What Is the Role of Aid in Middle-Income Countries?

Ranil Dissanayake, Charles Kenny, and Mark Plant

Abstract

We develop screens and principles designed to maximise the impact of aid, especially in richer recipients. All else equal, a dollar spent in the poorest countries will have a larger impact on well-being than a dollar spent in richer countries, so ODA should be concentrated in those countries. But where it is used in middle-income countries, it should be aimed at (i) a major development challenge; (ii) where relatively small amounts of finance can be expected to have a significant return; and (iii) consistent with the political economy of the recipient country or that is likely to induce a shift in the political economy. That implies aid should focus on severe challenges faced by geographic or demographic sub-groups; using a range of tools beyond grants; with the goal of bringing forward, rather than replacing, state capacity; and using multilateral approaches wherever possible. An examination of aid practice suggests it is considerably at odds with what this approach would suggest.

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Introduction

This paper explores aid in the context of a questioning of the role of aid to middle-income countries (MICs). It argues that official development assistance (ODA), or aid, designed to help governments carry out investments and provide social services, should continue to be focused on the poorest countries, but there are potential high-return uses for some aid in non-traditional directions even in wealthier MICs. Aid can be used in MICs to support economic development and broader welfare; to increase the resilience of economic and social systems; to help recipient governments host refugees and reach those most left behind; and to support some regional and global public goods. But equally important to the objectives that can be effectively pursued by using aid in MICs, the appropriate aid delivery instruments will be critical for aid effectiveness.

The paper discusses in turn (i) the current distribution of global ODA, (ii) reasons for skepticism regarding current income classifications as a rational cutoff for support, (iii) a set of principles for thinking about aid allocation and mechanisms, and concludes with (iv) a discussion of how these principles may be applied to different objectives for aid. We conclude that aid to all but the poorest of middle-income countries usually only makes sense for three purposes: attempting to shift policy priorities of recipient governments; protecting the dispossessed or disadvantaged and guaranteeing rights; and delivering on global public goods that have a particularly large impact in the poorest countries.

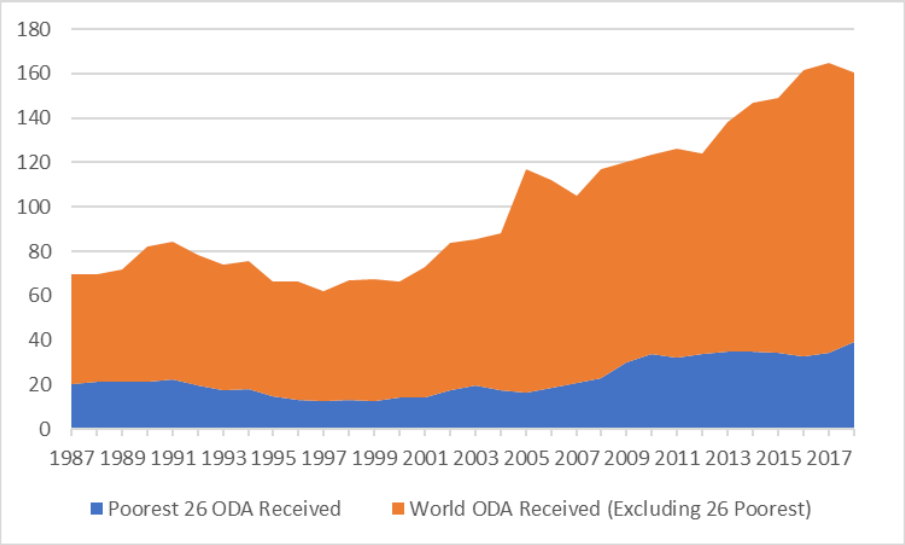
Who gets what for what and from whom?

To count as ODA, aid expenditure must have "economic development and welfare of developing countries as its main objective."[1] To meet that objective most effectively, there is a prima facie case that most aid can and should be reserved for the poorest countries – lower-income countries (LICs, those with a GNI per capita below $1,035) and countries at the lower end of the lower-middle income country (LMIC) band (which stretches from $1,036 to $4,045).

Globally, the distribution of ODA largely fails to reflect this principle (Figure 1). Though the absolute volume of ODA going to the poorest countries has increased over time, it has fluctuated considerably as a share of total ODA – falling from the late 1980s till the mid-2000s, then rising and plateauing at 25-30 percent of total ODA - the same level it was in the 1980s. For the most part ODA is largely used outside of the poorest countries in the world.

1 Official development assistance (ODA) as defined by the OECD Development Assistance Committee (DAC).

Figure 1. Global ODA going towards the 26 poorest countries each year



Source: World Bank Development Indicators (constant 2015 USD). Note: This graph plots the total amount of ODA per year, and highlights that allocated to the poorest 26 countries in that year. We use 26 countries as they represent around 10 percent of the global population in most years. From 1987-1993 they represent a substantially larger share, however, due to the presence of China and India in this group. From 1994 onwards, the percentage of global population in the poorest 26 countries ranges from 7-11 percent.

Looking specifically at bilateral ODA, 32 percent of total flows from OECD Development Assistance Committee (DAC) donors go to lower-income countries, but more than a fifth flows to upper-middle income countries (with per capita income between $4,046 and $12,535). Some donors (the UK, US, and Sweden) concentrate aid flows on the poorest countries more than others (France, Germany, and the EU) (Table 1). Of the ODA they do receive, lower-income countries are considerably more likely to receive aid for health (in Human Development) and emergency response (classified under Humanitarian), richer countries for transport and energy (which are classed under Economic Development) (Figure 2.a) – though this difference is driven in large part by concessional loans. Limiting the analysis to grant equivalent ODA only (figure 2.b) (that is, assessing each loan for its generosity and converting it into a grant portion and a commercial lending portion, and excluding the latter), we find that the distribution of ODA is very similar across income groups.

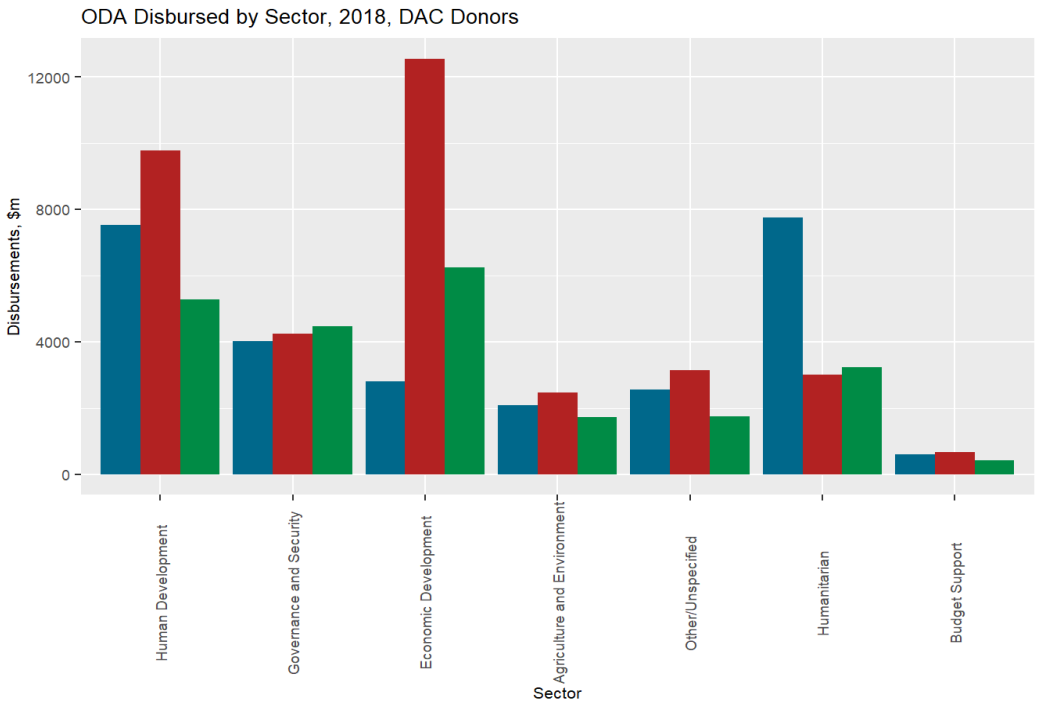
Table 1. Income allocation of bilateral ODA disbursements from a subset of major donors, 2018

	LICs	LMICs	UMICs
DAC total	**32%**	**42%**	**27%**
EU Institutions	29%	32%	39%
France	14%	52%	35%
Germany	24%	40%	37%
Japan	11%	73%	16%
Sweden	56%	29%	15%
United Kingdom	50%	36%	14%
United States	45%	33%	22%

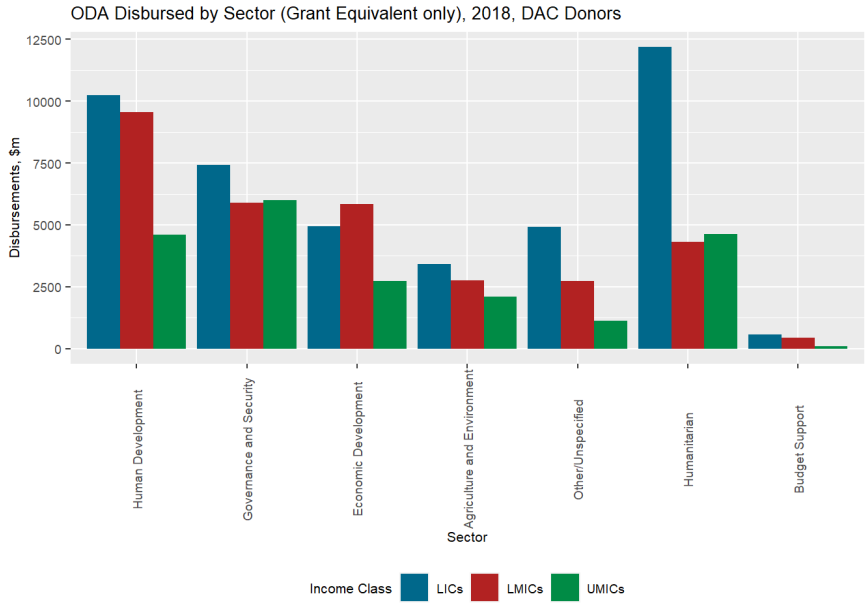
Source: OECD, CRS 2018, World Bank Income Classifications.

