# The $138.5 Billion Question: When Does Foreign Aid Work (and When Doesn't It)?

**Jonathan Glennie and Andy Sumner**

## Abstract

This paper focuses on aid effectiveness. The paper considers peer-reviewed, cross-country, econometric studies, published over the last decade in order to propose areas with policy implications related to the conditions under which aid is more likely to be effective. The paper is intended for a non-technical audience. We discuss the nature of evidence on aid and why assessing its impact is so difficult. We attempt to make some global-level generalisations, with caveats, on when aid is most likely to work, as opposed to just whether aid works or not. We review aid's impacts on economic growth and social development in general before focusing on conditions identified in the aid and growth literature under which aid is more likely to be effective. We suggest that there are four broad areas where the evidence reviewed shows signs of convergence that have direct relevance for policy decisions on aid effectiveness. These areas are: (i) aid levels; (ii) domestic political institutions; (iii) aid composition, and (iv) aid volatility and fragmentation.

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## Contents

## Executive summary

This paper discusses the nature of evidence on foreign aid and why assessing the impact of aid is so difficult. After an introduction to the paper we explain, in Section 2, the main problems with the evidence on aid effectiveness in general, which we group under the issues of definition and methodology. The latter category is further broken down into the fairly intractable problems of causality and bias. Partly in response to the constraints on this area of study we set out our own approach which involves assessing papers which meet a specific set of criteria to look for generalisations to contribute to the debate. We focus on peer-reviewed, cross-country, econometric studies published over the last decade and attempt to make some global-level generalisations on aid with caveats and conditions relating to the context and conditions under which aid might be said to 'work'.

In Section 3 we review aid's impacts on economic growth and discuss under what conditions aid is most likely to work, outlining areas with signs of convergence and areas of divergence. We also look at the relationship between aid and improvements in social development – education, health and poverty reduction – although with less of a focus as there are only a few studies which meet our criteria. Broadly speaking, we have found that the most recent studies, over the last decade, have been more positive on the role aid can play in these areas than previous generations of studies. Despite all the caveats on which we insist, this is an important finding which needs to better percolate into the public debates on aid.

In Section 4 we breakdown what the evidence suggests regarding what makes aid more likely to be effective, with a particular focus on the growth literature, and we are able to propose a set of factors that likely play an important role in when aid is *most likely* to work. We find it useful to break down the conditions governing aid's effectiveness into two categories: (a) the country context, meaning the characteristics of the recipient country and national government policies and (b) aid management, meaning the characteristics of aid and donor policies and practices.

We argue that the evidence in four areas has signs of convergence that may have direct relevance for policy decisions on aid and for aid effectiveness discussions. These four areas are as follows:

i. Aid levels (meaning if aid is too low or too high);

ii. Domestic political institutions (including political stability and extent of decentralisation);

iii. Aid composition (including sectors, modalities, objectives and time horizons);

iv. Aid volatility and fragmentation.

We also identify two areas where there is little sign of convergence in the evidence: the importance or otherwise of 'good', meaning orthodox macroeconomic policies and the question of grants versus loans. Finally, in a Conclusion, we discuss briefly how these findings might impact current debates.

## Acronyms

| | |
|---|---|
| GDP | Gross domestic product |
| GNI | Gross national income |
| IDA | International Development Association |
| IMF | International Monetary Fund |
| IMR | Infant mortality rate |
| LDC | Least developed country |
| LIC | Low-income country |
| MIC | Middle-income country |
| NGO | Non-governmental organisation |
| ODA | Official development assistance |
| OECD-DAC | Organisation for Economic Co-operation and Development - Development Assistance Committee |
| RCT | Randomised controlled trial |
| UNU-WIDER | United Nations University – World Institute for Development Economics Research |

## Foreword: Towards a new narrative for aid effectiveness

Aid has always been controversial. On the one hand there is, to most, a clear moral obligation to help poorer countries and people. On the other hand there is the concern that financial transfers either do not work very well, or even undermine broader development efforts. Peter Bauer's critique of aid (notably, 1972) was seminal and there have been many since, not least from William Easterly (2006) and Dambisa Moyo (2009) and most recently Angus Deaton (2013).

The issue of aid's effectiveness at fostering development is as important today as it has ever been, but the context is somewhat different to previous eras for three reasons:

a. There has been progress in terms of wealth generation in poorer countries, with even some of the world's poorest countries posting impressive growth rates in the past decade in particular. Global estimates unanimously suggest, albeit with a wide range of estimates, significant reductions in the numbers of the world's extremely poor people are likely to continue over the next 10-20 years. This has prompted questions as to whether aid is still as important as it was not least given the growing number of countries crossing the somewhat arbitrary threshold to middle-income status which is seen as reason to start winding down aid by some donors.

b. At the same time, a range of new or re-emerging aid-givers have entered the fray, whether governments of emerging economies or major private organisations. The varied motivations and ways of working of this increased array of actors has thrown open aid effectiveness debates previously thought closed, such as the acceptability of tied aid or aid not focused primarily on poverty reduction, and the importance or otherwise of using country systems.

c. The final critical addition to today's aid equation is the expanding set of challenges facing the world. The post-2015 discussions are emerging with an agenda in which ending absolute poverty remains central but other concerns are also recognised, namely the planet's environmental limits and the need to invest in greener growth and more equitable development. It is likely that this longer list of objectives will have consequences for the future of international aid.

Add to these changes the economic problems faced by many of the traditional donor countries (which come together in the OECD's Development Assistance Committee, DAC)

which has led to significant political pressure to reduce foreign assistance, and the question of aid effectiveness is facing new and to some extent unforeseen questions.

The theories and practices of development cooperation have to change significantly if they are to respond to the challenges and opportunities of a new era. Establishing and analysing the effectiveness of aid interventions is critical, both for its own sake (so that aid can improve its impacts) but also to make the case for aid budgets to be sustained.

## Questions for the present aid effectiveness narrative

Prior to the early 1970s there was very little discussion of aid effectiveness – not because it wasn't considered important but because the assumption was that aid (as an additional resource) necessarily made a positive contribution. Since then, the discussion has been more fervent, especially since the end of the 1990s. A growing emphasis has been placed on the effectiveness of aid interventions in response to, on the one hand, increasing criticisms from a variety of perspectives that were damaging the broad consensus behind development aid and, on the other, a range of important pieces of evidence that began to shape a consolidated response to the problem.

Convened by the OECD-DAC, and backed by low-income countries and major pressure groups, conferences in Rome (2003) and Paris (2005) gave rise to the *Paris Declaration on Aid Effectiveness*, with its five now well-known principles and 12 indicators of progress. The 'Paris agenda' found broad support among the world's poorest countries as it addressed recognised problems in the aid industry with commitments for both donors and recipients hoping to gradually improve the impacts of aid interventions. It has become the conventional summary of what effective aid should look like. A meeting in Accra, Ghana, in 2008 further refined this new aid effectiveness agenda, reaffirming the need for action and emphasising the importance of partnerships with non-state actors, in particular the role of civil society.

The two most recent meetings in this series, in Busan, South Korea, (2011) and Mexico City (2014) have overseen a significant transformation both in the ambition of the 'aid effectiveness agenda' and its primary channels of influence. In response to criticism that focusing on 'official development assistance' from OECD member countries was too narrow in today's world, the process has sought to look at a range of other aspects important for successful pro-development interventions, including South-South cooperation, private sector involvement and domestic resources such as tax.

However, despite some advances, it is broadly agreed that progress has been limited. The real-life incentives that led the aid industry into some of its cul-de-sacs in the first place were perhaps not properly understood – the political economy of aid appear absent in a predominantly technical analysis. And over time the principles have also come under scrutiny, especially as applied to countries outside the core client base of low-income countries. With the rise of the emerging economies, some of whom are now donors themselves, major shifts are underway in global governance and economic theory and deficiencies in the Paris agenda have become ever clearer with regard to two areas in particular: evidence and universal applicability.

### i. Evidence

Some aspects of the Paris agenda, although based on decades of donor and recipient experience in aid delivery, are not evidently supported by the weight of published academic research, or research does not exist to make a reasonable judgement. For instance, the pressure to put more aid 'on system' i.e. to use recipient-country processes such as budgets and spending mechanisms, a guiding force of aid effectiveness discussions for the past decade, may be less appropriate where aid is a small proportion of the economy, or where objectives are not primarily about system strengthening or where government systems are particularly weak. In fact, there is little evidence that one modality is generally more appropriate than another – it depends on objective and context.

### ii. Universal applicability

Some aspects of the Paris agenda may be inappropriate for all development cooperation providers/recipients. Tied aid, for instance, is not necessarily an effectiveness issue, it could be viewed as a value-for-money issue. Therefore untying aid is not so relevant for less wealthy or new donor countries, where labour and goods are available more cheaply (such as in India, China, Brazil). Tying aid, in fact, may be important to promote increased participation in South-South cooperation, including persuading sceptical electorates of its importance (indeed, this may also be a growing trend in some of the OECD countries, where voters want to know how they are also benefiting).

Attempts to update the Paris agenda to accommodate new development horizons remain on-going. There are questions over the extent to which the non-DAC bilateral donors have engaged meaningfully in the agenda given their focus on alternative processes under the auspices of the UN. Meanwhile, the clarity of the Paris principles has been somewhat

confused by the movement from aid effectiveness to development effectiveness, a nebulous concept with a variety of meanings. A lack of political weight combined with a lack of technical clarity has left us with an aid/development effectiveness narrative that is at once confused (what is it and to whom does it apply) and deprioritised (few donors now feel pressure to meet specific targets). The great merit of the Paris/Accra agenda, for all its faults, was that recipient countries could use it to pressure donors to align better with the principles – it is questionable whether the Busan/Mexico City agenda is now playing that function (see Glennie et al, 2013, for more on this).

### A new narrative on aid effectiveness

This crisis in clarity and confidence comes at a time when there has never been a greater need for a convincing, evidence-based, coherent and well-communicated narrative on when aid can work. Policymakers, politicians, practitioners and members of the public all need to be re-convinced of the value of aid and the former, helped to make it as effective as possible in austere times as pressures on the public budgets of OECD countries are likely to last for the foreseeable future. If such a narrative does not emerge, we run the risk of gradually declining support for public spending, not only on traditional aid but on various other global collective action problems that are becoming more pressing.

