



Country Selectivity and Extreme Poverty

Abstract: This paper focuses on the two basic selectivity criteria for allocating foreign assistance among countries -- need and effectiveness. We discuss appropriate indicators for these concepts when the goal of aid is broad-based development, and point out that other goals will generally require distinct indicators. In the case of ending extreme poverty, however, an assessment of domestic resource availability leads us away from conventional poverty indicators as selectivity criteria, despite their indispensable role in monitoring progress. We argue that the need for extreme-poverty assistance is a function of real income per capita – the same as for development assistance; and that the appropriate indicators of effectiveness also correspond to those for development assistance. These conclusions are strengthened by the multi-dimensional nature of extreme poverty. Finally, we examine alternative selectivity criteria that will loom large in debates on extreme poverty strategy, with an eye to understanding and explaining the differences.

Concepts, principles and issues

The usual context for discussing selectivity is in allocating foreign aid across countries.¹ The broad rationale for selectivity is to promote aid effectiveness. Of more immediate concern, selectivity can help a foreign aid agency defend and justify its budget request, by making clear that the agency is prioritizing, and is more generally budgeting in a strategic way.

For selectivity in the context of official foreign aid, two criteria are important. The first is need – foreign aid should go to countries that actually need external assistance. The second is effectiveness – foreign aid should go to countries where it can be effective.

Two factors come into play in assessing a country's need for foreign assistance. One is the size of the challenge facing the country. This depends on the specific goal being pursued, and how far a country has to go to reach that goal. A second is domestic resources available to the country to address the challenge. This is certainly a consideration for foreign assistance provided from one country to

another and funded by taxpayers. Assistance provided by foundations and charities might reasonably focus on needy people without concern for overall income and resources at the country level.

What about effectiveness? This depends on a strategy that explains how the goal can be achieved and how foreign aid can contribute. It should tell us what factors need to be in place for foreign aid to (help) achieve meaningful results, and what factors might undermine aid effectiveness.

For some goals, the strategy might be a relatively straightforward one – for example, the direct provision of food or specific health services to individuals. The primary challenges might be logistical and technical. Recipient government commitment to the goal might not be of great importance. In other cases the strategy might be relatively complex, with policies, institutions, and politics – including the commitment of the recipient government – playing vital roles. For these more complex goals and strategies it will be more difficult to gauge whether and when foreign assistance can achieve results.

¹ For USAID this extends at least as far back as the U.S. Foreign Assistance Act of 1961 as amended through 1978. See Crosswell (1979).

Selectivity in allocation foreign assistance for development

Since the early 1960s the primary goal for U.S. foreign aid has been development, traditionally seen as economic and social progress and transformation in poor countries. In particular, the goal has been to help poor countries reach a level of economic and social development such that they can sustain further progress on their own, without relying on foreign aid. In this context, the standard indicator of need has been per capita income, which simultaneously serves as a proxy for level of development and as a measure of the availability of domestic resources.

As a proxy for level of development, we can identify a per capita income level at which a country should “graduate” from reliance on developmental foreign aid. Current per capita income then represents the magnitude of the challenge, in terms of how far a country needs to go to reach the goal.² Per capita income simultaneously provides a measure of domestic resource availability – both financial resources and (less directly) the availability of resources such as institutional capacity, human capital and physical capital including infrastructure.

What about effectiveness and the opportunity to achieve results? During the 1980s and into the 1990s, there was growing emphasis within USAID on measures of policy performance for purposes of likely effectiveness and selectivity. Later, the emphasis on policy performance as the primary determinant of aid effectiveness was enshrined in the Millennium Challenge Corporation, which adopted a transparent, indicator-driven approach to gauging policy performance in order to identify candidates for MCC resources.³ Meanwhile, the World Bank has been conducting internal appraisals of policy performance (the Country Policy and Institutional Assessment, or CPIA) to allocate International Development Association (IDA) resources since the 1970s. Beginning in 2005, CPIA

² Per capita income – particularly in Purchasing Power Parity (PPP) terms – tends to be highly correlated with social indicators of development such as poverty, literacy, fertility, and life expectancy. At various times USAID has used a multidimensional index of need variables to make our concern with those dimensions of development more explicit

³ <https://www.mcc.gov/pages/selection>

scores were made public, partly to encourage other donors to allocate aid more selectively.⁴