Figure 2. Bilateral ODA disbursed by DAC donors, by sector and income group

a) All disbursements



b) Grant equivalent disbursements only



Source: OECD, CRS 2018, World Bank Income Classifications.
Note: The chart shows DAC's gross disbursed bilateral ODA (USD, Million) to each sector for each income group, as well as the disbursement to each sector as a percentage of total ODA to each income group. Note total ODA to LICs stood at USD 27,878 Million, for LMICs 36,382 Million and for UMICs USD 23,244 Million.

We argue that concentrating the majority of concessional ODA resources on the poorest countries is the best use for limited resources. 'Good' ODA is ODA that is effective in increasing welfare for the poorest, not that which satisfies the domestic priorities of the donor. However, even though this is how aid *should* best be used, we recognize that for a range of reasons, donors are under considerable pressure to spend in MICs and almost certainly do so more than is optimal for the purposes of improving the welfare of the poor as efficiently and effectively as possible. These pressures are primarily political: donors give aid to ex-colonies; they are under pressure to put aid into geostrategically important countries; and they prioritise issues of domestic import that aid money can be spent on – even if dubiously. While these are all observed behaviours that reflect the political economy of aid provision, they are – for the most part – deviations from the optimal allocation of ODA from the perspective of global development and/or poverty reduction. In general, as we argue below, as much ODA as is politically feasible and justified by absorptive capacity and effectiveness should be focused on poorer countries.

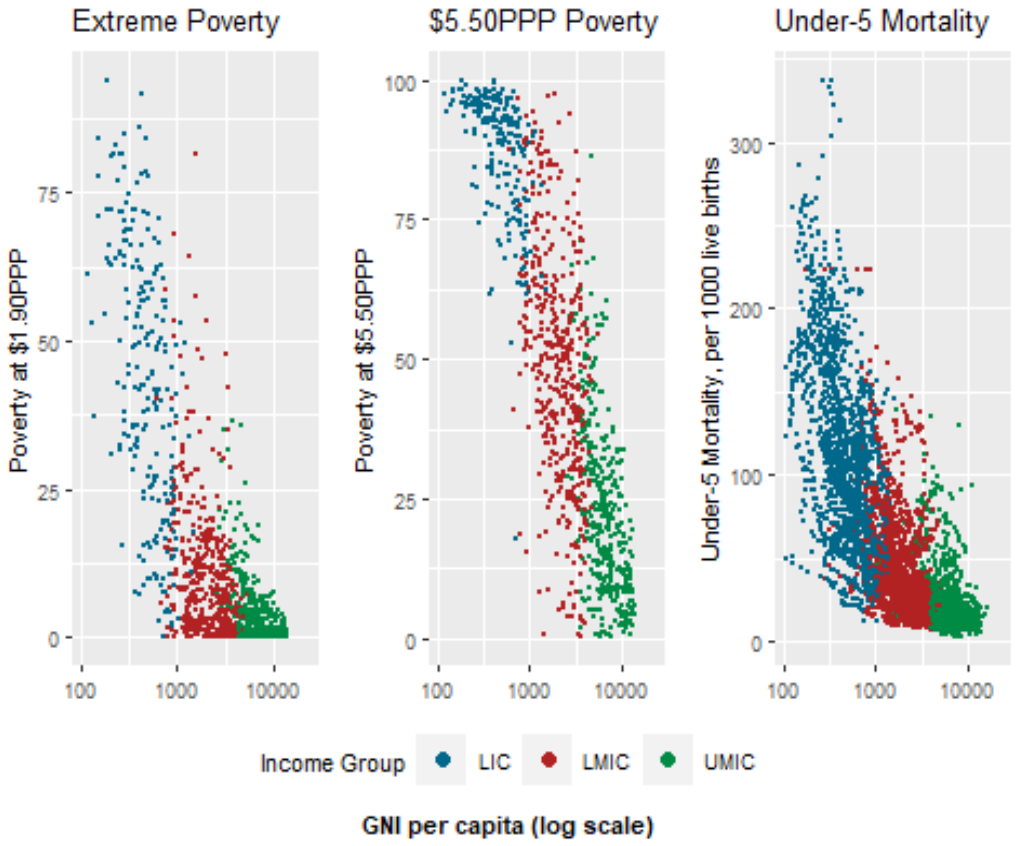
However, the reality is that some ODA will be spent in MICs, and this paper makes the case for doing so as effectively as possible. There is a case for development engagement in MICs that, for the most part, uses small amounts of ODA or less concessional modes of finance. Sadly, it does not appear that this is how aid is being used in richer middle-income countries. The rest of this note examines the case for spending in MICs (and by doing so, the case for focusing on poorer places as much as possible), the principles that should influence its use when it is deployed in MICs, and makes an assessment of whether the actual pattern of spending in MICs is in accordance with these principles.

Current income cutoff lines are arbitrary, but focusing most aid on the poorest countries makes sense

The original LIC/MIC income thresholds were set arbitrarily by the World Bank decades ago. They were designed to provide cutoffs for loans and procurement rules for the Bank. From these modest beginnings, they have assumed outsize impact across the global donor community as an organizing concept. They have been used as a heuristic for allocating aid, to inform which model of development partnership should be applied to a country, and as a descriptive in countless development economics papers (including this one, inevitably). These uses have almost certainly exceeded the value of the classification scheme. In fact, there are no 'natural groupings' of countries in the sense that economies with similar GNIs are clustered together, with the clusters spaced out when mapped against GNI per capita (Kenny, 2014). Equally, moving from middle-income to low-income status, or from UMIC to LMIC status, does not cause a jump in measures of child mortality, educational attainment, or the percentage of the population in poverty.[2] There tends to be more in common between two countries separated by their income classification but close together in GNI per capita than there is between countries with vastly different GNI per capita within the same income classification. Figure 3 demonstrates this heterogeneity in development outcomes across the income scale over time, but also that the greatest deprivation is still concentrated in the poorest countries, including some LMICs.

[2] Gauging these relationships is made more complex by the fact that Atlas GNI per capita and average PPP income are considerably different across countries and thus any result are sensitive to the choice of income measurement.

Figure 3. Extreme poverty, $5.50per day poverty and under-5 mortality against GNI per capita and income group



Source: World Development Indicators

Note: Each point represents a single country-year. Since the cut-off for different income groups has changed over time, there is some overlap at the margins.

While it is true that in absolute terms, some middle-income countries still have large populations living in extreme poverty, or substantial minorities which have not shared in the general progress in health, education or incomes, the approach taken to addressing this should be very different in increasingly rich countries compared to very poor ones. The LMIC category alone involves an approximate fourfold income difference between its lower and upper bound and the UMIC category an additional threefold difference (multiplying to a twelvefold difference across middle income countries as a whole). It is almost certainly inappropriate to treat richer UMICs the same as poorer LMICs, let alone low-income countries, in terms of how much ODA is provided and how it is used. The marginal impact of an additional dollar to an economy is almost certainly going to be greater in an economy like Burundi (GNI per capita $280) than Brazil (GNI per capita thirty-three times higher, at $9,130). This suggests that most direct funding goes to countries with lower per capita GNI and a different approach, less reliant on pure financial clout to achieve change, be adopted to make gains in richer places.

In the case of $1.90 a day poverty, for example, Martin Ravallion suggests that countries that could not plausibly end extreme poverty through redistribution alone include both LICs and

poorer LMICs – but not richer countries (Ravallion, 2009).[3] And while even UMICs have large proportions of their population living on less than half the US poverty line ($5.50 per day), a large number of UMICs are significantly richer than many donors were when they started providing ODA (Kenny, 2020). Richer countries also have greater recourse to other forms of external finance, including commercial debt and foreign direct investment.