Part of the problem is the polarised and non-nuanced public policy debate between the 'aid works' versus 'aid is a waste of money' camps. In our review we are constrained by reviewing how the literature has approached this question. We thus take aid 'working' or 'effective aid' to mean aid that contributes to, or is associated with, even if only modestly, positive development outcomes such as economic growth and social development. This is not an ideal definition but it is common in the literature and thus a review is constrained in opening this question further. Meanwhile the lack of a counter-factual is the biggest barrier to ever knowing for certain the impact of aid. The idea that aid 'works' can be questioned by interested parties, both informed and uninformed; assertions that aid is wholly or in part responsible for impressive improvements in human development in the past couple of decades are questionable. It is also not difficult to find examples where aid has been detrimental to countries and communities and where there may be trade-offs in terms of positive and negative impacts. More modesty is needed in any claims for how aid can contribute to development. However, the evidence, which we discuss in this paper, does suggest that aid has contributed in many countries and, despite its many flaws, can continue to do so.

However, we need a new evidence-based narrative, both for its own sake and also because it is more likely to win over sceptics in the medium term. The objective of this paper is to encourage the global debate to move on from *whether* aid 'works' or not to looking at *when* aid works and how it can work better. We are, of course, not the first to criticise the binary yes/no approach to aid, but such a simplistic analysis has proven stubbornly persistent, especially in popular discourse. We therefore now call for a clear break. The question 'does aid work' has limited use. Instead, one should be concentrating on a question around which we can build some critical pointers from the empirical evidence, and which can influence policy decisions and make a clearer case to citizens in contributor countries: when does aid work (and when doesn't it)?

A first step is to review the evidence. In this paper we survey the last ten years of the cross-country literature on aid and growth and, to a lesser extent, health, education and income poverty. While there is much conflict in decades of evidence on aid's impact, there are some general guidelines that emerge for policymakers.

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# 1. Introduction

The question 'does aid work?' has been dominant in aid debates since the mid-1970s. Total annual spending on aid (meaning here, Official Development Assistance (ODA) or concessional development finance) has today reached $138.5 billion per year[1] and yet the answer to the question posed by Robert Cassen and associates (1986) and Roger Riddell (1987), 'Does Foreign Aid Really Work?', is still disputed, even more so in the context of rapidly shifting geopolitical power and wealth, and rising incomes in many of the world's poorest countries.[2]

On the one hand there are fewer 'traditional' poor countries where the case for aid as resource transfer has been clearest. Even in these countries – be they labelled Least Developed (LDC) or Low Income Countries (LICs) – aid dependency (ODA/GNI) has been declining (see Figure 1). That said, ODA[3] remains significant in per capita terms in the poorest countries (see Figure 2) and there are a relatively small number of countries where governments can only function because of ODA (see Figure 3 for countries where ODA is more than 50 per cent of central government spending).[4]

In the vast bulk of developing countries, development cooperation including ODA but also other forms of public financing, technology sharing and capacity building, is likely to remain important even if it is insignificant as a proportion of GNI vis-à-vis domestic resources. And if one accepts the concept of global citizenship and the need to support global and regional public goods (to deal with climate change, for example), then the responsibilities of the OECD countries must extend beyond simply raising all human beings to above the dollar-a-day poverty threshold.

Thus, contrary to much of the rhetoric common in aid debates, one could argue that the era of development cooperation is not ending, but still just beginning. This can be illustrated by the plethora of new aid-related agencies and foundations, both public and private, which have emerged in recent years to complement or challenge traditional sources of funds. At the

[1] According to OECD-DAC (2014: 3) concessional development finance in 2012 for DAC plus other reporting countries was $133.4bn and non-reporting countries was a further $5.1bn making $138.5bn. One problem which illustrates some of the discussion in Section 2 on methodology is that ODA aid figures exclude NGO and foundation aid except that which is funded by ODA.

[2] See also Riddell (2007; 2014).

[3] As we explain later, we define 'aid' as ODA on the basis that it accounts for the overwhelming majority of aid.

[4] Further, the data used – net ODA – includes emergency/humanitarian aid which is likely to be proportionally more important in fragile and conflict-affected states.

same time the case for aid – be it ODA or other types of publicly-sourced international transfers – appears to be weakening in OECD countries partly due to austerity but also because the effectiveness of aid has been challenged.

Aid debates in policy circles, which percolate to public debates, have tended historically to have been polarised and non-nuanced: either aid 'works' or 'aid is a waste of money'. One issue is establishing a vision of success for effective aid. What is effective aid? What does aid 'works' even mean?

Claims that aid is wholly or largely responsible for impressive improvements in human development in the past couple of decades are not credible. Indeed, it is not difficult to find examples where aid has even been detrimental to countries and communities and where there may be trade-offs in terms of positive and negative impacts. On the other hand, the claim that aid has been entirely useless is equally difficult to sustain.

All of which suggests that it is not only a question of whether aid works but under which conditions it does (or does not). Research has largely suggested (see later discussion) that the average effect of aid on growth is modest. Further, in the types of study we review results can be fragile and dependent on sample and variables used as well as method. There are good theoretical reasons to think that aid may sometimes do harm, or at least have undesirable side effects that could outweigh the good impacts.[5] Studies might conclude that aid results in higher growth, or even lower growth, but from a policy and aid programme design point of view we need to know the reasons why aid has had whatever impact is has, or the channels through which this impact has emerged.

With these points in mind our paper reviews the last ten years of research on aid. The paper is intended for a non-technical audience. We should say at the outset that aid effectiveness has two somewhat parallel literatures: one on processes or principles emerging from the

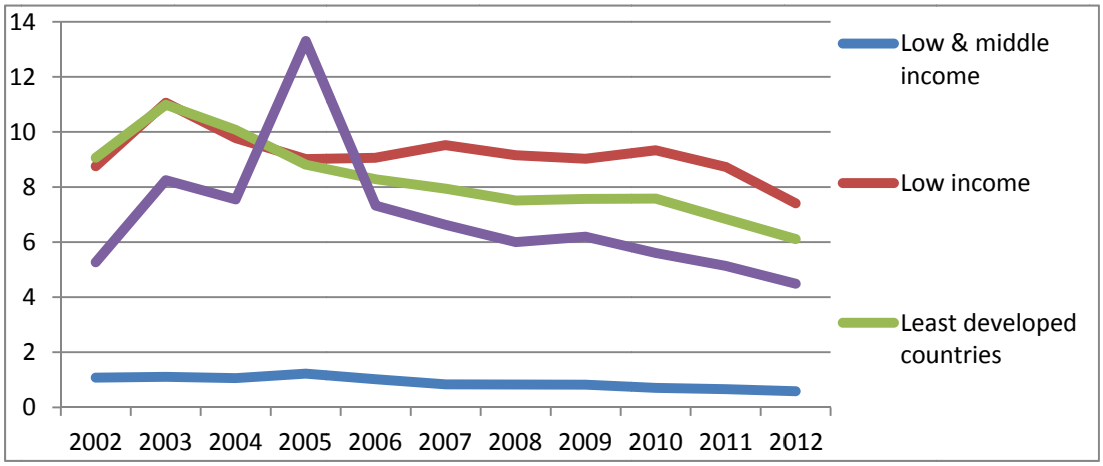
[5] Take for example, Dutch disease (aid inflows lead to exchange rate depreciation and loss of competitiveness and falling export earnings, possibly outweighing the aid inflow in value). Dutch disease can be misleading as it is very static (economies move around a given production possibility frontier between tradables and non-tradables). Aid is rather about investments that move the frontier out over time. Further, the evidence on the existence of Dutch disease is very mixed and will depend on the level of aid, the host economy and so forth. If aid is invested in reducing transactions costs (better roads, etc.), health and education (better human capital, etc.), then it becomes cheaper to produce (per unit): then any appreciation of the exchange rate matters less so (and in any case will tend to occur as economies grow). Selaya and Thiele (2010) find no empirical support for the idea that aid tends to encourage Dutch disease. However, Rajan and Subramanian (2011) do find substantial Dutch Disease effects of aid.

Paris, Accra, Busan and Mexico high-level meetings intended to make the aid system and aid practice more effective overall (e.g. coordination, transparency and so forth), and the second literature from academic peer review journals (and elsewhere) that focuses on assessing if or under what conditions aid is effective in achieving its stated outcomes, particularly those related to economic growth or social development.

In this paper, we have largely not referred to the former literature, preferring to review the cross-country peer-reviewed, econometric studies. The Paris process has been a valuable source of information on aid effectiveness and, perhaps more importantly, has enabled some (limited) changes in the actions and attitudes of donors and recipients alike. But as it has been based as much on expert opinion as research evidence, we have looked outside it for the basis for our generalisations in this paper. While there may be a number of overlaps, we raise issues that are absent from the Paris agenda and its successors, and bypass other areas important to that agenda if we cannot find cross-country, empirical, peer review evidence to support it.

