United States Agency for International Development |
| DRC | Democratic Republic of Congo |
| PCPI | Post-Conflict Progress Indicators |

Acknowledgements

This study was commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). We are grateful for helpful comments from Ulla Keppel (GTZ) and Stella Seibert (BMZ). We are also grateful for helpful information about the PBA from Frederik Van Bolhuis and Ivar Anderson (IDA, World Bank), and about World Bank support to LICUS countries from Soniya Carvalho (IEG, World Bank) and Annette Leith (OPCS, World Bank). We are also grateful to Elisabeth Mildeberger and Philip Quarcoo (African Development Bank) for information about the PBA of the African Development Bank, to Carl Kalapesi (DFID) for information about the aid allocation formulae used by DFID, and to Françoise Moreau (DG Development, EC) for information about the aid allocation formulae used by the EC.

Executive summary

This paper looks at the Performance Based Allocation (PBA) system of the International Development Association (IDA), and how it relates to fragile states. The PBA is the mechanism used by the IDA to allocate concessional aid resources across developing countries deemed eligible for such assistance. The central questions addressed in the paper are a) whether the PBA in its current form allocates a large enough share of IDA resources to fragile states, and if not b) how the PBA could be adjusted or 'fine-tuned' to bring about a more appropriate allocation.

Fragile states are poor countries variously characterised by weak governance, conflict and/or insecurity. There are considered to be around 30 such countries, which are home to around 500 million people and around one third of the world's poor (World Bank 2006, Department for International Development (DFID) 2005). The specific definition used in this paper is that used by the World Bank. These are low-income countries with both overall Country Policy and Institutional Assessment (CPIA) scores, and scores in the CPIA governance component, below 3.0 (formerly referred to as Low Income Countries Under Stress (LICUS) countries).

Fragile states are not a homogenous group. They include 9 countries classified by IDA as post-conflict (e.g. Afghanistan, Democratic Republic of Congo); importantly, such countries are eligible for exceptional levels of assistance under the PBA. A further 12 countries are classified by the World Bank as 'conflict-affected', but are not considered eligible for exceptional post-conflict assistance (e.g. Haiti, Central African Republic). Fragile states also differ in other important ways with potentially significant implications for aid allocation decisions: in terms of prospects for reform, development performance and natural resource endowments for example.

During the period of the 13th IDA replenishment (2003-2005), fragile states received between 16% and 24% of total net disbursements made by IDA. This is similar to their share of the population of all IDA-eligible countries over this period (20%). However, post-conflict countries received between 7% and 13% of total IDA net disbursements, on average roughly double their population share (5%). By contrast, conflict-affected fragile states received between 3% and 5% of total IDA net disbursements, on average less than half their population share (11%). Comparable data for the period of the 14th IDA replenishment (2006-2009) are not yet available, but estimates on the basis of the existing PBA formula suggest that similar proportions will be allocated to fragile states, and to post-conflict countries among them, during this period.

In order to ask whether IDA allocates enough of its resources to fragile states, or to their various sub-categories, a number of factors must be considered. These are:

- **efficiency:** the argument that IDA resources should be allocated in such a way that achieves the largest possible reduction in poverty, suitably defined and measured;
- **incentives:** the argument that by allocating aid primarily on the basis of CPIA scores, recipient country governments are given a strong incentive to raise the quality of their policies and institutions, with beneficial implications;

- **take-up:** whether any increase in IDA allocations to fragile states would in fact lead to an increase in actual disbursements of IDA resources;
- **other donors:** whether IDA should adjust its own allocation formula to compensate in some way for the actions of other donors;
- **absorptive capacity:** whether fragile states would have sufficient capacity to absorb any increase in aid from IDA;
- **sources of evidence:** whether econometric estimates of aid effectiveness in fragile states can be regarded as reliable;
- **econometric controversy:** whether the evidence of a greater impact of aid on economic growth in countries with higher CPIA scores is reliable, and whether other characteristics of fragile states also raise the impact;
- **direct aid-poverty linkages:** whether aid affects poverty mainly through economic growth, or also has more direct effects (e.g. via the composition of government expenditure);
- **windows of opportunity:** whether donors can use aid to bring about an improvement in policy or institutions in fragile states;
- **inherent country disadvantages:** whether IDA allocations should seek to compensate in some way countries facing inherent disadvantages, and if so whether such factors are more pervasive in fragile states;
- **exceptional post-conflict assistance:** how eligibility for such assistance should be determined, how it should be allocated across eligible countries, and for how long it should last.

Taking all these considerations into account is of course very difficult. On balance however, there is evidence that the proportion of IDA resources currently allocated to fragile states, and also to post-conflict countries, is too low. This is for two main reasons. First, although drawing closely on the poverty-efficiency approach to aid allocation proposed by Collier and Dollar (2002), the PBA departs from the strict version of this approach in ways which lowers the share of IDA resources allocated to fragile states. More specifically, while the 'poverty-efficiency' approach suggests that allocations to fragile states should be somewhat lower than they would be if based entirely on country need, it does not suggest that those allocations should be as much lower as they are under the PBA. Second, while there clearly are additional considerations, not reflected in the poverty-efficiency approach to aid allocation proposed by Collier and Dollar, on balance these do not clearly suggest that a much lower share of IDA resources should be allocated to fragile states than implied by this approach.

For these two reasons, the paper looks at potential ways of adjusting the current PBA, with the overall aim of raising the share of resources allocated to fragile states to a more appropriate level. Of these, a reduction in the weight attached to governance in determining country performance, and a reduction in the weight attached to country performance in

determining a country's allocation score, would be justifiable, but somewhat limited as a means of significantly raising IDA allocations to fragile states. Other justifiable adjustments would include adding to the PBA formula more direct measures of country need (e.g. infant mortality), or an enhancement factor for high levels of economic vulnerability, although in the latter case data availability would be an issue.

For post-conflict countries, adding a post-conflict enhancement factor (PCEF) to their country performance ratings would be a simple, transparent and theoretically consistent way of allocating exceptional assistance to such countries. Care would be required however when determining the appropriate level at which the PCEF was to be set. In addition, despite recent extensions, the duration of exceptional assistance from IDA to post-conflict countries still begins and ends earlier than is appropriate (at least in terms of allocations, if not actual disbursements).

In terms of future priorities, there is a need for further discussion regarding the underlying principles according to which IDA aid resources are to be allocated: whether, for example, the over-riding objective is poverty reduction (and if so, how defined), or whether other objectives are relevant (e.g. state building, compensation for inherent country disadvantages). There is also a need for further research into the effectiveness of aid in post-conflict countries and in countries with high economic vulnerability, the factors influencing a country's absorptive capacity for aid, and into the links between IDA allocation norms and actual IDA net disbursements.

1 Introduction

1.1 Background

This paper looks at the Performance Based Allocation (PBA) system of the International Development Association (IDA), and in particular at how it relates to 'fragile states'. The PBA is the mechanism used by the IDA to allocate concessional aid resources across developing countries deemed eligible for such assistance. During the 14th IDA replenishment, extending from 2006 to 2009, the total resources to be allocated are in the region of US\$31bn, while a total of 81 low and lower-middle income countries are considered to be eligible.

The PBA determines country allocations using a combination of 'needs' and 'performance' considerations. Countries' needs for IDA resources are measured by population size (higher values implying greater needs) and Gross National Income (GNI) per capita (higher values implying lesser needs). Country performance is measured by an index based primarily on a country's Country Policy and Institutional Assessment (CPIA) score. This is a subjective index, assessed annually by World Bank staff, designed to measure the extent to which a country's policy and institutional framework is conducive to the effective use of development assistance.

The PBA operates in such a way that places a large weight on performance relative to need in determining aid allocations. In measuring performance, it also gives additional emphasis to those aspects of a country's overall CPIA score which reflect the quality of its governance system. For these reasons, allocations of IDA resources to fragile states are significantly lower than they would be if allocations were based only on need. The reason is that fragile states are countries in which standard measures of the quality of policies, institutions and governance are low. At the same time, the two measures of country need used in the PBA do not necessarily reflect the exceptional needs of fragile states, in post-conflict reconstruction or state building for example.

Certain features of the PBA are designed to address the special circumstances of at least some fragile states. Most notably, a certain proportion (currently 10%) of total IDA funds are ear-marked for post-conflict countries, which ensures that such countries receive higher allocations of IDA resources than they would otherwise. However, post-conflict countries represent only around one third of all fragile states, and no adjustments are applied to any other fragile states.

1.2 Aims and objectives

Any aid allocation system will tend to reflect a combination of needs and performance considerations. This is the case for all of the major Multilateral Development Banks (MDBs), not just the World Bank, and it also applies to several major bilateral donors as well (see Box 1). It would perhaps be unreasonable therefore to expect an allocation system such as the PBA to be based purely on need. It would also be unreasonable, given the constraints on the

total volume of resources available to IDA, to expect the PBA to fully ‘meet the needs’ of fragile states, or any other category of countries.

Nevertheless, it is still valid to ask whether the PBA, in its current form, allocates enough of the resources available to IDA to fragile states, given the objectives which IDA resources are to meet – broadly speaking, “to promote economic development, increase productivity and thus raise standards of living in the less-developed areas of the world” (IDA Article 1) – and what we know about the effects of aid. Not least, this is because the performance-based allocation systems used by different donors, although similar, differ in certain ways that have potentially significant implications for the share of resources allocated to fragile states (see again Box 1).

The central questions addressed in this paper are therefore a) whether the PBA in its current form allocates a sufficient share of IDA resources to fragile states, including the various possible sub-categories of such countries, and if not b) how the PBA could be adjusted or ‘fine-tuned’ to bring about a more appropriate allocation. It is important to highlight, at the outset, certain issues that the paper does not address. These include the way in which IDA resources are provided to fragile states: for example, the balance between grants and loans, as well as aid modalities and instruments used, and types of expenditure. They also include issues relating to the total volume of IDA resources, i.e. how large the IDA15 replenishment should be. These issues cannot be addressed adequately here, and would require a separate treatment.

1.3 Structure of paper

The paper is divided into the following sections. Section 2 presents a brief overview of the evidence on net disbursements of IDA aid to fragile states over the period of IDA13 (2003-2005), in absolute terms and in relation to aid from other donors (multilateral and bilateral). This is based on the latest OECD-DAC data. It also presents estimates of likely allocations of IDA aid to fragile states over the period of IDA14 (2006-2009), for which disbursements data are not yet available. Section 3 discusses the central question addressed in the paper, namely whether the PBA allocates a sufficient proportion of IDA resources to fragile states. Section 4 then discusses a series of potential adjustments to the PBA which would raise the amount of IDA resources going to fragile states. A final section concludes and sets out a series of recommendations for policy and for further work in this area. Finally, a series of appendices include additional data and technical material referred to in the main text.

Box 1 IDA’s PBA compared with other donors

All of the major MDBs use performance-based systems to allocate concessionary funds. These share much in common: allocations are based on a combination of needs and performance considerations, with country need measured by GNP per capita and population size, and country performance on the whole measured mainly by CPIA scores (or their equivalent). Nevertheless, there are certain differences among the MDBs, for example:

- within their country performance measures, the IDA gives more emphasis on governance than either the African Development Bank or the Asian Development Bank (68% compared to 59% and 50%);
- the Asian Development Bank gives more weight to GNP per capita, and less weight to population, in comparison with the IDA (exponents of -0.25 and 0.6 compared with -0.125 and 1.0);
- the African Development Bank includes a 'Post-Conflict Enhancement Factor' in its measure of country performance; this multiplies the performance ratings of post-conflict countries by a factor varying between 1 and 1.5, depending on a country's post-conflict performance.

Several bilateral donors also use aid allocation formulae which reflect both needs and performance considerations. Again however, there are differences, both among the bi-laterals and between the bi-laterals and multilaterals with potentially significant implications for fragile states. These include:

- the European Commission (EC) incorporates a Country Vulnerability Index in their model for allocating European Development Fund resources, and provides additional allocations to least-developed countries, land-locked countries, island states and post-conflict countries;
- the UK gives more weight to GNI per capita, and less weight to CPIA scores, than any of the major MDBs, and measures GNI per capita at PPP as opposed to Atlas exchange rates;
- the Netherlands and (up until recently) the UK adjust a country's allocation according to the amount of aid it is expected to receive from other countries;
- the EC also includes more direct indicators of country need in its allocation model, namely life expectancy and education.

Sources: IDA (2007: 4-5); AfDB (2006); Joint-MDB report (2005: 10-12); Jones et al. (2004).

2 Data overview

This section presents some basic information on fragile states, and the allocation of IDA resources to fragile states, in recent years.

2.1 Categories of fragile states

'Fragile states' is a term used by several donor organisations. Although precise definitions vary (see Box 2), they are generally considered to be poor countries characterised by weak governance, conflict and/or insecurity, in which standard forms of development assistance are unlikely to be very effective. Precise lists of fragile states also vary, but it is generally accepted that there are currently around 30 countries meeting this definition, mainly in Sub-Saharan Africa, which are home to around 500 million people and around one third of the world's poor (World Bank 2006; DFID 2005). This paper mainly uses the World Bank definition of fragile states (formerly referred to as LICUS countries). These are low-income countries with both overall CPIA scores, and scores in the CPIA governance component, below 3.0. A list of countries meeting this criterion in recent years is provided in Appendix 1.

Box 2: Defining Fragile States

The term 'fragile states' is used differently by different development organisations. It is closely linked and often used interchangeably with terms such as LICUS (Low-Income Countries Under Stress) countries (World Bank); 'collapsed', declining' or 'recovering' states (DFID), 'transition' states or 'poor' or 'weak' performers (AusAID, Asian Development Bank, DFID), and 'top/high priority' countries (UNDP). They were previously regarded as 'difficult partnerships' by OECD-DAC. Possibly the most influential and precisely-defined categorisation of fragile states is the World Bank's LICUS categorisation. This has an inherent link with CPIA data: in particular, a country is defined as LICUS if it is a low income country and scores less than 3.0 on both the overall and governance CPIA scores.

DFID defines fragile states in two ways, namely "those countries where the government cannot or will not deliver core functions to the majority of its people, including the poor" and "difficult donor-recipient relationships for poverty reduction". From DFID's definition, the most relevant issue is a developing country's capacity and willingness to sustain a development partnership with the international community. A similar approach is taken by the OECD-DAC Fragile States Group, which defines fragile states as: "countries where there is a lack of political commitment and/or weak capacity to develop and implement pro-poor policies, suffering from violent conflict and/or weak governance". The previous term adopted by OECD-DAC, that of 'difficult partnerships', referred to "countries where the government does not share the objective of poverty reduction and lacks ownership".

The approach used by the German Federal Ministry of Economic Cooperation and Development (BMZ) is to characterise fragile and failed states by "a gradual collapse of state structures and a lack of good governance". The German FS agenda involves three general types of intervention: state building and governance; humanitarian/development aid; and peacekeeping (Cammack et al. 2006: 48). USAID fragile states policy places more importance on understanding how far and quickly a

country is moving from or toward stability. Their definition and resultant strategy differentiates between fragile states that are vulnerable, and those that are already in crisis. UNDP's definition of priority countries covers a broader scope, including countries which are unlikely to meet the Millennium Development Goals at current rates of progress, and are as a result considered to be in need of additional aid.