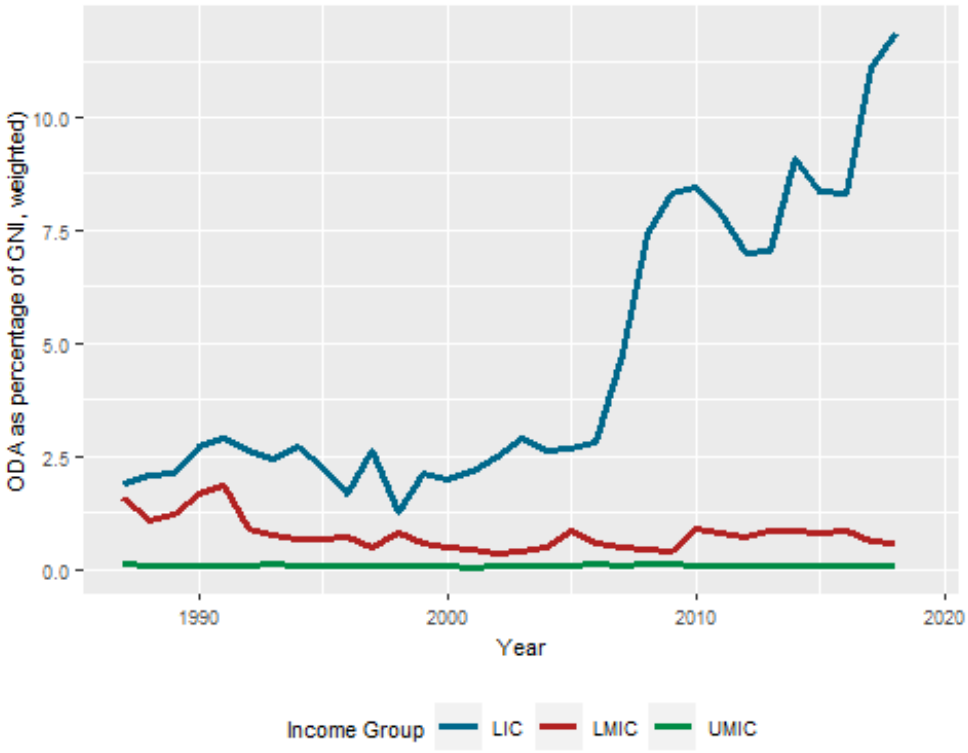
That is to say nothing of marginal impact. The market GNI of Brazil alone is $1,790 billion. Even if this upper middle-income country were to receive the average ODA per capita of developing countries as a whole, this would amount to about $5 billion, or 0.3 percent of GNI. The optimal uses of aid and expected results will certainly be different in countries where aid is a fraction of a percent of the economy compared to those where its economic weight is 10 percent or more. Figure 4 reinforces the conclusions that only in LICs and perhaps some small LMICs could global ODA constitute a large enough portion of the economy to have measurable direct impact on economic outcomes.

While ODA is not large enough to be a macroeconomically significant factor in any but small, poor countries, there are enough small, poor countries to absorb those aid flows. Figure 5 lines up countries according to their (PPP) GDP per capita and charts their cumulative (market) GDP as multiples of total global ODA, which amounts to about $166 billion. The poorest 23 countries (from Burundi to Guinea) have a collective GDP approximately twice that of aid flows. The poorest 51 countries (up to Nigeria) have a collective GDP more than eleven times total aid flows.[4] Add eight more countries to reach India and this climbs to 28 times aid flows (India is about one third of the way through the LMIC income band). While concerns about 'absorptive capacity' and Dutch Disease may be reasons not to concentrate all aid in the very poorest countries, there is no reason to conclude that a large portion of ODA should be focused in richer MICs. Instead, the majority of ODA should be distributed among a range of LICs and poorer LMICS.

[3] This paper was written in 2009, when both the poverty line and the World Bank Income classifications were set at different levels than today.

[4] Data from World Bank using 2018 current market GDP and 2018 PPP GDP per capita in 2017 US dollars. Total ODA flows of about $166 billion compare to the market GDP of LICs of $521 billion – or 32 percent. Adding in LMICs drops total aid volumes to 2.4 percent of the poorest counties' market GDP.

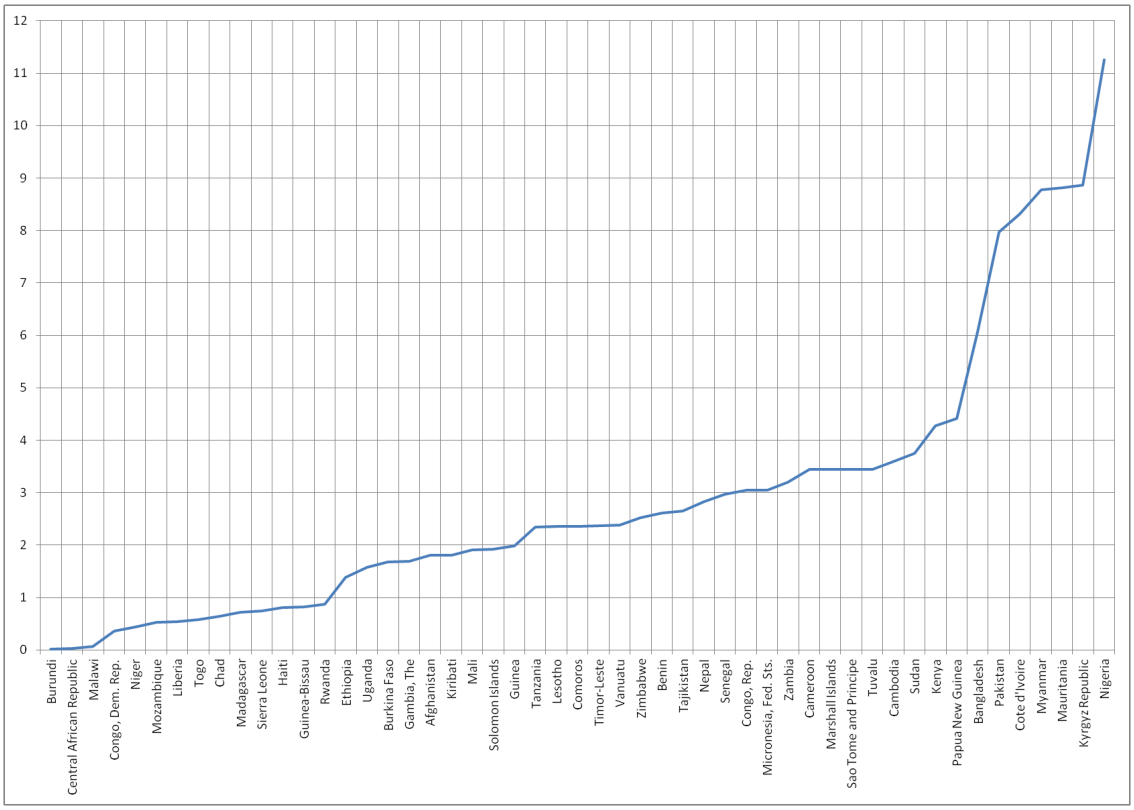
Figure 4. ODA as a percentage of recipient GNI – LIC/LMIC/UMIC



Source: World Bank, World Development Indicators

Note: This graph shows contemporaneous income classification—data for each year counts all countries in each income classification as the World Bank recorded them for that year. For example, India would count as a LIC in in 2000 but as an LMIC in 2010 (its classification was upgraded in 2009).

Figure 5. The cumulative size of the world's poorest economies scaled to total global ODA



Source: World Bank, World Development Indicators

This does not mean that aid should never be used in richer countries; it is, and it can be used to good effect. There should be no hard cutoff point either in aid funding or modalities, rather a modulation of funding levels and approaches as recipient economies become both richer and larger. As countries get richer, the 'brute force' approach of using aid to substitute for government through large scale investment in infrastructure and services will become increasingly less plausible or appropriate while approaches that involve incentivizing the recipient government to act should take center stage.

The rest of this note outlines where comparatively small amounts of ODA might be used to achieve development impact in MICs where extreme ($1.90) poverty is no longer prevalent, and countries tend to have better access to other sources of financing.

Using ODA effectively in MICs

Even in MICs, where external spending on extreme poverty reduction is unnecessary or likely insufficient, aid can be deployed in support of a number of worthwhile outputs, including:

- Stimulating economic growth and broader development.

- Supporting those left behind, including humanitarian response, and refugee support and resettlement.
- Increasing the resilience of economic and social systems to shocks.
- Helping to provide global and regional public goods.

Each of these purposes is consistent with the restrictions that ODA be used to improve the welfare and prospects of developing countries. But we have seen that in richer LMICs and UMICs, aid volumes will never be large enough to have significant impact on them through sheer financial heft. This suggests that aid in MICs cannot be a stand-in or top-up for government finance, but a means of supporting activities that the government would significantly under-provide (or neglect altogether) absent aid. Aid in MICs should usually not "buy" results directly, but rather change how other actors behave to achieve the desired result. Thus, it will be important to select from amongst the full range of aid modalities – from 100 percent grant financing, to technical assistance, to concessional loans and direct equity investments – to maximize the impact of relatively small aid spend in MICs. It will also be important to judge whether non-aid approaches (including diplomacy, market rate finance or other tools) are more appropriate.

With this in mind, we need a way of assessing (and selecting among) alternative uses of ODA in MICs. **Aid should be focused on (i) significant development challenges (ii) for which we have a potentially effective solution and where (iii) intervention is consistent with the political economy of the recipient**. This precept leads us again to the conclusion that most aid should go to the poorest countries: the development challenges in LICs are most significant and these are the countries where aid is most likely to be a potentially effective solution (or at least an effective palliative) to those challenges. But it also provides a screen for thinking about where aid can have its greatest impact in MICs, as we explain below.

