Aid Effectiveness – Opening the Black Box

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The empirical literature on aid effectiveness has yielded unclear and ambiguous results. This is not surprising given the heterogeneity of aid motives, the limitations of the tools of analysis, and the complex causality chain linking external aid to final outcomes. The causality chain has been largely ignored and as a consequence the relationship between aid and development has been mostly handled as a kind of 'black box'. Making further progress on aid effectiveness requires opening that box.

This paper examines the causality chain linking aid flows to development outcomes. It argues that many of the questions that policy makers and economists would like to squeeze data into answering simply cannot be answered due to the complexity and 'noise' along links in the chain, and hence the problem of attribution. It then examines what *is known* about aid effectiveness along different links in the causality chain. Finally, it turns to recent trends in the way aid is delivered and the new model that appears to be emerging.

I. The 'causality chain': aid, effectiveness and results

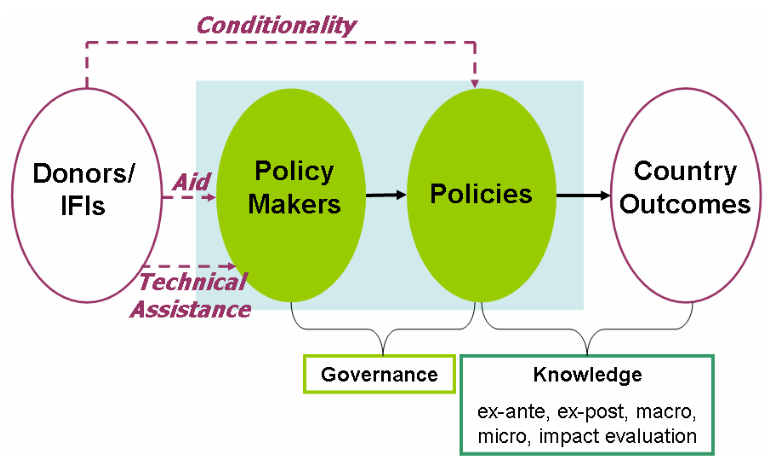
The debates around the impact of aid on development have typically aggregated aid as a single resource and examine whether more aid leads to better outcomes, in particular to higher growth. Cross-country regression analysis on this largely concludes that the relationship between aid and development outcomes is fragile and often ambiguous (Rajan and Subramanian, 2005; Easterly et al, 2003; Clemens et al, 2005). Meta-analysis of ninety-seven different studies on the impact of aid on growth, drawing on three different approaches used in the literature, concluded that at best there appears to be a small positive, but insignificant, impact of aid on growth.[i]

It is no surprise that reduced form analysis shows tenuous links between aid and development outcomes. Aid has often been for non-developmental objectives, such as disaster relief or for military and political ends. Much aid is lost due to instability and conflict: roughly half of aid to Sub-Saharan Africa has gone to countries facing civil war and/or frequent military coups (Fitzpatrick et al, 2007). Much (though not all) aid has also been wasted on poorly conceived and executed projects and programs, often fettered by debatable conditionality. And from a statistical point of view many technical problems arise: distinguishing short vs. long term impact, problems with endogeneity of the aid-growth relationship, difficulty determining the direction of causality or controlling for country-specific characteristics, etc, (Bourguignon and Leipziger, 2006). Case studies do not avoid this due to the difficultly of establishing the counterfactual: Easterly (2006) argues that aid is not associated with growth in Africa, whereas Collier (2006) argues that in the absence of aid growth would have been far worse. Moreover, the multi-dimensionality of development objectives—mean income, poverty, literacy, access to sanitation, inoculations—further complicates empirical analysis.

The lack of an unambiguous answer is little different at the project level. Due to the difficulty of *attribution,* it is not really possible to say how many children are inoculated or crops taken to market on account of a dollar of aid. Even with a well specified production function, identifying what the marginal dollar of aid buys it is not straight forward. It is practically impossible to say whether an additional child being vaccinated is due to an immunization aid program, additional domestic public or private funding of the health system, reduced spending on other development outcomes, or possibly an improvement in health care delivery. Finally, money is fungible, even with earmarking.

