



CAPE flagship report – background paper

Background Paper: Social sector spending and aid allocation to achieve the SDGs

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Abstract

This is the background paper to ‘Financing the future: How international public finance should fund a global social compact to eradicate poverty’ CAPE flagship report. It describes in more detail the costings for a social floor, comprising education, health and poverty reduction/social assistance, and the financing available, including domestic tax capacity, non-tax revenues and aid. The innovative features include comprehensive coverage of key poor countries normally omitted due to lack of data and a new approach to estimating tax capacity. The paper also sets out challenges regarding absorptive capacity.

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Abbreviations

| Abbreviation | Description |
|--------------|---|
| CPA | Country Programmable Aid |
| DRC | Democratic Republic of Congo |
| EFA | Education for All |
| GDP | Gross domestic product |
| GNI | Gross national income |
| IMF | International Monetary Fund |
| LDC | Least developed country |
| LIC | Low-income country |
| LMIC | Lower-middle-income country |
| MDG | Millennium Development Goals |
| MIC | Middle-income country |
| NGO | Non-governmental organisation |
| ODA | Official Development Assistance |
| OECD | Organization for Economic Cooperation and Development |
| OLIC | Other-low-income country (GNI \$500-1045 per capita) |
| OWG | Open Working Group |
| PPP | Purchasing power parity |
| SDG | Sustainable Development Goals |
| SIDS | Small Island Developing States |
| UMIC | Upper-middle-income country |
| UNESCO | United Nations Educational, Scientific, and Cultural Organization |
| VLIC | Very-low-income country (GNI less than \$500 per capita) |
| WHO | World Health Organisation |

Executive summary

The key findings from this report include the following:

1. The cost of a basic social package covering primary and lower secondary education, universal health and cash transfers of scale needed to eliminate extreme poverty is around \$200 per person per year in most low-income countries (LICs) and least developed countries (LDCs) and around \$300 in most middle-income countries (MICs).
2. Average current revenue in LICs is \$100 per person less than one-quarter of the average for lower-middle-income countries (LMICs) (\$450 per person) and one-eighth of all middle-income countries (MICs) (\$800 per person).
3. Aid per person living in extreme poverty is four times higher in MICs than in very-low-income countries (VLICs) (gross national income of less than \$500 per person).
4. Average domestic revenue capacity excluding donor grants is 19% of gross domestic product (GDP) in LDCs (close to the 20% target proposed by others). However, there are significant variations, with some LDCs having a capacity as low as 10% of GDP and others as high as 26%.
5. In Organisation for Economic Cooperation and Development (OECD) countries, spending on education, health and social welfare accounts for around 50% of total expenditure. A key assumption in this report is that neither developing countries nor development partners should be expected to spend more than 50% of revenues and aid on the basic social package (given the demands for infrastructure and other investments).
6. On the basis of this assumption the domestic revenue capacity available for spending on the basic social package is just 25% of the cost in VLICs.
7. Most countries as rich or richer than India are able to afford the basic social package from their own revenue capacity.
8. For all countries to afford the basic social package would require an additional \$80 billion of aid to be provided to LICs and some poorer LMICs. Most of these countries are LDCs. While this is affordable within the 0.7% of GNI global aid target, \$35 billion of this could be funded by transferring aid from MICs that have sufficient resources to fund the basic social package.
9. Absorption capacity is a critical area where further research is required. Some argue there is turning point at around 20% of GDP, which would rule out providing more resources to VLICs, most of which are fragile states. However, others argue that in the medium term sufficient capacity can be built or provided and that as long as spending leads to a long-term increase in the export potential of the country the impact of Dutch disease is manageable.

Introduction

The UN Open Working Group (OWG) has proposed three post-2015 goals on poverty, health and education:

- ‘eliminate extreme poverty’
- ‘ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes’
- ‘achieve Universal Health Coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all’.

This paper seeks to examine the role of finance in achieving these goals. These three social sector goals will need to be achieved simultaneously to have a sustained transformational impact on global poverty. As has been often noted, extreme poverty is a dynamic and multi-dimensional challenge.¹ Income poverty reduces a child’s chance of attending school. The costs of a health emergency can plunge a household back in to extreme poverty. And the high level of investment that poor households make in education is a powerful indicator of the role they see education playing in transforming the long-term prospects of the family. As the Minister of Finance and Economic Planning in Uganda noted in October 2014:²

Money released back into households because of free primary education helps the households lift themselves out of poverty.

Finance is by no means the only constraint to progress on these three goals. The challenge of adequate service delivery is both technical and political – with increasing recognition in recent years of the importance of the political aspects and interest in how to achieve more effective accountability in the system.³ That said, it is no accident that the world’s first multi-country Ebola outbreak has occurred in three of the poorest countries of the world (Liberia, Sierra Leone and Guinea). By contrast, the Ebola outbreak has been contained in the richer, more stable countries in the region (Ghana, Senegal and Nigeria).

The paper covers nearly all the low-income countries and most middle-income countries. A total of 89 countries are included, ranging from Somalia to Brazil, including all 34 low-income countries apart from Comoros. The paper covers many large, poor countries not normally included because of data challenges. Using national sources and comparisons with regional comparators, the paper has managed to include estimates for Afghanistan, South Sudan, Eritrea, Somalia and Zimbabwe. To keep the analysis tractable the paper does not include countries with populations of less than a million or countries with very low levels of extreme poverty (less than 1%). Countries below these cut-offs are unlikely to need significant amounts of

¹ For example the series of Chronic Poverty Reports by Chronic Poverty Advisory Network, including the most recent report (2014).

² World Bank annual meetings, (noted by Judith Randel, Development Initiatives).

³ For example: the World Development Report 2004 (World Bank, 2004); ODI, 2014; Tavakoli et al., 2013.

international public finance. This assumption was checked after the analysis had been completed for the Least Developed Countries (LDCs) that had not been covered in detail. Including these revealed just one country with a gap – Comoros – which would have only added 0.1% to the aggregate estimated financing gap.

One disadvantage of the cut-offs is that the paper only covers the five largest poor Small Island Developing States (SIDS) in detail. SIDS do face particular challenges and many are extremely vulnerable to climate change and economic shocks. A proper assessment of their needs would need more detailed analysis than is possible in this paper. The analysis should not be taken to imply that less international finance should be allocated to this group.

1 Costs of meeting poverty reduction, health and education social goals

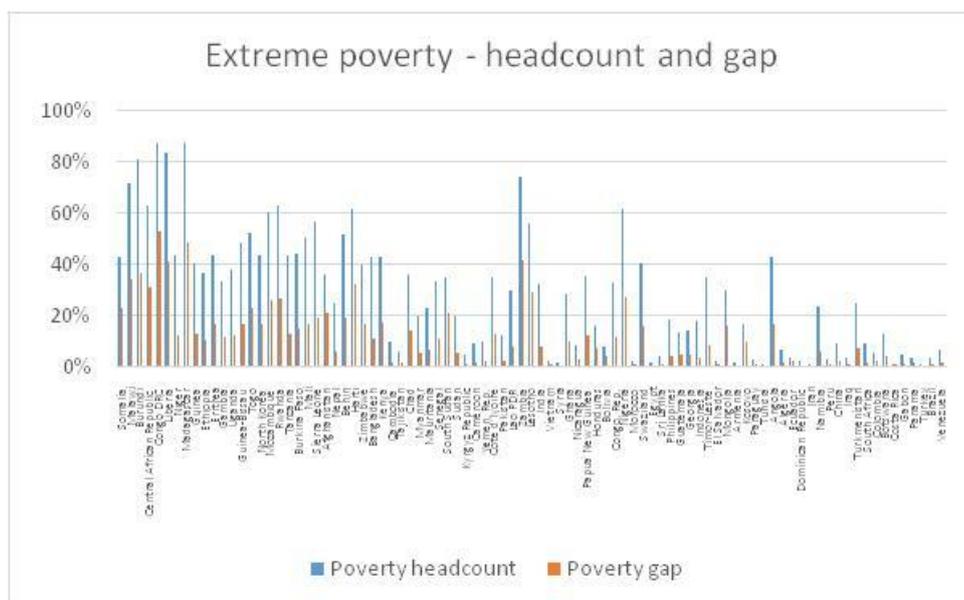
Soon after the Millennium Development Goals (MDGs) were adopted there were a series of studies that attempted to cost the achievement of the goals, including the Zedillo report in 2001 (UN, 2001) and the World Bank in 2002 (Devarajan et al., 2002). Since then the focus has tended to be on refining the costs for individual goals or subsets of various goals. The aggregate costs were not revisited by the High Level Panel on the post-2015 development agenda, the Sustainable Development Goals (SDGs) (UN, 2013).

1.1 Cost of Poverty SDG

Fifteen years ago the costs of achieving the poverty goal – halving extreme poverty – were estimated on the assumption that what was required was an increase in economic growth rates. The cost of doing this was estimated by the World Bank to be between \$54 billion and \$62 billion per year. While faster growth rates did seem to lead to a substantial reduction in poverty in the 1990s and early 2000s, the linkage since then has been much weaker, especially in poor African countries. There are also concerns about the weak linkage between aid and growth and that the linkage between growth and poverty is less effective as countries approach very low levels of poverty. At the same time there has been a steadily growing body of evidence of the efficacy and effectiveness of cash transfer programmes in reducing poverty in contexts as widely different as Mexico and Somalia, Brazil and the Democratic Republic of Congo (DRC). The rest of this paper is therefore based on the cost of using cash transfers to eliminate extreme poverty.