How strong is the evidence linking aid effectiveness to policy performance? Two influential World Bank studies issued during the late 1990s provided compelling empirical evidence and analysis. Isham and Kaufmann identified a very strong statistical association between a country’s policy environment and investment project performance.⁵ Around the same time, Dollar and Burnside (2000) looked at the links between aid, policies and growth. They not only confirmed the importance of policy performance for the contribution of aid to growth, but also found no indication that aid could be effective in persuading or inducing countries to adopt good policies. The best indicator of commitment to development progress was actual policy performance. While there has been substantial debate in the literature on whether and under what conditions aid contributes to growth, and whether policy performance matters for aid effectiveness, the U.S., the World Bank, and others continue to consider policy performance as an important determinant of developmental aid effectiveness.⁶

A third variable that has been important for selectivity has been *population size*, typically considered as an aspect of need, or as a scaling variable. However, the emphasis to be placed on population size has been a matter of debate within USAID over the years. Much depends on the strategy that explains how development is achieved and how foreign aid helps. To the extent that direct provision of goods and services to people is emphasized, population size obviously matters a great deal. For aid that supports policy reform and institution building, the importance of population size is arguably less, but not zero.⁷

⁴ <http://www.worldbank.org/ida/how-ida-resources-allocated.html>

⁵ See Isham and Kaufmann (1999).

⁶ For excellent reviews of the issues surrounding the Burnside/Dollar study and other efforts to gauge aid effectiveness, see Roodman (2007) and Arndt, Channing, Jones and Tarp (2010). For analysis of the dynamics between aid and policy performance, see Adam and O’Connell (1999).

⁷ Given the collective-good aspect of policy reform, the value of accomplishing a given reform would be greater if

One remaining issue deserves discussion in the context of development – the interdependence between need indicators and effectiveness indicators.⁸ Some measures of policy performance and governance depend not simply on political will and commitment, but also on resources and capacity that increase as countries make development progress. This can create a tension between our two basic allocation criteria. Poorer countries would merit higher priority based on need, but would be handicapped in competing on the basis of policy performance.

There are several ways to ease this tension, although none of them remove it. One way is to choose measures of policy performance that are not highly dependent on domestic resources and institutional capacities – such as inflation, budget deficits, and trade restrictions.⁹ A second way is to group countries by income level for purposes of gauging policy performance – an approach followed by the MCC. A third way is to run a regression and prioritize countries where policy scores are higher than predicted by income levels.

Need and effectiveness for other goals

Not all foreign aid is aimed at development progress as conventionally defined. While need and effectiveness remain the general criteria for country selectivity, the specific measures and indicators will vary depending on the goal; and will typically produce a quite different set of priority countries. Examples of such goals include: 1) supporting strategic states; 2) strengthening fragile states; 3) assisting in the transition from communism; 4) containing one or another infectious disease such as HIV/AIDS; and 5) addressing other global issues such as climate change or biodiversity. For these goals per capita income and other development indicators are not likely to serve well as indicators of need. And, measures of policy performance such as those used by the World Bank or MCC are not likely

the (non-rival) benefits of the reform were spread over more people. The cost of accomplishing the reform, on the other hand, might not rise proportionately with population.

⁸ This discussion is based on Crosswell (2010).

⁹ For developing countries, the CPIA is only weakly correlated with per capita income.

to indicate where assistance can be used to greatest effect. Instead, each of these goals (and the associated strategy) will yield its own distinct indicators for need and effectiveness.¹⁰ A list of ten to fifteen top priority countries for any one of these goals would look quite different from a list of top priority countries based on per capita income and policy performance, with some attention to population size.

Several important points flow from this. First, with distinct goals and distinct selectivity criteria it has been important to identify distinct resources for each goal, and allocate and manage them accordingly. The shorthand expression for this has been “Separate goals, separate accounts”.¹¹ Among the goals mentioned above, distinct accounts have proved useful for supporting strategic states (Economic Support Funds); assisting in the transition from communism (various accounts); and addressing global health issues.¹² In principle, funds for distinct goals could be allocated from a single account based on a budgeting model that incorporated weights for each goal, as in utility maximization for an individual consumer. In the absence of such a model, efforts to fund distinct goals from a single account are handicapped by competing selectivity criteria. The practical solution has sometimes been earmarks and directives that essentially create a set of sub-accounts.¹³

Second, with or without separate accounts, evaluations of donor selectivity are typically based on selectivity criteria appropriate for broad-based development – without acknowledging distinct goals with distinct selectivity indicators. Such evaluations will readily reach unduly negative conclusions for donors (like the United States) who are pursuing a range of distinct goals for foreign aid.¹⁴

Third, a good, practical test for whether a particular goal is distinct from development or not is to

¹⁰ For further detail and discussion see USAID’s [2006 Policy Framework for Bilateral Foreign Aid](#).