Development challenge: Aid should focus on the most significant development challenges—extreme poverty, high levels of mortality and so on. Even some richer MICs see pockets of poverty and/or considerable inequities in these outcomes. Within MICs, ODA should focus on regions or sectors or disadvantaged communities (for example race or ethnicity, gender, disability, refugee status, relative poverty). Development challenges may arise from the limited ability of a state or other actor to make an impact without external support. Within countries, this might be in the aftermath of a natural disaster, for example. Across countries, this might involve spillovers where action in a middle-income country is required to deliver a result with a high impact in neighboring poorer countries (mosquito eradication or river control, for example).

Expected impact: Because brute force investing is unlikely to be a plausible approach for donors in (especially richer, larger) MICs, for aid to have impact it must be possible and plausible to use a relatively small amount of money to achieve an outsize result. This might be because the resources successfully address government failure to overcome market failures – for example, to support public goods that the government will not provide (including some global public goods of considerable benefit to poorer countries). The key consideration is which instrument and approach could plausibly shift the incentives of equilibrium towards action for other actors (such as the private sector, or the recipient government).

Political economy: The ability to effectively deploy aid to solve a problem in a developing country depends in part on the political economy of that problem in that place, and donor ability to tailor its response accordingly (Chakrabarti and Brown, 2020). This is not a technical criterion but is nevertheless a crucial part of any assessment of proposed spending: is it feasible that spending or intervening in this problem will shift or at least be consistent with the power relationships and political realities in that country? This does not mean simply supporting those in power, but considering whether the use of ODA resources can either shift a political equilibrium that contributes to the persistence of a problem, or (in the negative) avoids throwing resources at a problem that is at root political and unlikely to be shifted by money. Often, where countries have the resources to address a problem themselves, but choose not to, the role of aid and outsiders will be either to change their incentives or trade-offs to induce them to act, or to use human resources (technical assistance, diplomacy) to try and shift preferences among those in power.

Donors can and should spend their entire budgets on things and in places where all three criteria are met. The next section takes these considerations into account looking at the uses of aid we discuss above, setting out what they imply for the use of aid in MICs, including the choice of aid instruments.

ODA for economic development

There is still the need for considerable economic development in all MICs. The greater challenge is to find effective tools to use small quantities of ODA to help achieve this outcome. For example, especially in large MICs, aid volumes will be small relative to the size of say public infrastructure needs. And the evidence suggests that the growth effects of such limited investment will be minimal (Clemens et al, 2012). Instead, ODA for economic development may have greater impact if it focuses on shifting how larger, more important players than donors behave: the government, private investors, and large numbers of private actors responding to market and regulatory incentives and signals.

Note, however, that there are challenges to such an approach: The 'billions to trillions' slogan raised hopes that small amounts of aid might be used to leverage private or public market-rate lending in areas such as energy provision and distribution (Kassem, 2018) and transport infrastructure (Donaldson et al, 2016), although existing evidence suggests the power of development finance tools to leverage ODA resources is weak (Kenny, 2020). The better tools for such investment are likely to be market-rate lending and investment either through sovereign loans (where sustainable) or development finance institutions. Multilateral approaches should be preferred, combining bilateral ODA and non-ODA finance with that of other donors, to increase scale and thus have a larger overall impact. And to protect against white elephant investments made on the grounds of political expediency, transparent expected impact and cost-effectiveness assessments should be made in the rare cases where bilateral ODA-backed investments do arguably make sense, including comparisons with alternative uses of the funds allocated.[5]

[5] The temptation to spend on economic development to support donor-country firms (an inefficient mode of both aid and state support) is ever-present and best dissuaded through transparency of objective and analysis. And (to return to need) the role for such support may be greater in fragile states or post-crisis environments where governments lack market access.

Reforms for economic development (such as developing better methods of providing price information to farmers or firms (Robert et al, 2018), or improvements in regulatory design or implementation) can be supported with either small grants, research funding or technical assistance. Even in these cases, the political economy screen must be cleared: it is worth asking why external support is required. Most MICs have access to international capital markets and the budget to hire consultants if they believe technical assistance is required. The record of aid-funded technical assistance is hardly reassuring on this account (Ouattara et al, 2008). The ability of donors to pick policy winners is contested (Kenny et al, 2001), and the impact of that advice on policy change is arguable even when accompanied by considerable policy lending (Easterly, 2005). That said such support is typically 'low-regret', especially if designed well, around local or topic-specific expertise, deployed when the political economy provides an opportunity for change: it accounts for a relatively small amount of aid, and when it works (even if rarely), it is aimed at things that other aid modalities are unable or unsuited to affect. While it would be wrong to simply default to technical assistance when policy conditions in a country are judged to be suboptimal, it is also wrong to dismiss it out of hand: it should be treated as one option to be deployed if and when case-specific data and analysis suggests it is appropriate.

Supporting refugees and those left behind

As countries get richer, even into UMIC territory, there are sometimes stubborn pockets of poverty within their borders, often concentrated among politically or socially excluded groups, including refugees. Refugees often move short distances from conflict-affected states, often just across the border. Large refugee populations live long term in Kenya (LMIC), Jordan and Turkey (both UMICs), for example. Specifically, in 2018, refugees accounted for one per cent (421,243 refugees), 30 per cent (2,957,877 refugees) and four per cent (3,681,688 refugees) of the total population of Kenya, Jordan, and Turkey respectively[6].

Once again, the optimal role of ODA in such situations is likely to be to encourage recipient government to act, rather than to substitute for government action altogether; understanding the political economy of refugee action and response is crucial. As an example, refugees create obligations on recipient countries because of UN treaty commitments. At the same time, at least in the short term, these commitments can create a burden on receiving countries and aid has been used to finance humanitarian support by those countries to share the burden internationally. A large portion of UK aid activity in richer MICs is in those countries that are hosting considerable numbers of refugees.

The appropriate instruments depend on the approach taken. The Compact approach used by the UK in UMICs couples small amounts of financial aid and technical assistance with direct investments and non-aid approaches such as market access to incentivize the recipient government to extend economic opportunities and social services to refugee populations. Done well, support for refugees can be part of effective partnership approaches, whereby investments that primarily support the host country can be provided as part of a deal that increases and systematizes labour (and credit, land, etc.) market access for refugees. The Jordan Compact, a pioneer of this model, has made some progress towards these goals, though with substantial challenges remaining to be resolved (e.g. Barbelet et al, 2018; Lenner et al, 2018). Again, support for the internally displaced in a civil war follows a similar logic.

[6] World Bank, Refugee population by country or territory of asylum.

It is not just refugees who are often neglected; in many countries, specific groups, be they women, ethnic minorities, religious minorities, or other marginalized groups may be neglected or persecuted. Using aid in MICs to support them may respond to great (if localized) development challenges and be a moral imperative and poverty-reducing use of ODA resources. However, as with refugees the focus should be on engaging and incentivizing new action from the recipient government (including support for local civil society groups). Simply establishing a new equilibrium where a country neglects a minority and outsources their basic needs to a donor is hardly a sustainable solution – it reflects a failure to consider the political economy of the problem, rather than its resolution. This implies that mechanisms that create an incentive for positive government action in the recipient country can be ongoing (concessional investment or conditional market access, for example), but those that simply protect or support the vulnerable (akin to humanitarian aid) need to be time limited and linked to an exit strategy.

More recently, aid has been used to support democracy promotion and governance reforms that open space for civil society – activities which national governments often eschew. To the extent that the comparatively small amounts of grant aid spent in this area make a difference (Finkel et al, 2007), their potential impact on welfare is significant enough that there may be a comparatively strong argument for providing such support far into the middle-income category. Again, however, being careful about the mechanism by which support should be delivered is necessary; in many cases, the appropriate resources will not be financial at all, but may instead be diplomatic pressure or engagement. And it should be noted that the evidence that aid to civil society groups in countries leads to a sustainably stronger civil society is at best weak (e.g., Vecci, 2019; Vecci et al, 2017).

Economic and social system resilience

Disaster risk reduction and resilience are long term and have uncertain payoffs, and thus tend to be neglected by both individuals (Dupas, 2011) and governments (Clarke and Dercon, 2016). The Coronavirus pandemic has thrown into sharp relief the inadequacy of existing systems of disaster preparedness across the income spectrum. Furthermore, economic and social system resilience is a form of insurance for the international aid system itself, reducing future outlays on humanitarian response.

Need for better risk reduction and resilience is widespread, but need for support in achieving it is more limited: many countries under invest, but it is only in countries where there are serious barriers towards more investment (either because positive externalities to such investments give them the form of a regional public good, discussed below, or because they are unable to access commercial finance) that aid is an appropriate response. Depending on the types of resilience sought, some countries (e.g., island states) are both more in need of future preparedness planning and harder to insure.

Again, simply replacing or substituting for a government's inaction when it comes to basic services it can afford to provide is not an appropriate use of aid in richer recipient countries. To increase expected impact, ODA should support homegrown systems, designed to address country specific vulnerabilities and work with the existing capabilities and infrastructure. An effective ODA strategy is likely to be based around relatively small investments or outlays of specialized technical assistance in a demand-led fashion, rather than a global project to build universal systems. Again, a fundamental question to ask is why

the government is not financing these costs itself and why aid will have a sustainable net welfare enhancing impact. Governments are often reluctant to invest in resilience or risk reduction because such investments are misaligned with their immediate political incentives. In particular, the investments may generate payoffs that are likely to manifest well beyond the lifespan of a government; thus, costs are borne by one government and benefits reaped by a successor. Using ODA to shift or overcome misaligned incentives may be a net benefit.