Figure 1 shows the percentage of households living in extreme poverty (poverty headcount) and the size of the poverty gap (which measures how far below the poverty line the average poor person is). In the chart countries are shown in increasing order of GDP per person. As expected the poorer countries tend to have the highest levels of extreme poverty. But the correlation is not exact. Zambia has a relatively high GDP per capita – around \$1,500 – but also a high proportion living in poverty (around 75%). As would also be expected, the greater the proportion of households living in extreme poverty the larger the poverty gap tends to be (i.e. the poorer the average household is).

Figure 1: Extreme poverty – headcount and gap



As many commentators have noted, there are multiple problems with the poverty data. Many of the surveys are very out of date and the quality of the data is variable. And all rely on out-of-date international purchasing power parity (PPP) exchange rates to convert national poverty rates into international comparable \$1.25-a-day rates. The World Bank has released significant revisions to the PPP exchange rates but has yet to release the revised poverty headcount and poverty gap figures.

Cash transfers alone will not sustainably eliminate poverty. But they are increasingly being used as one of the ways in which to tackle poverty. In order to estimate the scale of cash transfers needed, this paper estimates the size of the transfer that would be needed to eliminate extreme poverty in each country. The calculation is a stylised one but nonetheless provides useful and comparable indication of the scale of costs.⁴ The estimate also makes an allowance for administrative costs and likely high levels of leakage.⁵

The administrative costs depend on the degree of targeting and conditionality. But what is striking is how these tend to fall dramatically over time, partly as the result of the adoption of electronic transfers. Estimates from Lindert et al. (2006) show how these have fallen by over 80% to around 5% of the programme (Table 1).

Table 1: Fall in programme administration costs

| Programme | Initial administration costs as % of programme | Administration costs five years later |
|-----------------------|--|---------------------------------------|
| Brazil, Bolsa Familia | 15% (2001) | 3% (2005) |
| Mexico, PROGRESA | 52% (1997) | 6% (2003) |

Source: Lindert et al., 2006

⁴ See Chandy (2011) for earlier example of this approach.

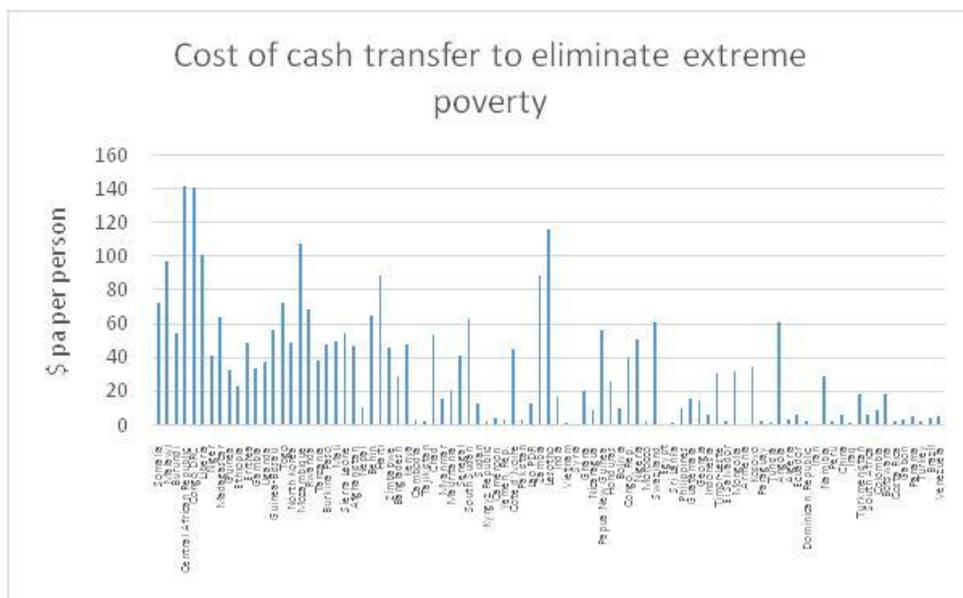
⁵ As the estimate is for long run annual costs the one off set up costs have not been factored in. These are typically 3-5 times the annual running costs.

The second source of costs is the leakage rate – or how some of the money in any scheme will go to the non-poor. This is referred to as the inclusion error: the number of non-poor who benefit as proportion of the total number of beneficiaries. The inclusion error is very high. The Bolsa Familia rate in Brazil is 49%, so half the money goes to the non-poor. In the PROGRESA programme in Mexico the rate is slightly lower at 39%, but this is still high (Soares et al., 2010).

In the rest of the paper, relatively high costs for cash transfers are assumed: an average administration charge of 15% (the standard ILO assumption) and inclusion rate of 43% (the average of the Brazil and Mexican schemes).⁶ This inclusion rate means that for every 57 poor households benefitting another 43 non-poor households have also to be paid; or to put it another way, for every 100 poor households that are targeted another 75 have to be paid. Taken together – an extra 75% allowance for leakage and then 15% administration applied to all the households – the cost of eliminating the poverty gap⁷ becomes 200% of the size of the poverty gap. In some countries an extra 75% allowance is too great, as it would imply reaching more than 100% of the population. For example in DRC the poverty headcount is 88%. In such countries the leakage is scaled back so that the costs just provide for 100% – universal coverage.

Figure 2 shows how these stylised costs vary across countries. The costs depend on both the numbers living in extreme poverty and how poor they are. The costs per person then depend on the numbers of people living in extreme poverty compared to the total population. In DRC the costs are very high – \$140 per person per year – as 88% are in extreme poverty and the average poverty gap is half that of the extreme poverty line. By contrast in India the costs are just \$17 per person per year, as the costs are spread across the 67% of the population that are above the poverty. In Brazil the average is just \$4 per person per year.

Figure 2: Cost of cash transfer to eliminate extreme poverty



⁶ It would be easy to vary these assumptions to see the impact of lower administration costs and leakage rates. But other more detailed design considerations are likely to increase the costs (e.g. set-up costs; tapering of support so some support is provided above the \$1.25 poverty line).

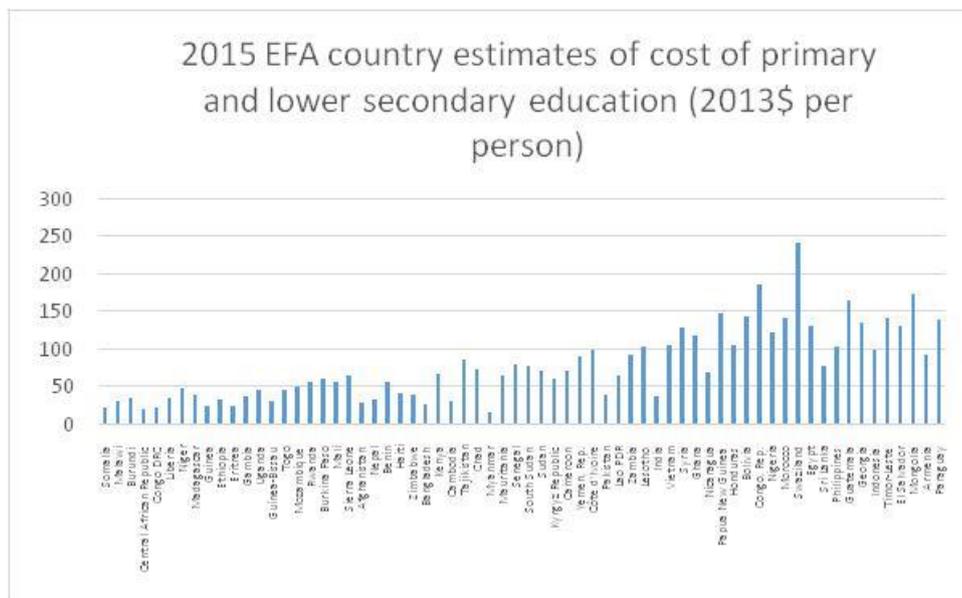
⁷ The amount required to lift everyone living below \$1.25 a day to \$1.25 a day. The poverty gap is a critical additional measure as in some countries most ‘poor’ households are just below the \$1.25 a day threshold, while in others many households may be considerably below the threshold.

1.2 Cost of education SDG

This report draws costing information from the recently published Education For All (EFA) country-by-country estimates (UNESCO, 2015). The report covers the costs for primary and lower secondary education in all LICs and LMICs. These assume that 100% completion rates are achieved by 2030 for both primary and lower secondary and there is a slight reduction in the pupil–teacher ratio (e.g. from 35:1 to 31:1 for primary). As the cost estimates for 2015 are based on much lower current completion rates and the costs estimates for 2030 take into account substantial growth in pupil population the average for 2015-2030 is used as the best single point estimate. The estimates also assume a 20-25% increase in teacher salaries as a multiple of GDP per capita (implying 4.5 multiple for primary teachers in 2030) and 25% share of non-salary items in total recurrent expenditures. Finally, the estimates also provide for increased equity, with an average 25% mark-up on student costs to attract marginalised children. The number of marginalised children is related to the number of children not in school and the share of the population living on less than \$2 a day. The combined impact of these changes means that the average cost per primary student rises from \$65 in 2012 to \$199 in 2030 (all in 2012 US dollars), with most of the change due to real increases in teachers’ salaries as GDP per capita rises. The average cost per primary pupil for the period is \$132.

