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ON THE ROLE OF AID IN *THE GREAT ESCAPE*

Review of *The Great Escape: Health, Wealth, and the Origins of Inequality*, by Angus Deaton (Princeton University Press, USA, 2013)

1. Introduction

Angus Deaton's (2013) *The Great Escape* (*TGE*) describes well the progress many countries have made against ill-health, early death, and poverty, and the lack of progress made by others. As noted in *The Economist* (2013) magazine, the book's most controversial message is on international aid. Deaton questions what he calls the "aid illusion": ". . . the erroneous belief that global poverty could be eliminated if only rich people or rich countries were to give more money to poor people or poor countries" (pp. 269–70). The aid illusion is not just wrong in Deaton's view, it is positively harmful: ". . . far from being a prescription for eliminating poverty, the aid illusion is actually an obstacle to improving the lives of the poor" (p. 270); thus: ". . . giving more aid than we currently give—at least if it were given as it is given now—would make things worse, not better" (p. 272). The dust jacket summary puts it a little more bluntly: "Deaton argues that international aid has been ineffective and even harmful."

In a nutshell, Deaton's critique of aid rests on two claims. First, badly governed people in a poor country will be worse off with aid as it will reward and support the regime. Second, aid is unnecessary if a country is governed reasonably well, since that government will do the right thing by its people without external assistance, and a large amount of aid runs the risk of turning a good government into a bad one.

If this critique is valid, then those who believe that there is a moral obligation for rich countries to help poor ones should lobby *against* aid. As Deaton (p. 318) puts it: ". . . the citizens of the rich world . . . can best help the poor of the world by not giving them large-scale aid." But is Deaton right, based on what we know? There is certainly no shortage of opposing views. For example, contrast Deaton's assessment with the views of Bill and Melinda Gates who write that "Foreign aid is . . . a phenomenal investment. Foreign aid doesn't just save lives; it also lays the groundwork for lasting, long-term economic progress" (Gates and Gates, 2014).Between the two Gates and Deaton one finds all shades represented. But can we figure out who is right here?

Note: In the interests of full disclosure the author worked for the World Bank for over 24 years, and as director of its research department for the last five of those years. (He left the Bank in December 2012 to take up a position at Georgetown University.) Without implying any agreement with the views expressed here, the author has had useful comments on this paper from Francois Bourguignon, Michael Clemens, Shanta Devarajan, David Dollar, Thesia I. Garner, Steve Knack, Steve Radelet, Finn Tarp, Nicolas van de Walle, and Dominique van de Walle.

TGE is not the topic of this paper, but it provides the paper's motivation—to assess the validity of Deaton's views on aid. This is only one aspect of *TGE.* And the book is written for a broad audience, where nuances naturally get swept aside (although Deaton is masterful at times in making nuances accessible). Critics of aid in some of the media and popular writings have often asserted that it is simply captured by local elites and so wasted from the point of view of fighting poverty. However, if a serious scholar such as Deaton (whose empirical research I have often admired) is also drawn to such a view then there is good reason to take note, and explore the matter further. The paper attempts to do so. On top of the interest in assessing Deaton's arguments about aid, the discussion will point to a number of continuing gaps in our knowledge about aid effectiveness more broadly.

2. An Aid Curse?

In the aggregate, external development assistance accounts for only a small fraction of total income in the recipient countries—around 1 percent of the total national income of developing countries.[1] However, external aid matters far more than average in the poorest countries. Aid is skewed toward poor and (in terms of population) small countries. Being a country (even if relatively few people live there) attracts a positive minimum amount of aid. This is not obviously wrong, since there are fixed costs of being a country, although I have not seen an explicit defense along those lines. Another possible explanation (noted in *TGE*) is that donors like to support many countries. Whatever the reason, aid per capita tends to fall with population size. Many countries in Sub-Saharan Africa have obtained a larger share of income in the form of aid, and in very poor countries aid can account for as much as one third of national income (Temple, 2010). Then aid has the potential to make a big difference. It is these "high-aid" cases that are of most concern to Deaton for that is where he sees the greatest damage.

International aid tends to go from rich countries to poor ones. Bourguignon *et al.* (2009) calculate that the poorest 10 percent of the world's population accounts for 40 percent of all development aid, while the share is 65 percent for the poorest 20 percent. This calculation requires some strong assumptions, including that the distribution of aid is uniform within countries. *TGE* provides a somewhat similar calculation that appears to give a very different impression: "That half of the world's poor people received only a fortieth of the development aid," which Deaton suggests is ". . . one of the odder inequality measures in the world" (p. 277). However, the two claims can be reconciled once one notes that the "half of the world's poor" referred to by Deaton are those living in China and India, which receive relatively little aid relative to their populations. The other half of the world's poor receive a lot of external aid.

But does the aid help poor countries become less poor? The economic arguments for modern aid go back to its origins in the period just after World War 2. Planners set growth targets and backed out financing gaps that aid would fill. Aid was seen as purely investment. And there was no politics to it. Deaton argues

[1]This is the "rough estimate" made by Temple (2010, p. 4431).

convincingly that this view of aid is divorced from the realities of how it is actually delivered, which is between governments. The preferences and behaviors of governments in the aid relationship are then crucial to the outcomes for poor people. The rest of this section will explore this point further.

Bilateral aid accounts for about three-quarters of all aid—the rest goes through multilateral organizations such as the World Bank and the regional development banks. The aid policies of many bilateral donors have long come under much criticism. Country preferences for aid often reflect historical ties and foreign policy considerations rather than genuine need or efficacy, as shown by Alesina and Dollar (2000). While it is likely that the multilateral agencies are less prone to political manipulation of aid allocations, they are not immune to the problem given the influence that their main donors have had.

One reason why aid has not had more impact on poverty is that it has often been tied to recipient countries buying goods and services produced by the donor country. This comes at a cost to recipients. Temple (2010, p. 4431) quotes estimates that aid tying reduces the real value of aid to recipients by 15–30 percent, which is a big cost indeed. However, as *TGE* points out, aid tying helps build a constituency in support of aid in donor countries. Then it is not clear that recipient countries are worse off on balance, although that is the widespread presumption.