¹¹ Arkedis (2011) provides a compelling exposition of the rationale for “separate goals/separate accounts”.

¹² See U.S. Department of State and USAID (2005) for an overview of funding accounts for U.S. foreign assistance.

¹³ For a discussion of some of the issues associated with this approach, see Crosswell (2004).

¹⁴ Dollar and Levin (2004), for example, find that the United States is not particularly selective.

identify the top priority countries for that goal and then compare them with top priority countries based on the development criteria discussed above. If the two lists are quite different, we are likely dealing with distinct goals. With this cautionary note in mind, we turn to selectivity criteria for extreme poverty.

Selectivity and extreme poverty

Helping to end extreme poverty is now an overarching goal for USAID, as reflected in USAID's Mission Statement.¹⁵ Is this a distinct goal that calls for distinct need and effectiveness criteria? For each criterion, we first consider extreme poverty defined in terms of consumption levels, for example by the new \$1.90 international extreme poverty line (Ferreira *et al.* 2015). We then turn to a multi-dimensional view of extreme poverty.

Need – The challenge of defining a suitable measure of need in the context of an overarching goal of poverty reduction is not a new one for USAID. During the late 1970s, USAID operated under the overarching goal of poverty reduction, expressed in terms of meeting basic human needs. For purposes of strategic budgeting and selectivity, USAID required a measure or measures of need that incorporated the two considerations discussed earlier: the magnitude of the challenge facing the country; and domestic resources available to the country to meet that challenge. This was at a time when data on poverty and income distribution were scant. USAID staff eventually arrived at a single indicator that incorporated both dimensions of need, and which did not depend on estimates of the extent and depth of poverty. The indicator was the ratio of per capita income to the poverty line. The relevant population variable was total population and not the number of poor people.¹⁶

It is not at all obvious how an analysis that begins with the challenge of reducing poverty can deliver an indicator of need that makes no reference to the number of poor and the depth of poverty. As we will see, the analysis started with the two key dimensions of need, and then uncovered a

reasonable way to combine those in a single indicator with manageable data requirements.

The approach considered a hypothetical country with national income Y and total population n , of which a sub-set H were living below the international poverty line (given by z). The magnitude of the challenge was represented by the gap between the average income of the poor and the poverty line (i.e., the average shortfall of the poor), multiplied by the number of people below the poverty line; let us call this T , to denote the *total* monetary shortfall of the poor.¹⁷

The second consideration for gauging need at the country level was domestic resources available to help end poverty. This was represented by the surplus S , defined as the aggregate amount by which incomes of the non-poor exceeded the poverty line. A need indicator incorporating both T and S should be an increasing function of T and a decreasing function of S ; and it should be neutral with respect to country size. Very importantly, the measure should not reward a country for high inequality. The latter requirement ruled out T/S because when a country transfers a dollar from a poor person to a non-poor person, T/S falls. Using this indicator would therefore penalize countries that made efforts to reduce poverty through redistributive measures. The Appendix demonstrates that this critique applies to many standard indicators of the prevalence of poverty.

USAID staff settled on the expression $([T - S]/Y) + 1$ as a measure of country need. This measure satisfies the desired properties and has an intuitive interpretation: it is the share of GDP that would be needed to pay a poverty-line income to each person. Equivalently, it is the ratio of the poverty line to per-capita income (see Appendix). An alternative measure with similar properties is $(T - S)/n$, which is simply the difference between the poverty line and per-capita income.¹⁸

¹⁷ The Appendix shows that T is closely related to the widely-used *poverty gap index*, sometimes denoted FGT1 (the [Foster-Greer-Thorbecke](#) poverty measure with a coefficient of 1).