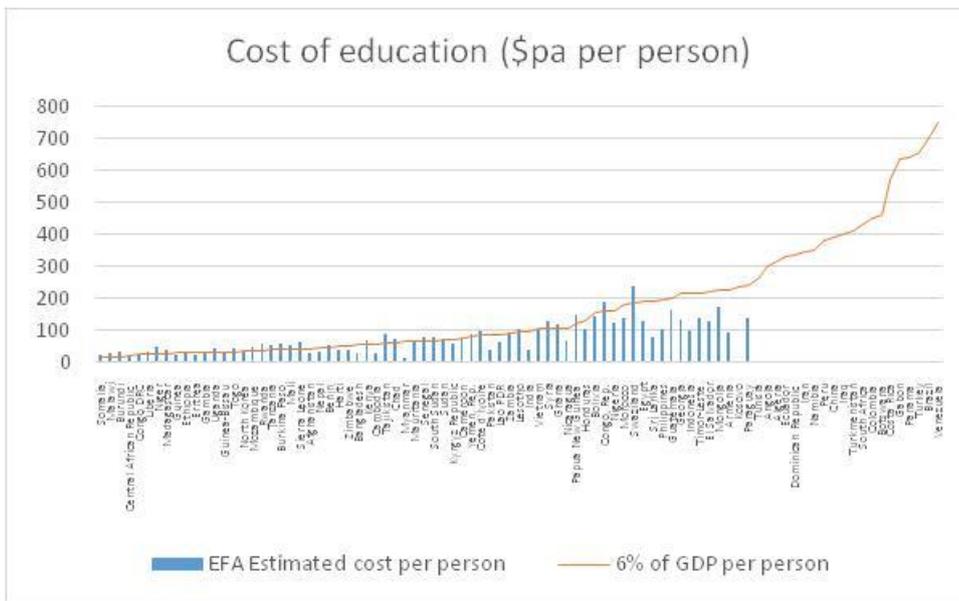
Figure 3 shows the country-by-country estimates (with countries again ordered in increasing order of GDP per person). As teachers’ salaries are related to GDP per person the costs rise as the countries become richer.

Figure 3: Education for All country estimates of cost of education



The UNESCO report only covers LICs and LMICs. For the upper-middle-income countries (UMICs) costs are assumed to be 6% of GDP, which is the target proposed by Education for all.

Figure 4: Education costs compared to 6% of GDP EFA target



1.3 Cost of health SDG

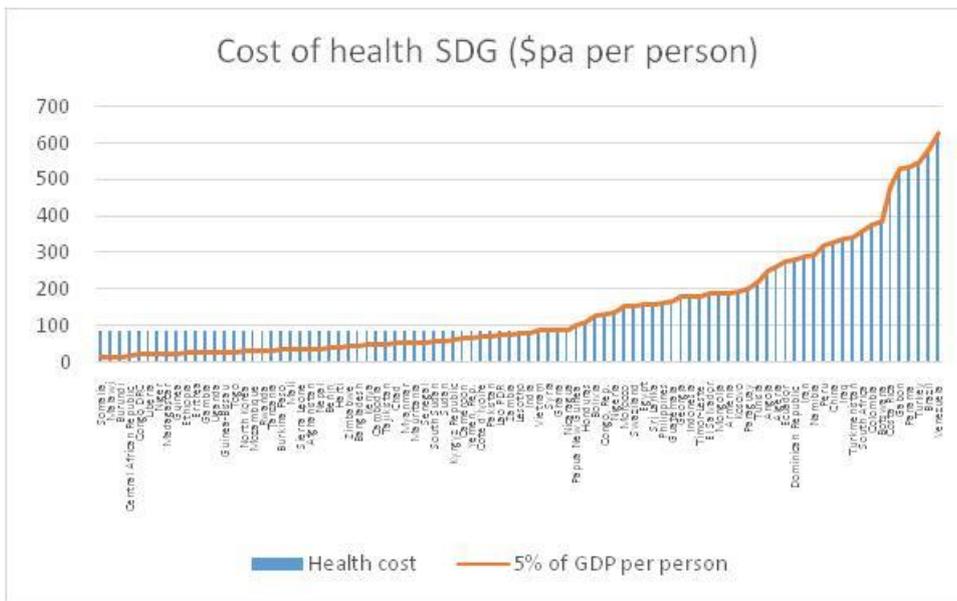
The Commission of Macroeconomics and Health made the first attempt to cost the health MDGs in 2001 (WHO, 2001). This report estimated that ‘the set of essential interventions costs around \$34 per person per year’ corresponding to 11% of the average LDC per capita income of \$300.⁸ Adjusting for US inflation the \$34 figure becomes \$48 in 2013\$. The second major attempt was by the High Level Task Force on Innovative International Financing for Health Systems in 2009. This looked at a broader range of services and higher coverage rates and estimated the average cost in LICs at \$54 (in 2005\$).⁹ The Task Force included services that address chronic diseases (tobacco control and salt reduction) as well as essential drugs for chronic disease such as some cancers and mental health. Given the OWG is for universal health care, the Task Force would seem the more appropriate approach.

In 2014 the Centre on Global Health at Chatham House convened an expert group that updated the Task Force figure, adjusting for both inflation and exchange rate movements to yield a figure of \$86 per person in LICs. The group also argued that for richer MICs a target of 5% of GDP would be appropriate. Unfortunately the Task Force did not publish its country-by-country estimates. So this paper uses the \$86 figure as a minimum level of spend in LICs and 5% of GDP in MICs. As Figure 5 shows for the poorest countries, the updated Task Force estimates are significantly above 5% of GDP. For LICs the Task Force estimates are also even further above the Maputo commitment of 15% of government expenditure, which corresponds to just 3% of GDP for a typical LIC with a tax-to-GDP ratio of 20%. The Task Force figure should therefore be regarded as interim upper estimate until country estimates are available.

⁸ Note that all the figures in the WHO report are calculated using market based \$ exchange rates not PPP\$.

⁹ Using WHO estimates. Another estimate was prepared at the same time by the World Bank using marginal budgeting for bottlenecks.

Figure 5: Cost of health SDG (\$ per person per year)



1.4 Effectiveness of different forms of financing in achieving universal cash transfers, health and education coverage

When the World Bank estimated the costs for the education and health goals back in 2002 (World Bank, 2002), they noted that the relationship between expenditures and outcome is complex and that the empirical evidence suggests only a weak link between spending and outcomes. The delivery of public service is often highly inefficient. The World Health Organisation (WHO) report on health in 2001 was also clear that where countries were unwilling to make a serious effort, or where funding was misused, large-scale donor assistance would not be appropriate. Many other studies have highlighted the potential inefficiencies of health expenditures in terms of health outcomes (Filmer, Hammer and Pritchett, 2000; also see Jayasuriya and Wodon, 2003). One of the most recent ones is an International Monetary Fund (IMF) study in 2013 (Grigoli and Kapsoli, 2013). This assessed the effectiveness of public health expenditure in terms of life expectancy, taking into account differences in population density, years of schooling,¹⁰ access to water and sanitation, and HIV/AIDS and TB prevalence. The study concluded that with the same level of expenditures African economies could boost life expectancy by five years if they followed best practices.

This would suggest that aid would be usefully targeted at improving the efficiency of government systems. Indeed this is one of the prime reasons for the interest in using sector budget support instruments as these give a natural entry point into a discussion with the government about the functioning of the whole system. By contrast, investments in parallel systems delivered by NGOs risk donor effort being diverted into relatively small-scale delivery mechanisms with high unit costs.

The aim of this report is to examine what would be needed to ensure enough funds are available. As the experience of the Global Health Fund has shown, when donors take action collectively in response to misuse of funds governments do respond. And as the WHO report notes, even when governments are not willing there is still

¹⁰ Higher levels of education are generally associated with safer health behaviours.

considerable scope for action to build local capacity and involve civil society and NGOs.

More recently the focus of international attention has shifted to domestic revenue mobilisation. Given the very low level of donor investment – less than 1% of all aid – it might be that the most effective form of donor support would be to increase domestic revenues rather than directly financing service delivery.

Aid is not the only source of potential finance. Remittances, foreign direct investment and new forms of aid are very important sources of finance in many countries. But such flows are predominantly to richer countries and are weakly focused on people living in extreme poverty. In Bangladesh remittances flow mainly to the richer part of the country where many migrants come from. There are efforts to improve the impact of these private flows on the poorest – including by taxing them so that government can invest more in poverty programmes.¹¹ But as in Organisation for Economic Cooperation and Development (OECD) countries, large-scale programmes that directly target the poorest are likely to continue to be predominantly publicly financed.

There is a lively debate as to whether the public sector or the private sector is better at delivering education and health services. Whether there is a cost differential between them is part of that debate. There are some very striking numbers emerging from privately run schools in Nigeria with a low cost option of \$50 per pupil and a high cost of \$150 per pupil (compared to the \$314 estimated requirement). And as the Education for all report in 2010 (UNESCO 2010) noted, if salaries in sub-Saharan Africa were cut to South and West Asian levels, average costs would fall by 40%.