This will be an attractive area in terms of donor preferences in the next few years, given the emerging international consensus to "build back better". As with ODA for economic development, in MICs the greater challenge may be designing proposed investments to generate significant development benefits. Designs that create an incentive for local investment, according to a local plan (such as modest co-payments, or concessional lending, or guarantees) are more promising than simply spending to replace the role of government action. As recent events have shown, historically strong systems are only as effective as the ongoing commitment to maintaining them allows.

Peacebuilding and humanitarian aid

Extending this logic, 'peace building' can be justified as a tool to ensure that people do not face destitution and death in conflict (and that humanitarian aid is not required to respond). Peace is a national public good that may be under provided (or cannot be provided) by a government, so has the potential for very high returns to international investment if effective avenues can be found – once again, the evidence is mixed on the record of aid in this area (Autesserre, 2017).

Regarding humanitarian aid itself, this is a politically popular form of support and already accounts for a considerable portion of ODA to MICs. But the same rules should apply: as a rule ODA should only attempt to substitute for government in rare circumstances; and choosing the right instrument set, including through multilateral agencies (including through attempts to improve or reform their modus operandi) is of paramount importance. Shifting spending from reactive, begging bowl humanitarianism to disaster risk management and reduction, and homegrown systems of response and insurance both increases the cost effectiveness of spending and reduces the human cost of humanitarian disasters, while strengthening rather than replacing the domestic government's capacity to respond.

Global and regional public goods – some general principles[7]

All governments are likely to underinvest in regional or global public goods. For global public good (GPG) provision to be a suitable activity for aid, however, economic development and welfare of the citizens of developing countries must still be the main objective. This suggests that donor interventions should encourage activities that provide strong *national* public good impacts as well as regional or global impacts and should (still)

[7] Spending on GPGs need not be tied to a particular location, so that ODA financed spending can take place in non-recipient countries (as is the case with much of the UK's ODA financed R&D for example). This section discusses when it might make sense to use ODA for the provision of GPGs with financed activities taking place for the benefit of or in wealthier developing countries.

focus on GPGs of particular relevance to poorer countries where possible (for example, vaccines for malaria). This restriction helps protect from the temptation to use aid resources to fund truly global public goods, for which most of the benefit accrues to the rich, simply because the poor will also benefit from such spending. It would be easy to spend the entire aid budget on such projects, making little dent in global public goods shortages and still less on the development challenges of developing countries.

In general, then, the case for funding regional public goods (RPGs) or GPGs in a MIC depends on the size of the benefits that accrue to poorer countries: it should considerably exceed the value of the ODA used (or even better, the next best use of the ODA used). Further, the proportion of the benefits that accrue to poor countries should be in line with the proportion of overall resources put towards the GPG that come from ODA. If a considerable proportion of the benefits accrue to richer countries, the funding should not come from ODA. Thus, assessments of expected impact must extend well beyond the targeted country's borders.

For the most part, spending on GPGs and regional public goods will fall into one of two instruments: carefully designed funding for research and development or instruments designed to blend ODA with much larger non-ODA components, such as subsidized investments, or loans. The former might typically be grant funding but structured in a way so as to incentivize new efforts from researchers, and end-user take-up. The latter should be used for large lumpy investments with public good elements (such as some regionally important infrastructure).

Disease surveillance and response

The objective of stemming the spillover effects of disease outbreaks is foremost in current global political discussions. But, given the considerable costs of outbreaks to countries where they emerge, better pandemic preparedness could be justified on national public good grounds alone and thus governments should fund such activities themselves, particularly the relatively richer countries. Should donors reward their failure to do so with external finance? This likely depends on the nature of the disease, the expected effectiveness of the intervention, and the volume and modality of ODA used. In such cases, full grant funding would be unreasonable: instead, concessional lending, technical assistance and market-based instruments may be more sensible approaches, better aligned to the political economy of the problem by not rewarding inaction but rather lightly subsidizing action.

In the case of disease eradication like malaria, global interests in complete eradication may not fully align with national interests of combating what may be a relatively a minor killer in a particular country. Malaria has its biggest human and economic toll in the poorest countries and global eradication would have huge returns in those countries, but elimination of a minor malaria problem in some MICs may seem a comparatively low return activity. Provision of the GPG by donors serves the global objective of eradication and overcomes the (reasonable) decision by a national government to ignore a comparatively minor national public bad.[8] Because this activity involves financing governments to do something they have low interest in, grant resources may be appropriate.[9]

[8] This ignores the possibility that developing countries may "game" the aid system: "We do not need to spend the money to eradicate the disease, as the donor community will certainly step in and do so."
[9] Provided such spending meets minimum cost-effectiveness thresholds

In the current Covid-19 pandemic, the political mandate for spending on infectious disease control and response is immense. But the OECD DAC recently decided that financing research into vaccines was not ODA eligible because the primary purpose of such spending was not to improve the welfare and prospects of developing countries (Worley, 2020). This was the correct decision and suggests the need to ensure that aid spent for all disease control efforts are a cost effective and sustainable approach to improve outcomes especially in the poorest developing countries.

Climate[10]

The argument for donors' support of developing countries' efforts to reach their climate objectives (as, for example, embodied in the National Determined Contributions – NDCs) is weaker than that for disease eradication. The five countries currently contributing the most to carbon dioxide levels in the atmosphere are China, the US, India, Russia, and Japan (Kenny et al, 2018). The likely impact of aid on significantly shifting the energy source mix of any of these countries is small, not to mention that only one of these countries is poorer than the upper end of upper middle-income status. And the contribution of mitigating carbon emissions in most developing countries will be irrelevant if the "big five" do not change their behavior.

Climate advocates are rightly trying to generate political support for action to mitigate carbon emissions globally. It may become politically popular (or expedient) to push aid to global carbon mitigation in an end in and of itself, rather than as a byproduct of an energy generation strategy focused on growth and social well-being. This approach short-changes developing countries: international agreements mandate that climate finance should be additional and that poor countries should not have to both suffer the effects of climate change caused by others and use resources which could be used more effectively for their benefit to take actions that primarily help other countries.

It may be that in some countries with limited renewable energy sources, the cheapest form of new energy generation would be carbon based, but renewables would have significant positive externalities in terms of local air pollution. The contribution to reducing global greenhouse gas emissions would be a bonus stemming from a government effort to account for that externality. In those cases, aid support for solar power (as it might be) would still have as its primary objective delivering efficient outcomes in terms of economic development and welfare in a developing country. But such investments would be more valuable (and necessary) in more credit constrained countries with less developed power sectors – i.e., lower-income countries. It is unclear if there is a case for using ODA in individual richer middle-income countries to finance climate mitigation under the circumstances. There may, however, be justification for support for regional renewable power projects that span low and middle-income countries.

Research and development

Research and development (R&D) creates public goods; depending on the subject these can be subnational to global in scope (analysis of change of a harmful cultural practice in a particular community to research on a COVID vaccine). Once again, both the scale of

[10] Some of our colleagues at CGD are developing more detailed principles for the use of aid to achieve climate objectives.

development challenges and expected impact would suggest aid should be focused on public goods of particular concern preferably to the largest number of the poorest developing countries to have the maximum impact. The volume of funding matters, but may be of secondary importance compared to the design of funding incentives and how the selection of problems to be addressed is made (Robinson et al, 2020).

Grants may need to be structured to reward take-up and demand or be conditional on donor (and eventually open) ownership of the intellectual property underlying new research and innovations, for example. Often, in funding research and development, the political economy issues to consider are not location specific. Instead, they relate to market power, international recognition (or otherwise) of intellectual property, and the incentives to invest in rollout and practicality, not the initial scientific discovery. All else equal, R&D will have greater development impact if it is carried out in poorer countries. Given the considerable majority of existing ODA financed R&D takes place in the donor country, financing R&D expenditures in LMICs would be a step towards greater development impact from current practice.

Across all GPGs and RPGs, multilateral institutions are better situated than bilateral donors to ensure aid is used well in the provision of public goods, as they can overcome the danger or bilateral donors' aid being used at cross purposes or in a duplicative manner (Birdsall et al, 2016).