¹⁸ $[(S - T)/Y] + 1 = [(nz - Y)/Y] + 1 = nz/Y$. Divide top and bottom by n and we have the ratio of the poverty line to per capita income. USAID staff did not dwell on the observation that it is the *inverse* of income

¹⁵ See [USAID's Vision for Ending Extreme Poverty](#), September 2015.

¹⁶ See Crosswell (1980).

This use of real income per capita flows logically from a definition of need that takes into account both the magnitude of the challenge and the availability of domestic resources. The requisite data appear annually. The relevant population variable is total population. The indicator is distribution-neutral and does not reward countries with high inequality. It does the job whether we take a primarily developmental approach or a primarily redistributive approach to ending poverty. Finally, if we use an international poverty line for selectivity purposes, then per capita income (in purchasing power parity terms) suffices to indicate need.

With a goal of ending extreme poverty, it may be counter-intuitive to embrace a measure of need that makes no reference at all to the extent of poverty within a country. But the level of *average* income in a country is a primary determinant of the level of extreme poverty: poorer countries systematically tend to have more widespread and deeper poverty. The obvious intervening variable is income distribution. However, this does not have clear implications for need for external assistance. For two countries with the same average income, the country with greater inequality will have more poverty, but also more income in the hands of the non-poor.¹⁹

The preceding discussion is in terms of a poverty line specified in monetary terms. However, it is widely acknowledged that poverty and deprivation

that appears here (as it would if the allocation were chosen to maximize a social welfare function defined as a population-weighted sum of the logs of real GDP per capita). The alternative measure, by contrast, is linear in per-capita income: $(T - S)/n = z - (Y/n)$. For selectivity purposes, both indicators are monotonically decreasing in income per capita, provided that the same poverty line is used for all countries.

¹⁹ A less obvious intervening variable is the ratio of average household consumption (as measured in household surveys) to real income per capita as measured in the national accounts. This ratio varies significantly across countries and over time, and these variations account for some of the observed differences in poverty incidence at similar levels of per capita income. But an argument similar to that in the text suggests that the appropriate need variable remains per-capita income. Poverty is higher (other things equal) when the ratio of consumption to income is lower, but there are also more domestic resources that could be redirected towards raising household consumption.

have other dimensions, such as inadequate access to education, health services, water and sanitation, and other public services. Per capita income tends to be strongly correlated with these other indicators of poverty and underdevelopment, suggesting that it remains a satisfactory proxy for need. It may nonetheless be feasible and reasonable to devise an index that incorporates various dimensions of development (including income) into an aggregate measure of country need for purposes of selectivity. For strategic and programming purposes, however, such an index should be “unpacked” to better understand the challenges facing each country.

Effectiveness – We have emphasized that indicators of whether and when aid will be effective depend critically on the strategy for how the goal is to be achieved; and the implied role of foreign aid. For extreme poverty defined in terms of income or consumption, the underlying strategy – implicit or explicit – typically involves some combination of relatively broad efforts at achieving inclusive economic growth and narrower, more targeted efforts aimed at livelihoods and incomes of those below the poverty line. It is safe to say that there is considerable variation in views about the appropriate balance, and the associated role of foreign aid.

For upper-middle income countries where extreme poverty is a low share of the overall population and may be concentrated in geographical or demographic “pockets”, most would agree that targeted programs should play a major role. However, discussions of ending extreme poverty often leave the relative roles of external and domestic resources unclear. Should external resources continue to play a major role in advanced developing countries such as Brazil? Or should upper-middle income countries assume responsibility for further progress while donors focus on needier countries?

For lower-income countries where extreme poverty is a higher share of the overall population, discussions of ending extreme poverty are not at all clear or conclusive on the relative balance between growth-oriented approaches and interventions targeted more exclusively on the poor. Some strategies seem to place predominant emphasis on growth, while others appear to emphasize direct-impact programs, perhaps with the assumption that growth and development are going on in the

background, or that improvements in human development will create a platform for future growth.²⁰

The key point for selectivity purposes is that how we approach effectiveness depends critically on our underlying strategy. To the extent that the strategy emphasizes broad-based growth and development progress as the *primary* force for reducing extreme poverty, we are back in the realm of policy performance as the key indicator of whether and where foreign aid can be effective in helping to end extreme poverty. To the extent that the strategy emphasizes a much narrower range of interventions aimed specifically at livelihoods and incomes of the extreme poor, effectiveness criteria and indicators depend on the story we tell about what is required for such interventions to achieve large and lasting results.

