Aid and Trust in Country Systems*

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Abstract

The 2005 Paris Declaration on Aid Effectiveness sets targets for increased use by donors of recipient country systems for managing aid. A consensus view holds that country systems are strengthened when donors trust recipients to manage aid funds, but undermined when donors manage aid through their own separate parallel systems. We provide an analytical framework for understanding donors' decisions to trust in country systems or instead to micro-manage aid using their own systems and procedures. Where country systems are sufficiently weak, aid's development impact is reduced by donors' reliance on them. Trust in country systems will be sub-optimal however if donors have multiple objectives in aid provision rather than a sole objective of maximizing development outcomes. Empirical tests are conducted using data from an OECD survey designed to monitor progress toward Paris Declaration goals. Trust in country systems is measured in three ways: use of the recipient's public financial management (PFM) systems, use of direct budget support, and use of program-based approaches. We show using fixed effects regression that a donor's trust in recipient country systems is positively related to (1) trustworthiness or quality of those systems, (2) tolerance for risk on the part of the donor's constituents, as measured by public support for providing aid, and (3) the donor's ability to internalize more of the benefits of investing in country systems, as measured by the donor's share of all aid provided to a recipient.

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1. Introduction

Transfers of official development assistance (ODA) from rich to poor countries exceed $100 billion per year, and represent a large share of government spending in many recipients. The Monterrey Consensus (in 2002) committed donor countries to increasing aid further, despite doubts by leading development researchers that aid has been effective in reducing poverty (e.g. Easterly, 2003; Rajan and Subramanian, 2008).

Donor organizations recognize that political support for scaling up aid depends on improving perceptions of its effectiveness in promoting development. Some donors have attempted to increase aid's impact by allocating a larger share of it to recipients with both high poverty levels and "sound economic management" (World Bank, 1998; Collier and Dollar, 2002). Research findings (Burnside and Dollar, 2000) consistent with this prescription turn out to be fragile (Easterly, Levine and Roodman, 2004; Rajan and Subramanian, 2008). However, the broader message that aid will be used more productively in countries with fewer policy distortions, less rent seeking and more competent government bureaucracies is highly intuitive and continues to influence the allocation decisions of many multilateral and bilateral donors.

In response to concerns regarding the "quality" of aid, the Rome Declaration on Harmonization (in 2003) and Paris Declaration on Aid Effectiveness (in 2005) moved implementation issues to the top of the international aid effectiveness agenda. In these Declarations, donors committed to improving inter-donor coordination and to practices more consistent with the principal of country "ownership" of development strategies. In particular, the Paris Declaration exhorts donors to "base their overall support on partner countries' national development strategies, institutions and procedures."

Advocacy of the new agenda for aid effectiveness embodied in the Paris Declaration is based primarily on intuition and accumulated anecdotal evidence. Donors' frequent use of their own separate procurement, reporting and other requirements imposes sizeable transactions costs on aid recipients, that can be substantially reduced by improved "alignment" of aid activities with country programs and management systems. Overlapping donor missions and analytic work are often redundant, so there are potential gains from improved "harmonization" among donors, to eliminate wasteful duplication. A notable example of the inefficiencies motivating the Paris Declaration was described in the *World Development Report 2004*: the construction of a simple building in Bolivia was paralyzed by the need for three different donor organizations to follow three different sets of procurement rules (World Bank, 2003: 213). In this paper, we provide a more systematic theoretical framework for understanding the incentive problems

producing these sorts of outcomes. We also provide empirical evidence largely consistent with the predictions of this theoretical framework.

The Paris Declaration's call for increased use of recipient systems in managing aid is not oblivious to the risks involved. The document explicitly acknowledges that weak country systems make aid less effective. Recipients, with technical assistance from donors, are urged to strengthen their public financial management (PFM) systems and formulate a credible national development strategy where one does not exist. In the meantime, using those systems, despite their flaws, is believed to strengthen them: "Donors can help build capacity and trust by using country systems to the fullest extent possible, while accepting and managing the risks involved…" (OECD, 2009a: 27).