But both sides of the debate seem to be clear that either way services should be publicly funded so that it is free at point of use to ensure the poorest can access them. If the costs of the private sector option are the same as the public sector, then for the purposes of costing the services it is immaterial what combination of public and private sector delivery is chosen.

It is striking that Bangladesh, which is on track to meet the health MDGs, has achieved so much on the health front while only spending \$16 per person – less than half the original WHO estimated requirement and less than a quarter of the updated Chatham House estimate. Bangladesh's population density does reduce the unit costs of service delivery. And a recent study in *The Lancet* highlighted several reasons for the success that were unrelated to the level of spend: good high-level leadership, long-term prioritisation of key inputs (family planning, provision of essential drugs and deployment of health assistants), smart aid modalities and an increased role for the private sector (Balabanova et al., 2013). The fact that such progress can be made outside of government in a context of such high levels of corruption is encouraging.

These studies suggest that global estimates should be regarded as a reasonable upper estimate on global average cost. There clearly is potential for efficiency savings even it is hard to make a precise estimate of the scope.

¹¹ Taxation of remittances is also under consideration in Somalia.

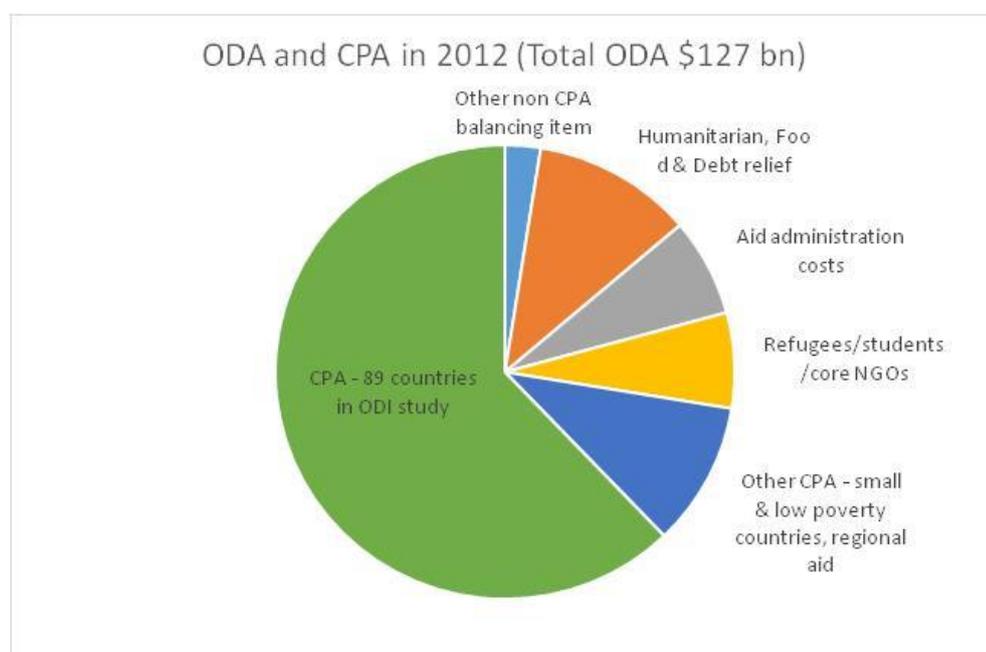
2 Aid and the financing of the three core social SDGs

2.1 Current distribution of aid and extreme poverty

The elimination of extreme poverty is not the only objective of aid. And the \$1.25-a-day line is not the only measure of poverty – and not necessarily the most appropriate one: many people living above this arbitrary line are very poor by anyone’s definition of poverty. But given the focus on the elimination of extreme poverty it is useful to examine how well current aid distribution maps onto the distribution of extreme poverty.

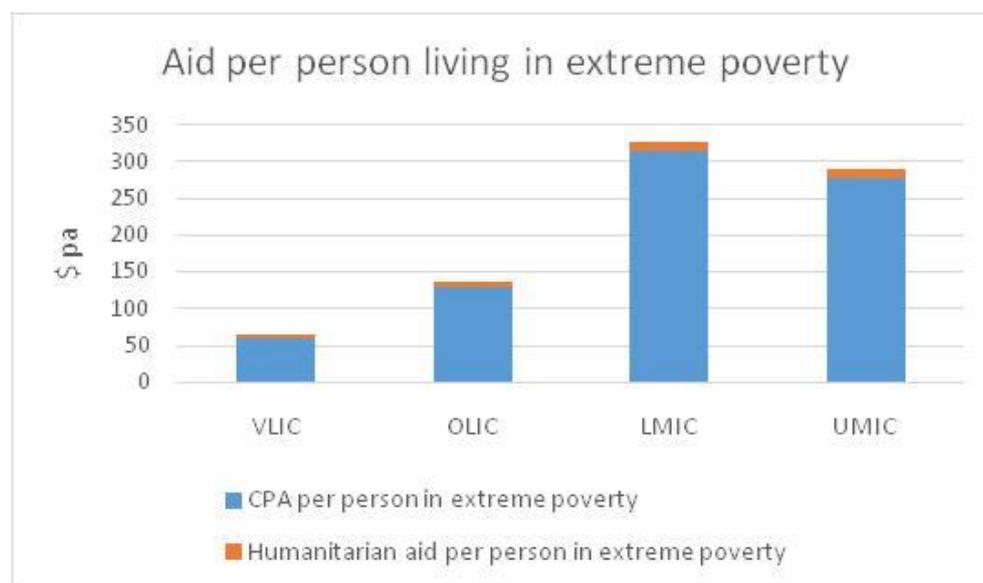
As a significant amount of Overseas Development Assistance (ODA) is spent in the donor’s own country (e.g. on administration and on the education cost for nationals from an aid recipient country attending university in the donor country) this paper uses the OECD’s definition of Country Programmable Aid (CPA) which excludes these amounts. CPA also excludes unpredictable aid flows such as debt relief and humanitarian aid. Figure 6 shows how CPA related to total ODA in 2012.

Figure 6: ODA and CPA



The next shows how much CPA and humanitarian aid is allocated per person living in extreme poverty. The aid figures are based on the latest OECD CPA figures (OECD, 2014), which include a forward-looking element (2013-2015).

Figure 7: Aid per person living in extreme poverty



The clear, and potentially surprising, result from this chart is that the aid allocations are currently regressive – the richer the country is the more CPA it gets (per person living in extreme poverty). The distribution of humanitarian aid does not offset this – in fact MICs receive on average twice the amount of LICs.

Table 2: Aid per person living in extreme poverty

| Income grouping (GDP per capita) | Number of countries covered in this paper | Typical country | Aid (CPA), \$ per person living in extreme poverty (median) |
|---|---|---|---|
| VLIC (less than \$525) | 14 | Malawi, Ethiopia | 60 |
| Other low-income country (OLIC) (\$525-\$1,045) | 19 | Tanzania, Bangladesh | 129 |
| LMIC (\$1,045-\$5,000) | 37 | India (\$1,500) Indonesia (\$3,500) | 316 |
| UMIC (\$5,000-\$13,000) | 19 | China (\$6,500) South Africa (\$7,500) | 277 |

For the very poorest countries – those with GDP per capita of less than \$500 (all of which are LDCs) – the average (median) amount of CPA per person living in extreme poverty is around \$60 a year. By contrast, LMICs receive on average \$316 per person living in extreme poverty, or five times more. As the average income level of the country goes up by a factor of four the average amount of aid increases by even more. To put this in UK terms, this is as odd as a parent on minimum wages getting child benefit of £5,000 a year while a parent paying a higher rate of tax gets £25,000. The comparison is even more striking if you consider that the richer taxpayer in the UK

now no longer gets any child benefit. While the need is the same – the expenses involved in raising a child/lifting a person out of extreme poverty – a rich parent/country has more resources to pay for that particular need.

There is indeed a lively debate about whether MICs should get any aid at all. At the moment half of all ODA goes to MICs. The fact is that not only do middle-income countries get aid; they actually get *more* aid relative to their need for aid. This reality is often obscured as most analysis considers just the amount of aid per person. It implies that the global social benefit of giving \$1 to someone living in Brazil is the same as giving a \$1 to someone living in Somalia. It also obscures the fact that Brazil is far more able to tackle its own extreme poverty than Somalia. Using aid per person living in extreme poverty helps to give a clear picture.

A secondary striking result is that the poorest, most conflict-affected states – the group that is widely recognised to have the greatest need for support – do no better. Of the 48 UN-defined LDCs, 17 have experienced such extreme conflict that a large-scale external peacekeeping force has been deployed, normally under a UN mandate. Within this group a few have received large amounts of aid per person living in extreme poverty, with Afghanistan receiving by far the most (over \$400). But in general this core set of fragile states do not stand out from other countries at the same income level in terms of aid received, even when humanitarian assistance is included in the figures

Table 3: Aid plus humanitarian assistance per person living in extreme poverty for all countries in income group

| Income grouping | Number of LDC post-conflict states covered in this paper | Aid plus humanitarian assistance per person living in extreme poverty in poor post conflict state (median) | Aid plus humanitarian assistance per person living in extreme poverty for all countries in income group (median) |
|------------------------|--|--|--|
| VLIC (less than \$525) | 7 | 62 | 74 |
| OLIC (\$525-\$1045) | 5 | 141 | 141 |
| MIC | Too few have experienced conflict for averaging to be meaningful | | |

The rest of the paper then considers how aid allocations would need to change to better focus on social SDGs.