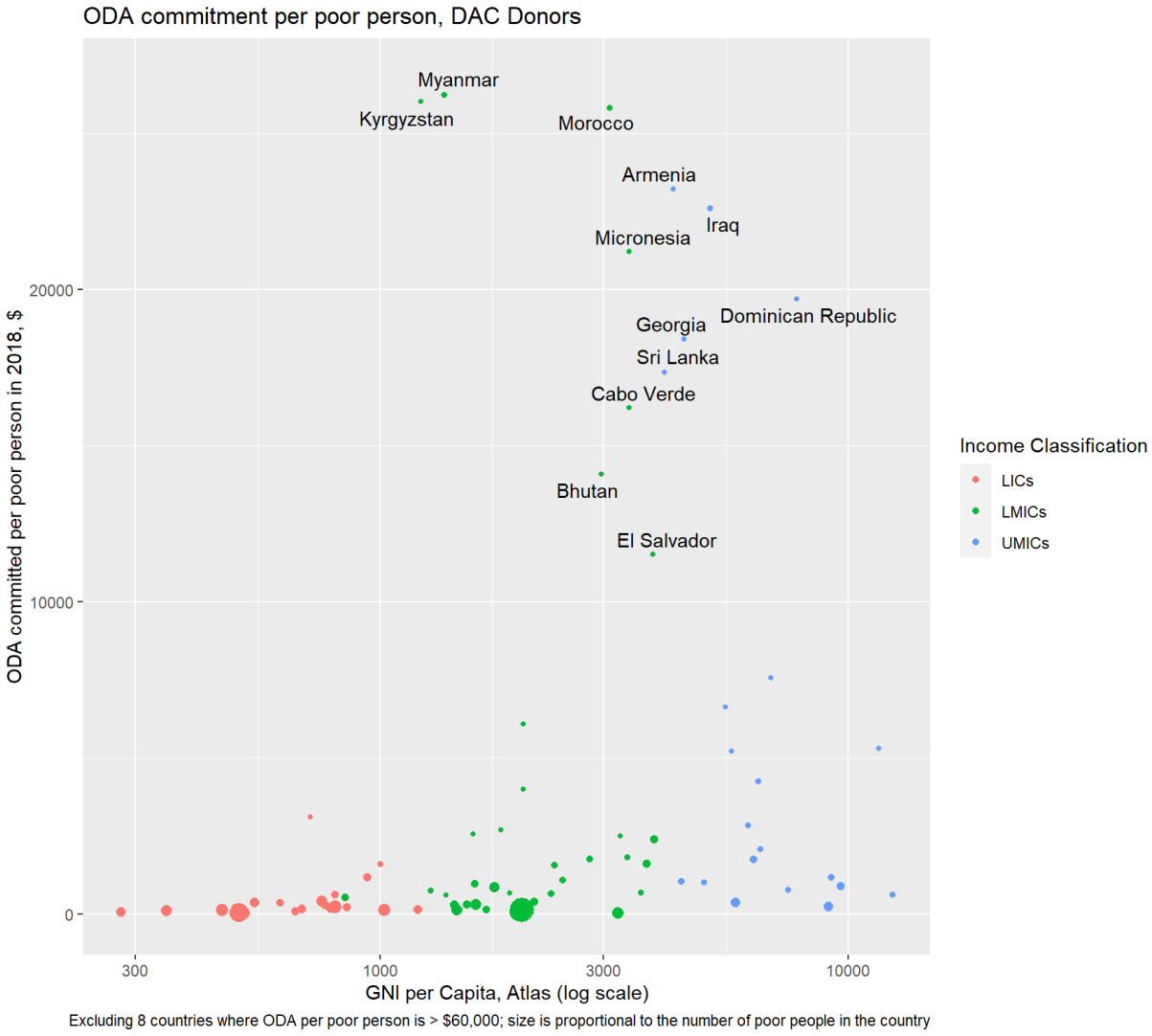
How do current practices measure up?

If the principles and screens suggested in this paper are taken seriously, we would expect to see a rather different profile of activity across income classifications, on average. We would expect that in absolute terms, more ODA is being used in LICs; that the average financial commitment of ODA becomes progressively smaller as recipient GDP per capita increases; that the objectives of ODA funded action change as GDP per capita increases that the sectoral distribution of ODA substantially shifts with income classifications; and that the modalities most used to deliver aid to substantially change as incomes increase.

An initial look at the data, however, suggests that this is – by and large – not the case. Donors do very similar things, in very similar ways, particularly across LICs and LMICs. We use data from 2018, the most recent recorded year in the DAC Creditor Reporting System (CRS), to investigate the pattern of ODA across income classifications. CRS reports data on ODA project size by commitment for 46,300 projects; we exclude only donor administrative costs in the following analysis.

Contrary to our suggestion that most ODA should focus on the poorest countries, more ODA is used in middle- than low-income countries. Around $50 billion was committed to LICs in 2018, compared with around $65 billion in LMICs – substantially more, though both sums are substantially larger than the total commitment to UMICs (around $22 billion). This is still true if we limit analysis to DAC countries only: they committed $43 billion to LMICs compared to roughly $27 billion in LICs, with UMICs receiving around $24.5 billion. Collectively, far more ODA flows to middle than low-income countries. This is true even if we adjust for the gross population of poor people in each country. Figure 6 demonstrates that, if anything, richer countries get more ODA per poor person than poorer ones.

Figure 6. ODA per poor person, 2018, DAC donors only



And while we suggest that ODA spending in richer countries should avoid 'brute spending' and instead focus on using small amounts of ODA to either shift incentives or leverage spending or action from larger, more influential players, there seems to be little difference in the structure of projects across income groups. Figure 7, which includes only grants to avoid counting the non-ODA portion of project commitment to richer countries, demonstrates this.

Figure 7. Box-and-whiskers chart of 2018 project commitments by income class, DAC donors (grants only)

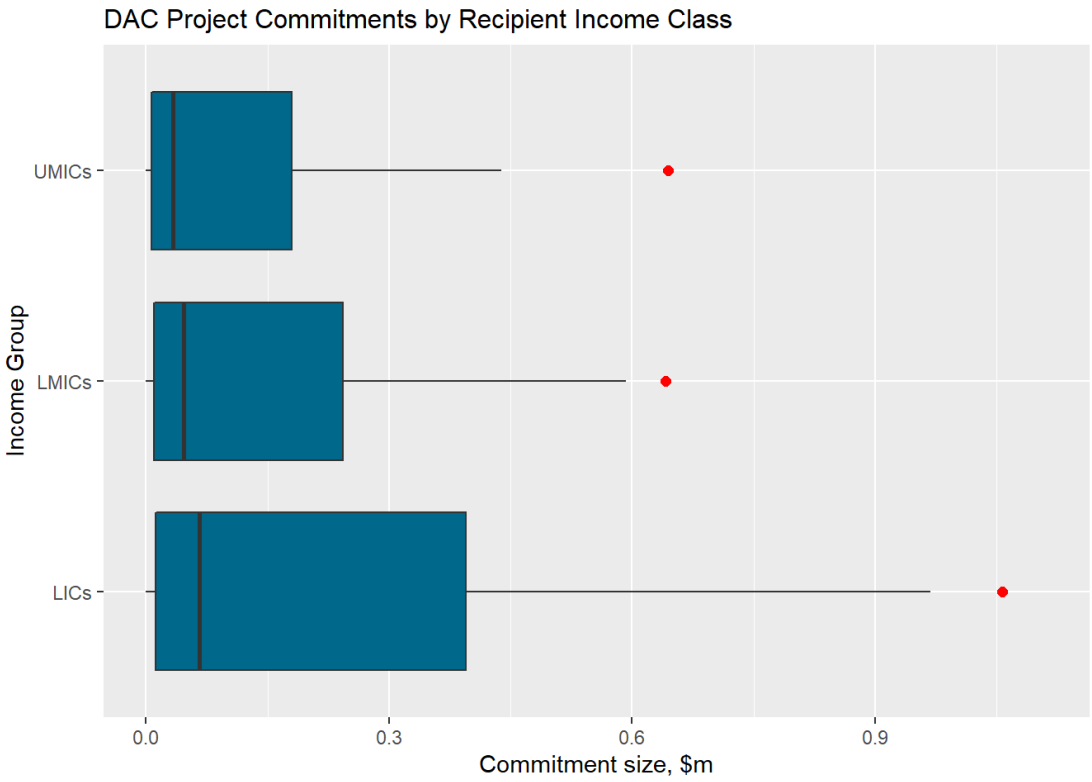


Figure 7 is a box-and-whiskers chart. The blue box shows the size of the middle 50 percent of projects by recipient income class; the vertical black line shows the median project size. The 'whiskers' extending from the box stretches out to the point beyond which projects are considered outliers[11]. And lastly, the red dot signals the mean project size. A few points are immediately clear. Firstly, the median project size is extremely small, regardless of the income class of the recipient. Fifty percent of projects are around $0.1 million or smaller in size. This does not substantially change as recipients get richer. Secondly, for all types of recipient, the mean project size is outside the outlier range – in other words, a small number of projects account for the vast majority of aid overall. Indeed, across all income groups substantially more than 50 percent of commitments are concentrated in a few projects that have an average size of over $40 million.