The ambiguity diminishes greatly when we move beyond a view of extreme poverty based only on income and consumption. At the point where we adopt a multi-dimensional view of extreme poverty, we are almost inevitably in the realm of broad-based development progress as the fundamental driving force behind poverty reduction, particularly in lower-income countries where poverty – in its various dimensions – tends to be widespread.

Indeed, other dimensions of poverty such as access to health, education, and other basic public services (water, sanitation, electricity) illustrate perhaps more clearly than in the case of income why extreme poverty in lower-income countries is essentially a development challenge and not primarily a redistributive challenge. In lower-income countries the basic systems that provide these services are extremely limited in both geographic coverage and quality. It is not as if there are well functioning country-wide systems for basic health, basic education, and infrastructure, so that the primary challenge is gaining access for the poor. Rather, the

²⁰ An example of the former is the World Bank's [A Measured Approach to Ending Extreme Poverty and Boosting Shared Prosperity](#); an example of the latter is the OECD 2013 [Development Cooperation Report on Ending Extreme Poverty](#). The balance remains very unclear in The [UN Report of the High-Level Panel on the Post-2015 Development Agenda](#). Ravallion (2009) provides an empirical analysis linking the level of economic development to the balance between growth and redistribution strategies.

basic challenges in these areas are systemic. The same is arguably true for income and employment. It is only by and through the process of development that these systemic challenges are met.²¹

Alternative approaches to selectivity for extreme poverty

The preceding discussion suggests that for the goal of ending extreme poverty, the basic indicators for need and effectiveness are much the same as for the goal of development progress – particularly if we take a multi-dimensional view of extreme poverty. We would prioritize countries that are poor in terms of average incomes and are also good policy performers, while also taking into account *total* population size.

This sort of approach is at odds with much of the international discussion of the challenge of ending extreme poverty, which typically prioritizes countries with the largest number of poor people, regardless of total population, per capita income, and policy performance; and/or fragile states, nearly all of which are weak policy performers.²² Can our framework help understand and explain (if not reconcile) the stark differences between these approaches to selectivity?

First, we have emphasized that for purposes of selectivity much depends on the underlying strategy for ending extreme poverty – particularly where effectiveness is concerned. Consider a strategy for reducing income/consumption poverty in relatively advanced countries, where there is a predominantly prosperous mainstream and poverty is mainly a matter of isolated/marginalized groups. Poverty reduction calls for bringing such groups into the mainstream, through programs that are targeted on

²¹ Charles Kenny (2011a, 2011b) has argued that improvements in health, education (school attendance), democracy and rights, and other aspects of quality of life have been driven by technology and ideas rather than institutions (in contrast to economic growth, for which Kenny sees institutions as critically important). A rejoinder would that institutions and systems still matter for the *quality* of education; the *quality* of governance associated with democracy; and for widespread, sustainable provision of basic health services.

²² See Sumner (2011) and the OECD's 2013 [Report on Fragile States](#).

the poor. Such programs deliver goods and services to the poor that can enhance consumption or employment possibilities. This kind of strategy assumes rather than promotes a reasonably affluent, well-functioning economy. On the employment side, economic opportunity is exogenously present, and the basic challenge is to equip the poor to take advantage of it. For consumption transfers, the resource requirements would be relatively small and manageable compared with overall public budgets.

To the extent that such a strategy underlies discussions of ending extreme poverty in developing countries, the effectiveness criteria have mainly to do with the efficiency of targeted poverty reduction programs. This may not depend much at all on overall government policy performance and commitment – either to poverty reduction or to development progress more generally. An analogy would be health programs targeting specific diseases and maladies. These have achieved success in all sorts of country settings and policy environments, by providing treatment packages directly to vulnerable people.

Second, in discussing need we have emphasized not only the magnitude of the challenge facing the country (represented by T in the preceding section) but also domestic resources available to the country to address poverty (represented by S). It is only when we consider the second factor that we move beyond looking at the number of poor people and the depth of their poverty.