Although they share many things in common, fragile states are clearly not a homogenous group. As noted in Section 1, one important sub-category is post-conflict countries. The IDA defines post-conflict countries as "countries emerging from violent and protracted conflict" (IDA 2004: 17).¹ As discussed in Section 3, there is evidence to suggest that both the effect of aid, and recipient country absorptive capacity for aid, is higher in post-conflict countries, which provides a justification for the 'exceptional' assistance provided to such countries in the PBA. Another relevant sub-category includes countries which are characterised by the World Bank as 'conflict-affected', but are not considered by IDA to be post-conflict.² Some of these are in non-accrual status with the World Bank (e.g. Central African Republic, Liberia).³ However, others (e.g. Haiti, Cambodia, Comoros, Nigeria, Solomon Islands and Tajikistan) are not and could conceivably also merit additional assistance.

A broader categorisation of different types of fragile states has been provided recently by the World Bank (World Bank 2006: 13-26). This defined four main categories of fragile states, namely:

- 1) prolonged crises or impasse: countries in long-duration conflict, or those facing domestic political impasse and international sanctions, with arrears to the international financial institutions;
- 2) post-conflict and political transitions: countries which have experienced a sudden, significant change in the development environment, due for example to the successful conclusion of peace or a peaceful political transition;
- 3) gradual reformers: countries with some degree of reform leadership within government, but which face entrenched barriers of corruption or inefficiency in the state which make reform difficult, slow and liable to periodic set-back;

¹ The extent of violence or intensity of a conflict is assessed by IDA staff, according to the extent of human casualties caused; the proportion of the population that is internally displaced or in exile; and the extent of physical destruction (ibid.).

² According to the World Bank, conflict-affected countries have "recently experienced, are experiencing, or are widely regarded as at risk of experiencing, violent conflict" (World Bank 2006: 75). Lists of countries meeting this criterion are drawn up by the World Bank Regional Vice-Presidencies. They include, but are not restricted to, post-conflict countries as defined by the IDA. Lists of countries meeting this criterion are drawn up by the World Bank Regional Vice-Presidencies.

³ Countries in non-accrual status are those where repayments to the IDA (principal or charges) are overdue by more than six months. Such countries are not eligible for any additional IDA resources until payments have been restored or refinanced. Lists of countries in non-accrual status are published each year in the World Bank Annual Report.

- 4) deteriorating governance: countries facing a decline in the credibility of state institutions and weak accountability of government to society, together with lack of consensus between government and donors on development strategy.⁴

Countries falling into groups (2) and (3) provide potential “windows of opportunity” (see Section 3.9) in which donors may be able to use aid to support reform in fragile states, which may have implications for the allocation of IDA resources; this is discussed further in Section 3. However, these categorisations are used mainly for thinking through aid strategy in fragile states, rather than in determining country allocations.

Finally, there is a lot of variation among fragile states in characteristics such as development performance, resource endowments and economic vulnerability. Recent rates of economic growth, for example, range from around 4% per year in Angola and Cambodia to around minus 3% per year in Guinea-Bissau and Zimbabwe (ibid.: 11). Similarly, some fragile states have abundant natural resources (e.g. Angola, Nigeria, Papua New Guinea), while others have relatively scarce resources (e.g. Burundi, Haiti). As is also discussed in Section 3, there are strong arguments for taking these distinctions into account when determining country aid allocations.

2.2 IDA aid to fragile states, 2003-2005

Table 1 shows net disbursements of official development assistance (ODA) from IDA to fragile states over the period 2003-2005, taken from the OECD-DAC database.⁵ This period corresponds approximately to the period of IDA13 (FY2003-FY2005), and includes the latest available data from this particular source.⁶ The figures include the 35 countries which were fragile states for at least part of this period. The figures are also broken down into the following sub-groups:

- 9 post-conflict countries, 12 conflict-affected (but not post-conflict) countries, and 14 countries not affected by conflict;
- 7 countries in non-accrual status with IDA throughout the period, and 28 countries in accrual status during at least part of the period.

Table 1 shows that aid from IDA to fragile states rose in real terms over the period, by 7% between 2003 and 2004 and by 35% between 2004 and 2005. The largest increases in aid were to post-conflict and conflict-affected fragile states; IDA aid to fragile states not affected by conflict fell over the period. On a per capita basis, post-conflict countries receive the

⁴ The World Bank does not formally group countries into these four categories, and it recognised that some fragile states may fit more than one of these (World Bank 2006: 8). However, good examples of each group would arguably include Somalia, Myanmar (group 1), Sierra Leone, Afghanistan (group 2), Nigeria, Cambodia (group 3) and Papua New Guinea, Zimbabwe (group 4).

⁵ All aid given by IDA qualifies as ODA. Commitments of ODA to fragile states from IDA were virtually identical to (gross) disbursements of ODA in 2003 and 2004 (there are no data on IDA commitments for 2005 in the latest OECD-DAC database).

⁶ The latest OECD-DAC database is the 2007 edition, which covers the period up to end-2005. The OECD-DAC aid data are reported by calendar year, whereas an IDA financial year extends across calendar years: FY2005 for example runs from July 1st 2004 to June 30th 2005.

largest amounts of IDA aid (\$6.8 per person in 2005), while conflict-affected fragile states receive the smallest amounts (\$1.2 per person in 2005).

Table 1: IDA net disbursements to fragile states, 2003-2005

| | Total net ODA (million US\$) | | | Net ODA per capita (US\$) | | |
|----------------------------|---------------------------------|-------|-------|------------------------------|------|------|
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 1,107 | 1,182 | 1,596 | 2.1 | 2.2 | 2.9 |
| - Post-conflict | 465 | 520 | 859 | 3.9 | 4.2 | 6.8 |
| - Conflict-affected | 187 | 232 | 329 | 0.7 | 0.8 | 1.2 |
| - Not conflict-affected | 455 | 430 | 408 | 3.5 | 3.2 | 3.0 |
| - Accrual | 1,110 | 1,184 | 1,597 | 2.7 | 2.9 | 3.8 |
| - Non-accrual | -3 | -2 | -1 | 0.0 | 0.0 | 0.0 |
| All IDA-eligible countries | 6,220 | 7,283 | 6,491 | 2.4 | 2.8 | 2.4 |

Notes: Both series are expressed in constant 2004 US\$. For lists of countries included in each group, see Appendix 1.

Source: OECD-DAC (2007).

Data for individual countries are shown in Appendix 2. The largest individual recipient in each year was the Democratic Republic of Congo. Other fragile states receiving large amounts of IDA aid during this period were Afghanistan (2003-2005), Nigeria (2004-2005), Chad (2003), Eritrea (2003), Cameroon (2004), Niger (2003-2005) and Yemen (2005).

2.3 IDA aid to fragile states in relation to population, 2003-2005

Table 2 shows the share of total IDA net disbursements allocated to fragile states, and their various sub-categories, over 2003-2005. This is then compared with their share of the total population of all IDA-eligible countries. The table shows that the share of IDA disbursements allocated to all fragile states (16-24%) was similar to their share of population (20%). However, the share allocated to post-conflict countries (7-13%) was much higher than – around double – their share of total population (5%), while the proportion going to conflict-affected (but not post-conflict) countries (3-5%) was much lower than – around half – their population share (11%).

For purposes of comparison, the shares of total IDA net disbursements allocated to Sub-Saharan Africa (51-53%), and to Least Developed Countries (53-56%), were approximately double their shares of total population (25-26% and 28% respectively), while the share allocated to the three 'capped-blend' countries (India, Indonesia and Pakistan: 9-17%) was less than half their share of population.

Table 2: IDA net disbursements to fragile states in relation to population, 2003-2005

| | Net ODA (million US\$) | | | Population (millions) | | |
|----------------------------------|---------------------------|-------|-------|--------------------------|-------|-------|
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 1,107 | 1,182 | 1,596 | 521 | 532 | 543 |
| - Post-conflict | 465 | 520 | 859 | 120 | 123 | 126 |
| - Conflict-affected | 187 | 232 | 329 | 272 | 277 | 282 |
| - Not conflict-affected | 455 | 430 | 408 | 130 | 133 | 135 |
| - Accrual | 1,110 | 1,184 | 1,597 | 403 | 413 | 421 |
| - Non-accrual | -3 | -2 | -1 | 118 | 120 | 121 |
| <i>For comparison:</i> | | | | | | |
| <i>Least Developed Countries</i> | 3,478 | 3,927 | 3,742 | 718 | 734 | 749 |
| <i>Sub-Saharan Africa</i> | 3,202 | 3,818 | 3,514 | 657 | 672 | 688 |
| <i>Capped-blend</i> | 530 | 1214 | 1,112 | 1,428 | 1,449 | 1,471 |
| | Net ODA % of total | | | Population % of total | | |
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 18 | 16 | 24 | 20 | 20 | 20 |
| - Post-conflict | 7 | 7 | 13 | 5 | 5 | 5 |
| - Conflict-affected | 3 | 3 | 5 | 11 | 11 | 11 |
| - Not conflict-affected | 7 | 6 | 6 | 5 | 5 | 5 |
| - Accrual | 18 | 16 | 24 | 16 | 16 | 16 |
| - Non-accrual | 0 | 0 | 0 | 5 | 5 | 5 |
| <i>For comparison:</i> | | | | | | |
| <i>Least Developed Countries</i> | 56 | 53 | 56 | 28 | 28 | 28 |
| <i>Sub-Saharan Africa</i> | 51 | 52 | 53 | 25 | 26 | 26 |
| <i>Capped-blend</i> | 9 | 16 | 17 | 55 | 55 | 55 |

Notes: The term 'capped-blend' is taken from IDA (2007: 2).

Source: OECD-DAC (2007), World Bank (2007).

2.4 IDA aid to fragile states in relation to other donors, 2003-2005

Table 3 shows net disbursements from IDA to fragile states as a proportion of total net ODA disbursed, first from all multilateral donors and then from all donors, multilateral and bilateral. This shows that IDA net disbursements accounted for around one-third (30-32%) of total aid to fragile states from all multilaterals, and for around one-tenth (7-9%) of total aid from all donors. It also shows that the share of total multilateral and bilateral aid allocated to fragile states (17%-21%) is very similar to the share of aid allocated by IDA to fragile states (Table 2).

Table 3: Total net disbursements to fragile states, 2003-2005

| | Total multilateral aid to fragile states (net ODA, US\$ million) | | | Total bilateral and multilateral aid to fragile states (net ODA, US\$ million) | | |
|-------------------------|---|------|------|---|-------|-------|
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 3503 | 3894 | 4953 | 16052 | 13631 | 21489 |
| - Post-conflict | 1451 | 1807 | 2154 | 9510 | 6488 | 7678 |
| - Conflict-affected | 908 | 917 | 1495 | 2826 | 3510 | 10421 |
| - Not conflict-affected | 1143 | 1169 | 1304 | 3717 | 3633 | 3389 |
| - Accrual | 3007 | 3534 | 4167 | 14628 | 11736 | 18548 |
| - Non-accrual | 496 | 359 | 786 | 1424 | 1894 | 2491 |
| | Total multilateral aid to fragile states (% of total net ODA) | | | Total bilateral and multilateral aid to fragile states (% of total net ODA) | | |
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 18 | 18 | 23 | 21 | 17 | 21 |
| - Post-conflict | 8 | 8 | 10 | 12 | 8 | 7 |
| - Conflict-affected | 5 | 4 | 7 | 4 | 4 | 10 |
| - Not conflict-affected | 6 | 5 | 6 | 5 | 5 | 3 |
| - Accrual | 16 | 17 | 19 | 19 | 15 | 18 |
| - Non-accrual | 3 | 2 | 4 | 2 | 2 | 2 |
| | IDA, % of total multilateral | | | IDA, % of total bilateral and multilateral | | |
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| All Fragile states | 32 | 30 | 32 | 7 | 9 | 7 |
| - Post-conflict | 32 | 29 | 40 | 5 | 8 | 11 |
| - Conflict-affected | 21 | 25 | 22 | 7 | 7 | 3 |
| - Not conflict-affected | 40 | 37 | 31 | 12 | 12 | 12 |
| - Accrual | 37 | 33 | 38 | 8 | 10 | 9 |
| - Non-accrual | -1 | -1 | 0 | 0 | 0 | 0 |

Source: OECD-DAC (2007).

2.5 The Post-Conflict and LICUS Trust Funds

The figures in Tables 1-3 include aid provided through channels other than the PBA itself, for example through the Post-Conflict Trust Fund and the LICUS Trust Fund. Independent estimates of the amount of aid provided through these Funds are shown in Table 4. The

main messages here are that the amount of aid provided to fragile states via these channels is small, relative to the total amount of IDA aid to fragile states (less than 2%). However, aid provided via these channels appears to be by far the largest source of aid from IDA for some fragile states, notably those in non-accrual status: Central African Republic, Liberia, Sudan, Somalia, Togo and Zimbabwe, although not Myanmar.

Table 4: Aid to fragile states from the Post-Conflict and LICUS Trust Funds, 2003-2006

| | 2003 | 2004 | 2005 | 2006 |
|------------------------------------|---|--|--|--|
| Post-conflict Fund | | | | |
| - total approvals | 14.6 | 5.2 | 5.9 | 11.6 |
| - to fragile states* | 12.1 | 4.1 | 2.6 | 5.4 |
| - % of total IDA to fragile states | 1.1 | 0.3 | 0.2 | n.a. |
| Fragile states included | Burundi DRC Timor-Leste Haiti Nigeria Sierra Leone Somalia Sudan | Burundi Comoros Rep. of Congo Cote d'Ivoire Timor-Leste Sierra Leone Sudan | Cote d'Ivoire DRC Timor-Leste Sudan Tajikistan | Haiti Nigeria Africa, general |
| LICUS Fund | | | | |
| - total approvals | - | 2.8 | 20.1 | 14.8 |
| - to fragile states* | - | 2.8 | 20.1 | 14.8 |
| - % of total IDA to fragile states | - | 0.2 | 1.3 | n.a. |
| Fragile states included | | Comoros Liberia | CAR Comoros Haiti Liberia Somalia Sudan Togo | CAR Cote d'Ivoire Haiti Liberia Somalia Sudan Togo Zimbabwe |

Notes: *Includes all countries classified by the World Bank as fragile states/LICUS over the period 2003-2006 (see Appendix 1).

Source: Data provided by IDA.

2.6 Estimates of IDA allocations to fragile states, 2006-2009

Data on disbursements from IDA to fragile states over the period of IDA14 are not yet available. However, it is possible to estimate the allocation 'norms' that each country will receive under IDA14, using the existing PBA formula and the most recent data on the CPIA scores, GNI per capita, and population of IDA-eligible countries.

The results of doing this are summarised in Table 5 (Appendix 3 provides more information about the underlying calculations). The results show that, under the existing PBA formula, around 17% of IDA14 resources are likely to be allocated to fragile states. Of this total, over half (10% of total IDA resources) are likely to be allocated to post-conflict countries. These

proportions are very similar to the actual amounts disbursed over the period of IDA13, as shown in Table 2.