Donors' decisions to place trust in country systems or, alternatively, to micro-manage aid using their own parallel systems, are influenced by both donor and recipient characteristics. Where recipient PFM capacity is stronger, the likelihood of a corruption scandal tarnishing the donor agency's reputation is lowered, and aid funds are more likely to be spent productively in implementing a national development program. Development goals are more likely to be achieved if donors' use of country systems is at least somewhat responsive to the quality of those systems. However, there are other reasons to believe that donors' reliance on country systems will be sub-optimal in most cases.

The benefits of using country systems are mostly external (benefiting other donors) and realized only over the long term, while costs are short term and fully internalized by the donor. If donor agency i chooses to help strengthen country systems, for example by providing aid in the form of budget support or technical assistance for PFM reform, it is in effect providing a public good for other donors. The stronger systems that result reduce reputational and fiduciary risks, and increase the developmental impact of aid funds, not only for donor i's future aid but also for other donors. Meanwhile, donor i incurs the full costs, in exposing its current aid funds to higher risks than if it bypassed recipient country systems.

Moreover, donor i's provision of budget support (or technical assistance for PFM reform) conflicts with political imperatives to show visible achievements, attributable to its own aid funds, to skeptical taxpayers or elected officials at home. If (as is likely the case) officials in donor agency i have short time horizons, incentives to under-invest in aid practices that strengthen rather than weaken country systems are aggravated. Donor i (and other donors) will have an incentive to free ride on the investments of other donors, and manage aid through parallel systems using its own accounting, procurement and other procedures.

Donors differ from each other, however, in their willingness to use country systems, because they have different mandates and face varying degrees of political pressure from their taxpayers and elected overseers. We provide empirical evidence that multilateral donors exhibit greater trust in country systems than bilateral donors. Among bilateral donors, we show that use of country systems is higher where public opinion on foreign aid provision is more favorable.

For any given donor, trust in country systems varies by recipient country. We show empirically that quality of PFM systems is a strong determinant of trust in country systems. In recipients where a given donor has a larger share of the aid "market," more of the benefits from its investments in strengthening country systems will be internalized. Consistent with this argument, we show that donor *i* 's use of country systems is positively related to its share of all aid received by a given recipient, controlling for quality of recipient systems.

In summary, a donor's trust in a recipient's aid management systems is determined by three sets of variables:

- Trustworthiness of those systems, as measured e.g. by PFM quality or corruption ratings
- Trust in aid's effectiveness in general, on the part of its domestic constituents
- Confidence it will reap sufficient benefits from investing in recipient country systems

The next section elaborates on these arguments and presents a formal model of a donor's decision to manage aid using its own systems or recipient country systems. Section 3 describes the data used for empirical testing, and summarizes hypotheses to be tested. Detailed results are reported in section 4. The final section summarizes and briefly discusses policy responses.

2. Theory

Aid delivery entails a long chain of principal-agent relationships, each one with the potential to weaken the development impact of aid. Taxpayer funds are allocated by elected officials to aid agencies, sometimes earmarked for particular uses or tied to employment of donor-country contractors.[1] Projects are implemented by contractors hired by aid agencies or recipient government officials (if aid is in the form of budget support), typically under incomplete contracts with uncertain costs and imperfectly observable outputs (Martens et al., 2002: ch. 3). Government officials in recipient countries, in turn, are imperfectly accountable to their citizens, and may pursue other goals conflicting with development and poverty reduction objectives (Svensson, 2000; World Bank, 2003: ch. 6). Recipient governments may steer

[1] Interest by USAID staff in improved coordination with other donors is often stymied by Congressional earmarks and directives. The U.S. Congress micro-manages its aid agencies more than other donor country parliaments, at least in part due to relatively strong separation of powers and weak party discipline (OECD, 2006: 21-22, 64; Lancaster, 2007: 99-100).

projects or funds to favored constituencies in attempting to strengthen their hold on power. Public funds including aid could be diverted to private uses including overseas bank accounts.