The potentially more powerful critique in *TGE* focuses on the recipient governments. There are seen to be both good and bad governments. The good ones will (it is claimed) do the right thing by their people, in which case aid is seen to be redundant (with the exception of support for fighting disease, to which I return). The bad ones by contrast are seen as the main cause of poverty. The goals of their leaders are not aligned with those of either their citizens or aid donors. The problems aid addresses are seen to be mainly due to bad governments, which are equally capable of subverting aid. By propping up such governments, aid perpetuates poverty.

Before assessing this argument, we should acknowledge some antecedents in the literature. Over 40 years ago, Bauer (1971) posed a similar challenge to supporters of aid: if country circumstances (including policies and governance) are not conducive to aid being effective then it will fail, but if they are conducive then the aid will not be needed. Critiques along these lines have been reiterated and elaborated by others since Bauer (1971), including van de Walle (2001), Moss *et al.* (2006), and Djankov *et al.* (2008); the latter two papers (independently) coined the term "aid curse," drawing an analogy with the resource curse, whereby natural resource discoveries can undermine longer-term development of other sectors. The aid curse idea has been echoed in more popular writings, including Moyo (2009) and Easterly (2014). Mobutu's Zaire is the favorite example, and is cited often in *TGE*.

"Good governance" has multiple dimensions, of course, related to both economics (protection of property rights is an example) and politics (electoral democracy being prominent). These dimensions are not perfectly correlated across countries, and need not matter equally for welfare outcomes. Over time we have seen improvements in most developing countries in both economic and political governance. We have seen a marked shift toward democracy across the developing world over the last 20 years. It is not always clear in the literature (including *TGE*) which dimension of governance is most salient to aid effectiveness, and it should not be presumed that democracy enhances aid effectiveness in reducing poverty.[2]

A key factor is seen to be the ability of those leaders of recipient governments who do not care about poverty reduction or other widely-valued social goals to divert aid to other purposes. This concern applies to aid from non-governmental organizations (NGOs) as well as governments. As Deaton (p. 279) puts it: "Aid, including both official aid and humanitarian aid from NGOs, is often given to regimes that have little interest in or track record of helping their own populations." This is, however, an assertion on Deaton's part, and it should not be taken as fact. Let us examine the claim more closely.

The potential for recipient governments to divert aid to other purposes than to those the donor intended arises from the fungibility of external aid. Full fungibility means that the recipient government can essentially treat the aid as generalized budget support, and spend it how the government sees fit. This applies to the domestic investment of aid. Governments are presumably already making intertemporal decisions about how much should be consumed now versus invested for the future. It would be naïve to presume that these governments conform to the textbook economic formulation of the benevolent maximization of the forward looking sum of utilities. But the point remains that one can expect the recipient government to want at least some of the aid to be consumed rather than invested, and fungibility makes that feasible. Finding that aid is consumed is not a bad thing; government consumption includes many things that matter to poor people, such as immunizing children or helping them stay in school. Recipient governments may well have a better idea than donors about how aid should be spent.

The social preferences of political leaders in recipient countries play a key role. Given that we do not know much about those preferences we can see why there is so much debate on the issue of aid and poverty. And, for the same reason, generalizations such as those found in *TGE* need to be viewed with caution. Deaton and others point to some leaders who do not seem to have favored the poor, and so subvert aid even when directed at poverty reduction.

It is worth sketching a simple expository model. There are two income groups, the poor with income Y_P and the non-poor with Y_{NP}, where the latter group includes the political leader. (I have collapsed this into just two dimensions so that I can use a graph, but there can be many more income groups.) The leader's preferences are represented by the function $W(Y_P, Y_{NP})$ which traces out the usual strictly convex iso-welfare contours. The constraint set of the attainable income distributions is bounded above by $\phi(Y_P, Y_{NP}) = 0$ and the set is assumed to be strictly convex. Finally, let (Y_P^*, Y_{NP}^*) denote the political leader's (unique) optimum (i.e., (Y_P^*, Y_{NP}^*) maximizing $W(Y_P, Y_{NP})$ subject to $\phi(Y_P, Y_{NP}) = 0$.

This much is a reasonably standard set-up.[3] Now imagine that an external donor comes along and makes aid available in the form of an income transfer to the poor in the amount A per poor person. Targeting is assumed to be perfect, so this is not a problem. The leader now chooses a new optimum (Y_P^{**}, Y_{NP}^{**}) maxi-

[2]Bjørnskov (2010) discusses a number of ways in which "elite capture" of aid may be more likely in democracies and finds some supportive evidence using regressions for income shares.

[3]One could modify the model in many interesting ways, but this will suffice for the present purpose.

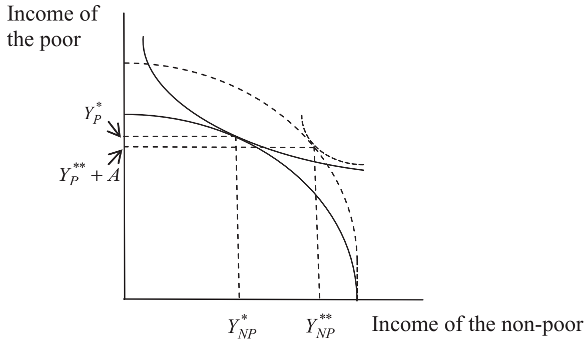

Figure 1. The Aid Curse: An Example in which the Leader's Social Preferences Entail that the Poor are Worse Off with External Aid even when it is Targeted to the Poor

mizing $W(Y_P + A, Y_{NP})$ subject to $\phi(Y_P, Y_{NP}) = 0$. Without any further restrictions on the leader's social preferences we cannot rule out the possibility that the poor will end up worse off after the aid, i.e., $Y_P^{**} + A < Y_P^*$. This is illustrated in Figure 1, in which the dashed curved lines are after the aid. (The difference $Y_{NP}^{**} - Y_{NP}^*$ can be interpreted as the extent of local elite capture of the aid; in Figure 1 this exceeds the amount of aid.)