Table 5 also shows that around 24% of IDA resources not allocated to the capped-blend countries or to special purposes (72% of total IDA resources available) is likely to be allocated to fragile states. This is lower than the share of fragile states in the total population of all IDA-eligible countries excluding the capped-blend countries (30%).⁷

Table 5: Estimated IDA allocations to fragile states under IDA14

| | IDA14 aid allocation | | | Population, 2005 | | |
|-----------------------------------|-----------------------|-------------|--------------|------------------|-------------|--------------|
| | US\$ million per year | % of total* | % of total** | Millions | % of total* | % of total** |
| All LICUS | 1831 | 17 | 24 | 362 | 14 | 30 |
| Post-conflict | 1050 | 10 | 14 | 137 | 5 | 11 |
| Conflict-affected | 580 | 6 | 8 | 162 | 6 | 14 |
| Not conflict affected | 202 | 2 | 3 | 63 | 2 | 5 |
| Capped-blend | 2100 | 20 | - | 1471 | 55 | - |
| All others | 5729 | 55 | 76 | 712 | 27 | 60 |
| All IDA-eligible countries | 10500 | 92 | - | 2666 | 100 | - |
| All countries except capped-blend | 7560 | 72 | 100 | 1196 | 45 | 100 |

Notes: *Percentage of all IDA resources/all IDA-eligible countries; **Percentage of all IDA resources not allocated to capped-blend countries or to special purposes/all IDA-eligible countries not including capped-blend countries.

Source: Authors' simulations for aid allocations; World Bank (2007) for population.

⁷ Under IDA14, allocations of IDA resources to the three capped-blend countries (India, Indonesia and Pakistan) are limited to 20% of total IDA resources. This is beneficial to all other IDA-eligible countries, including fragile states, since without the limit the share of IDA resources allocated to India, Indonesia and Pakistan would be much higher than 20%: probably more than two-thirds (IDA 2006: 2). This means that fragile states appear much less under-aided – in terms of the relation between their share of total IDA net disbursements and their share of total population – when including the capped-blend countries in the totals than when not including them.

3 Does the PBA allocate enough resources to fragile states?

Section 2 showed that, during the period of IDA13 (2003-2005), fragile states received around one-fifth of total IDA disbursements. Of this total, over half went to post-conflict countries. Section 2 also showed that similar proportions can be expected to be disbursed to fragile states, and to post-conflict countries among them, under the IDA14 period (2006-2009). This section asks whether these shares are sufficient, given the objectives that IDA resources are to achieve, and the evidence on the effectiveness of aid given to fragile states in achieving those objectives.

The section is organised as follows. Section 3.1 begins by asking what proportion of IDA resources would be allocated to fragile states, and their various sub-categories, under the 'poverty-efficiency' approach to aid allocation proposed by Collier and Dollar (2002). The remaining sections then discuss a series of other relevant considerations not reflected in this approach. These are: incentives (Section 3.2), take-up of IDA allocations (Section 3.3), the actions of other donors (Section 3.4), absorptive capacity (Section 3.5), other sources of evidence (Section 3.6), other estimates of the aid-growth relationship (Section 3.7), direct aid-poverty linkages (Section 3.8), windows of opportunity (Section 3.9), and inherent country disadvantages (Section 3.10). The last section (Section 3.11) discusses the issue of post-conflict countries in more detail.

3.1 Insights from the poverty-efficiency approach

It is reasonable and perhaps right to argue that the over-riding objective of IDA aid is poverty reduction, even though we may disagree about how poverty should be measured exactly.⁸ If this is the case, one can argue that IDA resources should be allocated so as to achieve the largest possible reduction in poverty, given the total amount of resources available. This is the poverty-efficiency approach to aid allocation, first proposed by Collier and Dollar (2002).⁹

The PBA draws heavily on the poverty-efficiency approach – or at least the version of the approach proposed by Collier and Dollar (2002) and extended by Collier and Hoeffler (2004). In particular, the approach justifies the use of CPIA scores as one determinant of country aid allocations, and also the additional assistance given to post-conflict countries. Nevertheless, the PBA departs from a strict poverty-efficiency approach to aid allocation, in certain important ways. These include:

⁸ Thus poverty reduction need not be seen purely in terms of reductions in the \$1-a-day poverty headcount. It could just as easily be seen in terms of progress toward a multi-dimensional set of goals, such as the Millennium Development Goals (MDGs). The IDA Articles of Agreement describe IDA's objectives in terms of promoting economic development and raising standards of living (see Section 1.2), which can reasonably be interpreted as reducing a broad-based concept of poverty.

⁹ The authors have described their motivation in proposing this approach as follows: "Our purpose was not to constrain aid allocation to some rigid mechanistic formula, but simply to provide benchmarks which could help aid agencies think through the fraught but important issue of how a given aid budget should be allocated among countries" (Collier and Dollar 2004: F245).

- the PBA allocation formula is purposefully simplified, whereas the formula implied by the poverty-efficiency approach has a more complicated form;
- the weights attached to performance, GNI per capita and population in the PBA formula are at best rough estimates of the weights which would be appropriate under a poverty-efficient allocation;
- the PBA places additional emphasis on governance in determining country allocations whereas under the version of the poverty-efficiency approach proposed by Collier and Dollar (2002), there is no reason or justification for doing this).

Given these departures, it is of interest to compare the share of IDA resources likely to be allocated to fragile states under the PBA (as shown in Table 5, Section 2) with the share which would be allocated to fragile states under a more strict poverty-efficient approach to aid allocation. This is done in Table 6. The method for calculating a poverty-efficient allocation of aid is somewhat technical, and is set out and described in Appendix 4, while the main points to note about the calculations are described in Box 3.

Table 6: Estimated poverty-efficient allocations of IDA resources, % of total

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|----|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|
| <i>Poverty measure*</i> | - | POP | IFM | HDI | POP | IFM | HDI | POP | IFM | HDI |
| <i>Effect of CPIA on aid-growth effect**</i> | | <i>Mean</i> | <i>Mean</i> | <i>Mean</i> | <i>High</i> | <i>High</i> | <i>High</i> | <i>Low</i> | <i>Low</i> | <i>Low</i> |
| All LICUS | 24 | 46 | 54 | 40 | 42 | 50 | 37 | 52 | 55 | 48 |
| - Post-conflict | 14 | 27 | 35 | 24 | 19 | 30 | 19 | 36 | 36 | 32 |
| - Conflict-affected | 8 | 19 | 18 | 16 | 23 | 18 | 17 | 15 | 18 | 15 |
| - Not conflict affected | 3 | 0.2 | 2 | 0.3 | 0.2 | 2 | 0.2 | 0.2 | 2 | 1 |
| Non-LICUS | 76 | 54 | 46 | 60 | 58 | 50 | 63 | 48 | 45 | 52 |

Notes: Percentages shown are of total IDA resources not allocated to capped-blend or special purposes, equal to 72% of total IDA resources available (see Table 5, Section 2). *Using the mean estimated effect of CPIA scores on the effect of aid on economic growth reported by Collier and Hoeffler (2004, Table 3 column 3); ** one standard deviation added to the mean estimated effect;*** one standard deviation subtracted from the mean estimated effect.

Source: Authors' simulations (see Box 3 and Appendix 4 for details).

The main finding to emerge from Table 6 is that, under a range of different variants of the poverty-efficiency approach, the share of IDA resources likely to be allocated to fragile states under the PBA, in its current form, is smaller than the share which would be allocated under a more strict poverty-efficient allocation. The difference is greatest when using infant mortality as the poverty measure (columns 3, 6 and 9) – reflecting the fact that infant mortality rates are proportionally higher in fragile states than in other IDA-eligible countries – but is still significant when using two other measures of poverty. The difference is also greater when using slightly lower estimates of the extent to which the effect on aid on economic growth increases with recipient country CPIA scores (columns 8, 9 and 10) – as is to be expected, given that fragile states have lower CPIA scores – but is still significant when

using slightly higher estimates. Furthermore, the same overall finding applies to both post-conflict and conflict-affected fragile states, although it does not hold for fragile states not affected by conflict.^{10 11}

Although drawing heavily on the poverty-efficiency approach therefore, the PBA departs from a more strict version of this approach in ways which cause the share of IDA resources allocated to fragile states to be lower than it would otherwise be. Put slightly differently, while the Collier-Dollar version of the poverty-efficiency approach suggests that allocations to fragile states should be somewhat lower than they would be if based entirely on country need – because of their lower CPIA scores, which all else being equal lower the effectiveness of aid in raising economic growth – it does not suggest that those allocations should be as much lower as they are under the PBA.

However, the poverty-efficiency approach – and the particular version of it proposed by Collier and Dollar – provides just one way to evaluate the share of resources allocated to fragile states. We now discuss a series of other considerations not reflected in this approach.

Box 3 Calculating a poverty-efficient allocation of IDA14 resources

Appendix 4 sets out in detail the method by which a poverty-efficient aid allocation can be calculated. The main points to note about these calculations are as follows. First, the calculations assume that aid reduces poverty by raising economic growth in recipient countries, but not through any other channels. These assumptions were also made by Collier and Dollar (2002). The likely implications of relaxing these assumptions are discussed in Sections 3.2 and 3.8.

Second, the calculations are based on the estimates of the effect of aid on economic growth provided by Collier and Dollar (2002) themselves, and extended by Collier and Hoeffler (2004). These estimates suggest that the effect is greater, all else being equal, in countries with higher CPIA scores, but also in post-conflict countries (more specifically, in the first full four-year period of peace following the cessation of a conflict). The implications of using alternative estimates are discussed in Section 3.7.

Third, the calculations measure poverty in three different ways. The first is simply to assume an equal poverty rate in all IDA-eligible countries; the other measures used are the infant mortality rate and the Human Development Index. In principle measures of \$1-a-day and \$2-a-day poverty would also be used, but up to date estimates of these measures are unavailable for too many IDA-eligible countries for this to be feasible.

¹⁰ For fragile-states not affected by conflict, Table 6 shows that the share of IDA resources likely to be allocated to fragile states under the PBA is larger than the share which would be allocated under a more strict poverty-efficient allocation. The main reason is that most of the fragile states not affected by conflict had relatively high levels of GNI per capita at PPP exchange rates.

¹¹ The "conflict-affected" countries included in Table 6 are: Comoros, Guinea Bissau, Haiti, Cambodia, Nigeria, Solomon Islands and Sierra Leone. These countries accounted for 14% of the total population of IDA-eligible countries in 2005, not including the capped-blend countries (see Table 5). Note that other conflict-affected countries (e.g. Sudan, Somalia, Central African Republic, Liberia, Myanmar) are in non-accrual status with the World Bank and are not included in the results in Table 6.

Fourth, the calculations are based on the IDA's own classification of post-conflict countries, and the assumption that each of these has entered the stage in which aid does have an additional impact on growth, and will remain in this stage during the whole IDA14 period (the implications of relaxing these assumptions are discussed in Section 3.11).

3.2 Incentives

The first additional consideration is the 'incentives' argument. The poverty-efficiency approach proposed by Collier and Dollar assumes that neither the amount of aid, nor the way in which it is allocated or delivered, affects policies or institutions in recipient countries. However, it is often argued that allocating aid on the basis of CPIA scores increases recipient country governments' incentives – and provides an important "signalling mechanism" (IDA 2006) – to raise the quality of their policies and institutions, with beneficial implications for growth and development.¹² If this argument is valid, then there would be grounds for a greater emphasis on CPIA than implied by the strict Collier-Dollar model, and correspondingly lower allocations to fragile states.

One problem with the incentives argument is that there is as yet no real evidence for or against it. Burnside and Dollar (2004: 18) for example, argue that it is "not unreasonable to think that allocating aid to relatively good governments would have a positive incentive effect", but caution that this line of reasoning is "speculative". Others question the underlying theoretical argument (e.g. Chauvet and Collier 2006). Another potential problem is that the argument relies on a 'one size fits all' approach to development policy. In other words, if donors are to give the right incentives, they must know precisely which policies and institutions are good for development. In practice however, it appears that a wide range of policies and institutions can be good in this sense, which vary according to country circumstances and historical backgrounds (Kanbur 2005). For these reasons, it is difficult to argue that the 'incentives' or 'signalling' argument justifies a much larger weight to CPIA scores (or to particular sub-components of the CPIA, such as governance) in the PBA, and a correspondingly lower allocation to fragile states, than implied by the Collier-Dollar poverty efficiency model.

3.3 Take-up of IDA allocations

The second consideration relates to the 'limited take-up' argument. It has been argued that the take-up of IDA allocation norms has been limited in the poorest countries in recent years (e.g. IDA 2003a).¹³ Fragile states are as a group currently poorer in GNI per capita terms than other IDA-eligible countries. It might be argued therefore that any significant increase in

¹² A closely related argument is that a negative relationship between country allocations and GNI per capita discourages recipient country governments from pursuing economic growth (e.g. IDA 2004b).

¹³ The links between IDA allocation norms and actual disbursements are not automatic: the former are not considered to be entitlements (IDA 2006: 7). They are instead the financial resources "that each country could expect to receive if its performance stays the same and assuming a pipeline of quality projects" (IDA 2003b: 41).

allocation norms to fragile states would be unlikely to lead to a significant increase in actual disbursements.

This is a difficult issue to address. First, the reasons for discrepancies between a country's allocation norm under the PBA, and actual aid disbursements received, are complex and often case-specific.¹⁴ Second, there is little evidence on the extent to which the take-up of IDA allocation norms has in fact been limited in poorer countries. While norms for the IDA14 period can now be estimated (given that country CPIA scores are publicly available), data on actual disbursements for this period are not yet available; and while data on actual disbursements for earlier years are available, allocation norms for earlier years cannot be estimated (given that earlier CPIA scores are not publicly available). Section 2 did show, however, that the share of IDA net disbursements going to fragile states over the period of IDA13 was very similar to the share of IDA resources likely to be allocated to fragile states under IDA14. This at least suggests that the take up of IDA allocation norms has not been significantly limited among fragile states in recent years.¹⁵ It would appear difficult to justify lower allocations to fragile states on the basis of limited take-up therefore.

3.4 Other donors

Section 2 showed that IDA is clearly not the only donor operating in fragile states, and it must therefore take account of the actions of other donors. A potential argument is that IDA should allocate relatively less aid to fragile states, to compensate for the fact that most other donors allocate relatively more aid to fragile states. Here however, Section 2 (Table 3) showed that other donors do not allocate significantly more aid to fragile states, or to post-conflict countries among them, in comparison with IDA. There appears to be little grounds therefore for reducing (or not increasing) IDA allocations to fragile states because other donors (multilateral or bilateral) allocate relatively more aid to such countries.

3.5 Absorptive capacity

Another possible argument is that there would not be sufficient absorptive capacity in fragile states for additional IDA resources. This is a difficult issue to address, since there is no clear way to calculate a country's absorptive capacity for aid.¹⁶ It will tend to vary across countries and contexts, depending (amongst other things) on the way in which aid is delivered and what it is spent on. However, some sense of countries' absorptive capacities for aid can be obtained from econometric evidence (see Box 4). This generally suggests that absorptive capacities for aid are in the region of 15-30% of GDP at market exchange rates (between 5-15% of GDP at PPP exchange rates), depending on certain country characteristics. Few

¹⁴ According to IDA (2003: 3), "an analysis of actual usage of IDA allocations shows that the take up has been lower at the lower end of the income scale...this outcome can be attributed to a variety of factors, many of which lie beyond the country's control."