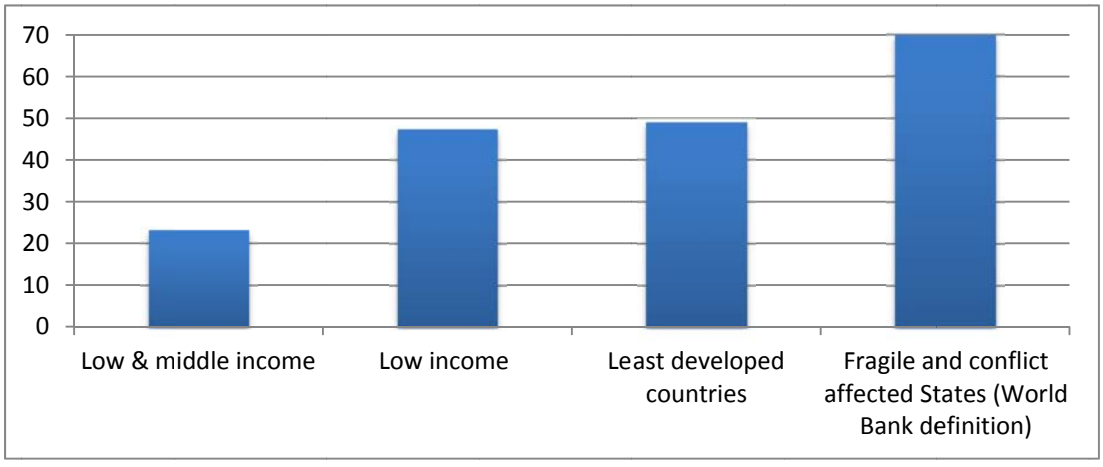
In the next section, we discuss issues of definition and methodology with a focus on causality and bias in the general sense. We explain our decision first to rely on a narrow evidence base (the last ten years of peer-reviewed, cross-country, empirical studies using econometric methodology) and to focus on when rather than whether aid works for two particular purposes – to contribute to economic growth and social development (which we define arbitrarily as education, health and poverty reduction). The focus is largely on the former because the latter has few studies that meet our criteria. In Section 3 we review this evidence. We look at whether the public debate (and to some extent expert policy discussions), which continues to assume that the evidence is mixed as to aid's effectiveness, is aligned with the latest evidence regarding aid and its impacts on economic growth and social development. We discuss the main methodological issues outstanding in aid econometrics. In Section 4, remembering the caveats we laid out in Section 2, we seek to draw signposts regarding when and where aid works. Because there is a larger body of research, we focus here on aid and growth studies to discuss under what conditions is aid most likely to work and outline areas with signs of convergence and areas of divergence. We arrive at a set of factors that are likely to play a role in determining when aid is most likely to contribute to growth. Finally, in the conclusion, we briefly discuss how some of our findings are relevant to policy debates.

**Figure 1 Declining aid dependency in the poorest countries: Net ODA received/GNI in all developing countries, Low Income Countries, Least Developed Countries and Fragile and Conflicted-Affected States, 2002–2012**



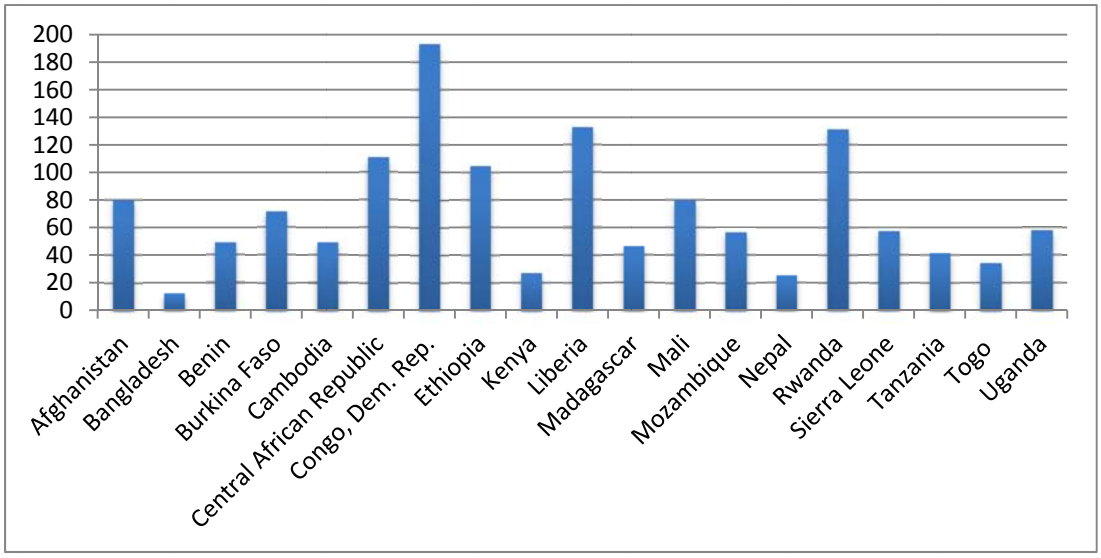

Source: World Bank (2014).

**Figure 2 Aid per head in the poorest countries: Net ODA received per capita (current $) in all developing countries, Low Income Countries, Least Developed Countries and Fragile and Conflicted-Affected States, 2012**




Source: World Bank (2014).

**Figure 3 Net ODA received as percentage of central government expenditure in Low Income Countries *with data*, 2010–2012 (most recent available year)**




Source: World Bank (2014).

## 2. Answering a different question – our approach to the evidence

The idea that aid does or doesn't 'work' is common shorthand in the public policy debate, but focusing solely on that question is unhelpful for two main reasons: definitional and methodological. Scholarly studies on aid have long since moved onto the conditions under which aid works.

### 2.1 Definitional problems

A point of departure is what do we mean by aid 'working' or not? In the context of growth, for example, is it higher growth than would have been the case without aid? Or it is establishing the pre-conditions for self-sustained growth without aid in the future? Or is it a contribution to growth that represents value for money (however that is defined)? Take for instance the econometric literature. If we find that the coefficient of aid is statistically significant and positive, and we conclude that aid is effective, that it has been successful in stimulating growth. But does this indicate success? It might, or it might not. In our review below we are constrained by reviewing how the literature has approached this question. We

thus take aid 'working' or 'effective aid' to mean aid that contributes to, or is associated with, even if only modestly, positive development outcomes such as economic growth and social development. Of course the lack of a counter-factual is the biggest barrier to ever knowing for certain the impact of aid (see discussion below).

Secondly, we have the issue of what is aid. A recent paper by Qian (2014) discusses the heterogeneity of aid and this is also an important point of departure:

Much of the existing literature examines aggregate ODA, which is a bundle of many different types of aid… [A]id can differ in whether the donor is a country or a multilateral agency, designated as humanitarian or non-humanitarian, transferred as cash or in-kind, or spent in the donor or the recipient country. Each aspect can influence how aid affects the recipient country. Thus, examining the impact of aggregate aid confounds a bundle of different and potentially offsetting mechanisms (p. 23).

In short, aid is delivered in many forms and, like foreign direct investment from private companies, has diverse and complex objectives and motivations. It is quite plausible and, given the copious amounts of conflicting opinions on the subject, also probable that different types of aid achieve (or don't achieve) different objectives. It is therefore meaningless to ask whether aid works or not without first defining what we mean by 'aid' as well as 'work'.

In this paper we focus primarily on ODA as 'aid'. We define 'aid' as ODA on the basis that it accounts for the overwhelming majority of aid. Of course 'aid' is broader than ODA. Most recent econometric studies we refer to below use 'Effective Development Assistance' which is an aggregate measure of aid flows which included all grants and grant equivalents of loans. In short, a measure of concessional transfers to developing countries that emanate from governments of donor countries (funded by the taxpayers of these countries) and that at least in principle or in claimed intent are aimed at contributing to development.

**Box 1 Different types of ODA**

| | |
|---|---|
| Main aid modalities | Programme aid including budget support (general or sector specific)<br>Project support<br>Support to/via NGOs<br>Support to/via public-private partnerships<br>Technical assistance |
| Main types of 'flow' | Grants<br>Concessional loans<br>Debt relief<br>Equity purchase |
| Varied stated objectives of aid | Short-term human development results<br>Capacity strengthening (institutional and human)<br>Policy change<br>Economic growth and (income) poverty reduction<br>Climate and other international public goods<br>Research and technological advance<br>Security concern |
| Four motivations of aid | Donor benefit – primarily motivated by the interests of the contributor<br>Mutual benefit – in which the contributor hopes to benefit as well as the recipient<br>Recipient benefit – charitable, no immediate benefits sought for the contributor, although long-term benefits expected from safer/wealthier world<br>Global or regional spillover benefits – benefits beyond specific borders of one country |
| Aid supports different sectors (OECD categories) | Social services and infrastructure (education, health, water, government and civil society, peace and security)<br>Economic services and infrastructure (transport, communications, energy, banking)<br>Production (agriculture, industry, trade, tourism)<br>Commodities and general programme support (food, general budget support)<br>Debt relief<br>Humanitarian<br>Unspecified |

Source: Authors.

Box 1 gives a summary of the main modalities and flow types of ODA, of their wide range of objectives (the specific aims of a stated intervention) and motivations (the more general purpose behind the aid relationship), and of the sectors in which aid interventions are generally made. In all of the rows in Box 1 there will be plenty of overlap between the categories – they are meant primarily to illustrate the diversity of intervention which complicates the apparently simple question, does aid work? At one extreme, some interventions might be quite short term, local, and with empirically verifiable outcomes (such

as an attempt to reduce the prevalence of malaria in a particular geographic location). At the other, some aid interventions may be intended to support long-term change nationally, making progress hard to measure (such as general budget support). There is no reason, *a priori*, why all types of intervention should or shouldn't work in general.

## 2.2 Methodological problems

Even once one has addressed definitional matters, the evidence may often be questionable or simply not available for two main general methodological reasons: causality and research bias.[6]

### *2.2.1 Causality*

At the practical level questions of attribution and causality are complex. Emphasis is placed increasingly on output-level evaluations, which narrow the focus of what is evaluated to the methodological tools available. Randomised Controlled Trials (RCTs) are thought by some to provide the highest form of robust evidence and, although evolving, RCTs are typically only possible for relatively micro-evaluations and therefore only relevant for some types of aid intervention evaluation (e.g. does the introduction of deworming tablets improve school enrolments?).

The complexity of development policy and interventions is increasingly being acknowledged. Ramalingam et al. (2008) look at the relevance of complexity science to understand social, political and economic phenomena and note the extent to which the challenges of learning from mistakes and new ideas can inhibit progress. They argue that the literature on evaluation is focused on technical argumentation, concluding that no single method should claim a monopoly on providing policy-relevant evidence, suggesting that RCTs have their place but should not dominate the discussion.

Most importantly, effects can seldom be consistently and conclusively attributed to aid flows, given that numerous other variables may have overlapping impacts that are difficult to disentangle. Various studies note the impossibility of conclusively establishing causality in evaluating aid effectiveness, even at intervention level. Scholars studying aid are very aware of these issues; most studies and scholars explicitly acknowledge such problems.[7]

[6] Here we discuss these issues in a general sense – later in the paper we refer specifically to econometrics.

[7] See later discussion on this with reference to econometrics.