2.2 Minimum global level of public finance required to meet SDGs

The calculation of the minimum global level of public finance needed is derived from the unit costs described in the first section of the paper. As Table 4 shows, the total costs of meeting the SDGs are high relative to total aid flows. In both LICs and MICs the costs are significantly greater than aid flows.

But compared to domestic revenues the costs look reasonable in MICs. The three goals correspond to 49% of revenue capacity. In OECD countries spending on these

three core goals – social welfare, education and health – accounts for over 50% of revenues.

But for the LICs the costs are not affordable even if all the aid and all the revenues are spent on just these three goals. If only 50% of aid and revenue are spent on these goals (i.e. as in OECD countries) there is a clear shortfall.

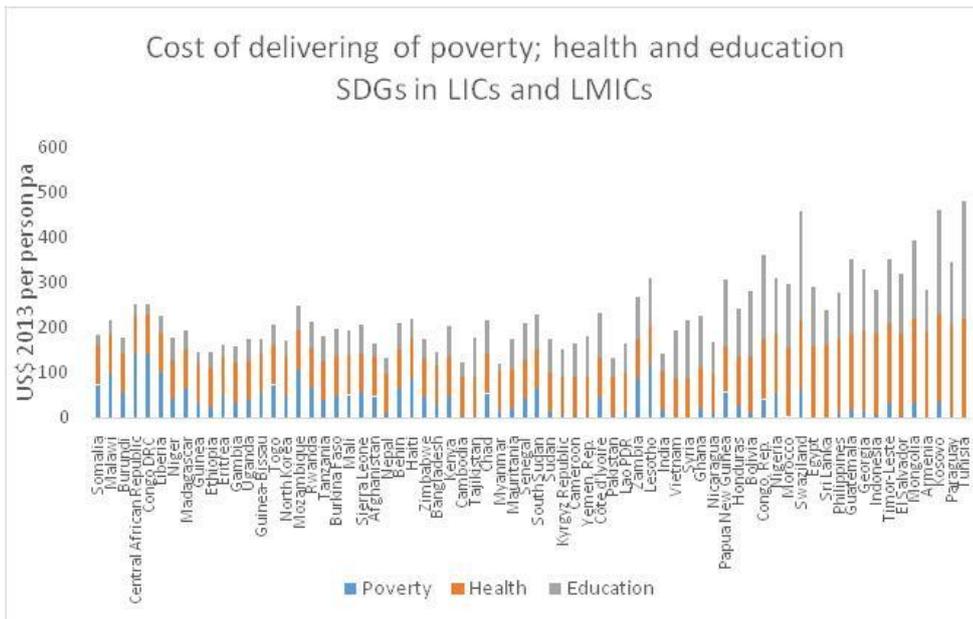
Table 4: Shortfall in affordability

| Goal | Summary of costing estimate | Annual costs (\$ billion) | |
|-------------------------------------|--|---------------------------|--------------------------------|
| | | LICs | MICs (Extreme poverty > 1%) |
| Poverty | Poverty gap plus leakage (75%) plus administration (15%) | 42 | 53 |
| Education | EFA country estimate/ 6% GDP | 32 | 1,053 |
| Health | \$86 (2012\$) per capita/ 5% of GDP | 74 | 1,006 |
| All three goals | | 148 | 2,112 |
| <i>Memo items</i> | | | |
| <i>Total aid (CPA)¹²</i> | | 38 | 46 |
| <i>Total domestic revenue</i> | | 90 | 4,461 |

The problem is particularly acute in the poorest LICs. The unit costs cost per person of delivering the three SDGs is very similar in LICs, as Figure 8 shows (countries listed in increasing order of GNI per capita). The average cost in LICs is just under \$200 per person.

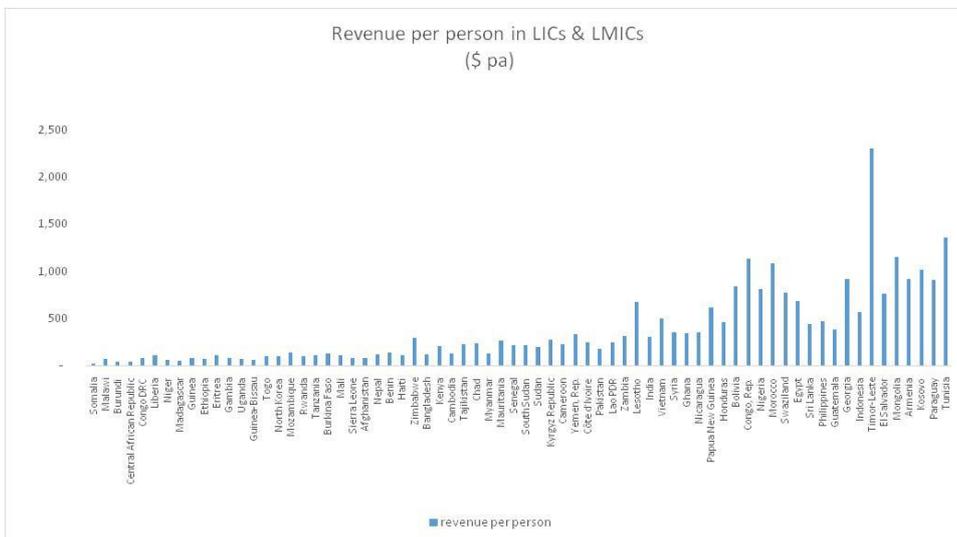
¹² Total CPA in this table (and in the rest of the paper) is \$84 billion (average 2013 actuals and projections for 2014 and 2015). This is less than the global total of \$104 billion, which includes regional aid and aid to countries with poverty of less than 1% (e.g. Mexico) or with a population less than a million.

**Figure 8: Cost of delivering of poverty: health and education
SDGs in LICs and LMICs**



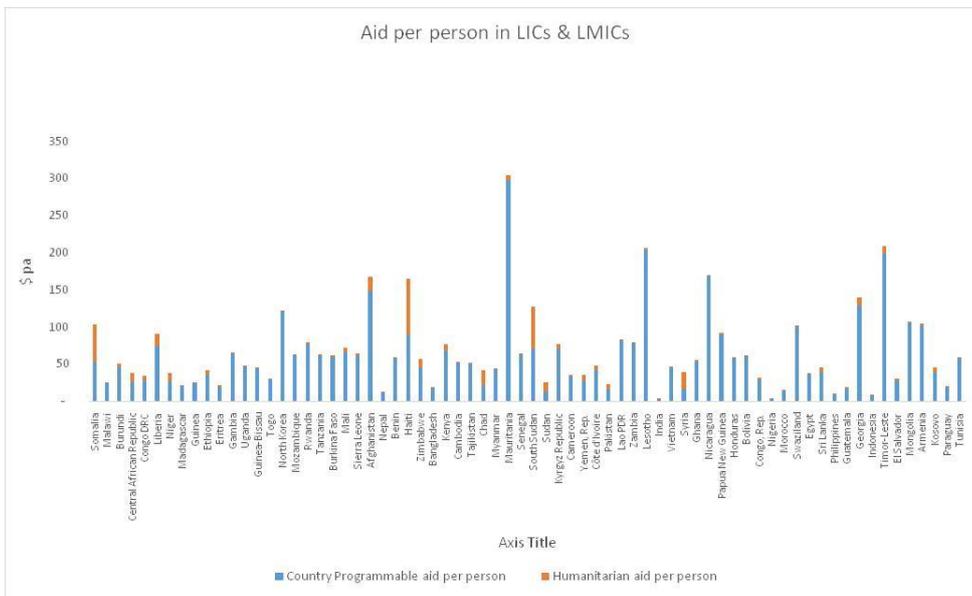
However, the tax revenues (i.e. excluding donor grants) per person in the poorer countries are much less. The average is just under \$100 per person in LICs compared to \$800 per person in MICs.

Figure 9: Revenue per person in LICs & LMICs (\$ per year)



As noted before, aid is not particularly focused on the poorest countries. This is also the case even when looked at in terms of aid person rather than per person living in extreme poverty. While there are one or two notable exceptions, most LICs and LMICs countries receive around \$45 per person, with VLICs getting on average slightly less, \$39 per person. It is only in UMICs that aid per person falls significantly: the average is just \$13 per person.