¹⁵ This is only weak evidence however, since there have been changes to both the PBA formula and the number and composition of fragile states between IDA13 and IDA14. Thus we cannot necessarily assume that the share of IDA resources allocated to fragile states during IDA13 was similar to the share likely to be allocated under IDA14.

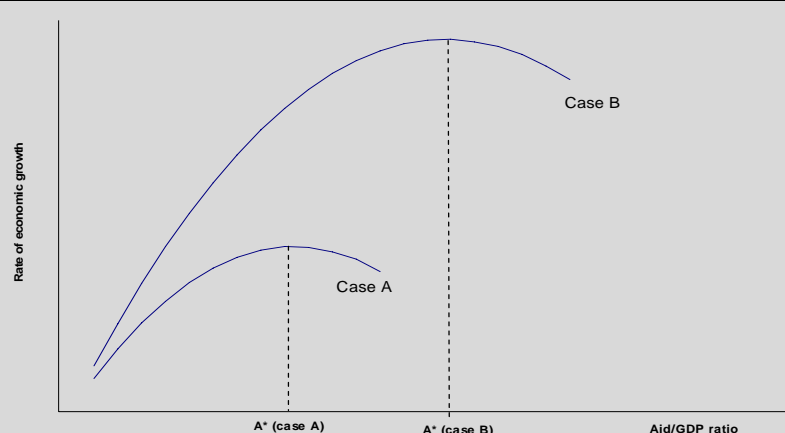
¹⁶ Absorptive capacity refers in broad terms to the amount of aid that a recipient country can absorb and/or spend effectively; more precise definitions vary.

fragile states appear to be in danger of receiving more than these guideline figures, and those that are mainly post-conflict countries, in which there is good evidence that absorptive capacity is significantly higher than normal.

Box 4 Absorptive capacity in fragile states

Many econometric studies find that beyond a certain level of the aid-GDP ratio, further increases in aid reduce rather than increase the recipient country's rate of economic growth (Figure 1). This level provides a quantitative estimate of a country's 'absorptive capacity' for aid. Most estimates put this figure to be around 15-30% of GDP at market exchange rates, or between 5-15% of GDP at PPP exchange rates.

Figure 1 The relationship between aid and economic growth



What factors influence a country's absorptive capacity for aid? Collier and Dollar (2002) find that a country with a CPIA score of 5 would have an absorptive capacity three times that of a country with a CPIA score of 2 (15% compared to 5% of GDP, at PPP exchange rates). Collier and Hoeffler (2004) find that absorptive capacity is more than double its usual level in the first full period of peace following the end of conflict.

Table 7: Aid-GNI ratios in fragile states, 2005

| Country | Aid/GNI (atlas) | Aid/GNI (PPP) | Country | Aid/GNI (atlas) | Aid/GNI (PPP) |
|-----------------------|-----------------|---------------|------------------|-----------------|---------------|
| Solomon Islands | 66.9 | 20.4 | Vanuatu | 12.0 | 6.0 |
| Burundi | 48.4 | 7.1 | Lao PDR | 11.6 | 2.7 |
| Eritrea | 47.5 | 7.3 | Mauritania | 10.7 | 2.7 |
| Sao Tome and Principe | 46.2 | 9.7 | Djibouti | 9.8 | 4.2 |
| Congo, Rep. | 38.1 | 37.0 | Chad | 9.7 | 3.4 |
| Timor-Leste | 31.5 | 9.1 | Papua New Guinea | 9.0 | 2.2 |
| Sierra Leone | 28.3 | 8.0 | Cambodia | 8.9 | 1.5 |
| Guinea Bissau | 27.7 | 6.3 | Nigeria | 8.7 | 4.9 |
| Congo, Dem. Rep. | 26.5 | 4.7 | Comoros | 6.5 | 2.1 |
| Afghanistan | 19.8 | 5.1 | Guinea | 4.6 | 0.8 |
| Tonga | 17.8 | 4.0 | Angola | 2.0 | 1.4 |
| Haiti | 13.4 | 3.6 | Uzbekistan | 1.3 | 0.3 |
| Gambia, The | 13.2 | 2.1 | Cote d'Ivoire | 0.8 | 0.4 |

Source: OECD-DAC (2007); World Bank (2007).

Table 7 shows the total amounts of aid (from all sources) received by different fragile states in 2005, as a

proportion of their GNI. In only a small number of cases did these values exceed the guideline estimates of absorptive capacity provided by the econometric evidence, and these were either small island states (e.g. Solomon Islands, Sao Tome and Principe), or post-conflict countries (e.g. Burundi, Eritrea) in which there is good evidence that absorptive capacity is significantly higher than in more normal circumstances.

Although important, these estimates provide only one way of assessing absorptive capacities for aid in fragile states. More detailed country-specific analysis, taking into account different and potentially innovative aid delivery mechanisms, is required before making a final assessment.

3.6 Other sources of evidence

A final issue relates to sources of evidence on aid effectiveness in fragile states. The calculations in Section 3.1 are based on econometric findings, but these provide only one source of evidence. Other sources include qualitative, case-study analysis, as well as the insights of aid staff working directly with governments in fragile states. One might argue that these sources suggest that the effectiveness of aid in fragile states is lower than suggested by the econometrics, therefore justifying lower allocations to such countries than implied by the econometric evidence alone. This is another difficult issue to address, and it would require a concerted effort to establish whether this was in fact the case (e.g. questionnaires and interviews of aid staff). In the absence of this however, it would be difficult to justify a much lower allocation to fragile states on the grounds of other sources of evidence.

3.7 Other evidence on the aid-growth relationship

Several researchers have challenged the econometric findings of Collier and Dollar (2002), and the related findings of Burnside and Dollar (2000, 2004), that the impact of aid on economic growth is higher in countries with better policies and institutions.¹⁷ If these challenges are accepted, the share of fragile states in an efficient allocation of IDA resources would be higher than suggested in Section 3.1. This raises a difficult question, namely which particular set of econometric findings should be considered more reliable. We cannot address this question adequately here, even though it is clearly an important question. However, the results in Section 3.1 suggest that the share of IDA resources currently allocated to fragile states, and to post-conflict countries among them, appears to be too low even when using the econometric findings of Collier and Dollar.

Another issue is whether other features of fragile states may raise the impact of aid on economic growth. One such feature is post-conflict status, which was already incorporated into the calculations in Section 3.1 (as discussed in Box 3). Another possible feature is economic vulnerability. Research by Guillaumont and Chauvet (2001) and Chauvet and Guillaumont (2004), for example, suggests that aid has a larger impact on growth in

¹⁷ These include Hansen and Tarp (2001), Lensink and White (2001), Easterly et al. (2004) and Clemens et al. (2004). The external review of World Bank research (Banerjee et al. 2006: 54-57) concluded that “in spite of being published in the American Economic Review, the Burnside and Dollar paper is unconvincing...[and] provides only the weakest of evidence for their central contention”.

countries with more unstable export earnings and adverse trends in the terms of trade. Related research by Collier and Dehn (2001) finds that aid has a larger impact on growth in countries experiencing or recovering from adverse terms of trade shocks. Standard measures of economic vulnerability are indeed higher in fragile states than in other IDA-eligible countries (see Box 5). The findings of Chauvet and Guillaumont and Collier and Dehn suggest therefore that the share of IDA resources allocated to fragile states should in all likelihood be higher than suggested in Section 3.1. It is difficult to say how much higher however, without further econometric analysis beyond the scope of this paper.¹⁸

Aid to fragile states may also have positive regional spill-over effects, as for example the avoidance of economic collapse in one country prevents other countries from being adversely affected. This is plausible, but empirical estimates of the magnitude of such effects are not yet available. It is again difficult to say therefore by how much allocations to fragile states should rise as a result without further work.

Finally, it is important to note that the econometric evidence is inconclusive as to whether governance has a particularly large impact on the effect of aid on economic growth. In particular, Collier and Dollar (2002) did not test whether the effects of different clusters of the CPIA have different effects on the effect of aid on growth. The one piece of supporting evidence is provided by Guillaumont and Chauvet (2001), who find that political instability has a particularly large (negative) impact on the effect of aid on economic growth; but political instability is one aspect of governance only. The econometric evidence is undoubtedly much clearer about governance being a particularly important determinant of economic growth, but this is a separate consideration.

Box 5 Fragile states and economic vulnerability

Researchers have used a range of indicators to measure a country's economic vulnerability (Guillaumont 2000; Atkins et al. 2000). These include:

- variation in annual rates of growth of a country's GDP;
- instability of a country's export earnings, weighted by the ratio of exports to GDP;
- instability of a country's terms of trade (average price of exports relative to imports on world markets);
- instability of agricultural production;
- proportion of population affected by natural disasters;
- concentration of a country's export structure on a narrow range of products.

Often, these indices are combined into an overall index, such as the Composite Vulnerability Index (CVI) proposed by Atkins et al. (2000). In addition, other indicators are sometimes added which measure a country's exposure to longer term adverse events: the trend rate of change in a country's terms of trade for

¹⁸ The reason is that certain features of the econometric approaches used by these authors limit the direct applicability of their estimates to the poverty-efficiency approach.

example, as opposed to the instability around the trend (e.g. Guillaumont and Chauvet 2001). Typically, there is a close correlation between population size and vulnerability: the smaller the population, the higher the vulnerability. Small island states also tend to have particularly high measured levels of vulnerability.

Table 8 presents some information on levels of two indicators of economic vulnerability among fragile states, in comparison with other IDA-eligible countries. The average values of these indicators are indeed significantly higher in fragile states than in other IDA-eligible countries.

Table 8: Indicators of economic vulnerability in IDA-eligible countries

| | Average Composite Vulnerability Index* | | Average export concentration index (%) | |
|----------------------------|--|---------------------|--|---------------------|
| | Un-weighted | Population weighted | Un-weighted | Population weighted |
| Fragile states | 6.4 | 5.2 | 55.1 | 81.4 |
| Small island states | 7.5 | 5.6 | 51.8 | 51.8 |
| Least Developed Countries | 5.8 | 4.9 | 46.6 | 44.2 |
| Sub-Saharan Africa | 5.4 | 5.1 | 49.0 | 62.2 |
| All IDA-eligible countries | 5.8 | 4.4 | 40.2 | 38.5 |

Notes: *A weighted average of export-GDP ratios, vulnerability to natural disasters, and export concentration.
Source: Atkins et al. (2000); UNCTAD (2000).

3.8 Direct aid-poverty linkages

In proposing the poverty-efficiency approach, Collier and Dollar assumed that aid affects poverty indirectly, via its effect on economic growth. Some researchers (e.g. Mosley et al. 2004; Gomanee et al. 2003) have found evidence that aid also has a direct effect of aid on poverty, for example by promoting a more 'pro-poor' pattern of public expenditure. This is particularly the case in low-income countries where the fungibility of aid is less of a problem. Furthermore, there does not appear to be any evidence to suggest that the direct effect of aid on poverty is significantly weaker in low-income countries with lower quality policies and institutions. Taking these findings into account would also, in all likelihood, justify a higher allocation of IDA resources to fragile states, although it is again difficult to say how much higher.

3.9 Windows of opportunity

The poverty-efficiency approach proposed by Collier and Dollar (2002) also assumes that aid could not bring about an improvement in policy or institutions in fragile states. However, more recent research suggests that aid can sometimes promote policy 'turnarounds' in fragile states – defined as significant and sustained improvements in the quality of policy and institutions – if delivered in certain ways and at particular points in time referred to as 'windows of opportunity' (Chauvet and Collier 2006, 2007).¹⁹ Such points in time might

¹⁹ The underlying hypothesis is that some forms of aid (e.g. technical assistance) can strengthen government capacity to deliver welfare-enhancing reforms in the short-run, increasing the chances that the reforms are politically sustainable over the longer-run. This argument is distinct from the 'incentives' argument discussed in

include an 'incipient' turnaround in a fragile state (meaning a small improvement in the quality of a country's policies and institutions, starting from a low base, or a change in political leadership (for example, following the death of an existing leader), or the end to a period of civil war.

One feature of the 'windows of opportunity' discussed by Chauvet and Collier is that at least some of them are observable: donors can see when they arise, and can as a result adjust either the volume or type of aid they provide accordingly. It would be difficult to argue, however, that significantly more IDA resources should be allocated to those fragile states experiencing a window of opportunity. The reason is that, in such situations, the only type of aid found to have a statistically significant impact on the likelihood of a sustained policy turnaround is technical assistance; the effects of other sorts of aid are generally not found to be statistically significant (Chauvet and Collier, 2006: 12, 14). It would be more reasonable to argue from this evidence that, in the first years of a window of opportunity, a greater proportion of a country's existing allocation should be used in technical assistance. It should also be recognised that the findings of Chauvet and Collier (2006, 2007) are as yet somewhat preliminary (working papers as opposed to published and refereed journal articles).

3.10 Inherent country disadvantages

Alternatives to the poverty-efficiency approach to aid allocation proposed by Collier and Dollar do exist. Of these, the most notable example is the 'equal-opportunities' approach, discussed by Llavador and Roemer (2001) and Cogneau and Naudet (2004). According to this approach, aid should be allocated so as to raise opportunities for poverty reduction, rather than to reduce poverty per se. Thus a poor country with substantial inherent disadvantages (e.g. land-locked, few natural resources) would receive more aid than a similarly poor country with few such disadvantages, since it would have fewer opportunities for poverty reduction.

The evidence, however, suggests that fragile states do not as a group appear to face significantly higher inherent disadvantages than other IDA-eligible countries (see Box 6). While a higher proportion are located in the tropics, a smaller proportion are land-locked, and they are no more isolated (in terms of geographical distance) from major world markets. In addition, fragile states, as a group, have greater oil and gas resources (although whether this is an advantage or disadvantage is open to question). An equal opportunities allocation would be unlikely therefore to justify a higher share of IDA resources allocated to fragile states as a group, although it would lead to a re-allocation of IDA resources among them (e.g. from resource-rich to resource-poor fragile states).

Section 3.2, which assumes that the capacity to deliver and sustain policy and institutional reforms is already in place.

Box 6 Fragile states and inherent disadvantages

A range of research in recent years has shown that certain country characteristics have a significant detrimental impact on rates of country's productivity and/or economic growth, but are effectively beyond the control of national governments. These include distance from major world markets, being land-locked, and being located in the tropics. At the same time, it is generally recognised that some countries are endowed with more favourable and/or abundant natural resources. It is not immediately clear, however, whether fragile states as conventionally defined do suffer from greater inherent disadvantages, as compared with other IDA-eligible countries. In fact, the evidence presented in Table 9 suggests that they are not, at least as a group. This is the case even though certain fragile states clearly do face such disadvantages.