Clearly, the further one goes beyond concrete project outputs, the harder the evidence gathering and causation analysis becomes. Figure 4 seeks to illustrate this general rule, i.e. that the possibility of making meaningful generalisations depends on the scope of the research question and the size of the aid intervention being investigated (red = very difficult; orange = difficult and potentially methodologically sensitive; yellow = possible but still challenging).

**Figure 4 Making generalisations on the impact of aid: illustrative research questions vs. scope of aid**

| | | Aid intervention | | | |
|---|---|---|---|---|---|
| | | Aid to Africa | Health aid to Africa | A particular donor's health aid to a particular country | A particular health project |
| Research question | Does aid lead to development? | | | | |
| | Does aid improve health outcomes? | | | | |
| | Does aid reduce infant mortality in the short term? | | | | |

Source: Authors.

Broadening the discussion beyond establishing causality, one well-known paradox in the literature is the macro-micro paradox (first outlined by Mosley, 1987). This paradox was essentially that while studies were generally in agreement about positive effects of aid at the micro level, studies in the late 1980s and 1990s (and beyond) found it difficult or impossible to show any systematic effect of aid on growth at a macro level. To some extent, with caveats, this has changed over the last 5–10 years with the majority of studies finding a macro positive effect of aid on growth, albeit usually modest and under specific conditions, as we shall see below. A lesser discussed paradox (that may explain the macro-micro paradox to some extent) is that aid is generally needed most where it is least likely to be effective – in the very poorest countries and contexts.

Furthermore, aid's consequences (both positive and negative) usually go beyond those explicitly planned for or expected (see e.g. Newby, 2010). As with all policy and financial interventions, aid interventions could be judged not only against their stated objectives or 'vision of success' but also on any possible unintended consequences.

Riddell (2007) carried out a review of the evidence on the intended and unintended effects of aid, including at country level, and concluded that:

While the quality of the information and data contained in these studies [donor studies of country impact] has certainly improved over time, with some notable exceptions… the overwhelming majority of these studies provide insufficient information from which to draw firm conclusions about aid impact at the country level – as most authors readily and explicitly acknowledge. (p. 214)

This is a good summary, and is one of the reasons why drawing conclusions about whether aid works or not has proven so difficult.

In terms of the type of evidence we used below - econometric studies - there are a set of issues beyond the general discussion above.

The literature on establishing causality from observational data is large in econometrics (see for example, Heckman, 2008; Imbens and Wooldridge, 2009 and in the context of aid, Chatelain and Ralf, 2014; Deaton, 2009; Roodman, 2004; 2007; 2008).

It is useful to focus on the main problem in terms of establishing the unobserved counterfactual – what would have happened in the absence of aid? The fundamental problem being that we do not have experimental data (or quasi-experimental such as natural experiments) where you can observe the counterfactual (untreated) other than in the case of the few micro-questions where RCTs are plausible.

The issue of 'reverse causation' relates to the direction of the cause and effect. For example, countries with poor growth historically tend to get more aid.[8] Indeed, Brückner (2013)

8 And poorer countries tend to get more aid per capita and this "allocation effect' tends to bias estimates of aid's impact in a negative direction (Dalgaard and Hansen (2009).

The standard practice (other than randomised controlled trials) is to use instrumental variable regressions in an attempt to identify exogenous variation in aid, and hence be able to infer a causal effect of aid (see discussion of Bazzi and Clemens, 2013). See also Carter (2014) for discussion of the standard empirical methods employed in the study of foreign aid and the potential for misleading results concerning the object of interest – the long-run impact of aid.

found that donors *do* tend to give less aid to faster growing countries and that can produce a negative correlation between growth and aid. A promising approach to deal with this is that of Galiani et al. (2014), who develop a novel way of addressing this endogeneity of aid question (that countries with poor growth histories tend to attract more aid). Galiani et al. ask what happens after countries pass the World Bank's International Development Association (IDA) threshold.[9]

Another credible paper is that of Werker et al., (2009) who test the aid-growth effect with oil price fluctuations (exogenously causing aid given by oil-exporting donors).[10]

Finally, there are a set of other issues relating to econometric studies that should be noted. These include that (i) that the econometric literature on aid and growth only studies one 'interactive term' at a time (aid x policy for example or aid x volatility) when in all likelihood more than one will be of importance to the aid and growth relationship[11]; (ii) the magnitude of effect – even if the effect of aid is modest theory would suggests that it may be critical if it is, for instance, successfully addressing important market failures; (iii) there are variables that affect both aid and growth to deal with (known as 'simultaneous causation'); (iv) there are omitted variables (there may be a factor that is missing in the analysis); (v) mis-measurement (indicators used may be poor proxies for what they seek to measure); and (vi) studies do not have the same dataset so when one compares it is not comparing like with like in terms of countries and time periods and/or findings may be driven by outliers or fragile to the countries or time periods included in the dataset. One could also reiterate the broader questions of judging of 'success' (see earlier discussion) and the identification of channels of the effect of aid (and thus policy implications) as more important than if aid works or not.

*2.2.2 Bias*

If the causality problem were not already enough of a barrier to drawing firm conclusions, there is also a problem of bias and institutional incentives. Many studies of aid are conducted or funded by aid agencies themselves as is this current review paper.

[9] They find that crossing the IDA threshold slows growth and that is likely due to aid. Once this is taken into account they find with a sample of just 35 countries that after passing the threshold, every 1 per cent of aid/GNI raises income per person by a third of a percentage point. A further promising approach is that by Temple and Van de Sijpe (2014).

[10] They find a positive effect that is only statistically significant at the 10% level, and is only externally valid for countries that receive aid from major oil exporters.

[11] Thanks to Mark McGillivray for this observation (and others).

How have we dealt with this? In our review here we have tried to search and read the research evidence in a balanced way and report both positive and negative studies and most importantly make it clear exactly how we selected the studies we did (see below). We have also asked a number of reviewers to comment on earlier drafts and this paper was peer reviewed as a CGD Working Paper.

To be clear – we are not suggesting that those conducting studies have given the agencies funding their work the answers they want to hear (although that may sometimes occur). Rather that there *may* be institutional incentives in donor organisations to evaluate only/mainly the direct/short-term effects of aid, in line with stated objectives, and potentially to find more positive results by taking a narrower focus. Ebrahim and Rangan (2010) for example, argue that donors can choose which results they set out to measure, thus implying what they are and aren't responsible for. This is not entirely unreasonable – donors aren't responsible for everything that happens – but it does allow a level of subjectivity to enter what would ideally be an impartial analysis.

For example, Faust (2008) notes that the field of evaluation tends to be highly focused at the technical and micro-analytical level, i.e. on inputs and outputs, taking insufficient account of broader societal effects, and that evaluators who depend financially on the donors they work for may be compromised in making fully impartial assessments.[12]

### 2.3 Our approach in this review

The most obvious response to this problem is to limit the scope of the research question i.e. not to ask whether aid works, but to ask whether particular types of aid achieve better-specified outcomes, and of course this is an approach that many have taken. In this paper, we have largely focused on one specific objective: how aid affects growth, with sub-focuses on aid's impact on health, education and poverty reduction. These seem to us to be the areas most amenable to the kind of cross-country review we are interested in, with sufficient evidence on which to base a discussion and make some generalisations with caveats.

But even with a more particular focus, the problems of causality and bias dog attempts to generalise about whether aid 'works' or not. We therefore take an approach to the evidence with the following research question in mind: When does aid work? *A priori,* then we are

[12] See also Pawson (2006) and White (1992).

assuming that some aid interventions 'work' and others not and yet others have negative consequences that outweigh their positive impacts.

We focus on the last ten years of aid research (see next section for our reasoning), and look at cross-country, peer-reviewed, econometric studies (see Table 1) on the basis that one needs to have a reasonably large set of countries to make global-level generalisations (with caveats). This is not a systematic review but a literature review based on one database and one search engine and additionally the references within the papers generated in the search. All studies chosen fit a set of criteria outlined below. Thus the reader should note that we cannot guarantee that we have included every single study, although that was our intention (see annex for list of studies used).

The review was conducted as follows: First, Thomson Reuters Web of Science database was searched for peer-reviewed journal papers for the time period 1 January 2004 to present (the logic behind this cut-off date is explained in the following section). Google Scholar, the search engine, was also searched from 1 January 2010 to capture working papers that are not yet in academic journals (under the assumption that it can take up 5 years for papers to reach journals – it can take even longer but 5 years is reasonable and manageable). The search was based on a set of keywords (see Table 1).

Second, studies were selected from the long list of studies if they met five criteria:

1. Addresses one or more of the research questions: Does aid work or not? Or when does aid work or not? Or when is aid more likely to work or not?

2. Has an empirical basis that entails global coverage of developing countries (not just a smaller sub-set of countries or coverage of one or two regions);

3. Econometric methodology;

4. Published following peer review (in a journal or as a working paper);

5. Available in English.

Third, studies cited within the selected studies from the search were also reviewed if they met the criteria (even if they did not appear in the origional search results).

**Table 1 Search terms used and results**

| | Web of Science since 1 Jan 2004 (keywords in abstract and/or title and/or keywords listed) | Google Scholar since 1 Jan 2010 (based on keywords in title) |
|---|---|---|
| "aid" OR "foreign aid" OR "aid effectiveness" OR "ODA" OR "Official Development Assistance" OR "development aid" AND "economic growth" OR "growth" | 487 | 212 |
| "aid" OR "foreign aid" OR "aid effectiveness" OR "ODA" OR "Official Development Assistance" OR "development aid" AND "education" | 190 | 228 |
| "aid" OR "foreign aid" OR "aid effectiveness" OR "ODA" OR "Official Development Assistance" OR "development aid" AND "health" | 109 | 115 |
| "aid" OR "foreign aid" OR "aid effectiveness" OR "ODA" OR "Official Development Assistance" OR "development aid" AND "poverty" | 166 | 259 |

The search process in its entirety generated a set of 72 papers that met the criteria. Of these:

- 49 of these papers were on aid and growth and 29 of these papers related to conditions under which aid is more likely to work or not;
- 6 papers were on aid and education;
- 11 papers were on aid and health;
- 6 papers were on aid and income poverty.

Within the papers there is some overlap where a paper addressed more than one social development dimension and/or growth.