Figure 10: Aid per person in LICs & LMICs



2.3 Tax-raising capacity

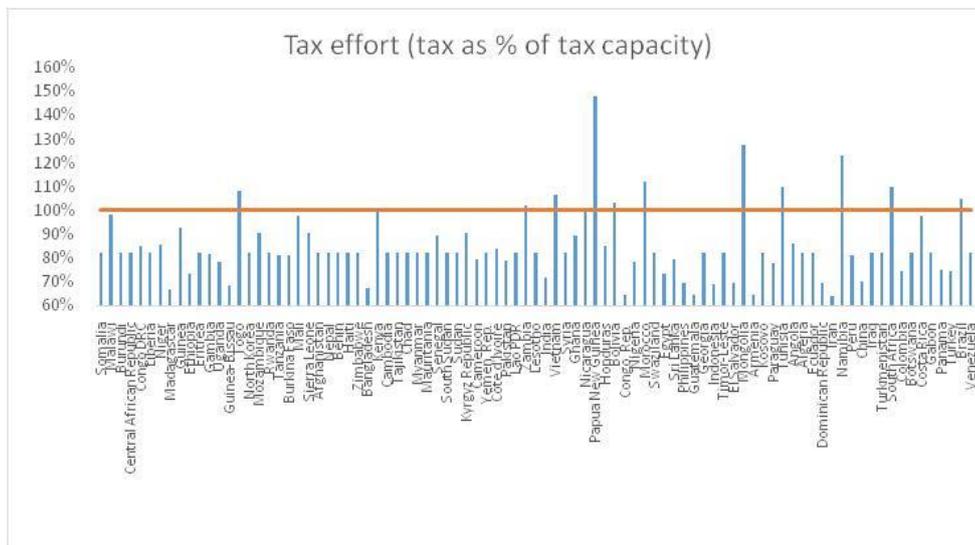
Given the poorer countries face higher costs and have less revenue it would seem sensible to give them more aid. However there is a clear moral hazard here. If more aid is given to countries with lower tax revenues there would be a perverse incentive for countries to avoid their own responsibility and reduce their tax effort. While the evidence on whether this an issue in practice is mixed, the innovative approach in this paper is to overcome this problem by using very recent IMF and World Bank estimates of a country’s expected potential tax revenue (sometimes referred to as tax capacity/capability). By using tax-generating capacity as the metric a country with weak tax effort does not get rewarded by getting more aid. The amount of aid it receives is determined by its potential to raise taxes. Similarly a poor country with a very high tax effort is not penalising by getting less aid.

The current level of tax (and non-tax) revenue data is taken from World Development Indicators, supplemented in some countries by data from latest IMF programme reports and Article IV reports and from the latest dataset compiled by the International Centre for Taxation and Development.¹³

¹³ August 2014 dataset.

estimates. The tax revenue effort in some countries is as low as 60%. In some countries – most notably Papua New Guinea, Mongolia and Namibia – the combination of the IMF and World Bank estimates suggests they are already above 100%.

Figure 12: Tax effort (tax as percentage of tax capacity)

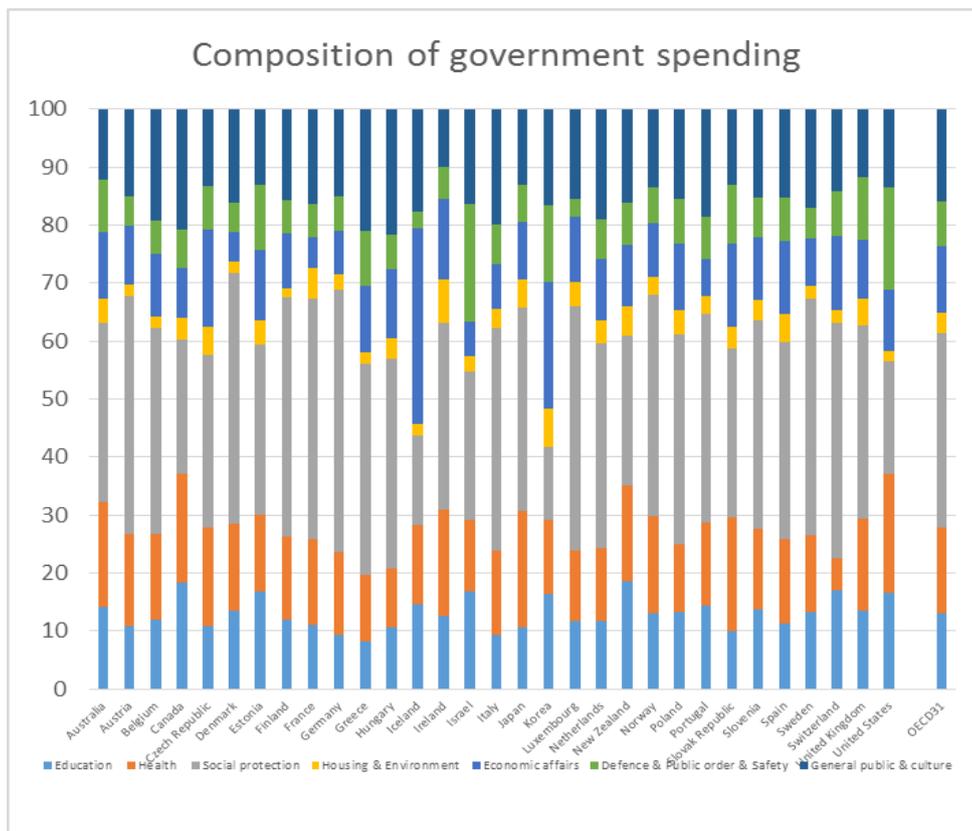


Another approach adopted in other studies is to set a single domestic revenue target for all countries – 15% or 20% of GDP, for example. A more sophisticated variant involves making a judgment on how quickly it would take a particular country to reach that target (UNESCO, 2010). As there are not yet any models for assessing non-tax revenue capacity, the paper just uses latest estimates and adds these to tax capacity to generate an estimate of total domestic revenue capacity.¹⁵ As Figure 13 shows, in aggregate most countries are assessed as having a revenue (tax plus non-tax) capacity of around 20%. The average (median) for all LICs is 18% of GDP and 26% for MICs. But there is some very significant variation across countries. In part this is due to differential access to non-tax resources such as natural resource concessions.¹⁶

¹⁵ Excluding donor grants.

¹⁶ These are not modelled by the IMF and World Bank so the assumption is that non tax revenues remain at the same proportion of GDP.

Figure 14: Composition of OECD government spending

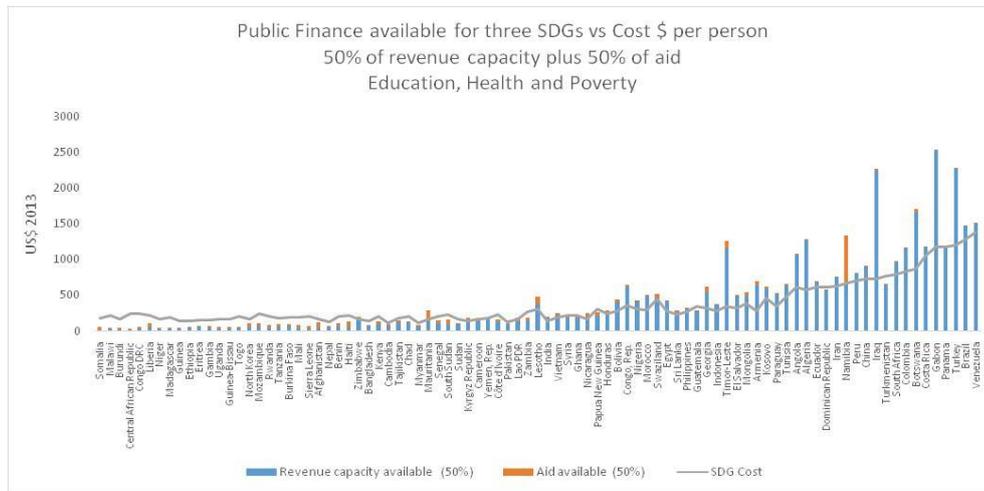


The assumption taken in the rest of this paper is that 50% of revenues would be available for the education, health and social welfare in developing countries. Only in two OECD countries – Iceland and Japan – is the budget share less than 50%. In practice this 50% figure is likely to be an ambitious assumption in many developing countries. The costs of other government activities in low-income countries are likely to comprise a much higher proportion of the budget not least because OECD countries have relatively mature infrastructure and are located in more stable regions.

Aid donors also do not want to limit their funding to social sectors. The assumption therefore is that only 50% of aid would be available for supporting the three SDGs on the basis that this is how donor governments choose to allocate resources in their own countries.

Combining the minimum financing requirements for social welfare, education and health with the assumption that no more than 50% of the current aid and revenue capacity could be used to fund these three areas of government expenditure reveals the following financing gaps.

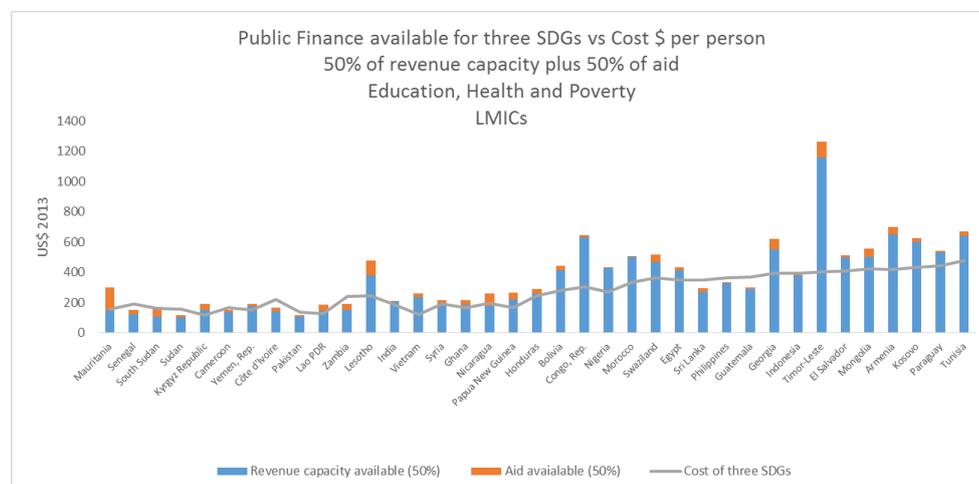
Figure 15: Costs of three SDGs vs. finance available (50% of revenue capacity plus 50% of aid)



Not surprisingly most of the richer countries have sufficient domestic resource capacity to fund the three SDGs. All the UMICs have sufficient resources with just two exceptions: Dominican Republic and Turkmenistan. Similarly most of the richer LMICs have sufficient resources. All countries as rich as or richer than India have sufficient resources with the exception of Ghana, Syria, Papua New Guinea and Guatemala. But most countries that are poorer than India (with a GDP per person less than \$1,500) do not have sufficient tax capacity. In some cases revenue capacity would only cover half the costs (e.g. South Sudan, Zambia and Senegal).