Table 9 Inherent country disadvantages in fragile states and other IDA-countries

| | Proportion in tropics (%) | Proportion land-locked (%) | Average distance to world markets (km) | | Oil and natural gas reserves (BTUs per person, proven) | |
|-------------------------|---------------------------|----------------------------|--|------------------|--|------------------|
| | | | Un-weighted | Weighted by pop. | Un-weighted | Weighted by pop. |
| Fragile states | 93 | 21 | 5,215 | 5,218 | 60 | 90 |
| - post-conflict | 88 | 25 | 5,986 | 6,059 | 89 | 50 |
| - conflict-affected | 100 | 8 | 4,848 | 4,761 | 23 | 98 |
| - not conflict affected | 92 | 31 | 5,023 | 5,299 | 78 | 129 |
| All other countries | 70 | 38 | 5,152 | 5,713 | 20 | 15 |

Source: Gallup and Sachs (1999)

3.11 Eligibility for and duration of additional aid to post-conflict countries

Under existing arrangements, 10% of total IDA resources are ear-marked for post-conflict countries. Currently, eight countries are eligible for such assistance: Afghanistan, Angola, Burundi, Democratic Republic of Congo, Republic of Congo, Cote d'Ivoire, Eritrea and Timor-Leste (Sierra Leone graduated in FY2006). In addition, Liberia and Sudan are expected to qualify in the near future.

Section 3.1 suggested that, judging by the evidence on the effectiveness of aid in post-conflict countries, the PBA does not currently allocate sufficient resources to such countries. However, one potential concern is that some of the countries classified by IDA as post-conflict are not really post-conflict, or at least have not attained a sufficient level of post-conflict stability for aid to be effective. These could include Afghanistan (increasing Taliban insurgency since 2006), Burundi (latest cease-fire agreement signed in September 2006), Timor-Leste and the Democratic Republic of Congo (where in each case there has been significant political unrest since 2006). At the same time, there could be other countries not classified by IDA as post-conflict which have effectively attained this status (e.g. Haiti). Around 15 fragile states are classified by the World Bank as 'conflict-affected', but are not considered eligible for post-conflict assistance.

It is hard to establish whether a country should qualify for post-conflict assistance. Currently, eligibility for post-conflict resources is assessed by Bank staff. No formal criteria are available however: the assessment is made mainly on the basis of qualitative evidence.²⁰ At this stage, there is no strong evidence to suggest that these assessments have incorrectly defined, or failed to define, some countries as post-conflict. However, there is a need for an open discussion about which indicators can be used to determine whether a country should qualify for post-conflict assistance, what the relevant threshold levels of such indicators are, and how they relate to the definition of post-conflict used in the empirical work by Collier and Hoeffler (2004).

The second issue relates to the way in which IDA resources are allocated among post-conflict countries. Currently, the same basic approach is used as for other IDA-eligible countries, except that a country's performance rating is based on the 'Post-Conflict Performance Indicators' (PCPI), rather than the standard CPIA index.²¹ These indicators are adapted from existing CPIA indicators, to take into account specific circumstances of post-conflict countries.²² A different approach to performance measurement would in principle be desirable in a post-conflict situation, given the different sorts of challenges and constraints likely to be faced.

However, designing a different set of performance indicators is not strictly necessary in the context of the Collier-Dollar poverty-efficiency approach. The poverty-efficiency approach, combined with the findings of Collier and Hoeffler (2004), could instead use standard CPIA scores, combined with a post-conflict enhancement factor (PCEF) added to the performance ratings of post-conflict countries. This is the approach currently used by the African Development Bank (with a variable PCEF that depends on a country's post-conflict performance). The advantage of this latter approach is that it allows the share of total resources allocated to fragile states (10% under the IDA's PBA) to be determined endogenously by the PBA system, rather than having to be determined exogenously, outside of the PBA system.

The third issue is the amount of time for which post-conflict countries receive additional assistance. Under IDA14, each post-conflict country receives exceptional assistance for a recovery period of around three years; there is then a period of around three years in which resources are gradually scaled back towards normal PBA levels.²³ The precise lengths of the recovery and scaling-back periods are justified in IDA documentation on the basis of the

²⁰ Once an initial decision to engage with a particular country has been made (generally in consultation with other international partners), the main aim is to ensure that 'perennial poor performers with some record of conflict can be distinguished from countries that are making a determined effort to emerge from a protracted and highly destructive conflict' (IDA 2004a: 17).

²¹ This information was provided by IDA staff through personal communication. Existing documentation on the treatment of post-conflict countries refers to initial allocations of additional resources to post-conflict countries being based mainly on ten sets of questions, falling under four main headings: prospects for peace; needs; government commitment to sustainable development; and moral hazard concerns (e.g. IDA 2004a: 20).

²² There are 12 PCPI indicators, compared to the 20 indicators used in the CPIA. The rating scale has been narrowed to 2 to 5 because the evaluation covers only a transitional period (the top and bottom ratings 1 and 6 used in the CPIA involve the same rating over an extended period of time).

²³ These periods have been lengthened over time slightly (IDA 2004a). In particular, during the IDA13 Mid-Term Review, Deputies supported measures to stretch out the phasing of the special post-conflict allocations while keeping the same total allocation.

research by Collier and Hoeffler (2004). However, this work suggests that in the immediate aftermath of a conflict, there is a period of up to 3-4 years in which aid effectiveness, or absorptive capacity, is not above normal; instead, it is between the fourth and seventh year of peace that these things are found to be particularly high.²⁴

Collier and Hoeffler (2004) recognise that their findings are based on a limited sample, and that there is a need for further research using a more up-to-date and larger sample. Nevertheless, there does not as yet appear to be a strong case for departing from their recommendation, at least as a broad guideline, that “from the perspective of effective use of aid for economic recovery, aid volumes should gradually build up during the first few years of peace, and gradually revert to normal levels after around a decade” (ibid.: 1136). This is the case even though delays in the actual disbursement (as opposed to allocations) of IDA resources may mean that in practice, the time path of IDA support to post-conflict countries is a lot closer to the optimal path suggested by Collier and Hoeffler than appears to be the case at first sight.

²⁴ The main argument for the lack of a significant effect in the first few years of peace is that there is likely to be continued instability in the first few years of peace, and basic functions of government may not be established (Collier and Hoeffler 2004: 1132).

4 Potential adjustments to the PBA

Section 3 presented evidence to suggest that the proportion of IDA resources currently allocated to fragile states is too low. First, while the ‘poverty-efficiency’ approach to aid allocation, proposed by Collier and Dollar (2002), suggests that allocations to fragile states should be lower than they would be if based entirely on country need, it does not suggest that they should be as much lower as they are under the PBA. Second, while there are additional considerations, not reflected in the Collier-Dollar approach, on balance these do not clearly suggest that a much lower share of IDA resources should be allocated to fragile states than implied by the Collier-Dollar approach.

This section therefore looks at potential ways of adjusting the current PBA, with the overall aim of raising the share of resources allocated to fragile states to a more appropriate level. Five sets of options are considered, namely:

- 1) reducing the weight given to the governance in the measurement of country performance;
- 2) reducing the weight given to country performance relative to country need;
- 3) adding new indicators and/or replacing existing indicators in the PBA formula;
- 4) altering the way in which post-conflict countries are dealt with in the PBA;
- 5) certain other potential adjustments.

These are discussed in turn in Sections 4.1 to 4.5 below. In each case, simulation analysis is presented to show how IDA allocations to fragile states and their various sub-categories would differ from the likely allocations under the existing PBA. The latter are presented again in the first column of Table 10 (the figures are repeated from Table 5 in Section 2). The remaining columns in Table 10 show the likely allocations of IDA resources to fragile states and their various sub-categories under each potential adjustment, which can be compared with the existing allocation.²⁵

4.1 Reducing the weight given to governance in measuring performance

The existing PBA formula gives a lot of emphasis on the governance component of the CPIA in measuring a country’s performance. This reduces allocations to fragile states, which have particularly low values of this component in comparison with other IDA-eligible countries. However, (as argued in Section 3.7) there is no strong evidence that governance is a particularly strong determinant of aid effectiveness, while (as argued in Section 3.2) there is no strong basis for justifying the governance factor as an important ‘signalling mechanism’. Reducing the weight given to the governance factor would be one justifiable way of raising the share of IDA resources allocated to fragile states.

²⁵ Allocations for each individual country under each potential adjustment are shown in Appendix 5.

The implications of reducing the weight given to the governance factor, while leaving all aspects of the PBA unchanged, are shown in columns 2-3 of Table 10. Column 2 shows the results of reducing the exponent attached to the governance factor from 1.5 to 1, while column 3 shows the results of eliminating the factor altogether. The results confirm that these adjustments would raise the share of IDA resources allocated to fragile states. However, even eliminating the governance factor altogether would not raise the share to the level which would be allocated to fragile states under a more strict poverty-efficient allocation (as shown in Table 6 in Section 3.1). On this evidence therefore, reducing the weight given to the governance factor would not by itself be a sufficient adjustment.

4.2 Reducing the weight given to performance relative to need

The existing PBA formula also gives a lot of emphasis on a country's performance rating, as measured primarily by its CPIA score, in determining a country's allocation norm. This also tends to reduce the share of IDA resources allocated to fragile states. However, while there is a strong justification for the use of CPIA scores in determining country allocations – in particular, so as to use aid efficiently – Section 3.1 suggests that the share of IDA resources allocated to fragile states appears to be too low even according to this criterion. Reducing the weight attached to a country's CPIA score in determining its allocation would be another justifiable way of raising the share of IDA resources allocated to fragile states.

The implications of reducing the weight given to the performance, while leaving all aspects of the PBA unchanged, are shown in columns 4-5 of Table 10. Column 4 shows the results of reducing the exponent attached to a country's performance rating from 2 to 1 (leaving the exponent attached to GNI per capita unchanged). In this case, there is again as expected a rise in the share of IDA resources allocated to fragile states, although again not enough by the standards of Section 3.1). Column 5 shows the results of increasing (in absolute terms) the exponent attached to GNI per capita, from -0.125 to -0.5 (leaving the exponent attached to performance at 2). In this case, allocations to fragile states would in fact fall. This indicates the importance of reducing the absolute value of the exponent attached to performance, not simply its value relative to that attached to GNI per capita.

Finally, column 6 shows the results when a reduction in the exponent attached to country performance is combined with eliminating the governance factor. In this case, the share of IDA resources allocated to fragile states would be larger still, but only marginally so. Overall therefore, altering the weights attached to the existing indicators in the PBA formula is somewhat limited as a means of significantly raising IDA allocations to fragile states.

4.3 Adding additional indicators or adjustment factors

The existing PBA formula uses an 'indirect' measure of country need, namely GNI per capita measured at Atlas exchange rates. IDA (2003a, 2004b) has argued against using a more direct measure (e.g. \$1-a-day poverty), mainly on the grounds of insufficiently reliable poverty data, and also because of the correlation between poverty indicators and per capita GNI. It is possible to challenge these arguments however, since the correlation between headcount poverty and per capita income is often not very high, and certain non-income

poverty measures (e.g. infant mortality, school enrolment) are arguably not as unreliable as the \$1-a-day poverty figures. The likely implications of adding the infant mortality rate (with an exponent of 1) to the PBA formula is shown in column 7. This would have a large impact on the share of IDA resources allocated to fragile states. This is as expected given the proportionally higher levels of this indicator in fragile states.

As argued in Section 3.7, there is a potential justification for including measures of a country's economic vulnerability as a criterion in aid allocation. The likely implications of adding a country vulnerability index are difficult to show, since the sorts of indices are not available for a significant number of IDA-eligible countries. Instead, column 8 simply shows the implications of adding an enhancement factor of 1.5 for small island states.²⁶ The results show that this would not make a significant difference to allocations to fragile states in total, although it would cause a slight re-allocation among them.

As argued in Section 3.10, there is also a potential justification for including certain country disadvantage factors as a criterion in aid allocation. Column 9 shows the implications of adding an enhancement factor of 1.5 for land-locked countries. The results show that this would again not make a significant difference to allocations to fragile states in total, although it would cause a slight re-allocation among them.

A further issue is whether it would be preferable to use GNI per capita measured at PPP exchange rates, or even GDP per capita. If GNI per capita is given a low weight, as in the current PBA formula, the choice makes very little difference to country allocations. However, if GNI per capita is given a greater weight, the choice would make more of a difference. This is shown in column 10, which shows that when GNI per capita is entered with an exponent of 1, the use of GNI per capita measured at PPP rather than Atlas exchange rates would raise the share of IDA resources allocated to fragile states.

4.4 Changing the way post-conflict countries are dealt with

The existing PBA formula allocates a specific proportion of the total IDA resources to post-conflict countries (currently 10%). The analysis in Section 3.1 suggested that, on the basis of the evidence of the additional effectiveness of aid in post-conflict countries, this proportion is insufficient. The simplest way to raise the share would be to simply set the specific proportion to a higher level. An alternative, however, would be to include a post-conflict enhancement factor (PCEF) in the PBA formula, as used by the African Development Bank. This would mean that the proportion of IDA resources allocated to post-conflict countries would be determined within the PBA, rather than having to be determined before the PBA is implemented.

Columns 11-12 show the likely results of adding a PCEF to the PBA formula (with all else remaining as in the existing PBA). In column 11, the PCEF is fixed at 1.25, which is the value

²⁶ Small island states tend to have higher measured levels of vulnerability than other countries (see Box 5), and adjustment factors for such countries have been used in the aid allocation procedures of other donors (see Box 1). However, several other states have high levels of economic vulnerability, and the inclusion of a more accurate measure of vulnerability in the PBA would as a result raise the allocation indices of various other countries, and not just small island states.

which would result if the approach used by the AfDB to calculate the PCEF is used, and if all post-conflict countries had scores of 3 (on a scale of 1-6) in their Post-Conflict Progress Indicators. The results show that this would significantly reduce allocations of IDA resources to post-conflict countries, from 14% to 7% of total IDA resources not going to capped-blend countries or special purposes.²⁷ Column 12 then shows the results when using a much larger PCEF, equal to 2. In this case, the share of IDA resources allocated to post-conflict countries would slightly exceed the current capped level, although still not by as much as suggested by the results in Section 3.1.

Overall therefore, columns 11 and 12 indicate that the implicit PCEF used by the IDA, as a result of its setting aside 10% of resources to post-conflict countries, is substantially larger in size than the explicit PCEF used by the AfDB. They also suggest that a PCEF would have to be set at a fairly high level – around 2 and upwards – if post-conflict countries are to receive the share of IDA resources implied by the evidence on the effectiveness of aid in such environments.

4.5 Other potential adjustments

Finally, we consider in columns 13-15 the likely implications of three other potential adjustments to the PBA.

The first would be to add more outcome-based indicators to measure country performance. This has been suggested recently as a way of dealing with the ‘one-size-fits-all’ problem of the CPIA as a performance measure, as discussed in Section 3.2. This could be achieved in various ways; here a performance index is constructed based on countries’ recent rates of economic growth and reductions in infant mortality.²⁸ This index is measured on the same scale to the CPIA and is used in place of the CPIA in calculating a country’s performance rating. Column 13 shows that using such an index would raise slightly the share of IDA resources allocated to fragile states. Further work would be required, however, to look into the implications of using other outcome-based performance measures.