This characterizes the claim of Deaton and others in the aid curse literature. However, Figure 1 is only one possibility; different social preferences will entail that the poor gain, and it is even possible that the gain will exceed the amount of aid. The aid curse can be avoided even if the political leadership in the recipient country does not share the aid agency's poverty reduction goal. A perfect alignment of interests between the donor and recipient governments is not necessary for aid to help reduce poverty. There are social preferences that give higher (indeed far higher) weight on gains to the non-poor than the poor but still imply that poor people will benefit from aid targeted to them.[4]

It is now plain why there is so much scope for debate: the social preferences of governments are not something we can easily observe. Like individual preferences, "integrating back" from observed behavior to preferences is a challenge. The "Mobutu story" is plain enough, but it is surely an extreme case and certainly only one possibility. There have been some studies of the attitudes of elites to poor people. No clear picture seems to emerge, although what we know from this literature warns against any generalization that the type of social preferences in Figure 1 is common in practice; see, for example, Reis and Moore (2005).

Thus, while the aid curse idea is theoretically possible, its empirical relevance as a general model is questionable.[5] More research on the social preferences implicit in the domestic policies of aid receiving governments would help.[6] And

[4]A simple example in which the poor will always gain from the aid is that the leader's welfare function is additively separable and $Y_P + Y_{NP}$ is fixed.

[5]This echoes Stern's (1974) critique of Bauer's (1971) generalizations against aid based on a few selected examples of seemingly harmful cases.

[6]An example of the type of research needed on implicit social preferences is Ravallion (1988).

that evidence needs to take a broader perspective than simply focusing on how well "targeted" the aid projects are to poor people.

In all this, there must be a strong presumption that the impacts of aid will vary from one country to another. Similarly to the resource curse, the aid curse is likely to be contingent on a number of factors, including the social preferences of leaders and the quality of existing institutions.[7] This is another reason to question the generality of the aid curse idea. Aid-supported policy reforms can also operate on the constraint set facing political leaders with given social preferences (not necessarily agreeing with the poverty focus of aid donors). Some of the domestic policy reforms that aid tries to encourage can be thought of as ways of assuring that markets and institutions in recipient countries better serve the interests of poor people—modifying the function $\phi(.)$ such that higher Y_P is attainable at given Y_{NP}. (While holding the iso-welfare curve constant in Figure 1, squeeze the upper bound of the constraint set so as to increase the amount going to the poor.) Local leaders can come to choose more pro-poor allocations of domestic resources without a change in their preferences. Merely identifying leaders who do not seem to care much for poor people does not establish an aid curse.

3. Aid and Growth

None of this implies that development aid is ineffective, let alone harmful. But it does call for more evidence. The bulk of the literature has focused on whether aid has promoted economic growth. This is a little odd given that much development aid today (indeed, the bulk of it I would expect) is not striving to promote growth as such, but to promote other development goals, including poverty reduction and human development. In defense it might be argued that growth is all that matters to attaining these other goals, but that is questionable from what we know. As a stylized fact, higher rates of growth are associated with higher rates of poverty reduction, although the impacts of overall growth on poverty are known to be contingent on a number of factors (including inequalities in income and non-income dimensions) that are targeted directly by development aid.[8] And human development depends crucially on the effective delivery of better public services for health, schooling, and social protection—all of which are also the direct focus of much development aid. Furthermore, these and other objectives of aid have clearly more to do with the impact of aid on government consumption than (public or private) investment.

Another defense of the growth focus is that growth is easily measured. This strand of the literature appears to have been a spin-off from the (huge) literature on growth empirics. The marginal cost of adding aid as a regressor was clearly low. But this may be nothing more than the streetlight effect—the old parable about the drunk man who looks for his wallet under the street lamp, but not because that is where he lost it but rather that this is where the light is best.[9]

[7]In the context of the resource curse see Mehlum *et al.* (2006).

[8]The evidence on these points is discussed at some length in Ravallion (forthcoming).

[9]Development economists are not alone in being vulnerable to the streetlight effect; Freedman (2010) argues that this is a common problem in scientific research.

That said, what have we learnt about the growth impacts of aid? Two graphs in *TGE* are used to support Deaton's negative assessment of the economic gains from aid to Africa. The first graph (Deaton, 2013, figure 1, p. 283) gives median growth rates for Africa in five-year periods from 1960, while the second (figure 2, p. 285) gives the corresponding results for median aid per capita. On comparing the graphs, Deaton points out that growth decreased while aid increased.

This echoes the inferential difficulties faced from the first attempt to test whether development aid promoted economic growth in the recipient countries, namely Griffin and Enos (1970), who came to the same negative conclusion as Deaton: in their sample of developing countries, higher levels of aid were associated with lower rates of domestic saving. The calculation is known to be dubious.[10] As Over (1975) pointed out in a comment on Griffin and Enos, the negative correlation could well reflect the endogeneity of development aid; countries with lower savings rates will attract more aid to make up the gap with their investment needs. But identifying the causal effect is not easy. Over (1975) used the investment rate as the instrumental variable (IV) for aid and found that the conclusion of Griffin and Enos was reversed: aid promoted higher savings. However, the investment rate is a questionable IV. Both the investment rate and the savings rate will depend on the rate of interest (albeit in opposite directions), which is not included in the estimated regression for savings. This would create a correlation between the investment rate and the error term in that regression.

Many other efforts at studying the Griffin–Enos–Deaton correlation followed over the next 40 years, armed with bigger and better datasets and various arguments about how best to identify the causal impact of aid on growth. There is a wide range of estimates depending on specification issues (especially the choice of controls) and data choices, as well as the identifying assumptions. Not even the literature reviews over this period provide a consistent picture.[11]

Much of the recent literature has followed Boone (1996) in using historical strategic links between aid donors and recipients ("friends of US," "friends of OPEC," and "friends of France"), population size, and the 10 year lag of aid as IVs. These IVs are not beyond question. Colonial history may matter in other ways besides its impact on aid and, by determining the size of the domestic market, population can matter to economic outcomes independently of aid. Also stickiness in aid over time may well mean that lagged aid faces similar endogeneity concerns to current aid. Boone found that aid promoted higher investment in a set of about 100 recipient countries.[12] In an influential example using similar IVs, Rajan and Subramanian (2008) found little or no sign of a positive impact of development aid on growth. This paper has had much influence, and is often cited by supporters of the aid curse idea. However, the robustness of its findings has been challenged.

[10]Deaton hints at this when he refers to the comparison of the two graphs as "simpleminded" (p. 285).