More problems arise if we relax the assumption that a donor agency or a recipient government constitutes a single decision unit. For example, a donor agency official responsible for the success of a particular project will have an incentive to bypass weak country systems, even if doing so conflicts with the agency's objective of using country systems more frequently. Within a recipient government, central ministries typically prefer aid be managed via country systems, but line ministries often face different incentives. A donor and line ministry may collude to bypass central ministries in their efforts to shift resources toward particular sectors, or to produce more visible outputs such as hospital or school buildings (Wuyts, 1996: 742-3).

> Project modalities with parallel funding and management mechanisms generate multiple material and non-material benefits for the ministers and civil servants in whose sectors they are located, including salary top-ups, allowances, vehicles, training and travel opportunities and prestige. Ministers, parliamentarians and local authorities are interested in the political credit they get from attracting a stand-alone project to a specific sector or area. (Williamson and Agha, 2008: 35).

For simplicity, we abstract from most of the principal-agent problems outlined above, and focus on only a small subset of the links in the aid delivery chain, selected on the basis of analytical tractability and feasibility of empirical testing. Specifically, we analyze how a donor agency's trust in country systems is affected by: (1) the commitment and capacity of a recipient government to spend aid funds productively, (2) political constraints on donors associated with their particular mandates and domestic constituencies, and (3) the donor's ability to internalize the benefits of its investments in country systems. "Trust" in our terminology does not necessarily imply an absence of perceived risk, i.e. a belief that a recipient is particularly trustworthy. Nor does it necessarily imply the presence of significant risk. Rather, trust - as reflected in a donor's decision to use country systems – is a behavior, not a belief. Trust is facilitated by low perceived risk, a high tolerance for risk, and ability to internalize the benefits from investing in country systems.

The quality of country systems varies by recipient, and so will donor perceptions of risk. The Paris Declaration recognizes that weaknesses in country systems sometimes justify donors' decisions to bypass them. Its targets include improvement in quality of recipients PFM systems (including procurement systems), and the formulation of national development strategies with priorities linked to the budget. The developmentally-optimal level of trust by donors in country systems varies positively with the quality of those systems. Jansen (2009: 23) reports on rampant corruption in a donor-funded natural resource management project in Tanzania, where

"the financial management system which the Norwegians chose to trust functioned very badly." In this case, trust may have been inefficiently high, but more often it is likely to be too low.

The Paris Declaration's high numerical targets for several indicators of aid harmonization and alignment, to be achieved by 2010, reflect a view that donors currently exhibit too little trust in recipient countries' systems, even taking their flaws into account. The use of country systems can readily be portrayed as a prisoners' dilemma game among donors, with trust as an efficient but non-equilibrium outcome. Standardization of aid management procedures could substantially reduce transactions costs for recipients, at a relatively small cost to each donor. Taking procurement as an example, an individual donor's first preference would be for all other donors to be bound by a set of harmonized regulations that did not favor any particular donor country's contractors, but to remain free itself to use its own procurement rules. Any other single donor would have the same preference, so the equilibrium outcome is non-harmonization. In the absence of any enforcement mechanism, a donor has an incentive to "defect" and use its own procurement systems. However, a donor would prefer a harmonized set of rules binding all donors, including itself, to the fully non-harmonized outcome if the savings in transactions costs to recipients were sufficiently high.

Moreover, it is generally acknowledged that using recipients' aid management systems strengthens them, while avoiding them undermines them, by diffusing accountability and fragmenting policy and planning processes (OECD, 2009b; Mokoro Ltd. 2008a). When donors bypass country systems they often staff their own parallel aid management systems by "poaching" the most talented government officials. Trusting in country systems rather than bypassing them therefore increases the productivity of public funds including aid, but an individual donor typically will under-invest in strengthening country systems, as the benefits accrue mostly to other donors and in the future while it bears the full (and immediate) costs.

The Paris Declaration, along with its follow-up "Accra Agenda for Action" in 2008, can be viewed as an agreement among donors acknowledging these collection action problems, and creating a modest level of peer pressure to "cooperate" rather than "defect" on the optimal outcome of increased investment in the strength of country systems.[2] The OECD-DAC, in cooperation with the UN and World Bank, conducts "Paris Declaration Monitoring Surveys" that measure progress toward numerical targets for harmonizing aid and aligning it with country systems. The DAC's periodic "peer reviews" of the aid systems of donor countries now include sections assessing progress towards better-harmonized and better-aligned aid.