In view of this difficulty, a better understanding of the links from aid to final outcomes is necessary. Trying to directly relate donor inputs and development outcomes, as through some kind of black box, will most often lead nowhere. If a dollar of aid produces little discernable change, was the objective ill-defined, the service delivery inefficient, bureaucratic measures inadequate, or was money diverted? Opening the black box permits identifying three types of links which, in turn, may provide some answer to this sort of question (Figure 1).

Figure 1: The Causality Chain – Inside the Black Box



i) Policies to outcomes (knowledge). Development outcomes are determined by policies. How do macroeconomic stability, the tax structure or trade policies affect investment, production, growth or poverty? Do conditional cash transfer programs induce behavior change in the demand for schooling? Economic research and evaluation of development experience potentially is a source of cumulative 'knowledge' on this crucial causal link.

(ii) Policy makers to policies. A second critical link is the way national and local policy making leads to the 'good' policies. This is basically governance: bureaucratic capability, institutional capacity, checks and balances mechanisms, etc. Note, however, that governance is in essence the reflection of institutions, and is likely to react to the presence of aid itself.

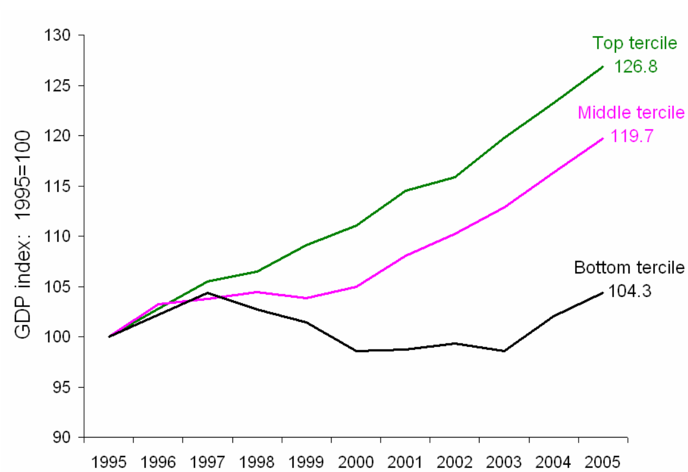
(iii) External donors/IFIs to policy makers. Aid agencies, foreign NGOs, and international financial institutions (IFIs) influence local policy makers through providing financial resources, through their influence on policy debate and formulation, and through technical assistance. They also try to impose policies through aid conditionality, but operate with imperfect knowledge of the local environment and, more importantly, imperfect control of the implementation of these policies. Technical assistance and loan conditionality are two ways to influence policy.

Links along this chain can be measured and monitored to help clarify the contribution of aid to outcomes. This includes evaluating the quantity and quality of aid, the quality of donor coordination; governance characteristics of aid recipients, the quality of domestic policies aimed at particular outcomes, as well as benchmarking and tracking development outcomes.

II. What *do* we know about aid effectiveness?

Taking each link in turn, there is substantial (although very incomplete) knowledge about the potential contribution of each to effecting development outcomes. Regarding the impact of policies on outcomes there is a good understanding of the effect of macro stability, the ‘investment climate’, or well-managed trade openness on growth, even though country specificity can make it difficult to generalize - for example on the impact of openness. Knowledge of the effects of policies may be both *ex-post*, resulting from evaluation of experience, or *ex-ante*, based on economic reasoning or modeling. As a general confirmation of this, cross-country comparisons show that better quality policies (measured for instance by that part of the World Bank's CPIA[ii] indicator that describes policies) are associated on average with higher GDP growth. Low-income countries in Sub-Saharan Africa illustrate this: higher CPIA tercile countries grew significantly faster (Figure 2).

Figure 2: Growth Performance and CPIA Terciles for Sub-Saharan Africa



Source: World Development Indicators 2006, GDP per capita, constant 2000$, PPP

Knowledge at the micro and project level is also expanding based on evaluations using experimental or quasi-experimental designs to examine the impact of specific policies or projects on local communities, household decision making and individual welfare. Ex-post impact evaluations help inform governments and donors, as even critics of aid and donor agencies concede (e.g. Easterly 2006). For example, rigorous evaluation of the Mexican conditional cash transfer program, *Progresa,* has shown it effectively increased school attendance and improved nutrition of poor families. As a consequence, the same type of program has now been launched in 25 developing countries and rigorous evaluation is being conducted for several of them.