[11]Mosley's (1987) review of early macro studies suggested that there was little evidence of positive effects of aid on growth. Doucouliagos and Paldam (2008) provide an overview of the more recent macro evidence with almost 70 papers on this topic and conclude that there is a small effect but not statistically significant. Arndt *et al.* (2014b) suggest that the macro evidence in the recent (post-2008) literature is more supportive of positive impacts.

[12]Boone found a negative effect of aid on investment when he dropped some countries with high aid/GDP ratios, although it is not clear why these should be dropped.

Arndt *et al.* (2010) questioned a number of aspects of the specification/identification choices in the Rajan-Subramanian study and, on adopting the preferred choices, found instead that aid promoted growth on average.[13] In further work, Arndt *et al.* (2014a) report evidence that aid has reduced poverty and promoted human development.

A new approach to identifying the impact of aid on economic growth was recently provided by Galiani *et al.* (2014). Since the late 1980s the World Bank has used an arbitrary income threshold as one factor in allocating its concessional lending. Galiani *et al.* assume that crossing this threshold has no real significance for growth independently of its effect on the aid received. Using this aspect of how eligibility is determined as the IV for aid, Galiani *et al.* find significant impacts, such that a 1 percentage point increase in the ratio of aid to income adds about 0.35 percentage points to the growth rate. Again, the identifying assumptions are not beyond question, since the existence of latent domestic policy responses to aid eligibility may well entail that what we attribute to aid is actually due to those policy responses.

In a paper that does a careful job in replicating and explaining past findings, Clemens *et al.* (2011) found signs of more positive impacts when they allow for lags in the impact of aid and also for diminishing returns. They questioned all past IVs and instead treated aid as exogenous, after controlling for country fixed effects.[14] The authors' key assumption is that aid is predetermined with respect to future shocks to growth; this seems reasonable on *a priori* grounds. Under that assumption, their findings of growth impacts of aid are compelling, although the impacts are lower than some other studies have suggested.[15]

So far the discussion has been about the average economic impact of aid. The literature has also pointed to sources of heterogeneity in the impacts of aid. An influential paper by Burnside and Dollar (2000) found evidence that the impact of aid was greater in countries that had "good policies" (budget surplus, low inflation, trade openness).[16] This has been debated in the literature, with a series of papers questioning the robustness of the Burnside–Dollar findings.[17] For example, Dalgaard *et al.* (2004) argue that the stronger interaction effect is with climate-related variables (the share of land in the tropics), not policies. The results of Rajan and Subramanian (2007) are also suggestive of strong interaction effects between aid and governance in determining the economic impacts of aid; specifically they found that governance-dependent industries grow less rapidly with extra external aid.

[13]A seemingly important difference is that Arndt *et al.* (2010, 2014a) treat aid per capita as the endogenous variable rather than aid as a share of GDP. Arndt *et al.* also question some of the specification choices made by Rajan and Subramanian, such as the fact that the latter paper controls for institutional quality, which may be influenced by aid.

[14]Since most of the IVs in past work (notably Colonial history) do not change over time this assumption of aid conditional exogeneity is not as questionable as it might appear at first.

[15]For example, the Clemens *et al.* estimate of the growth impact of extra aid is about half that implied by the IV estimate of Galiani *et al.* (2014).

[16]The Burnside and Dollar paper reinforced the efforts of the World Bank to combine aid with conditions on policy improvements, or to be more selective in terms of what countries get aid.

[17]See, in particular, Hansen and Tarp (2001) and Easterly *et al.* (2004).

While the recent literature does not point to an aid curse, it does suggest that the international development community could do better on selectivity in its aid allocations. As *TGE* notes, this has become more common practice. In admittedly rough but certainly suggestive simulations, Collier and Dollar (2002) found that an allocation of current development aid that was aimed at minimizing aggregate poverty would deviate greatly from the allocation in the 1990s. More of the poverty minimizing allocation of aid would go to countries with severe poverty but reasonably good policies; three-quarters of the world's poor were estimated to live in such countries. According to their calculations the poverty-minimizing allocation of aid would almost double the total impact of aid on the number of poor in the world. Again, this depends critically on what drives the heterogeneity in aid impact; if it is in fact climate then the optimal allocation will look very different (although it may not be easy to explain to hot countries why they are getting less aid *ceteris paribus*).

There are limits to how much one can reliably say about heterogeneity in impacts from cross-country regressions. However, policy-making at the country level can draw on much more information. An influential formulation of the policy problem in terms of identifying "binding constraints" specific to each country was made by Hausmann *et al*. (2008). The idea here is to assess for each country what exactly is restraining economic growth and to target policy reforms accordingly. One or more constraints may emerge that are "binding," such that reforms in other areas of policy will not succeed until these binding constraints are relieved. This offers the promise of more effective aid and policy advice.

This brief survey of the literature has pointed to a number of continuing concerns. (The sensitivity of results from cross-country regressions to changes in data and model specification is evident.) However, it is clear that the bulk of the recent studies on aid and growth do not support the claim in *TGE* that ". . . the record of aid shows no evidence of any overall beneficial effect" (p. 306). On reviewing the studies since 2008, Arndt *et al*. (2014b, p. 2) conclude that a fair degree of consensus has now emerged: "In rough terms, these studies suggest that receipt of foreign aid equal to 10 per cent of GDP over a sustained period is expected to boost growth by approximately one percentage point on average." Rather than an "aid curse," it would seem that the recent macro evidence is more consistent with the claim that sustained aid commitment to poor countries is good for their economic growth over the longer term.

4. Successful Aid Projects?

An influential early volume by Mosley (1987) argued that there was a "macro–micro paradox," whereby the micro evidence suggested that aid was more effective than did the macro evidence. We have seen that the recent macro evidence is more consistent with positive effects. Before concluding that Mosley's paradox has vanished, we need to revisit the micro literature.