In this way we hope to present credible evidence upon which to build some generalisations with caveats. It is important to reiterate that the findings of studies we use are sensitive to their methodological specification (as are all studies) and as such there is no absolute

guarantee of quality through peer review. But peer-reviewed is as good as it gets, especially if the paper is in a reputable academic journal.

Next, given the amount of sometimes contradictory evidence even in this more limited area of research evidence, our approach is to seek out where the evidence converges. We argue that where there appears to be some kind of convergence (broadly defined) we can be reasonably confident about making generalisations. When all or the large majority of evidence points in a particular direction, some 'dos and don'ts' of aid can be made – not unchallengeable, but with a fairly strong body of evidence behind them. By the same token, where there is divergence in the evidence, we argue that we cannot make such generalisations, and should adopt caution. Any claims of certainty should be treated with care, especially when they go beyond very localised and specific project analyses – this is a social science after all and not physical science in a controlled laboratory.

# 3. Aid's contribution to economic growth and social development – an analysis of the cross-country studies

## 3.1 Aid and growth: Earlier generations of study

The largest body of cross-country literature on the impact of aid is on the relationship between aid and economic growth. Critiques of income-based measures as proxies for development are long-running and indeed formed much of the basis for the emergence of the 'human development' perspective and greater interest in progress on the 'ends' of development such as education, health and nutrition (e.g. Seers, 1972; Sen, 1999; Streeten, 1980; Stewart, 1985). GDP growth (aggregate or per capita) is of course not an end in itself but merely a means to an end. Nevertheless, income is important in measurements of human development as an indirect indicator of other capabilities, and growth generates resources that can then be used for social spending on human development.

A prevailing perception is that the aid and growth academic research is contradictory. This has certainly been the case in some periods of the past. However, an important trend has emerged over the last few years, namely that many more studies than not report that aid *does* contribute to growth in general, albeit *modestly*. This may represent a convergence in the academic literature that has the potential to move the debate forward.

One reason that findings on aid and growth have, in the past, been contradictory is that the body of research has evolved (or oscillated) as more and better economic data have become

available and as methodological techniques in econometrics have evolved. The result is that the current state-of-the-art builds on several 'generations' of aid studies which were framed by the prevailing methodologies used and datasets available at the time of publication.

The various 'generations' of aid studies are laid out in Arndt et al. (2010) (see also the earlier review of McGillivray et al., 2006). Here we detail the main contours of each 'generation'.[13]

First generation studies, in the 1970s, focused on the extent to which aid increases savings and investment in recipient countries. Second generation studies, in the 1980s and early 1990s, focused on the impact of aid on growth via investment. Hansen and Tarp (2000) note that first generation studies generally concluded that aid does increase total savings and second generation studies consistently indicate a positive link between aid and investment.

In all of the 131 studies reviewed by Hansen and Tarp (2000), aid led to an increase in investment. In only one study was the positive inflow of aid outweighed by a negative impact on domestic savings (in Gupta and Islam, 1983) and in only one study of 131 studies was a negative impact of aid on growth reported (in Mosley, 1987). In short, only 2 of 131 studies were negative about the impact of aid.

A third generation of more than 60 studies followed from the mid-1990s as much better data became available, which meant that studies could look at changes across and within countries (known as panel data). New theories of economic growth were incorporated and the aid-growth relationship was explored as potentially non-linear. Studies also incorporated institutions and new econometric methods. In terms of findings, one might call these a more mixed generation of studies than previous generations. In total, Stockemer et al. (2011) identify this generation as 'the conditionality literature' with three iterations: (a) a 'good policy model' – aid works if the recipient government has 'good' policies (e.g. Burnside and Dollar, 2000, 2004; Collier and Dollar, 2002); (b) a 'medicine model' – aid works in the correct dosage but is ineffective if too high or too low (e.g. Collier and Hoeffler, 2004; Dalgaard et al., 2004)[14]; and (c) an 'institutions model' – aid works if the 'right' institutions are in place (e.g. Doucouliagos and Paldam, 2006).

[13] Throughout when we say aid has a positive or negative impact we mean a *statistically significant* positive or negative impact has been found.

[14] On this model see later studies and reviews: Islam, 2005; Gyimah-Brempong et al., 2012; Wagner, 2008 and also Feeny and de Silva, 2012; Feeny and McGillivray, 2011.

On the positive side, Hadjimichael et al. (1995), and Lensink and White (2001) found aid and growth had a positive association. However, the issue of diminishing returns was noted (e.g. Lensink and White, 2001; Dalgaard et al., 2004). On the negative side Boone, (1994, 1996) focusing on aid, policies and growth, found that aid did *not* have a positive impact on growth.

Burnside and Dollar (2000, 2004) argued that aid works in 'good' economic policy contexts (meaning orthodox fiscal, monetary and trade policies).[15] That aid works in good policy environments was strongly rejected by a range of studies even though those studies did find that aid has stimulated growth (e.g. Easterly et al., 2004; Hansen and Tarp, 2001).

Many studies in this generation have question marks over them due to the fragility of findings. Roodman (2004, 2007) tested seven well-cited aid and growth studies and found that all results were fragile, particularly in relation to sample expansion, as well as different definitions of aid, different time periods and other factors (those studies found to have fragile results were as follows: Burnside and Collier, 2004; Collier and Dehn, 2001; Collier and Dollar, 2002, 2004; Collier and Hoeffler, 2004; Dalgaard et al., 2004; Guillaumont and Chauvet, 2001; Hansen and Tarp, 2001).

This generation of literature was inconclusive in identifying conditions (such as policy) under which aid stimulates growth, but not whether aid *per se* results in more growth than would be the case without aid. The lasting impact of this generation has been the incorporation of attempts to capture or test the importance of the policies of national governments on the impact of aid, among other factors.

### 3.2 Aid and growth: studies since 2004

There is a fourth or current generation of studies which we date from 2004 and onwards. Of course any cut off is going to be somewhat arbitrary. One could also argue that the biggest turning point in the literature on aid effectiveness was the 1997 publication of the World Bank working paper by Burnside and Dollar. Others such as UNU-WIDER (2014a) date this generation to 2008 due to the Rajan and Subramanian (2008) study that extended the

[15] Burnside and Collier (2000) constructed a 'policy index' based on the budget surplus relative to GDP, inflation and trade openness. They also included a number of political and institutional indicators such as financial development by M2/GDP, ethno-linguistic fractionalisation, assassinations, and a measure of institutional quality.

study of aid and growth to consider the long-run effects of aid (up to 40 years) and found no positive effect of aid overall across different types of aid and time periods.

We have dated this generation to 2004 on the basis that Clemens et al., (2004) was published that year. That study is, as Dalgaard and Hansen (2010, p. 38) concur, the study that 'pioneered the examination of disaggregated aid in a cross-country setting[s]' and that issue of disaggregating aid became an important feature of this fourth generation of studies.

Those post-2004 studies are discussed in Section 4 as they relate largely to conditions under which aid is more likely to work. Here we discuss the well-known studies to illustrate the balance of opinion.

The importance of Clemens et al. study was further cemented in its final journal version (Clemens et al., 2012) which carried out a re-analysis of the data from the Rajan and Subramanian (2008) study and two other influential (by citation scores) aid-growth studies (Boone, 1996; Burnside and Dollar, 2000, 2004). Clemens et al. (2012) convincingly link existing disagreements on aid and growth studies to a time lag issue (aid takes time to impact on growth) as well as types of aid. In so doing they reconcile the three most cited aid-growth studies that formerly were considered as having conflicted findings.

Clemens et al., (2012) offered two reasons for the previous disagreements in aid econometrics. First, research measured the effect of aid on contemporary growth whereas most aid-funded projects may take quite some time to influence growth (they use examples of road building or vaccination programmes). They note that the impact of health and education aid are difficult to discern and may impact over the *very* long term.[16]

Second, current growth will affect current aid and this leads to the question of whether one is looking at correlation or causation. Clemens et al. (2012, p. 612–613) note:

There is one broad finding from the regression specifications used in all of these studies: aid inflows are systematically associated with modest, positive subsequent growth in cross-country panel data. The principal reasons that other studies have not observed this relationship are that they tested for aid effects within an inappropriate time horizon, relied too much on weak or invalid instrumental variables and looked at historical time series that

[16] Asiedu and Nandwa (2007) find that aid to primary education enhances growth in low-income countries but aid flows to higher education enhances economic growth in middle-income countries. However, that the positive impact of aid is hidden in aggregate analysis.

were too short. Most of the substantial disagreements in the literature's most influential studies disappear when aid is allowed to affect growth with a lag, when only portions of aid relevant to short-term growth are tested for short-term growth effects and when the historical time series under observation is extended to include all available data.

In a somewhat similar vein, Minoiu and Reddy (2010) separate types of aid and incorporate time horizons and find the impact of aid on growth positive when one separates 'developmental aid' (which is aid which seeks to promote economic growth or other development objectives) and 'non-developmental aid' (all other aid) and allow for the effect of aid on growth to occur over long periods. They find that developmental aid has a large, positive effect on growth and non-developmental aid is mostly 'growth neutral' and occasionally negative in terms of growth impact.

Such findings are consistent with the review by UNU-WIDER (2014a, p. 10) of ten post-2008 peer-reviewed studies on aid and growth. UNU-WIDER takes 16 estimates from comparable models in those ten papers that:

(i) refer to an average aggregate aid-growth relation for developing countries as a group; (ii) include data spanning at least 30 years; (iii) attempt to address the endogeneity of aid [meaning that aid flows could go to countries doing badly or well creating spurious correlations between aid and growth] and (iv) are accepted in a peer-reviewed economics journal since 2008.

The UNU-WIDER (2014a) exercise finds that the effect of aid on growth is positive in all but two of the 16 estimates and there is a statistically significant average effect across the set of studies.[17] The two studies that do not find the positive effect of aid are: (i) Nowak-Lehmann at al. (2012), who conclude that aid has an insignificant or minute impact on per capita income. However, this study has been called into question by a further peer review study, Lof et al. (2014), which, using the same data and a different approach, finds a positive and statistically significant long-run effect of aid on income; and (ii) Herzer and Morrissey (2013) who argue that the effect of aid on GDP depends on a trade-off which is country-specific i.e. that aid has a direct positive effect through financing investment but this can be outweighed by an indirect productivity effect if aid exacerbates growth-retarding factors such

[17] The16 estimates are from ten papers as follows: Rajan and Subramanian (2008); Minoiu and Reddy (2010); Arndt et al. (2010); Clemens et al. (2012); Kalyvitis et al. (2012); Nowak-Lehmann et al. (2012); Lessmann and Markwardt (2012); Brückner (2013), Herzer and Morrissey (2013); Arndt et al. (2014).

as poor governance. They conclude that insofar as aid is used to finance investment, the overall effect on output may therefore be positive and that cross-country differences can be explained by differences in law and order, religious tensions and government size.