The second potential adjustment would be to adjust the PBA formula to take into account levels of aid received by fragile states from donors other than IDA. There are again various ways of doing this; here we estimate the amount of aid that each IDA-eligible country would receive from all other donors if such donors were to allocate aid using the IDA’s PBA. If this level is lower than what a country actually receives from other donors, we adjust a country’s allocation score in the PBA upwards (by a fixed factor of 25%), since a country is in this case under-aided by other donors from IDA’s point of view.²⁹ Similarly, we adjust the allocation

²⁷ The PCEF applied by the AfDB is higher, the higher a country’s PCPI score. The maximum value it can take, which would apply if the PCPI takes the highest possible score, is 1.5; the minimum value it can take is 1 (i.e. no enhancement). See AfDB (2006) for more details. The results still applies however, even if the PCEF were set at its maximum level.

²⁸ We first construct an un-weighted average of country rates of economic growth and rates of reduction in infant mortality over the period 2000-2005, using World Bank (2007) data (data for more recent years are not yet available). We then convert these values into an index with the same scale as the CPIA, as follows: average less than 1% per year=2; 1% to 1.5% per year=3; 1.5% to 3% per year=4; above 4% per year=5.

²⁹ Ideally this adjustment factor would vary in size, by an amount depending on the amount by which a country is under- or over-aided by other donors from IDA’s perspective.

index downwards (also by 25%) if a country is over-aided by other donors, from IDA's point of view. The results of doing this are shown in column 14. They show that adjusting the PBA formula in this way would reduce allocations of IDA resources to fragile states. Further work would be required, however, to look into the implications of making this sort of adjustment when allowing for the other potential adjustments to the PBA.

The third potential adjustment would be to reduce the proportion of IDA resources allocated to the capped-blend countries. Column 15 shows the likely implications of reducing this, from 20% to 10% of the total IDA resources (while holding the proportion allocated to post-conflict countries at 10%). This would also raise allocations to fragile states, but not by a very large extent. In other words, unless combined with the other changes outlined above, only a small proportion of the resources 'released' by a smaller allocation to capped-blend countries would be re-allocated to fragile states; the majority would be re-allocated to other IDA eligible countries.

Table 10: IDA allocations to fragile states under potential adjustments to the PBA

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---------------------------------|----------|-------------------------|----------------------|-----------------|-----------------------|--------------------------------------|---|--|--|---|-------------------------------|----------------------------|--|---------------------------------|--|
| | Baseline | Lower governance factor | No governance factor | CPR exponent =1 | GNI pc exponent =-0.5 | CPR exponent=1; no governance factor | As (6) plus infant mortality, exponent =1 | As (6), adjust for small island states | As (6), adjust for land-locked countries | CPR exponent =1, GNI pc exponent =-1, PPP | As (1), with PCEF set at 1.25 | As (1), with PCEF set at 2 | As (1), with outcome performance measure | As (1), adjust for other donors | As (1), capped-blend share of IDA =10% |
| <i>% of total</i> | | | | | | | | | | | | | | | |
| All Fragile states | 24 | 26 | 29 | 29 | 23 | 32 | 38 | 32 | 31 | 35 | 19 | 27 | 31 | 22 | 28 |
| - post-conflict | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 7 | 17 | 14 | 14 | 18 |
| - conflict-affected | 8 | 9 | 11 | 11 | 6 | 13 | 19 | 13 | 11 | 17 | 8 | 7 | 12 | 5 | 7 |
| - not conflict-affected | 3 | 3 | 4 | 4 | 2 | 5 | 5 | 5 | 6 | 4 | 3 | 3 | 5 | 2 | 3 |
| Non fragile states | 76 | 74 | 71 | 71 | 77 | 68 | 62 | 68 | 69 | 65 | 81 | 73 | 69 | 78 | 72 |
| Sub-Saharan Africa | 60 | 59 | 57 | 60 | 73 | 58 | 78 | 57 | 59 | 72 | 59 | 61 | 49 | 59 | 61 |
| Least Developed | 61 | 61 | 62 | 62 | 76 | 62 | 72 | 62 | 65 | 67 | 59 | 62 | 62 | 63 | 63 |
| Small Island States | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 1 |
| <i>US\$ per capita per year</i> | | | | | | | | | | | | | | | |
| All Fragile states | 5.1 | 5.4 | 6.1 | 6.0 | 4.7 | 6.6 | 7.9 | 6.7 | 6.4 | 7.3 | 3.9 | 5.6 | 6.6 | 4.5 | 6.7 |
| - post-conflict | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 4.1 | 9.3 | 7.7 | 7.7 | 11.5 |
| - conflict-affected | 3.6 | 4.1 | 5.2 | 5.0 | 3.0 | 6.0 | 8.8 | 6.1 | 5.1 | 8.1 | 3.8 | 3.5 | 5.8 | 2.5 | 3.9 |
| - not conflict-affected | 3.2 | 3.8 | 5.2 | 4.8 | 2.8 | 6.1 | 5.9 | 6.3 | 6.9 | 4.7 | 3.4 | 3.1 | 6.3 | 3.0 | 3.4 |
| Non fragile states | 8.0 | 7.9 | 7.5 | 7.6 | 8.2 | 7.3 | 6.6 | 7.2 | 7.4 | 6.9 | 8.6 | 7.8 | 7.3 | 8.3 | 8.7 |
| Sub-Saharan Africa | 7.4 | 7.2 | 6.9 | 7.3 | 8.9 | 7.1 | 9.5 | 7.0 | 7.2 | 8.8 | 7.2 | 7.4 | 6.0 | 7.2 | 8.5 |
| Least Developed | 7.2 | 7.2 | 7.3 | 7.3 | 8.9 | 7.3 | 8.5 | 7.3 | 7.6 | 7.9 | 7.0 | 7.3 | 7.3 | 7.4 | 8.4 |
| Small Island States | 5.2 | 5.6 | 6.7 | 6.3 | 4.2 | 7.3 | 6.3 | 10.2 | 6.6 | 6.1 | 5.3 | 5.2 | 5.9 | 4.6 | 5.7 |

Notes: Figures do not include capped-blend countries (India, Indonesia and Pakistan) or countries in non-accrual status (Central African Republic, Liberia, Myanmar, Somalia, Sudan, Togo, Zimbabwe)

Source: Authors' simulations.

5 Conclusion and recommendations

This paper looks at the PBA system of the IDA, and in particular at how it relates to fragile states. The PBA is the mechanism used by the IDA to allocate concessional aid resources across developing countries deemed eligible for such assistance. The central questions addressed in the paper are: a) whether the PBA in its current form allocates a sufficient share of IDA resources to fragile states, including the various possible sub-categories of such countries, and if not b) how the PBA could be adjusted or 'fine-tuned' to bring about a more appropriate allocation.

The main findings of the paper can be summarised as follows.

- During the period of IDA13 (2003-2005), fragile states received around 20% of total IDA disbursements. Of this total, over half went to post-conflict countries. Similar proportions can be expected to be disbursed to fragile states, and to post-conflict countries among them, under the IDA14 period (2006-2009).
- By the standards of the poverty-efficiency approach to aid allocation proposed by Collier and Dollar (2002), the share of IDA resources allocated to fragile states as a group, and to post-conflict countries among them, appears to be too low. While this approach suggests that allocations to fragile states should be somewhat lower than they would be if allocations were based entirely on country need, they do not suggest they should be as much lower as they are under the PBA.
- While there are several additional considerations, on balance these do not clearly suggest that a lower share of IDA resources should be allocated to fragile states than is implied by the Collier-Dollar approach. If anything, these additional considerations would imply a higher share than implied by the Collier-Dollar approach.
- A reduction in the weight attached to governance in determining country performance, and a reduction in the weight attached to country performance in determining a countries overall allocation scores, would be justifiable ways of raising the share of IDA resources allocated to fragile states. Other justifiable adjustments include adding more direct measures of country need (e.g. infant mortality), or an enhancement factor for high levels of economic vulnerability, to the PBA formula, although in the latter case data availability would be an issue.
- Adding an enhancement factor to the performance ratings of post-conflict countries, as used by the African Development Bank for example, provides a simple, transparent and theoretically consistent way of allocating exceptional assistance to such countries. However, the level of this factor set by the AfDB – up to a maximum of 1.5 – appears to be too low; the evidence suggests that in fact a level of around 2 would be required.
- There is a need for an open discussion about the indicators to be used to determine whether a country should qualify for post-conflict assistance. In addition, despite recent extensions, the duration of exceptional assistance from IDA to post-conflict countries still begins and ends earlier than is appropriate.

- Finally, there is a need for further discussion regarding the underlying principles according to which IDA aid resources are to be allocated: whether, for example, the over-riding objective is poverty reduction (and if so, how defined), or whether other objectives are relevant (e.g. state building, compensation for inherent country disadvantages).

In terms of research, there are a number of areas in which further empirical work would improve donors' ability to achieve a better allocation of aid across countries. These include:

- work on the effectiveness of aid in post-conflict countries, and in particular extending the original work of Collier and Hoeffler (2004) to include more recent (and therefore a larger sample of) post-conflict situations;
- work on the effectiveness of aid in countries with high economic vulnerability, specifically so as to determine the appropriate size of a potential enhancement factor for such countries;
- country-specific analyses of absorptive capacity in fragile states, taking into account the different range of aid instruments and aid delivery mechanisms available.

Finally, any changes to the PBA itself must ideally be translated into changes in actual disbursements. More monitoring and analysis of the links between allocation norms and actual net disbursements is also called for.

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Appendix 1: List of fragile states, 2003-2007

| | Conflict status | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|---------------------------------------|-----------------|---------|---------|---------|---------|---------|
| Africa | | | | | | |
| Angola | PC | C | S | S | C | C |
| Burundi | PC | C | C | C | C | C |
| Cameroon | X | M | M | - | - | |
| Central African Republic* | CA | M | S | S | S | S |
| Chad | X | C | M | M | M | C |
| Comoros | CA | M | C | C | S | S |
| Democratic Rep. of Congo | PC | C | C | C | C | C |
| Côte d'Ivoire* | CA | - | - | M | C | S |
| Eritrea | CA | - | - | M | C | C |
| Equatorial Guinea | X | - | S | - | - | |
| Gambia, The | X | - | M | M | M | M |
| Guinea | X | - | M | M | C | C |
| Guinea-Bissau | PC | C | S | C | C | C |
| Liberia | CA | C | S | S | S | S |
| Niger | X | - | M | M | - | |
| Nigeria | CA | M | C | C | C | M |
| Republic of Congo | PC | M | C | C | C | C |
| São Tomé and Príncipe | X | - | C | C | M | M |
| Sierra-Leone | CA | C | C | M | M | M |
| Somalia* | CA | C | S | S | S | S* |
| Sudan* | CA | C | S | S | C | C |
| Togo* | X | M | S | C | C | S |
| Zimbabwe* | X | C | S | S | S | S |
| East Asia and Pacific | | | | | | |
| Cambodia | CA | M | M | C | C | M |
| Lao PDR | X | C | C | C | C | C |
| Papua New Guinea | X | M | C | C | M | M |
| Solomon Islands | CA | - | S | S | C | C |
| Timor-Leste | PC | - | C | C | C | C* |
| Vanuatu | X | - | - | - | C | M |
| Europe and Central Asia | | | | | | |
| Kosovo | CA | - | C | C | C | C* |
| Kyrgyz Republic | X | M | - | - | - | |
| Tajikistan | CA | C | C | C | M | |
| Uzbekistan | X | C | S | C | M | C |
| Latin America/Caribbean | | | | | | |
| Haiti | CA | C | S | S | C | C |
| Middle East & North Africa | | | | | | |
| Djibouti | X | C | - | - | M | M |
| West Bank and Gaza | CA | - | - | - | C | S* |
| Yemen | X | M | - | - | - | |
| South Asia | | | | | | |
| Afghanistan | PC | C | S | S | S | S |
| Myanmar* | CA | C | S | S | S | S |

Notes: PC = Post-conflict; CA = Conflict-affected; X = Non-conflict-affected. S indicates classified as 'severe' fragile state/LICUS (an overall and governance CPIA of 2.5 or less), C indicates classified as 'core' LICUS/fragile state (an overall and governance CPIA of 2.6-3.0); and M indicates classified as 'marginal' LICUS/fragile state (an overall and governance CPIA of 3.0-2). The FY07 LICUS list is based on 2005 CPIA ratings.*Countries in non-accrual, as of June 30th 2006.

Source: World Bank (2006).

Appendix 2: IDA aid to fragile states, 2003-2005

| | Net disbursements (US\$ million) | | | Net disbursements (US\$ per capita) | | |
|--------------------------|-------------------------------------|-------|-------|--|------|------|
| | 2003 | 2004 | 2005 | 2003 | 2004 | 2005 |
| Afghanistan | 78.8 | 95.1 | 196.8 | 2.8 | 3.4 | 7.0 |
| Angola | 1.4 | 16.0 | 30.5 | 0.1 | 1.0 | 1.9 |
| Burundi | 30.1 | 43.3 | 42.3 | 4.3 | 5.9 | 5.6 |
| Cambodia | 69.6 | 47.4 | 34.9 | 5.1 | 3.4 | 2.5 |
| Cameroon | 49.3 | 96.9 | 18.7 | 3.1 | 6.0 | 1.1 |
| Central African Republic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chad | 101.1 | 71.7 | 65.6 | 11.1 | 7.6 | 6.7 |
| Comoros | 8.1 | 1.4 | 0.6 | 14.0 | 2.4 | 1.0 |
| Congo, Dem. Rep. | 208.2 | 228.5 | 417.4 | 3.8 | 4.1 | 7.3 |
| Congo, Rep. | 23.5 | 29.9 | 40.0 | 6.2 | 7.7 | 10.0 |
| Cote d'Ivoire | 47.7 | 33.1 | 0.0 | 2.7 | 1.9 | 0.0 |
| Djibouti | 28.4 | 11.3 | 7.9 | 37.1 | 14.5 | 9.9 |
| Equatorial Guinea | -0.8 | -0.8 | -1.1 | -1.6 | -1.6 | -2.1 |
| Eritrea | 73.3 | 42.0 | 63.8 | 18.1 | 9.9 | 14.5 |
| Gambia, The | 11.5 | 19.4 | 15.3 | 8.0 | 13.1 | 10.1 |
| Guinea | 32.0 | 35.8 | 27.9 | 3.6 | 3.9 | 3.0 |
| Guinea-Bissau | 13.7 | 25.6 | 12.7 | 9.2 | 16.6 | 8.0 |
| Haiti | 0.0 | -40.5 | 17.1 | 0.0 | -4.8 | 2.0 |
| Kyrgyz Republic | 34.8 | 24.1 | 34.9 | 6.9 | 4.7 | 6.8 |
| Lao PDR | 45.4 | 29.2 | 36.7 | 8.0 | 5.0 | 6.2 |
| Liberia | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Myanmar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Niger | 84.1 | 72.3 | 95.5 | 6.4 | 5.4 | 6.8 |
| Nigeria | 50.3 | 137.2 | 241.4 | 0.4 | 1.1 | 1.8 |
| Papua New Guinea | -3.9 | -3.6 | -3.5 | -0.7 | -0.6 | -0.6 |
| Sao Tome and Principe | 1.0 | 3.3 | 2.8 | 6.6 | 21.6 | 18.1 |
| Sierra Leone | 31.5 | 39.1 | 50.6 | 6.2 | 7.3 | 9.2 |
| Solomon Islands | -0.3 | 0.4 | 0.1 | -0.7 | 0.9 | 0.2 |
| Somalia | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sudan | -3.1 | -1.8 | -1.3 | -0.1 | -0.1 | 0.0 |
| Tajikistan | 14.6 | 55.0 | 36.0 | 2.3 | 8.6 | 5.5 |
| Timor-Leste | 4.6 | 0.0 | 5.1 | 5.2 | 0.0 | 5.2 |
| Togo | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uzbekistan | 0.2 | 4.5 | 7.0 | 0.0 | 0.2 | 0.3 |
| Yemen, Rep. | 72.1 | 66.2 | 100.3 | 3.7 | 3.3 | 4.8 |
| Zimbabwe | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Notes: Includes all countries classified as severe, core or marginal fragile states during FY2003-2005 (see Appendix 1.) Figures are in US\$ at constant 2004 prices.