In practice, the bulk of development aid takes the form of project aid. The projects often sound great—rural roads, electrification, water and sanitation, schools and health clinics, social and environmental protection. However, asking how much aid promoted development through such projects is not a very promising approach since we cannot have much confidence that the aid actually financed those projects. There must be a reasonably strong presumption that the aid financed something else. Even when the aid is seemingly tightly tied to a specific project the aid can still be fungible, given that the choice of what project to seek aid for is in large part the choice of the recipient country. The scope for fungibility can also be enhanced by the federal structure of government. When donors and the central government target aid to poor villages, say, the local governments can be expected to divert their own spending elsewhere.[18] There may well be limits to fungibility in practice. There will probably be resistance to the aid leaving the ministry of its arrival, giving what is quaintly called a "flypaper effect" of development aid.[19] In theory, repeated interaction between the donor and recipient can also reduce the scope for diversion away from the donor's intended purpose, although such diversion can be quite hard for donors to detect in practice. A degree of fungibility appears to be likely.

There can be no presumption that fungibility reduces the gains to poor people from aid. However, it does leave one skeptical about how much can be learnt about aid effectiveness by evaluating specific aid-supported projects. Such evaluations can still be of interest for many reasons, but not necessarily because of what they tell us about the gains from development aid. The existence of fungibility points to the need to evaluate a broad range of what governments do—not just those things that the aid donor is supposedly funding. Alas, that is not typically the case; while I have not seen solid evidence, my impression is that a disproportionate amount of evaluative effort goes into evaluating externally-funded development projects, from which doubtful inferences are drawn about the impact of that aid. Here too we have a streetlight effect.

Amongst aid-supported projects, Deaton singles out past aid to help poor countries fight specific diseases (such as smallpox and HIV/AIDS) as exceptions to his generalizations about the damage done by aid. In marked contrast to his position on other aid, he claims that: "External aid has saved millions of lives in poor countries" (p. 307). In short, disease-fighting aid has been a huge success while the rest has been a huge failure.

However, it is not clear that Deaton is being internally consistent in this assessment. Consider the eradication of smallpox. How much of that success story can be attributed to foreign aid? That is not clear from anything presented in *TGE*, leaving Deaton vulnerable to his own critique. A lot of the work was done by the countries themselves. Levine *et al.* (2004) document this and other examples of success stories in global health. Their accounting of costs of smallpox eradication indicates that about two thirds of the cost was provided by the endemic countries,

[18]Evidence for this effect is reported in Chen *et al.* (2009) in the context of a World Bank lending operation in China. This generated a spillover effect from the treated villages in the evaluation to the controls, thus creating a downward bias in the impact estimates.

[19]There is supportive evidence for this in van de Walle and Mu (2007) who study how Vietnam's government spent the resources made available by a World Bank loan for rural road rehabilitation; the aid appears to have been diverted in part to new road construction but still stayed within the transport ministry.

with the rest coming from aid. And we do not know how much of that one third was actually a net addition to resources available for this purpose.[20]

But this seems to miss the point about the role of aid. It seems that we can be confident that the international community played an important role, including the World Health Organization from the mid-1960s (leading to the Expanded Program on Immunization that remains active). While we cannot say how much the access to external financial resources on its own contributed directly, and we can have little hope of credibly identifying the effect, the (economic and political) complementarity between technical assistance and financial aid in fighting disease must also be acknowledged. Aid came with embedded technologies and coordination across countries, which could not realistically be done locally. Even if the aid that was deemed to be devoted to smallpox eradication was fungible to some degree, the fact that it was available may well have made a difference to the political feasibility, implementation, and sustainability of the domestic effort. The aid just made it easier for that effort to materialize and succeed, even though the heavy lifting was ultimately up to poor countries themselves.

Putting aside efforts to fight single diseases, *TGE* returns to its negative assessment of the scope for using aid to fix health care more broadly in poor countries. Here the same issues are raised about corruption and the displacement of aid from its intended purposes. Rather than simply using aid to essentially expand existing health-care services, Deaton calls for more systemic reforms, that are the job of the countries concerned, not aid donors. But has he also missed the point here about the role of aid? This leads us to a broader set of issues about the role of aid in influencing policies and institutions.

5. Policies and Institutions

The Bauer–Deaton critique of aid is not just that it props up bad governments but that it is unnecessary when poor countries have good governments; "In 'good' states, there is a reasonable chance that poverty can be tackled locally and there is relatively little need for outside help . . . For basically decent countries, there is no need for *us* to incentivize *them* to undertake projects that they would not otherwise want to do" (Deaton, 2013, pp. 316–17).

This puts a lot of faith in "good governments" being able to do the "right thing" on their own. Yet we seem to confront many cases across the globe when that just does not happen. Most poor countries still have limited access to the global private capital markets for the purposes of development. International aid can help poor countries deal with the market failures that impede pro-poor

[20]Barder (2013) makes a striking calculation. He divides total aid (reckoned to be $4.7 trillion) by the number of lives saved by eradicating smallpox, which is deemed to be 60 million. This gives a figure of $78,300 per death averted. Using the (seemingly conservative) thresholds established by the UK's National Health Service this would be judged a cost-effective intervention. However, Barder acknowledges that the eradication of smallpox was mainly financed by the affected countries. He still claims that "the effort succeeded because of the contribution of foreign aid, . . ." but immediately adds the qualifier ". . . (though I acknowledge that no one can say for certain what would have happened in the absence of aid)." So we really can't say what the aid cost was per death averted.

development, including efforts to help assure that markets work better for poor people.[21] These classic economic arguments for aid are largely ignored by *TGE*.

No less important than this economic role for aid is that it can help get around the political-economy constraints that can stall desirable reforms. Good policies invariably have losers who can often find ways to block reforms.[22] Aid has long been seen by many of its supporters as a means of inducing governments to implement policy reforms that are potentially painful in the short term but are expected to yield compensatory benefits to the country's citizens over time. For example, prior to the wave of reforms starting in the 1980s most developing countries had macroeconomic imbalances, overvalued exchange rates, rationing regimes for foreign exchange, extensive price controls and subsidies, and biases in pricing and spending policies against their agricultural sectors. There was clearly scope for liberalizing reforms aiming to promote macroeconomic stability and growth. It also became clear in due course that the lack of rapid success in promoting growth was more often the lack of sustained reform than a failure of reforms to promote growth and poverty reduction.[23]

Granted there were deficiencies in many of the aid-supported reform efforts that emerged, most notably in the early failures to properly consider the implications for income distribution and human development.[24] However, I do not think anyone can seriously contend today that economic reforms were not called for and that the main obstacles were really political—the resistance of the often powerful beneficiaries of the pre-reform controls on economic activity. Adjustment lending made reform easier to implement. Of course, the donors and international financial institutions would get blamed for the short-term costs, for that was their role in the political economy game.