Given countless projects and their different impact under varying country circumstances, continual evaluation and learning is needed. However, the *limitations* of impact evaluation must also be recognized. It is illusory to believe that all interventions can be subject to impact evaluation, and that evaluations will permit to direct the flow of aid exclusively to 'what works', as some have suggested (Banerjee, 2006, Easterly, 2006). It is impossible to evaluate all projects and evaluations can be misleading when projects or programs are applied outside the country context in which they were evaluated. Also, many policies have general equilibrium effects which impact evaluations ignore. Nonetheless, it is a grossly underutilized instrument, and there is tremendous scope to improve and regularize its use in bilateral and multilateral donor agencies.

The link from policy makers to policy formulation and implementation depends largely on governance systems. There is some evidence that good governance is associated with good policies[iii], although the direction of causality is hard to untangle. But in practice most research has focused on the relationship between governance and development outcomes, bypassing the impact on policies, and pointing to the importance of good governance for better outcomes (Acemoglu et al., 2005). This logic lies behind using governance in performance-based aid allocation systems.

The third link, from donors to policy makers, reveals a body of evidence that is more circumstantial and built in large measure on years of failed aid efforts. Political and historical drivers of aid include post-colonial relations, commercial interests, the Cold War, or more recently the ‘war on terror’ (Dollar and Levin, 2004; Amprou et al 2005, Fitzpatrick et al 2007). More importantly, donor views of the 'right development policies', have been promoted through aid conditionality with little reference to country context: public enterprise privatization and finance liberalization have at times been treated as necessarily good, often ignoring local parameters making such measures ineffective, risky or counter-productive.

In hindsight, problems with failed policy conditionality are unsurprising. Donors and agencies presumed that heavy-handed conditionality on a set of policies would 'make development happen'. Conditionality was aimed at binding policy makers around donor priorities. Loans typically included dozens of far-reaching conditions, which were viewed as the main instrument to ensure policy compliance and implementation. In some cases this undermined local officials while failing to reach donor objectives (World Bank, 2005).

Fragmentation of aid across donors has also contributed to higher 'compliance costs', less predictability, and greater aid volatility. Aid flows are more volatile than public revenues which, with imperfect credit markets, undermine long-term investment planning. The need to improve aid quality and redesign delivery systems to improve aid 'harmonization and alignment' is now widely recognized.

Part III. Towards a new aid model?

Beginning with the end of the Cold War in the early 1990s, and the momentum generated by the Millennium Summit in 2000 and Monterrey meeting in 2002, many changes in aid architecture have begun to take shape. Two main features are emerging. One is the emphasis on ***country ownership*** of the development strategy, around which donors are to 'align' themselves. Aid is increasingly linked to autonomous implementation of the national poverty reduction strategy (PRS), rather than bilaterally negotiated policy conditions. Harmonization of procedures is gradually advancing: the March 2005 *Paris Declaration on Aid Effectiveness*, signed by over 100 countries, recognizes that improving aid coordination, donor alignment with country strategies, and cutting the 'compliance burden' on aid recipients, are vital.

The second feature is ***allocation of aid on the basis of performance*** as measured by the strength of country policies and the monitorable results (intermediate indicators) they deliver. Performance indicators cover various aspects of development effectiveness: governance, the policy environment, intermediate results, and final outcomes. Good governance is needed for more effective policy design and better use of public resources. A good *general* policy environment guarantees that the basic conditions needed to help development are met: sound macro policies, a favorable investment climate, decentralization mechanisms for efficient local policy choice, etc.