[2] International donor conferences on harmonization bring senior managers of aid agencies "in close contact with colleagues from other agencies, pushing them to align with recognized international best practice and not be seen as laggards" (de Renzio, 2005: 11).

Peer pressure is unlikely to be the most important explanation for some donors' willingness to use country systems, even when using them entails significant risks. Donors' tolerance of risk will depend heavily on their domestic constituencies and institutional mandates. Aid management practices of some donors are constrained by the need to convince their sometimes-skeptical principals (elected officials and voters) that aid produces visible and measurable results. Even if its domestic constituents were concerned solely with maximizing development outcomes, a donor agency's need to provide them with tangible evidence of results, directly attributable to its funding, can make it more reluctant to delegate aid implementation to recipient systems, regardless of their quality.

> Aid agencies want to be able to identify their own contributions, often through distinct projects, to facilitate feedback to taxpayers and sustain political support for aid flows. A new hospital is easier to showcase than the outcome of policy reform or budget support. (World Bank, 2004: 216)

> Donor agencies benefit from the visibility associated with separately managed and "branded" projects. They assist in defending the aid budget to parliamentary committees and audit authorities…In contrast, where more programmatic multi-donor ventures are introduced, visibility is lost and the attribution of development results to the particular donor's support becomes problematic. (Williamson and Agha, 2008: 34).

These political imperatives of donors may not always distort aid delivery in ways that reduce its development effectiveness, but they will be more easily satisfied when donors micro-manage their aid projects. To this point we have assumed donor agencies and their domestic constituents are concerned only with development effectiveness.[3] When bilateral donors use aid to advance diplomatic or commercial objectives, incentives to rely on their own parallel systems for aid delivery will be further aggravated. For example, using their own procurement rules will likely advantage donor-country contractors.

All donor agencies face some combination of political and bureaucratic incentives to pursue objectives that may conflict with the goal of increased use of country systems. However, donors do not have homogeneous mandates and constituencies. From the standpoint of development effectiveness, trust in country systems is likely to be most sub-optimal for a bilateral donor representing constituents who are particularly skeptical of aid's effectiveness. Aid from a global multilateral donor will more closely approximate the developmentally-optimal level of trust in country systems.

[3] Public opinion surveys in donor countries suggest humanitarian and development motives are far more important than diplomatic or commercial objectives in explaining popular support for aid (McDonnell, Lecomte and Wegimont (2003). Lower support for foreign aid among Americans is apparently due to perceptions that very little of it reaches the poor with much of it devoted to political objectives or diverted to corrupt officials in recipient countries (Lancaster, 2007:97; OECD, 2006: 22-23).

A Model of Trust in Country Systems

These incentives facing aid agencies can be captured in a simple model. A representative donor agency i maximizes its value function V_i by allocating its aid budget between donor-managed (D_{ij}) and recipient-managed (R_{ij}) activities in recipient country j, so $A_{ij} = D_{ij} + R_{ij}$. Outputs Q_{ij}^D are produced solely by D_{ij}. Outputs Q_j^R are produced by R_{ij} and by $R_{-ij} = R_j - R_{ij}$ contributed by all other donors $-i$ operating in recipient j.[4] The link between D_i.spending and Q^D output is more observable than the link between R_i and Q^R, because the latter is jointly produced with aid provided by other donors. By definition, the donor-managed funds D_i used to produce Q^D are better insulated than R_i from weaknesses in the recipient's public financial management systems, e.g. risk of diversion of funds, inability to track expenditures, or rigged procurement bidding benefiting cronies of a government official.