TGE pays little attention to the role aid has played in making policy reforms politically feasible in even reasonably well-governed countries. Indeed, the problem is essentially assumed away in *TGE*; if the reforms were necessary, good governments would have already done them.

Poverty, Aid, and Poor Institutions

Across the world as a whole there is a striking correlation between the level of economic development, such as measured by GDP per capita, and various measures of what can be termed "good institutions"—better rule-of-law, more politically stable, and more capable states, such as measured by tax revenues as a share of GDP. By one interpretation of such correlations, better institutions for defining

[21]This point was also made by Stern (1974) in his comments on Bauer (1971).

[22]Whether this constitutes "good" or "bad" government in the Deaton classification is unclear, but if Deaton defines "decent states" as those where this does not happen then I suspect that this is a rather small set, if not an empty one.

[23]A number of studies in the 1990s questioned the view that "neo-liberal" policy reforms were creating poverty. See, for example, World Bank ((1994), Jayarajah *et al.* (1996) and Sahn *et al.* (1997).

[24]Early adjustment programs focused more on short-term goals associated with macroeconomic imbalances (such as reducing import controls in place to address a balance of payment crisis) than longer-term development goals.

and protecting legal rights directly help countries prosper.[25] It is certainly plausible that an environment in which law and order is largely absent retards innovation and investment, and hence economic growth. *TGE* endorses that view, but sees aid as generally harmful to the development of better institutions.

What are the arguments that aid might actually retard institutional development? One reason that has been much researched is the idea that aid stalls recipient efforts to mobilize domestic resources, notably through taxation. Some degree of substitution by governments between external and internal resources can be expected. Recipient governments may well get better at attracting aid than taxing their citizens. Thus aid may slow the pace of reform. How much aid retards the development of better institutions is far from obvious, however. Granted the level of domestic taxation falls as aid rises (see, for example, Moss *et al.*, 2006, figure 1), but this could simply reflect the fact that aid favors poorer countries, with less state capacity generally. The numerous studies using controls have not come up with conclusive evidence that aid has a causal effect in diminishing tax levels.[26]

To what extent should aid allocations impose political or governance conditions? It cannot be optimal for aid to be unresponsive to performance in any dimensions that matter to longer-term development. But what are those dimensions and how responsive should aid be in the short term? Deeper consideration of the reasons for poor institutions in poor countries is needed to address these questions.

The Poor–Institutions Trap

At one point Deaton asks: "Why can't the donors withhold aid if the president refuses to consult parliament, declines to reform a corrupt police force, or uses aid flows to bolster his own political position?" (p. 299). This calls for donors to reward countries deemed to be well governed and punish the rest. There are some signs of change in this direction. Indicators of good governance already influence the World Bank's allocations through its Country Policy and Institutional Assessments (CPIA). But *TGE* clearly calls for greater selectivity.

There are risks in formulating aid policies without a good understanding of why we see governance failures in the first place. (This applies to much discussion of aid policy, not just *TGE*.) One can readily write down a model of persistently weak institutions that does not appear to require implausible assumptions but offers a strong warning against the policy prescriptions in *TGE*, notably that a bad government should be punished by withdrawing aid.[27]

[25]Regressions for GDP growth rates suggest significant gains from better institutions; see, for example, Knack and Keefer (1995) and Clague *et al.* (1997).

[26]Moss *et al.* (2006) review this literature.

[27]The model is only sketched here, though a more formal elaboration would probably not add much insight for the purpose at hand. The literature contains numerous versions of the type of poverty trap model discussed here; Ravallion (forthcoming) provides an overview. Especially relevant in this context is the paper by Andrimihaja *et al.* (2011), which provides a dynamic model in which governance failures generates a poverty trap. In more popular writings, Sachs (2005) invoked the poverty traps idea to argue that a large expansion of development aid is called for to assure a permanently higher average income in currently poor countries.

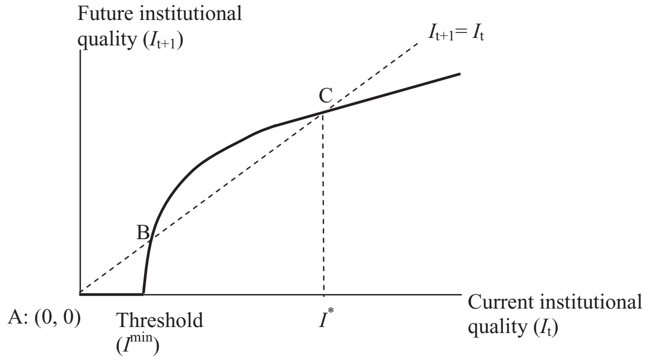

Figure 2. The Poor–Institutions Trap

For the sake of argument, assume that policies can help develop institutions—the political, legal, and administrative factors in longer-term development. Domestic policies and external assistance can help promote well-defined property rights, a higher quality of fiscal management, more efficient revenue mobilization, greater transparency and accountability in the public sector, and a better quality of public administration generally; in short, more capable states. These are the aspects of institutions that are emphasized by the World Bank's CPIA, and have provided the rationales for many development projects. Naturally all this takes time.

It is also reasonable to assume that little or no domestic or external effort to improve things (beyond emergency relief) will be forthcoming if the country's institutions are just too dysfunctional initially. There is some minimum threshold that must be reached to have any hope of developing better institutions. Think of this as a very low score in the World Bank's CPIA, which would essentially kill aid from the Bank, and most donors. There have been cases where poor countries had to do a lot of institutional reform before getting access to large-scale aid.

Finally, let us assume that both external assistance and domestic efforts will start to stabilize and even decline when institutions are sufficiently well developed. This too seems plausible.

Putting these elements together we have a model of multiple equilibria in institutional development, which generates a "poor–institutions trap" (PIT). Figure 2 explains how a developing country can get into a PIT, despite otherwise good initial conditions, favorable to development. On the vertical axis we have "future institutional quality" (collapsed into one variable to keep the exposition simple), while on the horizontal axis we have "today's institutional quality." We see the threshold labeled I^{min}. Once that is reached, external assistance combines with complementary efforts by citizens and governments to generate better institutions. After some time, when institutional quality is reasonably high, the effort moves to other places and tasks where it is needed more.