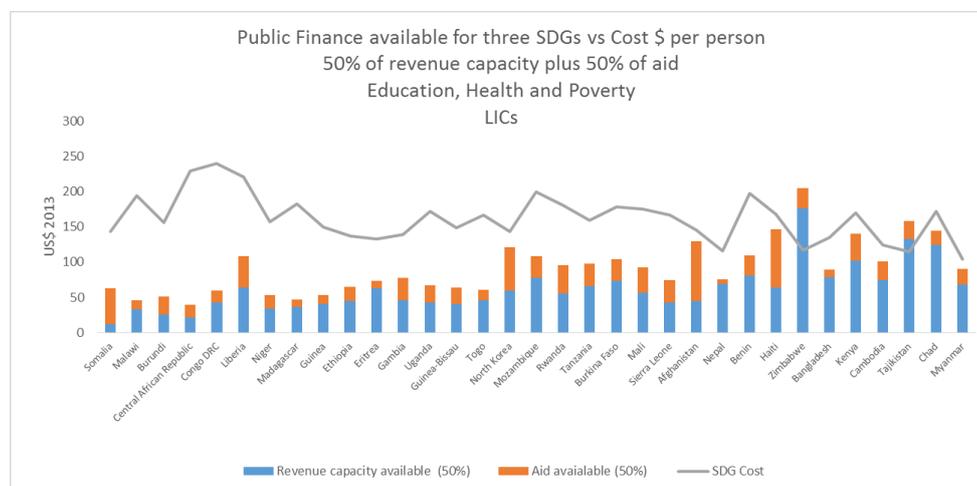
These estimates suggest India does not need additional resources at a national level to achieve the three SDGs. India has the potential to increase its tax revenue to over \$400 per person (by comparison, aid flows are just \$4 per person). Assuming 50% is required for other government functions, India has more than \$200 for the three SDGs compared with estimated costs of \$140. It is less clear that sufficient resources are available at the state level given that the costs of eliminating extreme poverty in the poorest states will be higher and their tax capacity lower (even including transfers at the federal level). It would be interesting to extend this analysis to look at the requirements of the poorer states.

Figure 16: Public finance available for three SDGs vs. cost per person – LMICs



The picture in LICs is much more straightforward. Only one LIC, Zimbabwe, has sufficient domestic resources.

Figure 17: Public finance available for three SDGs vs. cost per person – LICs



The shortfall is most acute in the very poorest countries – VLICs with GDP per person less than half the LIC/MIC threshold of \$1,025. There are fourteen VLICs in total, all of them LDCs. In the figures these are the countries to the left, starting with Somalia and ending with Guinea Bissau. On average their domestic resources cover less than 25% of the costs. Even if current aid flows are taken into account there is still a large financing gap.

Table 5: Additional finance required to fund education, health and poverty reduction functions

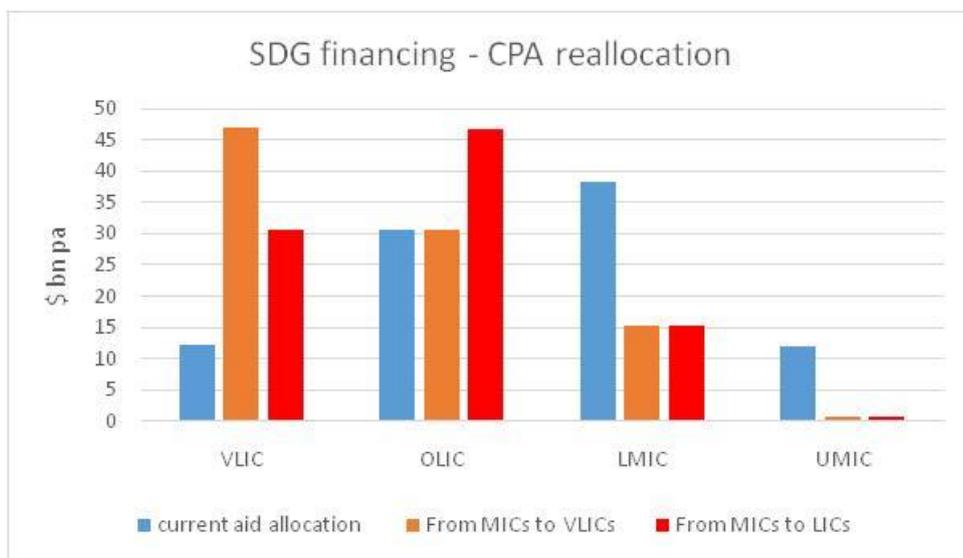
| Income grouping | Additional finance required to fund education, health and poverty reduction functions (assuming 50% of aid and tax capacity required for other government functions). | |
|--|---|-------------------------------|
| | Average (median) amount (\$ per person per year) | Total amount (\$ bn per year) |
| VLIC (less than \$525) | 119 | 39 |
| OLIC (\$525-\$1,045) | 71 | 34 |
| LMIC (\$1,000-\$4,500) | Surplus (most countries have sufficient resources) | 10 |
| UMICs (\$4,500-\$12,500) | Surplus (most countries have sufficient resources) | 1 |
| Total | | 84 |
| <i>Memo items</i> | | |
| Total CPA in 89 countries | | 84 |
| Of which MICs where 50% of revenue capacity is greater than cost of three SDGs | | 35 |

Even if all CPA were cut from MICs that have sufficient resources and were given to VLICs, this \$35 billion would only cover 90% of their financing gap. Achieving 100% for all LIC and LMICs would require a further \$50 billion increase in aid. The

redistribution of aid would be politically challenging not least because much of the aid is needed in countries where it would be prudent to limit the amount of borrowing and so would need to be provided in the form of grants, whereas increasing proportion of ODA is currently provided in the form of loans. A \$50 billion increase in aid would be just over 0.1% of donors' GDP and therefore would be affordable if all donors met the aid-to-GDP target of 0.7%.

Figure 18 illustrates two aid reallocations scenarios. In the first, all the \$35 billion from surplus MICs is reallocated just to VLICs. In the second this is spread across all LICs.

Figure 18: SDG financing – CPA reallocation



Such reallocations would reverse the current pattern of aid allocation. Under either scenario the very poorest countries would now get more aid – measured both in terms of per person and per person living in extreme poverty (Figures 19 and 20).

Figure 19: Aid per person (median)

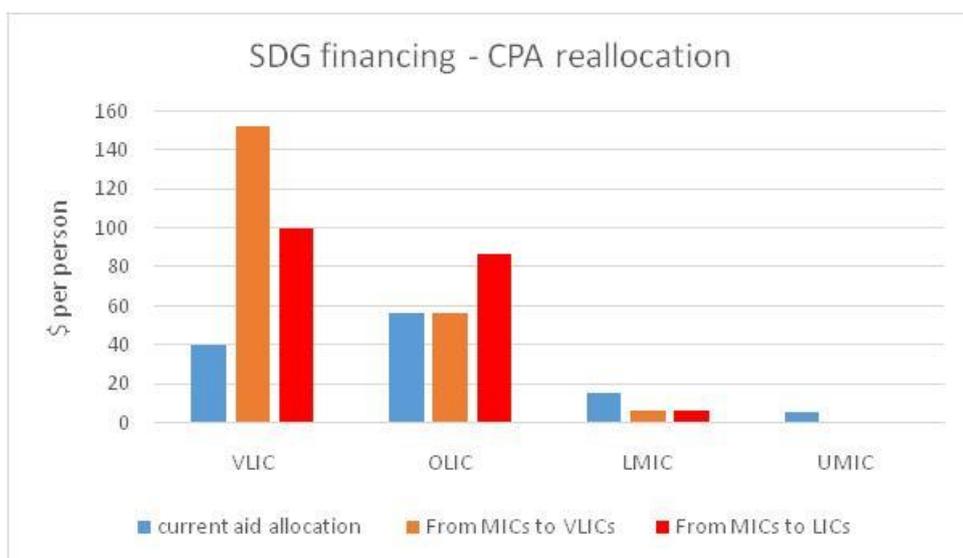
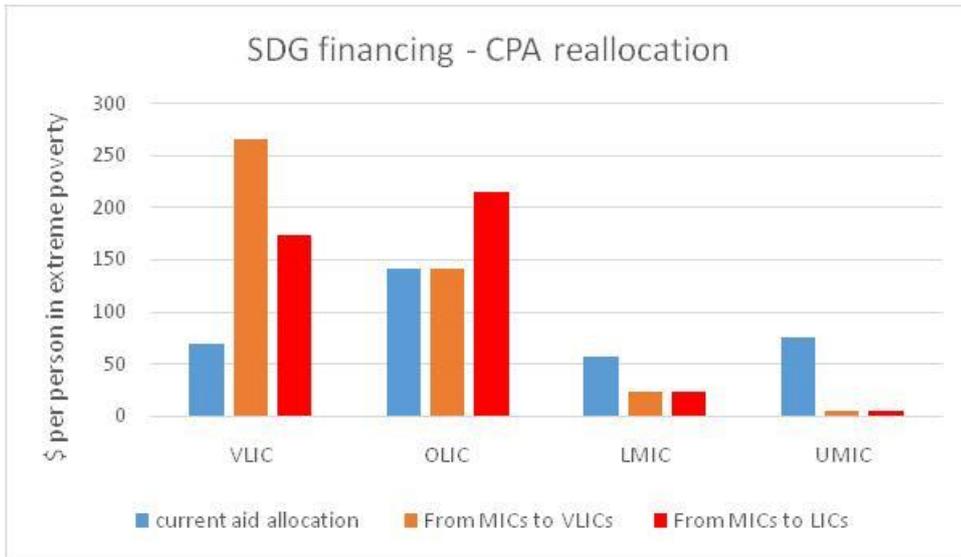