In sum, the primary finding of this fourth generation of papers is that aid does – on average – contribute to economic growth and increased per capita income, *but* generally in the longer run and often only modestly. If one assesses aid over a *short* time horizon its effects on growth and other macroeconomic indicators is variable and sometimes negative. Even important achievements in one sector might not have immediately positive impacts on the economy; for instance, it is possible that the initial impacts of disease eradication on per capita income may be negative due to increases in population and dependency ratios (Acemoglu and Johnson, 2007). The lasting impact of this generation of aid studies has been to emphasise these time lags and cumulative effects of aid.[18]

One final paper worth noting is Mekasha and Tarp (2013) who conduct a 'meta-analysis' of 68 published studies. This meta-analysis seeks to take the body of existing empirical literature and assess whether the effect of aid on growth is significant and genuine, meaning not produced by 'publication bias' due to authors' propensity not to publish negative studies or to play down negative results. This is the claim of a previous meta-analysis of the same 68 studies by Doucouliagos and Paldam (2008 and see also 2006, 2009, 2010, 2011) which argued that the literature had failed to show a positive and statistically significant effect of aid on growth. As Temple (2010, p. 4506–7) notes there may be a counter bias at work as journals want to publish studies that say aid doesn't work because of the interest in counter-intuitive or surprising research findings.

Mekasha and Tarp (2013) conclude that the accumulated empirical evidence shows that aid has had a positive and significant impact on growth on average. They argue that Doucouliagos and Paldam's findings were due to inappropriate measurement and weighing of the average effect of aid (as well as errors in data entry and coding).

Before concluding that the debate is closed on aid and growth, it is important to remember the caveats one ought to place on growth regressions as noted earlier.

If further illustration of this were necessary, Doucouliagos and Paldam (forthcoming, 2015) take issue with Mekasha and Tarp's meta-analysis (2013) but do note that the small positive

[18] This may particularly be the case in the social sectors such as education and health.

effect of aid on growth in the average study is real but a consequence of the 'publication selection bias'. [19]

Nevertheless, the assertion that aid generally contributes to economic growth, while not proved beyond doubt, is now less contentious in the academic literature than is currently recognised in public policy debate. That is not to say that there is an absolute consensus, nor that there are not important unresolved questions that would need addressing to claim unequivocal proof, but that aid's critics are currently in the academic minority.

### 3.3 Aid and social development

In this section we take a cut-off as 2004 for consistency with the previous discussion on aid and growth. We define social development arbitrarily as education, health and monetary poverty reduction. Here we discuss the studies that were part of our literature review.

As with the aid and growth literature, there is some convergence in cross-country studies on the positive impact of aid on social sectors, although generalisations are complicated by three factors:

- There are far fewer cross-country studies;
- The quality and longevity of social data is weaker;
- ODA has focused on health in LICs but on education in MICs, which affects findings (Baulch and Vi An Tam, 2013).

The net result of the above factors is that claims to any convergence in social sector studies are not going to be as evident as with aid and growth. There are two notable studies in recent years which are in particular worth discussing. [20]

[19] Further, Chatelain and Ralf (2014) argue that the findings of the aid and growth literature are fragile to outliers, or spurious or the impact of aid is close to zero and Roodman (2014) disputes Clemens et al. (2012) though Roodman's critique was replied to by two of the authors of the Clemens et al. study, in Bazzi and Bhavnani (2014) who replicate Roodman's analysis and find that Roodman's null results arise spuriously, from regressions that-by design-have no power to reject the null.

[20] See also: UNU-WIDER (2014b) review of aid and social sectors at both macro and micro levels. For a review of aid and health studies see, in particular, Martinez-Alvarez and Acharya (2012). For a detailed review of aid and education studies see, in particular, Riddell (2012).

First, Arndt et al. (2014) show in a cross-country study that aid has reduced poverty across a range of social indicators. They find that an annual average aid inflow of 5 per cent of GDP would be expected to increase growth by 1.5 per cent and reduce poverty by 9 per cent, raise schooling by 1.4 per cent, raise life expectancy by four years and reduce the infant mortality rate (IMR) by 20 in every 1,000 births. Second, Hirano and Otsubo (2014) find that aid in social sectors (education, health and water and sanitation spending) directly and significantly benefits the poorest and aid in economic sectors (transportation, energy and communications and financial infrastructure) increases the incomes of the poor via growth. Further, they find strong evidence that aid reduces inequality which is of importance, because the impact of aid on inequality mediates the impact on monetary poverty (and perhaps could be seen as a parallel to how Dutch disease or growth-retarding factors such as poor governance noted by Herzer and Morrissey may mediate the impact of aid on growth).

Table 2 shows other studies for education, health and poverty. It suggests more convergence on education and in monetary poverty than in health. However, given the very limited number of cross-country studies it is harder to come to any definitive declarations in this area than it is with economic growth.

All six studies on aid's effect on education outcomes are largely positive, albeit modest (see Table 2). However, cross-country studies of health are somewhat more mixed and this may relate to the number of inputs that impact on health versus the arguably less complex area of school enrolments or even school completion. Seven of the available eleven health and aid studies suggest that aid has positive outcomes. Four studies are mixed or negative. Finally, on monetary poverty and aid there are six studies of which five are positive about the effect of aid on poverty.

**Table 2 Studies of education, health and income/expenditure poverty, and aid impacts**

| Sector | Positive impact of aid found | No impact/negative impact/mixed impact of aid found |
|---|---|---|
| Education | Arndt et al. (2014) find that aid has a causal effect on average years of schooling, and secondary schooling in particular and that an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to augment average schooling by 2.8 years.<br><br>Birchler and Michaelowa (2013) show that education aid has a modest impact on primary school enrolment.<br><br>Christensen, et al. (2011) find that bilateral education aid related to primary education has a modest impact on primary school enrolments.<br><br>d'Aiglepierre and Wagner (2013) find that aid for primary education has a strong positive effect on primary school enrolments (and gender parity). Diminishing returns also reported. Governance variable did not have an impact.<br><br>Dreher et al. (2008) show aid for education increases primary school enrolment but by modest amount. There is no significant impact of governance or democracy.<br><br>McGillivray et al. (2011) find that aid improves education (primary education completion), though more so for better off consumption groups than the poorest. | |
| Health | Afridi and Ventelou (2013) find that health aid reduces adult mortality.<br><br>Arndt et al. (2014) find that an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to reduce the infant mortality rate (IMR) by 14 in every 1,000 births.<br><br>Chauvet et al. (2013) find that health aid significantly reduces child and infant mortality.<br><br>Gomanee et al. (2005) find that aid contributes to reducing infant mortality and improving the Human Development Index and aid is more effective in countries with lower levels of human development. | Masud and Yontcheva (2005) find that bilateral aid does not reduce infant mortality but that NGO aid does.<br><br>Mukherjee and Kizhakethalackal (2013) find that the overall effect of health aid on infant mortality is not significant overall, but health aid reduces infant mortality rates only after a threshold in education has been reached.<br><br>Wilson (2011) finds no effect of health aid on infant or child mortality.<br><br>Williamson (2008) finds that health aid is ineffective at improving child mortality and other health indicators. |

| | | |
|---|---|---|
| | Kizhakethalackal et al. (2013) find that multilateral health aid reduces infant mortality but loses its effectiveness in countries with high infant mortalities.<br><br>McGillivray et al. (2011) find that aid improves child mortality, though more so for better off consumption than the poorest groups.<br><br>Mishra and Newhouse (2009) find that health aid has a small beneficial effect on infant mortality and that doubling per capita health aid is associated with a 2 per cent reduction in infant mortality. | |
| Income/ expenditure poverty | Alvi and Senbeta (2012) find that aid inflows reduce the $1/day poverty headcount and poverty gap. Further, multilateral aid and grants reduce poverty but bilateral aid and loans do not.<br><br>Arndt et al. (2014) find that aid reduces $1.25 and $2 poverty (2005 PPP) and show an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to reduce $1.25/day (2005 PPP) poverty by 15 percentage points.<br><br>Hirano and Otsubo (2014) find that aid in social sectors (education, health and water and sanitation spending) directly and significantly benefits the poorest and aid in economic sectors (transportation, energy and communications and financial infrastructure) increases the incomes of the poor via growth.<br><br>Kaya et al. (2013) find a significant relationship between agricultural aid and $1/day poverty reduction.<br><br>Mosley et al. (2004) find that a combination of growth, public spending priorities, inequality and corruption determine the effectiveness of aid in reducing $1/day poverty. | Chong et al. (2009) find no effect of aid on poverty headcount or poverty severity. |

Source: Authors.

Studies in education find that aid in the education sector has contributed to increased school enrolments and completion rates, albeit modestly: Arndt et al. (2014) find that aid has a causal effect on average years of schooling, and secondary schooling in particular and that an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to augment average schooling by 2.8 years. Birchler and Michaelowa (2013) show that education aid has a modest impact on primary school enrolment. Christensen et al., (2011) find that bilateral education aid related to primary education has a modest impact related to improved primary school enrolments. D'Aiglepierre and Wagner (2013) find that aid for primary education has a strong positive effect on primary school enrolments (and gender parity). Diminishing returns are also reported. Dreher et al. (2008) show that aid for education increases primary school enrolment but by a modest amount. And McGillivray et al. (2011) find that aid improves education (primary education completion), though more so for better off consumption groups than the poorest.