We can identify three steady-state equilibria. Point A is the PIT—the worst case in which persistently bad institutions prevail. Point C is where the country needs to be. Between these two equilibria, we have point B. This is clearly better than A, but it is dynamically unstable. To better understand the implications of this instability, imagine a small positive shock to institutions in a country at its point B. This will put the country on a virtuous cycle, progressing toward point C. But a negative shock will create a vicious cycle—a downward spiral all the way into the PIT, at point A.

All this has clear implications for development aid. Some poor countries today are at their middle point B, while others are at A. "Fragile states" are found around points A and B. Being a fragile state is not some random shock here but a steady-state equilibrium, and persistence can be expected.[28] For example, I am willing to conjecture that Madagascar was at its own "point B" prior to the coup in 2009. In the wake of the coup, development assistance contracted markedly (by about half), tourism slumped (apparently it became even hard to get travel insurance to Madagascar), and an already poor country got poorer. Unlike much of the developing world, Madagascar has made no progress against absolute poverty for many years, and by some measures things have got worse.

The international community's decision to pull out in response to the 2009 coup in Madagascar was no doubt seen as providing an incentive for a rapid rebound to democracy, and a favorable continuing trajectory of development. But when viewed in terms of the model outlined above, the impact may well have been much larger than expected, by helping to put the country in a PIT. I do not know for sure if that is the case, but nor do the donors. And there are big risks to poor people in decisions made in ignorance. At a minimum, we should try to better understand the dynamics of institutional development—to see whether the type of PIT model I have sketched above is realistic, and what implications this holds for development assistance. That is not an easy research question, but it surely reflects an important knowledge gap in our understanding of development.

If this model is roughly right then the lesson for aid donors is clear: by all means be willing to reward positive political shocks, but be careful about punishing negative ones. Given the instability, this response may well help put longer-term institutional development back even further. A more prudent approach would be to maintain the baseline of assistance, stay engaged on the planned development path, and remind all of the benefits of doing so. This path should include sustained support for expanding state capacity. But be wary of cutting aid in poor and fragile economies when they do not conform in the near term to the ideal of political good behavior. The PIT model outlined above points us to perils in applying political conditionalities.

The model also warns against assuming that modest levels of development aid will help. Getting out of the PIT will not be possible with a small positive incentive for reform; then the country will regress back into the PIT in due course. Escaping the PIT will require a more substantial gain in institutional quality (to get past point B) than simply reversing the (possibly small) shock that landed the country in a PIT.

[28]Andrimihaja *et al.* (2011) find that the probability was 0.95 that a fragile state in 2001 was still fragile in 2009.

In marked contrast to Deaton's argument in *TGE* that large aid flows (as a share of recipient income) should cease, the PIT model has the opposite implication: a sustained and large commitment to institutional development will be necessary and anything less will eventually see the country back in its PIT. Granted, the nature of the aid may need to be different in poorly-governed and fragile states—putting more emphasis on institutional development than (say) capital-intensive physical infrastructure projects. But the aid tap should not run dry.

The PIT model also suggests that in assessing aid effectiveness it can be deceptive to look at the returns to small increments—running linear regressions or doing randomized control trials.[29] A longer-term historical view will be called for, and patience on the part of donors.

6. Conclusions

We do not have to live under an illusion that aid can solve the problem of global poverty to think that aid can help, and even help greatly. Yes, external aid that is ostensibly targeted to poor people, but goes through a government that does not share that goal, can be thwarted and this has happened at times. Under certain conditions, aid might even make things worse, although those conditions—related to the social preferences of leaders and the constraints they face—are hard to credibly verify, or generalize about even when verifiable in specific cases. However, an objective review of the evidence does not suggest that aid typically fails. Indeed, in contrast to the claims in *TGE*, the best recent evidence suggests that aid has helped promote economic growth on average over the longer term. From what we know, it is more believable that aid has reduced poverty in the world than created it.

This does not deny that there are countries with weak and fragile political and legal institutions—the "bad governments" in *TGE*. However, there are good reasons to doubt whether withdrawing aid in such cases makes sense. A consideration of the dynamics of institutional development in the presence of a threshold level institutional quality gives an insight into why some countries get stuck with bad institutions, and provides a warning against the types of aid policy prescriptions suggested by *TGE*. While fighting poverty in such countries will never be easy, diminished international engagement could well make matters worse. No great escape then.

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[29]For example, the econometric specifications found in the growth and aid literature reviewed above presuppose a unique steady-state equilibrium for GDP, while the PIT model is more suggestive a complex nonlinear model with multiple equilibria. More advanced methods will be needed (see, for example, Lokshin and Ravallion, 2004).

References

Alesina, A. and D. Dollar, "Who Gives Aid to Whom and Why?" *Journal of Economic Growth*, 5, 33–63, 2000.

Andrimihaja, N. A., M. Cinyabuguma, and S. Devarajan, "Avoiding the Fragility Trap in Africa," Policy Research Working Paper 5884, World Bank, Washington DC, 2011.

Arndt, C., S. Jones, and F. Tarp, "Aid, Growth, and Development: Have We Come Full Circle?" *Journal of Globalization and Development*, 1, 2010.

———, "Assessing Foreign Aid's Long Run Contribution to Growth and Development," *World Development*, in press, 2014a.

———, "What is the Aggregate Economic Rate of Return to Foreign Aid?" WIDER Working Paper 2014/089, Helsinki, 2014b.

Barder, O., "Is Aid a Waste of Money?" *Global Development: Views from the Center*, Center for Global Development, Washington DC, 2013.

Bauer, P. T., *Dissent on Development*, Weidenfeld and Nicolson, London, 1971.

Bjørnskov, C., "Do Elites Benefit from Democracy and Foreign Aid in Developing Countries?" *Journal of Development Economics*, 92, 115–24, 2010.

Boone, P., "Politics and the Effectiveness of Foreign Aid," *European Economic Review*, 40, 289–329, 1996.

Bourguignon, F., V. Levin, and D. Rosenblatt, "International Redistribution of Income," *World Development*, 37, 1–10, 2009.

Burnside, C. and D. Dollar, "Aid, Policies, and Growth," *American Economic Review*, 90, 847–68, 2000.