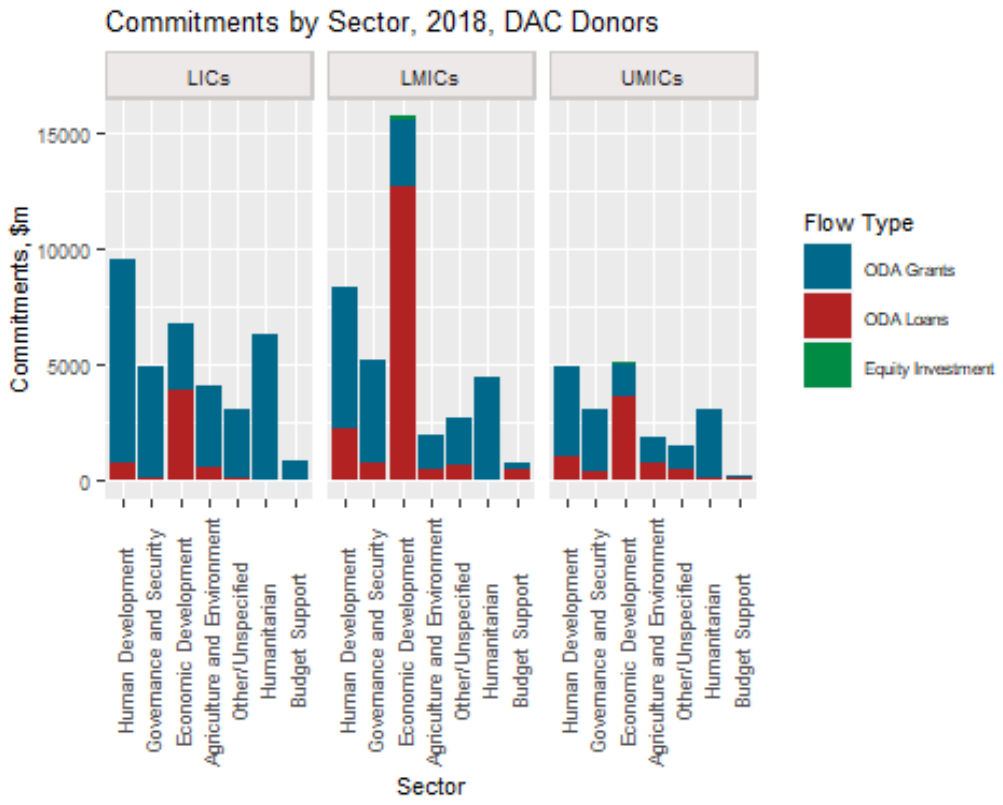
Of the remaining projects, aid is fragmented everywhere, and it is hard to detect a very different project size structure across income groups (there is a modest tendency to use slightly larger projects in LICs, but even most of the outlier projects are smaller than $1 million). It is possible that in richer MICs most projects are trying to use small financial commitments to leverage policy or incentive change, while in LICs, aid is being used to bridge budget gaps and support delivery, but if is the case, the distinction does not show up in the data. More likely, small projects are simply the norm across the income spectrum,

[11] Technically, this is 1.5 time the inter-quartile range. There is no hard-and-fast definition of what an outlier is, but this is widely used in statistics.

which suggests high transactions costs for aid recipients and little conscious differentiation of business models according to recipient characteristics.

Similarly, commitments across sectors by donors across income groups varies remarkably little (Figure 8), despite the approach we suggest here. The big noticeable difference is more towards Economic Development, and in particular, infrastructure, transport and energy. These will primarily be marginal investments in multi-billion annual infrastructure programs. Looking at the DAC overall, what leaps out is how little variation across income classes the aid portfolio demonstrates.

Figure 8. Total commitments by sector, income class, and instrument



Not only is the distribution of sectors by and large similar across income groups, so is the use of instruments: in general, economic development (which encompasses infrastructure, energy and transport here) is primarily funded through loans in all recipient country classes; in every other sector, grants dominate[12]. What's more, though it makes sense (as we have argued) to use multilateral channels more in middle-income countries, to pool resources in pursuit of the kind of financial heft it takes to make a dent in a much bigger financial landscape, the exact opposite seems to happen, at least with respect to bilateral ODA (i.e. non-core multilateral contributions) (Table 2). This is effect is at least partly driven by increased use of multilateral channels in fragile states in low-income countries, but even restricted to non-fragile countries the same pattern is observed: donors are much less likely to use multilateral delivery channels for bilateral aid in middle-income countries than in low-income countries.

Table 2. DAC total gross bilateral ODA disbursed through multilateral and non-multilateral channels for each income group (USD, million)

a) Total

	Multilateral		Non-Multilateral		Total
	Value	*Percentage*	*Value*	*Percentage*	*Value*
L	9,068	33%	18,809	67%	27,878
LM	4,258	12%	32,125	88%	36,382
UM	3,477	15%	19,767	85%	23,244

b) Fragile states

	Multilateral		Non-Multilateral		Total
	Value	*Percentage*	*Value*	*Percentage*	*Total*
L	7,658	41%	11,178	59%	18,836
LM	3,056	19%	12,659	81%	15,715
UM	1,677	37%	2,823	63%	4,500

c) Non-fragile states

	Multilateral		Non-Multilateral		Total
	Value	*Percentage*	*Value*	*Percentage*	*Value*
L	1,410	16%	7,631	84%	9,042
LM	1,202	6%	19,465	94%	20,667
UM	1,800	10%	16,944	90%	18,744

More detailed analysis, however, shows that the pattern of support to *some* countries does accord to the principles set out in this paper, though in others it deviates substantially. Table

[12] The database does not allow for easy identification of technical assistance. Our paper proposes it should form a larger proportion of support in richer countries where influence and shifting incentives and information is a more promising strategy than substituting for the domestic government as a spending force. Whether this is how it is actually used is perhaps unlikely, given the other findings from the CRS data.

3, at the end of this paper, displays the ten largest projects by commitment for Brazil, Thailand, and Jordan, three upper middle-income countries. A few findings emerge.

Thailand (at least since the conclusion of the Japan financed Bangkok metro extension) is receiving comparatively small amounts of assistance, much of it to help respond to the Rohynga refugee crisis (net ODA in 2018 was negative). This appears to fit broadly with the principles we suggest above. Brazil (which is richer than Thailand) sees some comparatively large projects up to nearly $100 million in size, connected with deforestation, energy efficiency and the environment. Some of the projects are regionally concentrated in poorer areas, but it is worth noting that for most of the time since 1960, Brazil has seen ODA flows of $200 million (current US dollars) or less, rising to an average of $742 million over the ten years to 2018. This is a distinctly abnormal pattern for a country at the upper end of UMIC status that has not faced a major natural catastrophe. Jordan, (which is at the bottom end of the UMIC income band) sees very large transfers, much of which is for budget support, although there is also support for refugees amongst the larger projects. In both Jordan and Brazil, it does not appear that the strategy is primarily to fill in using small amounts of technical assistance or leveraged resources. Instead, involvement in Brazil appears to be driven by large climate and environment projects and Jordan by political mandate to support the government rather than necessarily high development impact (net ODA as a proportion of GNI in Jordan, at 6 percent, is very high for a UMIC).

In 2018, at least, the projects begun by donors showed, in aggregate, rather little discrimination according to the income classification of the recipient, despite good reasons to believe that the best use of ODA changes substantially as countries get richer. Aid allocated according to the 'good donor practice' we propose would look very different.

There are a few examples of what we consider good donor practice, however. The UK's compact approach in Jordan (despite its incongruous status as a UMIC aid darling) suggests an approach in which some small grant spending can be married to policy change, commercial investment agreements and technical expertise to induce development friendly policy change (specifically around the labour market rights of refugees) that benefit both the aid recipient and uses a set of instruments better suited for the circumstances of a middle-income country.

Conclusion: A framework for providing aid to MICs

This paper has attempted to set out the logical role of aid to MICs. The questions we should ask for any use of aid are:

1. Is this an appropriate objective for using ODA?
2. Is this an activity which needs outside support, and where (plausible amounts of) ODA can make a real difference?
3. If we think both questions are answered in the affirmative, then what is the right model for delivering support?

The foregoing analysis has suggested that there is some opportunity to use aid well in MICs, including UMICs. What matters most is making the correct diagnosis in the allocation of resources, and then making the right choices in terms of the model for delivery. We have argued that the following four principles should underpin the sensible use of aid to MICs.

1. ***Proposed projects and spending should be judged on the scale of the development challenge and expected impact and will depend on political mandate*:** Using ODA resources to their best effect will be achieved by using them where development challenge, expected impact and political mandates overlap most clearly.

2. ***Use the full set of instruments available*:** Some kinds of intervention can only reasonably be provided by grant financing: certain kinds of social protection, for example, or assistance to help with long-term reforms that will generate concrete returns only over the long run. On the other hand, some will generate financial returns quickly, or require such vast outlays that ODA alone cannot fill the gap. This is likely to especially be the case in richer countries, where ODA is negligible as a proportion of GDP. If there is the demand to finance investments in richer MICs, the response to such demands should nearly always be to use other tools – sovereign market rate lending, market-rate development finance, multilateral approaches.

3. ***Build on local initiatives and capabilities, rather than replace the functions of the domestic government:*** Especially in better-off countries, sheer lack of finance is less likely to be the salient (or ODA-amenable) constraint to finance. Vested interests, the political will to face them down and a coherent domestic strategy for seeing long term projects through and prioritising across multiple objectives may matter much more. ODA can be a means of effecting changes that a government or regional body may not prioritise itself, but it is not a sustainable equilibrium for ODA to simply replace government action indefinitely. Careful use of aid resources, including technical assistance in concert with diplomacy and local initiatives is generally a more sensible approach than deploying sheer spending power.

4. ***Use the multilateral system:*** In many cases, no individual donor is large enough to generate macro changes on its own. Using the multilateral system, even when it is imperfect, can amplify impact. This is particularly true for action to encourage economic growth and development, as well as for responding to disasters. An ongoing investment of both financial resources and expertise and engagement in multilateral agencies will be an important part of any strategy to effectively use ODA in MICs.

The important question is not 'should we ever give aid to MICs?' but 'how can we do so effectively?' These principles provide a framework for thinking about that and suggest that existing aid flows could be better directed to achieve the greatest impact on development.