In health, seven studies identified find that health and aid have a positive association. Afridi and Ventelou (2013) find that health aid reduces adult mortality. Arndt et al. (2014) find that an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to reduce the infant mortality rate (IMR) by 14 in every 1,000 births. Chauvet et al. (2013) find that health aid significantly reduces child and infant mortality. Gomanee et al. (2005) find that aid contributes to reducing infant mortality (and improving the Human Development Index) and aid is more effective in countries with lower levels of human development. Kizhakethalackal et al. (2013) find that multilateral health aid reduces infant mortality but loses its effectiveness in countries with high infant mortalities. McGillivray et al. (2011) find that aid improves child mortality, though more so for better off groups than the poorest. And Mishra and Newhouse (2009) find that health aid has a small beneficial effect on infant mortality and that doubling per capita health aid is associated with a 2 per cent reduction in infant mortality.

Masud and Yontcheva (2005) find that bilateral aid does not reduce infant mortality, but that NGO aid does. Mukherjee and Kizhakethalackal (2013) find that the overall effect of health aid on infant mortality is not significant overall but health aid reduces infant mortality rates only after a threshold in education has been reached. Wilson (2011) finds no effect of health aid on infant or child mortality. And Williamson (2008) finds that health aid is ineffective at improving child mortality and other health indicators.

Finally, on monetary poverty five studies are positive about the effect of aid on poverty: Alvi and Senbeta (2012) find aid inflows reduces the $1/day poverty headcount and poverty gap. Further, multilateral aid and grants reduce poverty but bilateral aid and loans do not. Arndt et al. (2014) find that aid reduces $1.25 and $2 poverty (2005 PPP) and show an average annual aid inflow of 5 per cent of GDP over the period of 1970–2007 would be expected to reduce $1.25/day (2005 PPP) poverty by 15 percentage points. Hirano and Otsubo (2014) find that aid in social sectors (education, health and water and sanitation spending) directly and significantly benefits the poorest and aid in economic sectors (transportation, energy and communications and financial infrastructure) increases the incomes of the poor via growth. Kaya et al. (2013) find a significant relationship between agricultural aid and $1/day poverty reduction. Mosley et al. (2004) find that a combination of growth, public spending priorities, inequality and corruption determine the effectiveness of aid in reducing $1/day poverty. However, Chong et al. (2009) find no effect of aid on poverty headcount or poverty severity. What to conclude from this small sets of studies? The number of studies that find aid isn't effective are in the minority, but given the relatively few studies it is difficult to sustain definitive statements.

### 3.4 Summary of evidence review

We have reviewed the last ten years of peer-reviewed cross-country analyses on the impacts of aid on first growth and then social development, namely education, health and poverty reduction. In the first case, there is more convergence today than previously that aid has positive impacts on growth on average, albeit modest. With regard to the social sectors there are relatively few studies so caution is required other than to say that the cross-country education aid studies are positive, as are studies on monetary poverty (bar one) and that health aid studies are somewhat more mixed overall, although most are positive. What is worth noting is that even the smallish number of studies that do exist point towards the need to separate types of aid and types of country context to some extent.

These findings, particularly with regard to aid and growth, are worth reflecting on. They imply that the decades-old discussion about aid and growth is, at least for now, somewhat in abeyance, with the optimists holding the upper hand with regard to the evidence, albeit with one big qualification, namely that the contribution of aid to growth is modest. It seems that this latest evidence has yet to percolate into public debate, which is still somewhat dominated by the binary yes/no debate.

However, here we must return to our caveats. At the outset we suggested a cautionary approach to this body of evidence and we maintain that it is necessary here – even if there is more agreement than in previous generations of studies, the problems with the evidence base remain and statements such as 'aid supports economic growth/social development' remain problematic. We would argue that it is better to say that aid *can* support growth and social progress, and then to consider the conditions under which that is most likely. This is precisely the question to which we turn in the following section, focusing only on aid and growth studies due to the limited number of studies we found that are related to social development.

## 4. When is aid most likely to work?

We have looked at studies of the effects of aid on economic growth and social sectors and we have suggested that insofar as it is sensible to generalise at all, the evidence implies overall a positive relationship, albeit modest, between aid and growth at least, and too little cross-country evidence on social sectors to make generalisations. In this section we focus solely on growth and aid because of the paucity of studies of the impact of aid on social development that meet our criteria.

As we noted previously, recent generations of aid and growth studies point towards a set of conditions as to when aid is *most likely* to work. Radelet (2006, p.11) sums this up well when he states that aid has 'a *conditional* relationship with growth, helping to accelerate growth under certain circumstances'. He identifies three subcategories whereby aid's impact on growth depends on 'the characteristics of the recipient country, the practices and procedures of the donors, or the type of activity that the aid supports.'

Integrating more recent evidence and reordering somewhat, we argue that these categories can be reduced to two:

**First, country context** – meaning specifically:

- The characteristics of the host economy – e.g. human development levels; aid levels, financial development levels or the governance context (political stability, quality of democracy, decentralisation and so forth).

- The national government's policies – e.g. the role of complementary government policies such as the level of social spending or macroeconomic policies pursued.

**Second, aid management** – meaning specifically:

- The characteristics of aid – including the type of aid (for example, modality or sector) and aid governance, such as donor and recipient policies and approaches (this is potentially where much of the Paris/Busan agenda is relevant).

Not all these factors will matter in every situation of course and it is also essential to note that many studies suggest that one of the areas or sub-areas is the relevant one and that the other areas are largely irrelevant. Our purpose here is best illustrated in Table 3 where we have applied this approach to the aid and growth literature to illustrate how it can be divided into areas where there are (a) areas with convergence and (b) areas with little or no convergence or simply insufficient evidence to make any judgement. There are a number of areas one might expect to read about in a discussion of aid effectiveness (e.g. aid transparency), but if such themes are absent it is because there is no evidence of the type used in our review (i.e. peer-reviewed, cross-country studies) upon which to build a judgement.

In each of these areas we consider whether there are signs of convergence or divergence/insufficient studies to make a judgement. We define these as follows:

- Signs of convergence: multiple studies converge on a broad area being of importance to when aid is effective in encouraging growth.

- Signs of divergence: insufficient studies to make any judgement or multiple studies on a broad area with substantial disagreements.

We recognise that this categorisation has an element of authors' subjectivity and so the purpose here is not to take the categorisation as absolute but to order studies in a useful way to inform discussion and map the literature. No doubt some will disagree with some of our categorisations.

**Table 3 Summary of the conditions that are supportive to aid effectiveness for economic growth**

| Conditions | Signs of convergence? | Signs of divergence or too little evidence to form judgement? |
|---|---|---|
| **Country context** | | |
| 1a. Characteristics of the host economy | *Levels of aid (6 studies):* Aid is more effective if it is not too low and not too high as a proportion of GDP or GNI.<br><br>*Domestic political institutions (5 studies):* Aid effectiveness is determined by domestic political institutions in recipient countries. | |
| 1b. The recipient government's policies | | *Macroeconomic policies (7 studies):* Certain macroeconomic policies make aid more effective. |
| **Aid management** | | |
| Characteristics of aid and policies governing it | *Aid composition (8 studies):* The effectiveness of aid depends on what the aid is intended for.<br><br>*Aid volatility and fragmentation (8 studies):* Aid effectiveness is improved if aid is stable. Aid effectiveness is diminished by the presence of multiple donors in a given country. | *Grants or loans (2 studies):* Aid is more effective if grant-based. |

Source: Authors. Note: Some studies cover more than one issue.

## 4.1 Areas with signs of convergence

*4.1.1 Country context*

One area of convergence regarding aid effectiveness in supporting growth is that it depends to a very large extent on the country context of the recipient i.e. the characteristics of the recipient country and national government policies. There are two areas in particular where there are signs of a convergence: existing levels of aid and domestic political institutions. In contrast, there are no evident signs of convergence in the areas of macroeconomic policies. The following points outline the evidence on each:

*Levels of aid: aid is more effective if it is not too low and not too high as a proportion of GNI or GDP.* [21]

Some studies identify minimum thresholds for aid to be effective:

- Gyimah-Brempong et al. (2012) find a negative partial growth effect of aid at low levels of aid but a positive effect when the ratio of aid-to-GNI reaches a threshold of between 6.6 and 14.4 per cent.

- Kalyvitis et al. (2012) find that ratio of aid-to-GDP should exceed 3.4 per cent of a recipient's GDP to boost growth.

- Wagner (2014) finds for countries with higher levels of macroeconomic vulnerability, that the marginal impact of aid is zero or negative until an aid-to-GDP ratio of 2 per cent, at which point marginal returns become positive and the impact of aid on growth increases as aid rises up to an aid-to-GDP ratio of 12 per cent, after which marginal returns to aid become negative.

Other studies identify a maximum threshold level for aid to be effective:

- Alvi et al. (2008) find that aid is not effective above an aid-to-GDP ratio of 4 per cent.

- Clemens et al. (2012) place the inflection point of decreasing returns starting at aid-to-GDP ratio of 15–25 per cent.

- Islam (2005) finds that the returns to aid become negative at higher levels of aid inflows; in particular, the 'turning point' is at an aid-to-GDP ratio of 5.8 per cent.

- Wagner (2014) finds that for countries with a low level of macroeconomic vulnerability, aid has a significant impact on growth and the marginal effectiveness of growth rapidly diminishes and becomes negative as the ratio of aid-to-GDP rises above 2 per cent.

*Institutions: aid effectiveness is determined by domestic political institutions.*

Studies focus on various aspects of political institutions:

[21] See also Feeny and McGillivray (2011) review of studies on these thresholds.

- Angeles and Neanidis (2009) find that aid is less effective for GDP per capita growth if there is a local elite with extensive political and economic power that has little concern for the rest of the population.

- Baliamoune-Lutz and Mavrotas (2009) find strong evidence that social capital and institutions enhance aid effectiveness.

- Dovern and Nunnenkamp (2007) find that aid is more effective in badly governed recipient countries.

- Islam (2005) finds that aid is only effective in a politically stable environment and is ineffective in an unstable environment.

- Lessmann and Markwardt (2012) find that aid contributes to growth in centralised developing countries and is less effective or even harmful in decentralised countries.

*4.1.2 Aid management*

Turning next to aid management, there is some kind of convergence in these areas: aid composition; aid volatility and fragmentation. In contrast, there is no convergence when it comes to the question of grants versus loans. The following points outline the evidence on each:

*Composition: the effectiveness of aid depends on what the aid is intended for.*

Studies focus on objectives, sectors, modalities and time horizons of aid:

- Annen and Kosempel (2009) find that technical assistance has a positive impact on growth (except in countries where aid is highly fragmented) and non-technical assistance has no statistically significant impact on growth.