Chen, S., R. Mu, and M. Ravallion, "Are There Lasting Impacts of Aid to Poor Areas?" *Journal of Public Economics*, 93, 512–28, 2009.

Clague, C., P. Keefer, S. Knack, and M. Olson, "Democracy, Autocracy and the Institutions Supportive of Economic Growth," in C. Clague (ed.), *Institutions and Economic Development*, Johns Hopkins University Press, Baltimore, MD, 1997.

Clemens, M., S. Radelet, R. Bhavnani, and S. Bazzi, "Counting Chickens when they Hatch: Timing and the Effects of Aid on Growth," *Economic Journal*, 122, 590–617, 2011.

Collier, P. and D. Dollar, "Aid Allocation and Poverty Reduction," *European Economic Review*, 46, 1475–500, 2002.

Dalgaard, C.-J., H. Hansen, and F. Tarp, "On the Empirics of Foreign Aid and Growth," *Economic Journal*, 114, F191–216, 2004.

Deaton, A., *The Great Escape: Health, Wealth, and the Origins of Inequality*, Princeton University Press, Princeton, NJ, 2013.

Djankov, S., J. Montalvo, and M. Reynal-Querol, "The Curse of Aid," *Journal of Economic Growth*, 13, 169–94, 2008.

Doucouliagos, H. and M. Paldam, "Aid Effectiveness on Growth: A Meta Study," *European Journal of Political Economy*, 24, 1–24, 2008.

Easterly, W., *The Tyranny of Experts: Economists, Dictators, and the Forgotten Rights of the Poor*, Basic Books, New York, 2014.

Easterly, W., R. Levine, and D. Roodman, "Aid, Policies, and Growth: Comment," *American Economic Review*, 94, 774–80, 2004.

Economist (The), "In Sickness and in Health," October 12, 2013.

Freedman, D., "Why Scientific Studies are so often Wrong: The Streetlight Effect," *Discover*, July–August, 2010.

Galiani, S., S. Knack, L. C. Xu, and B. Zou, "The Effect of Aid on Growth: Evidence from a Quasi-Experiment," Policy Research Working Paper 6825, World Bank, Washington DC, 2014.

Gates, B. and M. Gates, "Three Myths on the World's Poor," *Wall Street Journal*, January 17, 2014 (http://online.wsj.com/news/articles/SB10001424052702304149404579324530112590864).

Griffin, K. and J. Enos, "Foreign Assistance: Objectives and Consequences," *Economic Development and Cultural Change*, 18, 313–27, 1970.

Hansen, H. and F. Tarp, "Aid and Growth Regressions," *Journal of Development Economics*, 64, 547–70, 2001.

Hausmann, R., D. Rodrik, and A. Velasco, "Growth Diagnostics," in J. Stiglitz and N. Serra (eds), *The Washington Consensus Reconsidered: Towards a new Global Governance*, Oxford University Press, New York, 2008.

Jayarajah, C., W. Branson, and B. Sen, *Social Dimensions of Adjustment: World Bank Experience 1980–93*, Operations Evaluation Department, World Bank, Washington DC, 1996.

Knack, S. and P. Keefer, "Institutions and Economic Performance: Cross-Country Tests using Alternative Institutional Measures," *Economics and Politics*, 7, 202–27, 1995.

Levine, R., the What Works Working Group, and M. Kinder, *Millions Saved: Proven Successes in Global Health*, Center for Global Development, Washington DC, 2004.
Lokshin, M. and M. Ravallion, "Household Income Dynamics in Two Transition Economies," *Studies in Nonlinear Dynamics and Econometrics*, 8, 2004.
Mehlum, H., K. Moene, and R. Torvik, "Institutions and the Resource Curse," *Economic Journal*, 116, 1–20, 2006.
Mosley, P., *Overseas Aid: Its Defence and Reform*. Wheatshead Books, Brighton, 1987.
Moss, T., G. Pettersson, and N. Van de Walle, "An Aid-Institutions Paradox? A Review Essay on Aid Dependency and State Building in Sub-Saharan Africa," Working Paper No. 74, Center for Global Development, Washington DC, 2006.
Moyo, D., *Dead Aid: Why Aid is Not Working and How There is a Better Way for Africa*, Farrar, Strauss and Giroux, New York, 2009.
Over, M., "An Example of the Simultaneous-Equation Problem: A Note on Foreign Assistance: Objectives and Consequences," *Economic Development and Cultural Change*, 23, 751–6, 1975.
Rajan, R. and A. Subramanian, "Does Aid Affect Governance?" *American Economic Review*, 97, 322–27, 2007.
———, "Aid and Growth: What does the Cross-Country Evidence Really Show?" *Review of Economics and Statistics*, 90, 643–65, 2008.
Ravallion, M., "Inpres and Inequality. A Distributional Perspective on the Centre's Regional Disbursements," *Bulletin of Indonesian Economic Studies*, 24, 53–72, 1988.
———, *The Economics of Poverty: History, Measurement, Policy*, Oxford University Press, New York and Oxford, forthcoming.
Reis, E. and M. Moore, "Elites, Perceptions and Poverties," in E. Reis and M. Moore (eds), *Elite Perceptions of Poverty and Inequality*, Zed Books, London, 2005.
Sachs, J., *The End of Poverty. Economic Possibilities for Our Time*, Penguin Books, New York, 2005.
Sahn, D., P. Dorosh, and S. Younger, *Structural Adjustment Reconsidered: Economic Policy and Poverty in Africa*, Cambridge University Press, Cambridge, 1997.
Stern, N., "Professor Bauer on Development: A Review Article," *Journal of Development Economics*, 1, 191–211, 1974.
Temple, J., "Aid and Conditionality," in *Handbook of Development Economics*, Vol. 5, North-Holland, Amsterdam, 2010.
van de Walle, D. and R. Mu, "Fungibility and the Flypaper Effect of Project Aid: Micro-Evidence for Vietnam, *Journal of Development Economics*, 84, 667–85, 2007.
van de Walle, N., *African Economies and the Politics of Permanent Crisis 1979–1999*, Cambridge University Press, Cambridge, 2001.
World Bank, *Adjustment in Africa*, Oxford University Press, New York, 1994.