Table 3. Top 10 projects in Thailand, Brazil, and Jordan, 2018, by donor (commitments in millions of US$)

Thailand			
United States	State Department	10	Nutritional Assistance for Burmese Refugees in Thailand
United States	State Department	7	Consolidation of Health and Social and Economic Wellbeing Assistance and Return Preparations for Burmese Refugees in Thailand
EU Institutions	European Commission	7	Support for protection of the Burmese refugees in Thailand
Germany	Federal States and Local Governments	7	Student costs (in Germany)
UNHCR	United Nations High Commissioner for Refugees	4	Humanitarian aid
Global Environment Facility	GEF Trust Fund	4	Combating Illegal Wildlife Trade
United States	Department of Labor	4	Fostering Accountability in Recruitment for Fishery Workers.
United States	Agency for International Development	3	Engagement among targeted stakeholders to reduce drivers of latent and violent conflict in Thailand.
Japan	Japanese International Co-operation Agency	3	Technical cooperation
United States	State Department	3	International Narcotics & Law Enforcement

Brazil			
Germany	Kreditanstalt für Wiederaufbau	94	Municipal Environmental Protection Program
Germany	Kreditanstalt für Wiederaufbau	74	Open Program 4E (Caixa) [Energy efficiency]
Norway	Ministry of Foreign Affairs	74	Support to the Amazon Fund in BNDES for reduction of greenhouse gas emissions from deforestation
EU Institutions	European Investment Bank	71	Modernisation and expansion programme of the electricity distribution network of Coelba, Neoenergia's distribution subsidiary in the state of Bahia, Brazil.
France	French Development Agency	59	Line of credit to finance energy efficiency projects, renewable energy, waste management .
Japan	Japanese International Co-operation Agency	50	Agriculture Supply Chain Enhancement Project
Germany	Federal States and Local Governments	25	Student costs (in Germany)

France	Proparco	25	Loan to support production of silicon for photovotaics.
Climate Investment Funds	Strategic Climate Fund - FIP	21	Environmental conservation and restoration practices, and low-carbon emission agricultural practices in selected watersheds of Brazil's Cerrado Biome.
France	Ministry of Education, Higher education and Research	21	Student costs (in France)

Jordan			
United States	Agency for International Development	745	Cash Transfer
Japan	Japanese International Co-operation Agency	300	Business Environment, Employment and Fiscal Sustainability Reform Development Policy Loan
United Arab Emirates	Abu Dhabi Fund for Development	250	Support to the General Budget
Germany	Kreditanstalt für Wiederaufbau	101	Budget support through the IMF Extended Fund Facility (EFF)
UNRWA	UNRWA	97	Education policy and administrative management
Germany	Foreign Office	89	Emergency food aid for Syrian refugees in Jordan
Germany	Kreditanstalt für Wiederaufbau	89	Support of Water Sector Reforms (Development Policy Loan)
Germany	Kreditanstalt für Wiederaufbau	71	Energy Efficiency and Renewable Energies in the Water Sector
United States	State Department	71	Voluntary Contribution to the United Nations High Commissioner for Refugees
United States	Agency for International Development	64	Grant Award to the World Food Program in support of the Transitional Interim Country Strategic Plan

References

Autesserre, Séverine, 2017. "International Peacebuilding and Local Success: Assumptions and Effectiveness". *International Studies Review*, Volume 19, Issue 1. https://academic.oup.com/isr/article-abstract/19/1/114/2980418?redirectedFrom=PDF

Barbelet et. al., 2018. "The Jordan Compact: Lessons learnt and implications for future refugee compacts", ODI Policy Briefing; https://www.odi.org/sites/odi.org.uk/files/resource-documents/12058.pdf

Birdsall, Nancy and Morris, Scott, 2016. "Multilateral Development Banking for This Century's Development Challenges Five Recommendations to Shareholders of the Old and New Multilateral Development Banks", CGD Report, Washington, DC: Center for Global Development. https://www.cgdev.org/publication/multilateral-development-banking-for-this-centurys-development-challenges

Clarke, Daniel J., Dercon, Stefan. 2016. "Dull Disasters?: How Planning Ahead Will Make a Difference". Oxford University Press, New York. https://openknowledge.worldbank.org/handle/10986/24805

Chakrabarti, Suma and Brown, Hannah, 2020. "Empathy and Client Relationships in Development Finance", CGD note, Washington, DC: Center for Global Development. https://www.cgdev.org/publication/empathy-and-client-relationships-development-finance

Donaldson, Dave and Hornbeck, Richard, 2016. "Railroads and American Economic Growth: A "Market Access" Approach," The Quarterly Journal of Economics, vol 131(2), pages 799-858. https://doi.org/10.1093/qje/qjw002

Dupas, Pascaline. 2011. "Health Behavior in Developing Countries." Annual Review of Economics. 3. 10.1146/annurev-economics-111809-125029. https://web.stanford.edu/~pdupas/AR_health_behavior.pdf

Easterly, William, 2005. "What did structural adjustment adjust?: The association of policies and growth with repeated IMF and World Bank adjustment loans." *Journal of development economics* 76.1: 1-22. https://www.cgdev.org/publication/what-did-structural-adjustment-adjust-association-policies-and-growth-repeated-imf-and

Finkel, Steven E., Aníbal Pérez-Liñán, and Mitchell A. Seligson, 2007. "The Effects of U.S. Foreign Assistance on Democracy Building, 1990-2003." World Politics 59, no. 3: 404-38. https://www.jstor.org/stable/40060164?seq=1

IDS Bulletin Vol. 47 No. 2A, 2016: "States, Markets and Society – New Relationships for a New Development Era" https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/12703/IDSB472A_10.190881968-2016.180.pdf?sequence=1

Jensen, Robert and Nolan H. Miller, 2018. "Market Integration, Demand, and the Growth of Firms: Evidence from a Natural Experiment in India." American Economic Review. https://www.aeaweb.org/articles/pdf/doi/10.1257/aer.20161965

Kassem, Dana, 2018. "Electrification and industrial development in Indonesia." PhD thesis, The London School of Economics and Political Science (LSE). http://etheses.lse.ac.uk/3788/

Kenny, Charles, 2014. "The Strange and Curious Grip of Country Income Status on Otherwise Smart and Decent People", CGD Commentary and Analysis. Washington, DC: Center for Global Development. https://www.cgdev.org/blog/strange-and-curious-grip-country-income-status-otherwise-smart-and-decent-people

Kenny, Charles, 2020. "Why is the World So Stingy?", CGD Commentary and Analysis. Washington, DC: Center for Global Development. https://www.cgdev.org/blog/why-world-so-stingy

Kenny, Charles, 2019. "Marginal, Not Transformational. Development Finance Institutions and the Sustainable Development Goals." CGD Policy Paper 156. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/marginal-not-transformational-development-finance-institutions-and-sustainable

Kenny, Charles and Snyder, Mallika and Dev Patel. 2018. "Measures of Global Public Goods and International Spillovers." CGD Working Paper 474. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/measures-global-public-goodsand-international-spillovers

Kenny, Charles, and Williams, David, 2001. "What do we know about economic growth? or, why don't we know very much?." *World development* 29.1 (2001): 1-22.

Lenner and Turner, 2018. "Learning from the Jordan Compact, Forced Migration", Review 57, pp 48-51. https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/syria2018/lenner-turner.pdf

Michael A. Clemens Steven Radelet, Rikhil R. Bhavnani, Samuel Bazzi, 2012. "Counting Chickens when they Hatch: Timing and the Effects of Aid on Growth", *The Economic Journal*, Volume 122, Issue 561, 1, Pages 590–617, https://doi.org/10.1111/j.1468-0297.2011.02482.x

Ouattara, Bazoumana and Strobl, Eric, 2008. "Aid, Policy and Growth: Does Aid Modality Matter?". Rev World Econ 144, 347–365 https://link.springer.com/article/10.1007/s10290-008-0150-3

Ravallion, Martin, 2009. "Do poorer countries have less capacity for redistribution ?," Policy Research Working Paper Series 5046, The World Bank. https://openknowledge.worldbank.org/handle/10986/4238

Lee Robinson, Euan Ritchie, and Charles Kenny. 2020. "Aid-Financed Mechanisms for Technology Development." CGD Policy Paper 176. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/aid-financed-mechanisms-technologydevelopment

Vecci, Joseph, and Zelinsky, Thomas, 2017. "A Spatial Analysis of Foreign Aid and Civil Society". Working Papers in Economics https://gupea.ub.gu.se/bitstream/2077/51440/1/gupea_2077_51440_1.pdf

Vecci, Joe, 2019. "Does Foreign Aid Impact Civil Society?" https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3334323

Worley, William, 2020. "Coronavirus vaccine research doesn't count as ODA, says OECD", Devex. https://www.devex.com/news/coronavirus-vaccine-research-doesn-t-count-as-oda-says-oecd-97359#:~:text=Coronavirus%20vaccine%20research%20doesn't%20count%20as%20ODA%2C%20says%20OECD,-

By%20William%20Worley&text=Our%20COVID%2D19%20coverage%20is%20free.&text=LONDON%20%E2%80%94%20Funding%20research%20into%20a,Economic%20Co%2Doperation%20and%20Development