- Clemens et al. (2012) find that aid effectiveness is related to the composition of aid when it is directly aimed at affecting growth (building roads, ports, and electricity generators, or supporting agriculture) and that 'early-impact' aid (budget support or 'programme' aid, project aid given for real sector investments for infrastructure or to directly support production in transportation, communications, energy, banking, agriculture and industry) is found to be more effective than other types of aid (technical cooperation, social sector investments, humanitarian assistance, donors'

administrative costs and development awareness programmes) in contributing to growth.

- Dovern and Nunnenkamp (2007) find that short-impact aid is more effective but the results are fragile to changes in the specification.

- Feeny and Ouattara (2009) find that aid is effective for agriculture growth in income per capita but weak for industrial growth.

- Kaya et al. (2012) find that of four categories of aid (agricultural aid, social infrastructure aid, investment aid and non-investment aid), that aid which is directed to the agricultural sector of developing countries is positively and significantly related to growth and can affect economic growth in the short run. Other types of aid are not found to be significant in impact on growth or findings are mixed.

- Minoiu and Reddy (2010) find that 'developmental aid' (which is aid which seeks to promote economic growth or other development objectives) is more effective than 'non-developmental aid' (all other aid).

- Ouattara and Strobl (2008) find that of the four aid modalities investigated (project aid, financial programme aid, technical assistance grants and food aid), project aid positively and significantly affects growth but with diminishing returns and financial programme aid generally impacts on growth negatively, while the impacts of technical assistance and food aid are statistically insignificant.

- Rajan and Subramanian (2008) do not find any evidence that short-impact aid is more effective than other aid. However, Bazzi and Clemens (2013) show these findings rest on weak and invalid instrumental variables.

*Volatility and fragmentation: Aid effectiveness is improved if aid is stable and concentrated.*[22]

Most studies focus on the impact of aid volatility on effectiveness:

- Bulir and Hamann (2007) find the positive impact of aid is limited by aid volatility.

[22] See also Hudson (2012) in particular for a literature review and discussion of which aid is most volatile.

- Chervin and van Wijnbergen (2009) find that the volatility of aid flows is negatively related to growth and if aid volatility is controlled for, aid has a positive impact on economic growth.

- Hudson and Mosley (2008) find that aid volatility as a whole reduces growth but not in a uniform way.

- Kodama (2012) finds that aid unpredictability drastically hinders aid effectiveness in terms of long-run growth.

- Markandya et al. (2010) find that in the long run, aid volatility is negatively correlated with economic growth but this impact is more evident in low-income countries and countries with weak institutions. The impact is not present in middle-income countries and developing countries with strong institutions.

Some studies focus on aid fragmentation:

- Djankov et al. (2009) find that aid effectiveness is diminished by the presence of multiple donors in a given country because donor fragmentation is associated with greater domestic corruption.

- Kimura et al. (2012) find that aid concentration (the opposite of aid fragmentation) improves the effectiveness of aid for growth.

## 4.2 No evident signs of convergence

Having looked at the areas where there is convergence in the literature around key aspects of aid effectiveness, we now list two areas where there is little or no convergence.

*4.2.1 Country context*

Macroeconomic policies: certain macroeconomic policies make aid more effective.[23]

*Studies focus on the extent to which an orthodox macroeconomic policy framework is associated with aid effectiveness:*

[23] We argue that there are signs of convergence on the importance of institutions but not macroeconomic policy, but clearly the two are related and not separable (in fact Dollar replaced the policy index with measures of institutions in later work).

- Alvi et al. (2008) find that there is a macroeconomic policy threshold (based on a policy index of the following variables: budget surplus, trade openness, inflation) after which aid is effective for GDP per capita growth.

- Chatelain and Ralf (2014) find that the Burnside-Dollar aid-policy result is fragile if 4 observations are removed (in particular 3 observations from Botswana).

- Collier and Dollar (2004), building on Burnside and Dollar (2000) find that 'good' economic policy (orthodox economic policies) improves aid effectiveness.

- Dalgaard et al. (2004) find that the effectiveness of aid is not conditional on 'good' economic policy (as defined by Burnside and Collier).[24]

- Easterly et al. (2004) find that the Burnside-Dollar aid-policy result is fragile when the dataset is expanded (by years and countries).

- Islam (2005) finds that aid is only effective in a politically stable environment irrespective of the quality of economic policies and is ineffective in an unstable environment even in the presence of 'good' economic policies.

- Tan (2009) finds that 'good policy' (budget surplus, inflation and trade openness) actually reduces aid effectiveness in terms of the long-run growth rate.

*4.2.2 Aid management*

*Grants or loans: aid is more effective if grant-based.*

Studies focus on the extent to which aid is concessional or not:

- Annen and Kosempel (2009) find that where aid is less fragmented it will have a larger impact on growth than more fragmented aid.

- Cordella and Ulku (2007) find that higher aid concessionality is good for growth.

[24] Dalgaard et al., (2004) also find that the magnitude of aid effects depends on climate-related circumstances.

- Dovern and Nunnenkamp (2007) argue that grants are not superior to loans and rather that the effect of an increase in the loan to GDP ratio is considerably larger than an increase in the grants to GDP ratio.

# 5. Conclusion

In this paper we have reviewed the last ten years of cross-country, econometric, peer-reviewed evidence on the relationship between aid and i) growth; and ii) social development. We have done so with a view to generating information on when aid is more likely to work. We argue that rebooting the aid effectiveness debate in this way is coherent with the nature of the evidence, which suffers from both definitional and methodological problems.

Broadly speaking, we have found that the most recent studies, over the last decade, have been more positive on the role aid can play in these areas than previous generations which should, for now at least, give aid's critics some pause for thought – the public debate, which often seems divided between the pro- and anti-aid camps, has some way to go to catch up with the balance of the evidence. However, we have also cast further doubt on the legitimacy of generalised 'aid works' and 'aid doesn't work' claims. In our breakdown of what the empirical, cross-country, peer-reviewed evidence suggests on the effectiveness of aid, with a particular focus on the growth literature, we propose a set of factors that determine when aid is *most likely* to work. We have found it useful to break down the conditions governing aid's effectiveness into two categories: (i) the country context, meaning the characteristics of the recipient country and national government policies; and (ii) aid management, meaning the characteristics of aid and donor policies and practices.

Of the generalisations we felt able to make based on the literature, it is worth discussing the following five issues that may have direct relevance for policy decisions on aid and for the Paris/Busan aid effectiveness discussions.

## 5.1 Aid levels and aid effectiveness

It is logical that aid is likely to have diminishing returns as it grows relative to the size of the economy or government expenditure, and even turning negative. The last decade of evidence backs this up. Evidence also suggests that aid at low levels may have little impact on growth. Perhaps unsurprisingly, given the scope of the exercise and varying methodologies, there are differences about the precise level below or above which aid is ineffective in promoting growth, which is why we have grouped this condition together

under the broad heading 'Aid levels and aid effectiveness'. This is an important finding not because it is surprising – it shouldn't be – but for the neglect that there has been in policymaking circles of this critical element of aid effectiveness. In the most important aid effectiveness process, the Paris agenda and its successor meetings, the issue has barely merited a mention, and there appears to be no mechanism whereby donors and recipients can analyse appropriate aid levels and moderate them up or down according to effectiveness criteria. Instead, there appears to be a generalised push for more aid for the poorest and less aid for countries reaching middle-income status, a policy seemingly directed more by political concerns than by the aid effectiveness evidence. Unlike other contextual issues, aid levels is an area entirely susceptible to concerted action by donors and recipients.

### 5.2 Domestic political institutions and aid effectiveness

It is not a surprise that some of the batch of papers we have reviewed emphasise the role of domestic political institutions. This has been an article of faith for most aid practitioners for at least a decade or so (see Booth's 2011 summary of the broader evidence than we cover here). What kind of domestic political institutions exactly are likely to increase aid effectiveness is less clear. Political stability and the levels of decentralisation are two issues that the evidence points towards.

### 5.3 Aid composition and aid effectiveness

We find that a further issue is the composition of aid in terms of aid objectives, sectors, modalities and time horizons. In short, the effectiveness of aid depends on what the aid is intended for. For example, aid effectiveness for growth is improved if aid focuses on 'developmental aid' (which is aid which seeks to promote economic growth or other development objectives) rather than 'non-developmental aid', or the composition of aid is directly aimed at affecting growth (building roads, ports and electricity generators, or supporting agriculture) or focused on agricultural aid. Further, budget support/ 'programme' aid and project aid given for real sector investments is likely to be more effective for growth than other types of aid, but caution is required as aid in other sectors such as health and education may only affect growth after a long period of time and thus may be difficult to detect rather than be non-existent.

### 5.4 Aid volatility and aid effectiveness

If our first finding, on aid levels, is almost entirely absent from the dominant aid effectiveness debates, our finding on aid volatility is ubiquitous in them. Reducing aid volatility and fragmentation has been a key feature of the Paris agenda. Unfortunately, the focus on it has not led to significant improvements. According to the 2011 Paris Declaration Monitoring Survey, only 43 per cent of aid was predictable in 2010, compared to 42 per cent in 2005, and there was a similarly disappointing increase in the use of common arrangements, joint donor missions and joint analytical work. It is to be hoped that this further evidence of the importance of stability and donor coherence will spur efforts.

### 5.5 Two big aid effectiveness unknowns

We identify two areas where there is little convergence in the evidence, despite oft-cited claims to the contrary. First, on macroeconomic policies, papers published since 2004, starting with Easterly's important rebuttal, overturn a previously core belief in official development circles i.e. that aid supports growth when the recipient country is implementing certain macroeconomic policies generally described as 'good', meaning orthodox policies. There is no consensus. Second, the debate between proponents of grants and loans also has a long history in the literature. The findings of this latest generation of evidence simply confirms that this remains a disputed area in the academic literature. This is not to say that in different contexts grants may be more appropriate than loans, or vice versa, simply that there are no generalisations that can currently be made on the subject.

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## Annex: list of studies by subject

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