Figure 20: Aid per person living in extreme poverty



Figures 21 and 22 set out changes in aid per person and in total in the second reallocation scenario (surplus shared across all LICs).

Figure 21: Change in aid (\$ per person)

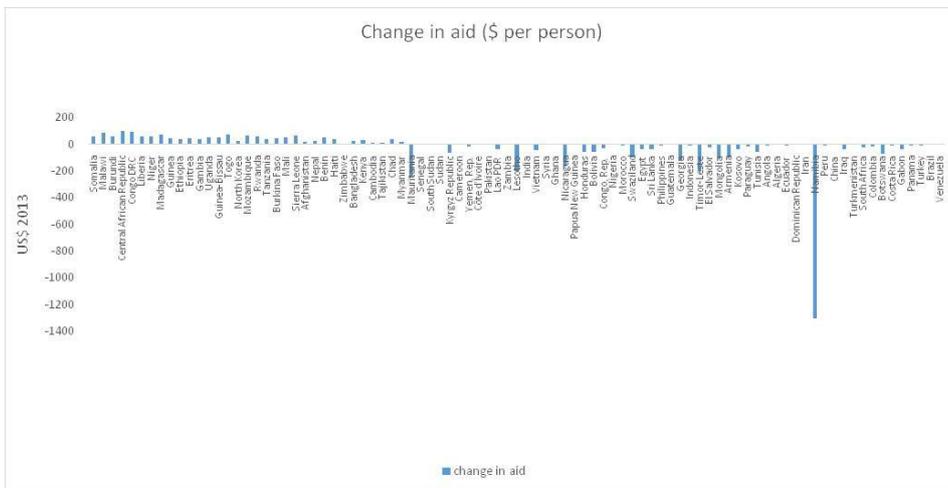
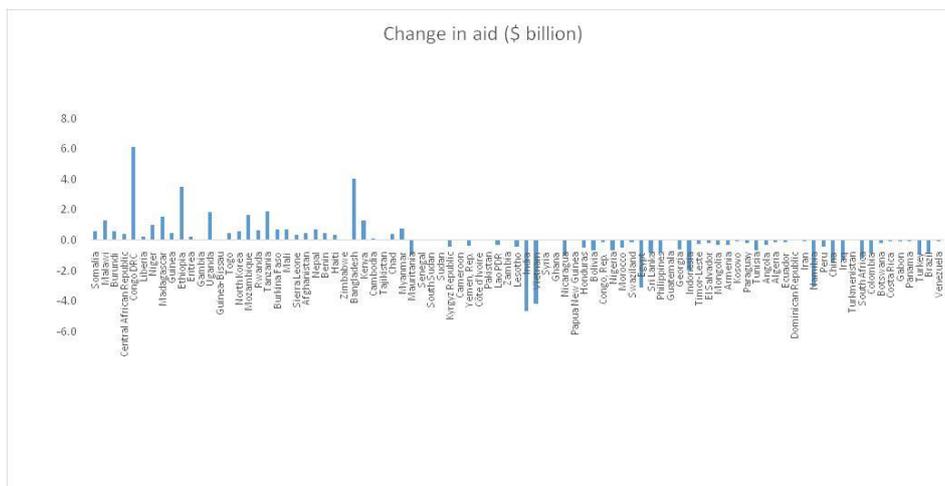


Figure 22: Change in aid (\$ billion)



In terms of volumes, the major increases are to the DRC (+\$6 bn) Ethiopia and Bangladesh (both +\$4 bn). The major reductions are to India (-\$5 bn), Vietnam (-\$4 bn) and Namibia (-\$3 bn).

While the amounts seem large in terms of global aid flows, the quantities in term of spend per day are very small. The minimum spending requirement on average is \$200 per person per year, or around 50 cents (35p) per person per day. The UK government spends 40% of its GNI per person of \$38,000, equalling \$15,200 per year or \$60 (£40) per person per day. So for every pound the UK Minister of Health has to fund the health service, their counterpart in a poor country has less than 1p.

The provision of money alone can never guarantee that poverty can be eliminated. The money has to be well used and education and health systems have to function well. But if there is not enough money even the best designed and best run services will not be able to eliminate poverty. A necessary step to having a realistic chance of eliminating global poverty is to ensure that the aid is targeted to where it is most needed and that minimum funding requirements are satisfied. The current aid systems that distributes aid for a wide range of purposes ends up favouring the rich. Unless the system changes so that the first priority is ensuring that all countries have at least the minimum they need to have a chance of eliminating poverty, then these counties – and the large numbers of extremely poor people living in these countries – will continue to be left behind.

2.5 Absorption capacity

The policy implications of these various stylised and necessarily illustrative examples of shifting from the current aid distribution to one focused on eliminating extreme poverty are significant. The most critical set of issues relates to whether the countries could effectively absorb the additional aid.

One absorption issue is whether the countries have the capacity to spend the money well. If all the money stated flowing immediately then there would clearly be an issue. But in practice most aid agencies, and certainly most multilateral agencies, plan aid allocations years in advance. The EU has a seven-year planning cycle and the World Bank has a three-year funding cycle. In addition most projects take between one and two years to prepare. Even if a political decision were taken in 2015 it would take some years for this to translate into additional flows in developing

countries. In order to avoid any doubt over this, the recommendation in this paper is for the additional aid to flow from 2020. This would give countries five years to make the necessary investments and so ensure that countries that need substantially more aid could use the extra resources effectively.

Furthermore, as much of the money is needed for well-established programmes such as education and health, the process of scaling up is well known. Building more classrooms, health clinics and training more teachers and health workers are all feasible within a five-year cycle. The creation of new cash transfer programmes is more complex. But many countries are already piloting such programmes. And the experience from Latin America is that substantial progress could be made in a five-year period.

The second absorption issue is around Dutch disease: the concern that substantial extra external resources would result in an appreciation of the exchange rate. Such an appreciation would reduce the competitiveness of the country's exporters, reduce the country's growth rate and hence prolong its period of aid dependence. The impact depends critically on how the money is spent. If it is spent on improving export competitiveness, for example through the construction of roads, the rehabilitation of ports, or even long-term investment in education, the value of the additional flows may well outweigh any costs. In recent years Liberia has attracted foreign investments of more than 100% of GDP without there being any concern about absorption.

In the 1990s the IMF raised Dutch disease as a critical concern in many countries. But once large-scale international debt relief had been agreed in the 2000s the IMF position became much more nuanced. If combating Dutch disease was the priority then the right macroeconomic response to debt relief would have been to use the money no longer needed for debt payments to increase the level of a country's foreign reserves. In this way the pattern of net external flows into the country would remain unchanged so there would be no effect on the exchange rate. However, the IMF programmes instead provided for countries to spend all the savings from debt relief on increased government spending – in many cases dollar for dollar. The IMF further encouraged countries to spend on poverty reduction programmes where a high proportion of the extra spending is on domestic goods such as teachers' salaries. Again, if Dutch disease had been the overriding policy priority the advice would have been to maximise the proportion spent on imported capital goods.

Whether the issue is capacity constraints or Dutch disease or both, there are many studies that find large flows of aid have negative consequences. One problem with these studies is that they use total aid flows. These often include humanitarian aid and emergency balance of payments support where the aid is given in a crisis. As such crises are typically not resolved immediately, large amounts of aid can appear to be associated with poor economic performance. The latest studies suggest that there is a turning point of around 15-20% of GDP. As in the second aid reallocation scenario more than 10 countries have aid-to-GDP ratios of over 20% – and in half of these the ratio is more than 40% – the questions of whether there is a turning point, and if so at what level it is, are of critical importance and would be worth investigating much further. For example, one question is whether beyond this point there are diminishing returns to aid or whether aid starts to have a negative impact. The case for the latter is not clear. Similar absorption concerns were expressed at the time of the introduction of the MDGs. Subsequent detailed studies at country level suggested there was considerable scope for absorbing more aid.

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Appendix

The data for this report is available on [ODI's website](#) or from the authors m.manuel@odi.org.uk and c.hoy@odi.org.uk



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