Source: OECD-DAC (2007), International Development Statistics.

Appendix 3: Estimated allocation norms to fragile states under IDA14

In this section we present estimates of the allocation ‘norms’ which each IDA-eligible country receives under IDA14. The calculations involve five main steps.

First, a distinction is made between four groups of IDA-eligible countries: post-conflict (Afghanistan, Angola, Burundi, Cote d’Ivoire, Republic of Congo, Democratic Republic of Congo, Eritrea, Timor-Leste), capped-blend (India, Indonesia and Pakistan), non-accrual (Central African Republic, Liberia, Myanmar, Somalia, Sudan, Togo, Zimbabwe) and all others (of which there are 63 in total).³⁰ Countries in non-accrual status are removed from the analysis, since they are currently not eligible for any further IDA resources (until accrual status is restored). The remaining groups are allocated a fixed share of the total amount of IDA resources available: 10% to post-conflict countries, 20% to the three capped-blend countries, and 62% to all other eligible countries. The total amount of IDA resources available is taken to be SDR 21,000 million, or US\$31.5 million.

Second, each country is awarded a country performance rating (CPR). For the capped-blend and all other countries, this rating depends on the country’s overall CPIA score, its annual portfolio performance rating, and its scores on the governance components of the CPIA and portfolio performance ratings. In algebraic terms, the CPR is given by:

$$CPR_i = [0.8 \times CPIA_i + 0.2 \times PORT_i] \times \left[\frac{GOV}{3.5} \right]^{1.5}.$$

For post-conflict countries, each country’s CPR is instead given by its overall score on a set of Post-Conflict Progress Indicators (PCPI).

Third, each country is then given an allocation score, which depends positively on its performance rating and population size, and negatively on its per capita GNI (measured at Atlas exchange rates). In algebraic terms, this score is given by:

$$Z_i = CPR_i^2 \times POP_i \times GNIpc_i^{-0.125}.$$

Fourth, each country is then given an allocation norm, which represents the total resource envelope (expressed in US\$ or SDR) available to each country over the replenishment period. This norm is equal to the country’s allocation score, divided by the sum of such scores for all countries in its group, multiplied by the amount of IDA resources available to the group. The allocation norm also includes a fixed amount (currently US\$3.3 million) which is made available to all countries. In algebraic terms, each country’ allocation norm can be expressed as:

$$A_i = \bar{A} + \frac{Z_i}{\sum_i Z_i} \times [TOTAL - n\bar{A}],$$

³⁰ Sierra Leone was a post-conflict country in recent years but graduated from this status in FY2006, and is therefore not included in the current list of post-conflict countries.

where TOTAL is the total amount of resources available to the group of which the country is part (i.e. post-conflict, capped-blend or all others), and n is the number of countries in that group.

Fifth, each country's allocation norm is capped at a level of \$20 per capita per year, with any surpluses thereby generated re-allocated among all other countries in its group.

The results of the calculations are shown in Table A3.1.

It should be noted that these estimated allocation norms may differ somewhat by those calculated and used by the IDA. The main reason is that a series of additional adjustments are made to countries allocation norms under the PBA, to reflect a) grants discounts and reallocations, b) the Multilateral Debt Relief Initiative (MDRI) netting out mechanism, and c) the free-rider policy (IDA 2006: 14). We do not attempt to repeat these more complicated adjustments here. However, we can confirm that the estimated allocations in Table A3.1 are close to those calculated by the IDA for forthcoming financial years, since the latter are reported in the Country Assistance Strategy (CAS) papers which are published every year. This is shown in Table A3.2, which compares the estimated allocation norms with those reported in recent CAS papers, for 14 low-income countries. Only in one case – Pakistan – is there a very large difference between the estimated allocation, and that reported in the CAS. This means that the figures in Table A3.1 can be regarded as providing a reasonable set of estimates of country allocation norms arising under IDA14, and also a reasonable baseline for simulating the implications of adjustments to the PBA.

Table A3.1: Estimated IDA allocation norms under IDA14

| | CPIA score, overall | CPIA score, governance | Portfolio rating | GNI per capita, US\$ (atlas) | Population (millions) | Allocation norm (US\$ million per year) | Allocation norm (US\$ per capita per year) |
|-----------------------|---------------------|------------------------|------------------|------------------------------|-----------------------|---|--|
| Fragile states | | | | | | | |
| Afghanistan | 2.7 | 2.8 | 2.5 | 541 | 28 | 200 | 7.1 |
| Angola | 2.6 | 2.8 | 2.5 | 1410 | 16 | 101 | 6.3 |
| Burundi | 3.0 | 2.9 | 3.0 | 100 | 8 | 67 | 8.9 |
| Cambodia | 3.1 | 2.8 | 3.8 | 430 | 14 | 57 | 4.1 |
| Chad | 2.9 | 2.4 | 1.5 | 400 | 10 | 17 | 1.7 |
| Comoros | 2.4 | 2.6 | 3.5 | 650 | 1 | 3 | 4.7 |
| Congo, Dem. Rep. | 2.8 | 2.5 | 2.5 | 120 | 58 | 488 | 8.5 |
| Congo, Rep. | 2.8 | 3.0 | 4.5 | 950 | 4 | 28 | 6.9 |
| Cote d'Ivoire | 2.5 | 2.5 | . | 870 | 18 | 121 | 6.7 |
| Djibouti | 3.1 | 3.1 | 3.5 | 1010 | 1 | 5 | 6.5 |
| Eritrea | 2.5 | 2.8 | 2.0 | 170 | 4 | 37 | 8.5 |
| Gambia, The | 3.1 | 3.1 | 3.8 | 290 | 2 | 10 | 6.4 |
| Guinea | 3.0 | 2.8 | 2.0 | 420 | 9 | 29 | 3.1 |
| Guinea Bissau | 2.7 | 3.0 | 3.7 | 180 | 2 | 8 | 5.2 |
| Haiti | 2.8 | 2.3 | 3.0 | 450 | 9 | 15 | 1.8 |
| Lao PDR | 3.0 | 2.8 | 4.3 | 430 | 6 | 25 | 4.3 |
| Mauritania | 3.2 | 3.2 | 2.0 | 580 | 3 | 15 | 4.9 |
| Nigeria | 3.1 | 2.9 | 2.0 | 560 | 132 | 458 | 3.5 |
| Papua New Guinea | 3.1 | 3.1 | . | 500 | 6 | 29 | 5.0 |
| Sao Tome and Prin. | 3.0 | 3.4 | 3.7 | 440 | 0 | 3 | 16.9 |
| Sierra Leone | 3.1 | 3.3 | 3.2 | 220 | 6 | 35 | 6.3 |
| Solomon Islands | 2.8 | 2.8 | 6.0 | 620 | 0 | 4 | 7.8 |
| Timor-Leste | 2.7 | 2.8 | 3.0 | 600 | 1 | 8 | 8.6 |
| Tonga | 2.9 | 3.1 | 4.0 | 1750 | 0 | 2 | 20.0 |
| Uzbekistan | 3.0 | 2.7 | 2.0 | 520 | 26 | 64 | 2.5 |
| Vanuatu | 3.1 | 3.1 | . | 1560 | 0 | 3 | 12.0 |
| Capped-blend | | | | | | | |
| India | 3.8 | 2.5 | 3.7 | 730 | 1095 | 1731 | 1.6 |
| Indonesia | 3.7 | 2.5 | 3.3 | 1280 | 221 | 216 | 1.0 |
| Pakistan | 3.7 | 2.5 | 3.2 | 690 | 156 | 153 | 1.0 |

Appendix 3: Estimated allocation norms to fragile states under IDA14

| | CPIA score, overall | CPIA score, governance | Portfolio rating | GNI per capita, US\$ (atlas) | Population (millions) | Allocation norm (US\$ million per year) | Allocation norm (US\$ per capita per year) |
|---------------------|---------------------|------------------------|------------------|------------------------------|-----------------------|---|--|
| All others | | | | | | | |
| Albania | 3.7 | 3.5 | 3.4 | 2570 | 3 | 24 | 7.5 |
| Armenia | 4.3 | 6.0 | 3.9 | 1470 | 3 | 59 | 19.5 |
| Azerbaijan | 3.7 | 4.8 | 3.4 | 1240 | 8 | 77 | 9.1 |
| Bangladesh | 3.4 | 3.5 | 2.9 | 470 | 142 | 700 | 4.9 |
| Benin | 3.7 | 2.5 | 3.7 | 510 | 8 | 80 | 9.5 |
| Bhutan | 3.8 | 6.0 | 4.0 | 1250 | 1 | 12 | 19.2 |
| Bolivia | 3.7 | 3.0 | 3.3 | 1010 | 9 | 63 | 6.8 |
| Bosnia and Herz. | 3.6 | 2.5 | 3.5 | 2700 | 4 | 27 | 7.0 |
| Burkina Faso | 3.8 | 2.5 | 3.6 | 400 | 13 | 129 | 9.8 |
| Cameroon | 3.3 | 2.5 | 3.3 | 1000 | 16 | 90 | 5.5 |
| Cape Verde | 4.1 | 2.5 | 4.1 | 1930 | 1 | 8 | 16.5 |
| Dominica | 3.8 | . | 3.6 | 3800 | 0 | 1 | 20.0 |
| Ethiopia | 3.4 | 3.0 | 3.3 | 160 | 71 | 528 | 7.4 |
| Georgia | 3.8 | 4.2 | 3.6 | 1320 | 4 | 49 | 10.9 |
| Ghana | 3.9 | 3.0 | 3.7 | 450 | 22 | 256 | 11.6 |
| Grenada | 3.7 | 2.5 | 3.7 | 3860 | 0 | 2 | 20.0 |
| Guyana | 3.4 | 3.5 | 3.4 | 1020 | 1 | 7 | 9.0 |
| Honduras | 3.9 | 4.0 | 3.7 | 1120 | 7 | 84 | 11.6 |
| Kenya | 3.6 | 3.0 | 3.4 | 540 | 34 | 268 | 7.8 |
| Kiribati | 3.2 | . | 3.3 | 1210 | 0 | 2 | 20.0 |
| Kyrgyz Republic | 3.5 | 4.0 | 3.1 | 450 | 5 | 34 | 6.6 |
| Lesotho | 3.5 | 3.2 | 3.5 | 950 | 2 | 15 | 8.5 |
| Moldova | 3.5 | 2.5 | 3.5 | 290 | 19 | 159 | 8.6 |
| Madagascar | 3.4 | 2.5 | 3.4 | 160 | 13 | 101 | 7.9 |
| Maldives | 3.8 | 3.5 | 3.7 | 2320 | 0 | 5 | 14.4 |
| Mali | 3.7 | 2.5 | 3.6 | 380 | 14 | 130 | 9.6 |
| Mongolia | 3.5 | 4.2 | 3.4 | 930 | 4 | 36 | 8.5 |
| Mozambique | 3.4 | 4.8 | 3.5 | 690 | 3 | 26 | 10.1 |
| Malawi | 3.5 | 3.0 | 3.4 | 310 | 20 | 148 | 7.5 |
| Nepal | 3.3 | 2.0 | 3.2 | 270 | 27 | 144 | 5.3 |
| Nicaragua | 3.7 | 3.5 | 3.7 | 950 | 5 | 53 | 10.3 |
| Niger | 3.3 | 2.0 | 3.3 | 240 | 14 | 81 | 5.8 |
| Rwanda | 3.5 | 4.2 | 3.4 | 230 | 9 | 88 | 9.7 |
| Samoa | 4.0 | 4.8 | 4.0 | 2020 | 0 | 4 | 20.0 |
| Senegal | 3.8 | 3.5 | 3.7 | 700 | 12 | 124 | 10.6 |
| Serbia and Mont. | 3.7 | 3.0 | 3.5 | 3220 | 8 | 58 | 7.2 |
| Sri Lanka | 3.6 | 3.8 | 3.6 | 1160 | 20 | 178 | 9.1 |
| St. Lucia | 4.0 | 3.7 | 4.1 | 4580 | 0 | 3 | 20.0 |
| St. Vincent & Gren. | 3.9 | 3.3 | 3.9 | 3530 | 0 | 2 | 20.0 |
| Tajikistan | 3.3 | 4.2 | 3.0 | 330 | 7 | 39 | 5.9 |
| Tanzania | 3.9 | 3.0 | 3.9 | 340 | 38 | 531 | 13.9 |
| Uganda | 3.9 | 4.0 | 3.5 | 280 | 29 | 339 | 11.8 |
| Vietnam | 3.7 | 4.5 | 3.4 | 620 | 83 | 796 | 9.6 |
| Yemen, Rep. | 3.3 | 4.0 | 3.0 | 600 | 21 | 108 | 5.1 |
| Zambia | 3.3 | 2.0 | 3.2 | 500 | 12 | 61 | 5.2 |

Notes: The table does not include countries in non-accrual status (see Appendix 1 for list), whose allocation norms are assumed to be zero.

Source: Authors' simulations.

Table A3.2: Estimated allocation norms compared with reported allocation norms

| | Estimated allocation norm (US\$ per year) | Reported allocation in CAS (US\$ per year) | Period of reported allocation in CAS |
|--------------|--|---|---|
| Azerbaijan | 77 | 79 | FY2006 |
| Bangladesh | 700 | 750 | FY2006 |
| Bhutan | 12 | 15 | FY2006 |
| Burkina Faso | 129 | 140 | FY2006-09 |
| Cambodia | 57 | 40 | FY2006-08 |
| Georgia | 49 | 33 | FY2006 |
| Lesotho | 15 | 16 | FY2006 |
| Madagascar | 159 | 145 | FY2007-09 |
| Malawi | 101 | 98 | FY2009-10 |
| Nigeria | 458 | 500 | FY2006-07 |
| Pakistan | 153 | 785 | FY2007-09 |
| Tajikistan | 39 | 29 | FY2006 |
| Timor-Leste | 8 | 11 | FY2006-09 |
| Uganda | 339 | 333 | FY2006-09 |

Source: Authors' simulations; World Bank Country Assistance Strategy Papers.