Both features of the new approach point to the principal-agent model as a conceptual framework. The canonic example of a principal-agent relationship is of an employer (principal) hiring a worker (agent) with asymmetric information: the employer is unable to identify how much work output is due to work effort and how much is due to good or bad luck. The (constrained) optimal solution is to allow workers to choose their work effort level and to compensate them based on their results. Analogously, the donor cannot monitor the aid recipient's commitment to reform nor the real implementation of reforms needed to strengthen outcomes.[iv] Usual aid practices ignore this fact, relying instead on a largely non-enforceable principle of conditionality. One implication is that the aid recipient be free to choose development policies and to implement them. The second implication is that aid should be made dependent on observed or possibly foreseeable progress in development outcomes like poverty reduction, improved literacy rates, lower child mortality, etc., and on the observable general quality of policies.

The use of implicit aid contracts, based on monitorable evidence of improvement in final results and the observable quality of policies, is the direction in which donors are beginning to move. Aid allocation is increasingly done on the basis of country performance that combines governance, general policy environment and some intermediate or final results. The use of the CPIA index, although imprecise in its coverage, is a move in that direction. The selectivity of aid allocation based on the quality of governance and general policies, has increased significantly since the mid-1990s, particularly among the multilateral institutions but also among bilateral agencies, possibly pointing to the emergence of a new model. Consistent with this trend is the donor commitment to make aid more predictable, and deliver more aid as budget support rather than tying it to specific imports, projects, or policies.

While progress is evident, there remain several major challenges to the new performance-based model. First, there are *time consistency* problems both for donors and recipients: if performance is measured over too short a period, unpredictability and volatility of aid is likely making rational long-run planning of public expenditures impossible; too long a period and the weaker are incentives for the recipient government to perform well since its own duration is limited.

A second challenge is balancing aid allocation between rewarding *good performance* and addressing the *greatest need*. Emphasis on the former risks focusing aid on a limited number of countries which are already doing well. Emphasis on the latter risks putting resources in poorly managed, inefficient, and possibly ineffective environments, and may undermine incentives for better performers. A balance is necessary, but as in standard redistribution problems, incentive constraints may impose limits on redistribution towards the poorest.

How should aid be given if policy and governance quality is very weak, and the risk of resource diversion is high? These are often some of the world's poorest countries. Clearly need must also be an important allocation criterion. For these *fragile states*, aid must be managed differently, possibly bypassing government to channel resources directly to end users through reliable NGOs, and/or limiting aid to humanitarian assistance.

For countries in between that fail to meet the implicit policy and governance threshold for being given autonomy, but have a reasonably stable and capable state, neither approach is adequate. Fiduciary controls are necessary for budget support, and progress must be made on governance and the quality of policies. This suggests something closer to current practice, but limiting aid to projects where fiduciary oversight is tighter, and centering the development dialogue on strengthening public services and governance. Donor alignment, harmonization, and better monitoring are still needed to improve aid effectiveness.

IV. Conclusions

It is not surprising that cross-country evidence on aid effectiveness is fragile. But this does not mean *all* aid is ineffective, nor that little is known about how to make aid more effective. Peering inside the 'black box' linking aid to development outcomes helps clarify three relationships about which much is known: from donors to policy makers; policy makers to policies; and from policies to outcomes. Improving knowledge about these links and how they contribute to strengthening development outcomes is helping reshape the prevailing aid model based on two elements: (i) country ownership of the development strategy, around which donors need to align, and (ii) aid allocation based primarily on *monitorable* results (governance as well as outcome indicators). The international aid architecture has begun to reflect this, albeit slowly and for a limited number of well-governed developing countries. Though it is too soon to evaluate this progressive shift, it holds promise for improving aid effectiveness while also posing major challenges for the numerous fragile and poorly governed states.

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[i] Doucouliagos and Paldam's (2005) analysis covers three approaches: through aid to savings and investment; directly from aid to growth; through aid *conditional* on 'good policies' to growth. All are reduced form or 'black-box' approaches.

[ii] Country Performance and Institutional Assessments prepared by staff of the World Bank rank countries by 16 indicators including the quality of governance and policies.

[iii] See for instance Acemoglu et al. (2002). Simple regressions of governance on indices of policy quality suggest greater 'rule of law' is associated with good policy outcomes as measured by the CPIA (Levy, 2007).

[iv] There are several applications of the principal-agent model to aid, for instance Svensson (2002).