However, discussions of ending extreme poverty may assume that external resources can and should play the main role – especially if the underlying strategy emphasizes programs targeted on the poor. With that assumption (and that strategy), need can be adequately measured by any one of a number of measures of poverty that consider the number of poor people and the depth of their poverty. These include the poverty gap index and other Foster-Greer-Thorbecke indices, the Sen index, the Watts index, and the recently formulated *person-equivalent poverty headcount*. What all of these have in common is adherence to the *focus axiom* in poverty analysis – the principle that a measure of poverty should not vary if the income of the non-poor varies. Hence,

they explicitly exclude consideration of domestic resource availability.²³

Finally, prioritization of fragile states is typically based on the high and increasing share of global poverty accounted for by countries that satisfy one or more of the definitions of fragility.²⁴ To the extent that fragile states tend to be poor countries in terms of income and social indicators, there is not much of a difference where need is concerned. However, fragile states are typically weak policy performers. And they are often characterized by high levels of instability and conflict. Both factors would raise significant effectiveness issues for a poverty-reduction strategy that emphasized broad-based development progress as the key driver of poverty reduction in poor countries.

However, these factors may not impinge on effectiveness for other strategic approaches to poverty reduction in fragile states. As one example, a strategic approach aimed at addressing and overcoming fragility itself, in order to lay the foundation for broad-based development progress including poverty reduction, would have its own effectiveness criteria. Weak policy performance, instability and conflict would pertain more to need – the magnitude of the challenge to be addressed – than to an appropriately risk-weighted concept of effectiveness. As a second example, Kenny (2011b) argues that the development record demonstrates the scope for significant progress in health, and perhaps in other non-monetary dimensions of poverty, even in countries where policy performance and prospects for overall development progress remain weak.

²³ On person-equivalent poverty, see Castleman, Foster, and Smith (2015). For a review of earlier poverty indicators and the axioms they should satisfy, see Haughton, and Khandker (2009).

²⁴ Definitions of fragility are varied, and different approaches can imply substantial differences in classification. There is also variation over time, as countries move into and out of fragility by any given definition. Finally, except for the narrowest definitions there tends to be significant diversity among fragile states in terms of their key characteristics, including poverty. For further discussion, see Roesch (2014).

Acknowledgements

The author gratefully acknowledges helpful comments from Steve O’Connell, Don Sillers, and an anonymous reviewer. All errors are the sole responsibility of the author. Comments are welcome at mcrosswell@usaid.gov.

Appendix: Relating country need to the poverty gap index and person-equivalent headcount

The text presents the argument that poverty-related selectivity should be based on income per capita rather than on the total shortfall of the poor, T (or its per-capita counterpart, T/n). Here we see that this argument applies to a number of popular poverty measures, including the poverty gap ratio and the new *person-equivalent headcount ratio*. These measures – particularly the latter – have powerful advantages for monitoring poverty. They are all based on T , however, and therefore share its limitations as an indicator of need for poverty-based selectivity.

Let

- Y = National Income (\$)
- z = Poverty Line (\$/person)
- d = Average monetary shortfall among the poor (average distance between income and the poverty line), sometimes called the “depth of poverty”
- n = Total Population, of which H are poor
- h = Conventional headcount ratio = H/n
- $T = H \cdot d$ = Total monetary shortfall of the poor in absolute terms (\$)
- $R = n \cdot z$ = The resources required for no one to be below the poverty line (\$)

The *poverty gap index* (often denoted [FGT1](#)) is simply our total monetary shortfall normalized by R :

$$FGT1 = \text{poverty gap index} = T/R.$$

This measure expresses the total monetary shortfall as a share of the income (or resources) required for no one to be below the poverty line. Equivalently,

$$FGT1 = (H/n) \cdot (d/z).$$

The poverty gap index is the product of the conventional headcount ratio and the average *relative* monetary shortfall (i.e., relative to the poverty line).

The new *person-equivalent headcount* measure starts with a benchmark measure of the average shortfall among the poor, and defines the number of person-equivalents represented by each poor person as that person’s shortfall divided by the reference shortfall. Letting d_0 be the benchmark shortfall (in \$/person), the overall person-equivalent headcount is given by

$$H^e = \text{person-equivalent headcount (\# people)} = T/d_0.$$

Dividing by the population gives us the *person-equivalent headcount ratio*, $h^e = H^e/n$.