Appendix 4: Poverty-efficiency calculations

In the approach proposed by Collier and Dollar (2002), the problem facing a donor, such as the IDA, is to achieve the largest possible reduction in poverty, from the fixed amount of aid resources it has available. This can be expressed algebraically as:

$$\text{Maximise} \quad G_i \alpha_i h_i N_i \quad (1)$$

$$\text{subject to} \quad \sum_i A_i y_i N_i = \bar{A}, \quad (2)$$

where h_i is the poverty measure (relative to population, e.g. the proportion of people living below \$1-a-day), G_i is economic growth, α_i is the elasticity of the poverty measure with respect to economic growth, N_i is population, y_i is GNI per capita, A_i is the ratio of aid to GNI, and \bar{A} is the total amount of aid available. If every country gets at least some aid in the efficient allocation, then each country's efficient aid allocation (as a share of its GNI, denoted A_i^*) can be expressed by the following formula:

$$A_i^* = \frac{(b + dP_i)}{2(c - eP_i)} - \frac{\lambda}{2(c - eP_i)} \frac{y_i}{\alpha_i h_i}, \quad (3)$$

where P_i is a measure of recipient country policies and institutions affecting the effect of aid on economic growth, λ is the shadow value of aid (the additional poverty reduction which would result if aid resources were to increase by one unit), and b , c , d and e are parameters which can be estimated econometrically.

However, even though the standard cut-off level of GNI per capita for eligibility for IDA resources is quite low (currently \$1,025), it is generally not the case that every country will get at least some aid in the efficient allocation.³¹ Application of this formula to IDA-eligible countries will therefore generate negative values, which make no sense in the aid allocation context. Instead, it is necessary calculate the efficient allocation with the constraint that no country receives negative aid. This can only be done using optimisation software (e.g. Excel Solver, or GAMS).

In terms of data requirements, we use the econometric estimates obtained by Collier and Hoeffler (2004, Table 3 column 3). The relevant measure of policy is therefore a country's CPIA score, which are available for 2005 from the World Bank website. Data on GNI per capita and population refer to 2005 and are taken from World Bank (2007). We use measure poverty in three different ways. The first is simply to assume an equal poverty rate in all IDA-eligible countries.³² The second is infant deaths per 1,000 persons, which is given by the infant mortality rate (deaths per 1,000 live births) multiplied by the crude birth rate (births per 1,000 people), divided by 1,000. The third is the Human Development Index, reversed (i.e. subtracted from one) so that higher values correspond to higher levels of poverty. These

³¹ It should be noted however that 21 of the 81 IDA-eligible countries had (in 2005) GNI per capita exceeding US\$1,025, and of these 9 had GNI per capita exceeding US\$2,000.

³² In this case, the particular poverty rate assumed does not affect the results; a rate of 1 is used.

latter two measures refer to 2004 (2005 data not yet being available). For the poverty-elasticity for these three poverty measures, we assume values of 1, 0.5 and 0.4 respectively, constant across countries.

We exclude the three capped-blend countries, whose allocations are limited in the PBA, and also the countries currently in non-accrual status. For the remaining 71 eligible countries, we assume a total resource envelope of US\$7,560 million per year.³³ In defining post-conflict countries we use the list of countries deemed to be in this status by IDA itself. In calculating the efficient allocations we also impose the constraint that no one country receives more than \$20 per capita of aid per year, while all countries receive at least US\$1.65 million per year,³⁴ as is the case with the IDA's PBA.

³³ The IDA14 resource envelope is SDR 21,000m, the share going to post-conflict countries is 0.1, the share going to other non-capped-blend countries is 0.62, the SDR-US\$ exchange rate is 1.5, and the number of years is three. Thus $(21000/3)*1.5*0.72=7560$.

³⁴ This figure is calculated as SDR 3.3 million, divided by three years, and multiplied by the SDR-US\$ exchange rate of 1.5.

Appendix 5: IDA allocations under potential adjustments to the PBA, by country

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------------------------|----------|---------------------------------|------------------------------|-----------------------|-----------------------------|---|--|--|---|---|---|-------------------------------------|--|--|--|
| | Baseline | Lower govern- ance factor | No govern- ance factor | CPR exponent =1 | GNI pc exponent =-0.5 | CPR exponent =1; no govern- ance factor | As (6) plus infant mortality, exponent =1 | As (6), adjust for small island states | As (6), adjust for land- locked countries | CPR exponent =1, GNI pc exponent =-1, PPP | As (1), with PCEF set at 1.25 | As (1), with PCEF set at 2 | As (1), with outcome performa nce measure | As (1), adjust for other donors | As (1), capped- blend share of IDA =10% |
| Afghanistan | 200 | 200 | 200 | 200 | 88 | 88 | 293 | 265 | 199 | 111 | 120 | 274 | 200 | 242 | 353 |
| Albania | 24 | 23 | 21 | 22 | 6 | 5 | 4 | 18 | 20 | 8 | 25 | 23 | 26 | 10 | 25 |
| Angola | 101 | 101 | 101 | 101 | 19 | 19 | 114 | 90 | 100 | 60 | 59 | 133 | 101 | 126 | 184 |
| Armenia | 59 | 50 | 35 | 34 | 20 | 9 | 5 | 34 | 26 | 10 | 60 | 57 | 33 | 60 | 60 |
| Azerbaijan | 77 | 74 | 68 | 65 | 29 | 23 | 27 | 77 | 59 | 23 | 82 | 74 | 83 | 83 | 83 |
| Bangladesh | 700 | 793 | 991 | 844 | 603 | 845 | 538 | 850 | 975 | 652 | 753 | 675 | 1385 | 758 | 757 |
| Benin | 80 | 73 | 59 | 70 | 65 | 48 | 78 | 51 | 59 | 75 | 86 | 78 | 33 | 87 | 87 |
| Bhutan | 12 | 10 | 8 | 8 | 6 | 3 | 7 | 8 | 6 | 4 | 13 | 12 | 8 | 13 | 13 |
| Bolivia | 63 | 64 | 64 | 62 | 29 | 28 | 36 | 79 | 61 | 37 | 67 | 61 | 55 | 68 | 68 |
| Bosnia and Herzegovina | 27 | 26 | 23 | 26 | 6 | 6 | 3 | 20 | 23 | 9 | 29 | 26 | 21 | 12 | 29 |
| Burkina Faso | 129 | 120 | 100 | 113 | 128 | 96 | 156 | 125 | 96 | 112 | 139 | 125 | 52 | 140 | 140 |
| Burundi | 67 | 67 | 67 | 67 | 118 | 118 | 52 | 89 | 67 | 85 | 55 | 125 | 67 | 89 | 129 |
| Cambodia | 57 | 67 | 90 | 77 | 53 | 88 | 102 | 82 | 94 | 52 | 61 | 55 | 101 | 62 | 62 |
| Cameroon | 90 | 90 | 88 | 99 | 41 | 43 | 105 | 83 | 95 | 68 | 97 | 87 | 57 | 97 | 97 |
| Cape Verde | 8 | 7 | 5 | 6 | 3 | 2 | 3 | 4 | 6 | 3 | 9 | 8 | 4 | 4 | 9 |
| Chad | 17 | 23 | 42 | 34 | 17 | 53 | 108 | 69 | 53 | 65 | 18 | 16 | 83 | 8 | 18 |
| Comoros | 3 | 3 | 4 | 4 | 2 | 4 | 4 | 4 | 6 | 4 | 3 | 3 | 6 | 2 | 3 |
| Congo, Dem. Rep. | 488 | 488 | 488 | 488 | 738 | 738 | 476 | 433 | 486 | 637 | 227 | 520 | 488 | 422 | 616 |
| Congo, Rep. | 28 | 28 | 28 | 28 | 8 | 8 | 16 | 25 | 28 | 32 | 28 | 63 | 28 | 16 | 59 |
| Cote d'Ivoire | 121 | 121 | 121 | 121 | 34 | 34 | 82 | 108 | 121 | 88 | 47 | 105 | 121 | 105 | 153 |
| Djibouti | 5 | 5 | 6 | 6 | 3 | 4 | 8 | 6 | 6 | 5 | 5 | 5 | 3 | 3 | 5 |
| Dominica | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Eritrea | 37 | 37 | 37 | 37 | 41 | 41 | 13 | 33 | 37 | 32 | 20 | 43 | 37 | 46 | 67 |
| Ethiopia | 528 | 533 | 529 | 556 | 1166 | 1201 | 863 | 706 | 540 | 649 | 569 | 510 | 521 | 572 | 572 |
| Gambia, The | 10 | 10 | 12 | 11 | 12 | 15 | 13 | 11 | 12 | 9 | 10 | 9 | 9 | 10 | 10 |
| Georgia | 49 | 45 | 37 | 38 | 18 | 12 | 7 | 28 | 32 | 16 | 52 | 47 | 42 | 53 | 53 |
| Ghana | 256 | 229 | 180 | 203 | 229 | 149 | 128 | 144 | 165 | 97 | 275 | 247 | 90 | 277 | 277 |
| Grenada | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Guinea | 29 | 34 | 46 | 45 | 28 | 53 | 83 | 48 | 55 | 35 | 31 | 28 | 56 | 31 | 31 |
| Guinea Bissau | 8 | 9 | 10 | 11 | 15 | 22 | 25 | 11 | 17 | 18 | 9 | 8 | 6 | 9 | 9 |
| Guyana | 7 | 7 | 6 | 7 | 4 | 4 | 3 | 6 | 9 | 3 | 7 | 7 | 5 | 4 | 7 |
| Haiti | 15 | 21 | 42 | 30 | 14 | 45 | 41 | 44 | 74 | 43 | 16 | 15 | 56 | 7 | 16 |

| Honduras | 84 | 76 | 61 | 63 | 35 | 22 | 18 | 46 | 52 | 26 | 90 | 81 | 31 | 91 | 91 |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Country | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Kenya | 268 | 262 | 243 | 255 | 205 | 181 | 264 | 206 | 236 | 281 | 288 | 258 | 74 | 290 | 290 |
| Kiribati | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Kyrgyz Republic | 34 | 37 | 41 | 36 | 31 | 35 | 19 | 50 | 39 | 30 | 36 | 33 | 38 | 37 | 37 |
| Lao PDR | 25 | 29 | 39 | 33 | 24 | 38 | 34 | 53 | 41 | 32 | 27 | 24 | 64 | 11 | 27 |
| Lesotho | 15 | 15 | 13 | 14 | 8 | 7 | 11 | 16 | 13 | 6 | 16 | 15 | 5 | 16 | 16 |
| Madagascar | 159 | 151 | 132 | 151 | 209 | 176 | 142 | 116 | 133 | 198 | 171 | 154 | 40 | 172 | 172 |
| Malawi | 101 | 98 | 90 | 104 | 222 | 210 | 165 | 124 | 95 | 184 | 109 | 98 | 30 | 110 | 110 |
| Maldives | 5 | 4 | 4 | 4 | 2 | 2 | 2 | 3 | 5 | 2 | 5 | 5 | 4 | 3 | 5 |
| Mali | 130 | 120 | 100 | 115 | 135 | 102 | 209 | 127 | 98 | 138 | 140 | 126 | 86 | 141 | 141 |
| Mauritania | 15 | 16 | 17 | 19 | 11 | 14 | 22 | 17 | 19 | 13 | 16 | 14 | 12 | 7 | 16 |
| Moldova | 36 | 35 | 32 | 32 | 18 | 15 | 4 | 38 | 30 | 20 | 38 | 35 | 41 | 39 | 39 |
| Mongolia | 26 | 25 | 22 | 22 | 17 | 13 | 8 | 25 | 20 | 15 | 28 | 25 | 28 | 28 | 28 |
| Mozambique | 148 | 147 | 141 | 150 | 184 | 177 | 213 | 124 | 142 | 167 | 160 | 143 | 196 | 161 | 161 |
| Nepal | 144 | 152 | 164 | 174 | 201 | 253 | 114 | 235 | 180 | 156 | 155 | 139 | 168 | 156 | 156 |
| Nicaragua | 53 | 48 | 39 | 43 | 26 | 18 | 13 | 32 | 36 | 17 | 57 | 51 | 33 | 22 | 57 |
| Niger | 81 | 82 | 83 | 94 | 124 | 144 | 271 | 121 | 93 | 157 | 87 | 78 | 28 | 87 | 87 |
| Nigeria | 458 | 519 | 648 | 650 | 339 | 559 | 1140 | 655 | 751 | 1118 | 493 | 442 | 738 | 179 | 495 |
| Papua New Guinea | 29 | 31 | 35 | 36 | 24 | 31 | 29 | 33 | 56 | 27 | 31 | 28 | 12 | 31 | 31 |
| Rwanda | 88 | 85 | 78 | 80 | 140 | 117 | 128 | 95 | 73 | 81 | 95 | 85 | 47 | 95 | 95 |
| Samoa | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 4 |
| Sao Tome and Principe | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 |
| Senegal | 124 | 113 | 91 | 100 | 76 | 52 | 86 | 73 | 84 | 72 | 133 | 120 | 49 | 134 | 134 |
| Serbia and Montenegro | 58 | 55 | 49 | 52 | 11 | 9 | 4 | 41 | 47 | 15 | 62 | 56 | 61 | 24 | 63 |
| Sierra Leone | 35 | 36 | 37 | 40 | 57 | 66 | 107 | 35 | 40 | 66 | 38 | 34 | 26 | 38 | 38 |
| Solomon Islands | 4 | 4 | 5 | 4 | 3 | 4 | 3 | 4 | 6 | 4 | 4 | 4 | 3 | 2 | 4 |
| Sri Lanka | 178 | 166 | 141 | 151 | 71 | 52 | 12 | 113 | 130 | 47 | 192 | 172 | 178 | 193 | 193 |
| St. Lucia | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 |
| St. Vincent and the Gren. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Tajikistan | 39 | 43 | 51 | 44 | 45 | 58 | 39 | 64 | 49 | 52 | 41 | 37 | 72 | 42 | 42 |
| Tanzania | 531 | 459 | 334 | 391 | 607 | 346 | 320 | 263 | 301 | 563 | 572 | 513 | 375 | 575 | 575 |
| Timor-Leste | 8 | 8 | 8 | 8 | 4 | 4 | 5 | 8 | 12 | 5 | 6 | 12 | 8 | 5 | 14 |
| Tonga | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Uganda | 339 | 320 | 279 | 274 | 458 | 329 | 352 | 316 | 242 | 229 | 364 | 327 | 219 | 367 | 366 |
| Uzbekistan | 64 | 80 | 122 | 110 | 51 | 116 | 68 | 191 | 146 | 104 | 69 | 62 | 150 | 70 | 70 |
| Vanuatu | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 3 |
| Vietnam | 796 | 777 | 722 | 678 | 538 | 427 | 74 | 546 | 626 | 313 | 857 | 768 | 853 | 862 | 861 |
| Yemen, Rep. | 108 | 119 | 144 | 126 | 75 | 99 | 168 | 123 | 141 | 252 | 116 | 104 | 53 | 116 | 116 |
| Zambia | 61 | 63 | 66 | 72 | 50 | 60 | 109 | 94 | 72 | 109 | 65 | 59 | 42 | 25 | 66 |

Notes: Figures are in million US\$ per year.

Source: Authors' simulations.

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