There is therefore a straightforward relationship between the poverty gap ratio, the conventional and person-equivalent headcount ratios, and the average monetary shortfall among the poor:

$$\frac{h \cdot d}{z} = FGT1 = \frac{h^e \cdot d_0}{z}$$

If these measures were used in a selectivity exercise, the poverty line and benchmark average shortfall would be the same for all countries. They would therefore drop out of the calculation. The net result would be that allocating per-capita aid to countries on the basis of the person-equivalent headcount ratio h^e would be equivalent to allocating it on the basis of FGT1; this, in turn, would be equivalent to allocating it on the basis of a combination of the conventional headcount ratio and the average monetary shortfall. All of these approaches, in turn, would be equivalent to allocating aid per capita on the basis of the total shortfall per capita, T/n . It follows, by the argument developed in the text, that none of these measures serves as an adequate indicator of a country’s need for external assistance, given our two-dimensional specification of need. To summarize: poverty indicators are indispensable for monitoring progress against poverty, but poverty-based selectivity should be based, instead, on a measure of real income per capita (with some adjustment for population).

References

- Adam, Christopher S. and Stephen A. O'Connell (1999), "Aid, Taxation and Development in Sub-Saharan Africa", *Economics and Politics* 11(3), November: 225-253
- Arkedis, Jean (2011) ["Getting to a "Grand Bargain" for Aid Reform: The Basic Framework for U.S. Foreign Assistance"](#) Center for Global Development Essay, February
- Arndt, Channing, Sam Jones and Finn Tarp (2010) "Aid, Growth, and Development: Have We Come Full Circle?" *Journal of Globalization and Development* 1(2), December
- Burnside, Craig and David Dollar (2000) "Aid, Policies, and Growth" *American Economic Review*, 90(4), September: 847-868
- Castleman, Tony, James Foster, and Stephen C. Smith (2015) "Person-equivalent Headcount Measures of Poverty" [Institute for International Economic Policy Working Paper Series 2015-10](#), George Washington University, Washington, DC.
- Crosswell (2010), Michael ["Governance, Development and Foreign Aid Policy"](#), presented at the 2010 Oxford Business and Economics Conference, Oxford University, UK
- Crosswell, Michael (2004) ["Development, Foreign Aid, Strategic Planning and the Government Performance and Results Act \(GPRA\)."](#) presented at the Third Global Conference on Business and Economics, Amsterdam, July
- Crosswell, Michael (1980) ["Need as a Criterion for Allocating Development Assistance"](#) USAID working paper, July
- Crosswell, Michael (1979) ["Basic Human Needs and the Distribution of Development Assistance among Countries"](#) USAID Working Paper, August
- David Dollar and Victoria Levin (2004), ["The Increasing Selectivity of Foreign Aid, 1984-2002"](#), *World Bank Policy Research Working Paper* 3299, May 2004
- Ferreira, Francisco and others (2015) "A Global Count of the Extreme Poor in 2012: Data Issues, Methodology, and Initial Results" [World Bank Policy Research Working Paper No. 7432](#), October
- Haughton, Jonathan and Shahidur R. Khandker (2009) "Measures of Poverty" Chapter 4 in World Bank [Handbook on Poverty and Inequality](#) (Washington, DC: The World Bank)
- Isham, Jonathan and Daniel Kaufmann (1999) "The Forgotten Rationale for Policy Reform: The Productivity of Investment Projects" *Quarterly Journal of Economics* 114(1), February: 149-184
- Kenny, Charles (2011a) ["Solow's Return: Inventions, Ideas and the Quality of Life"](#), Center for Global Development Essay, February
- Kenny, Charles (2011b) *Getting Better: Why Global Development is Succeeding – and How We Can Improve the World Even More* (New York: Basic Books)
- Ravallion, Martin (2009) ["Do Poorer Countries Have Less Capacity for Redistribution?"](#) *Policy Research Working Paper* No. 5046, The World Bank, September
- Roesch, Aaron (2014) "Understanding Poverty Amid Fragility: Moving from Rhetoric to Analysis" in R. Shah and N. Unger, eds, [Frontiers for Development](#), (Washington, DC: USAID)
- Roodman, David (2007) ["Macro Aid Effectiveness Research: A Guide for the Perplexed"](#), *Center for Global Development Working Paper* No. 135, December
- Sumner, Andrew (2011) ["The New Bottom Billion: What if Most of the World's Poor Live in Middle-Income Countries?"](#) CGD Brief, Center for Global Development, March

U.S. Department of State and United States Agency for International Development (2005) [U.S. Foreign Assistance Reference Guide](#) Department of State Publication II202, January