We assume that both Q^D and Q^R contribute to development outcomes such as poverty reduction and progress on broad health, education and other social indicators. "Development outcomes" produced using aid from donor i in recipient j can be expressed as

$$O_j = f(Q_i^D[D_i], Q_{-i}^D[D_{-i}], \gamma Q^R[R_i, R_{-i}]) \qquad (1)$$

$$\text{with } \frac{\partial Q_i^D}{\partial D_i} > 0, \frac{\partial^2 Q_i^D}{\partial D_i^2} < 0, \frac{\partial Q^R}{\partial R_i} > 0, \frac{\partial^2 Q_i^R}{\partial R_i^2} < 0 \qquad (2)$$

The "leakage" parameter γ (with $0 \le \gamma \le 1$) reflects potential reductions in the value of Q^R associated with weaknesses in recipient government systems, such as corruption or diversion of aid funds to lower-valued uses. A higher γ indicates country systems are more trustworthy. Donor-managed funds are less subject to these losses, and for simplicity we assume no leakages.[5]

Donors value the development outcomes produced by their own aid and by the aid efforts of other donors. Separately from any impact on outcomes, however, donors place a positive valuation on visible outputs that can be directly linked to their own aid inputs. Donor i therefore allocates a given aid budget A_i between D_i and R_i to maximize the following value function:

[4] For simplicity the subscript j indexing recipients will be suppressed henceforth.

[5] Alternatively γ could be interpreted as the difference in the "leakage" rate between recipient-managed and donor-managed funds.

$$\underset{D_i, R_{i_i}}{Max} \quad V_i = \alpha Q_i^D[D_i] + \frac{A_i}{A_i + A_{-i}} f(Q_i^D[D_i], Q_{-i}^D[D_{-i}], \gamma Q^R[R_i, R_{-i}] \qquad (3)$$

$$\text{subject to } A_i - D_i - R_i = 0 \qquad (4)$$

In equation (3), α, is a "skepticism" parameter (≥ 0) that varies by donor. Higher values indicate a donor agency accountable to domestic constituents that are relatively skeptical of aid's development effectiveness. This skepticism can reflect doubts regarding the motives or competence of officials in the aid agency and/or in recipient countries. Greater aid skepticism (higher α) leads a donor agency to place a higher valuation on Q_i^D, independently of its impact on actual development outcomes. Conversely, a lower α can be interpreted as indicating greater trust, on the part of the donor's constituencies, in aid's effectiveness in general.

The benefits to donor agencies (in the form of prestige to agency staff, higher agency budgets, etc.) from producing better development outcomes will vary, we argue, by the relative size of its activities in a given recipient. A donor that is not operating in recipient j will receive none of the credit from aid-financed improvements in development outcomes; conversely if there is a single donor it will receive all of the credit.[6] As an approximation, we assume that donor i's valuation of aid outcomes is proportional to its share of the aid market in the recipient country, or $A_i/(A_i + A_{-i}) = \overline{A_i}$. Where $\overline{A_i}$ is higher, the donor has more of a "reputational stake" in the country's development in general (Knack and Rahman, 2007). More specifically, when $\overline{A_i}$ is higher the donor internalizes more of the current and future benefits from its investment in strengthening recipient country aid management systems.[7]

In allocating A_i between R_i and D_i, the donor thus weighs several factors. Its contributions R_i to financing Q^R are indistinguishable in their results from those of other donors, so donor i equally values an increment to Q^R whether it is financed by R_i or by any other donor. Moreover, the benefits from producing Q^R are discounted by 1 - γ ("leakages") and by the fact other donors will reap some or most of the benefits (if $\overline{A_i} < 1$). The development-related benefits of financing Q_i^D similarly will accrue in part to other donors, but it

[6] The U.S. has been credited with aid successes in Western Europe (the Marshall Plan), Korea and Taiwan during a period when it was the only significant donor (e.g. DeLong and Eichengreen, 1993; Brautigam, 2000).

[7] There is no explicit time dimension in the model, so we are implicitly assuming $\overline{A_i}$ in time *t* is a good proxy for $\overline{A_i}$ in *t+1*, *t+2*, etc.

yields additional rewards specific to the donor financing it, in the form of tangible evidence of aid's impact useful in appeasing a donor agency's skeptical domestic constituencies.

The necessary first-order condition for maximizing equation (3) requires the donor to equate the marginal benefits from its donor-managed and recipient-managed aid activities:

$$\alpha \frac{\partial Q_i^D}{\partial D_i} + \overline{A_i} \frac{\partial f(\bullet)}{\partial Q_i^D} \frac{\partial Q_i^D}{\partial D_i} = \overline{A_i} \gamma \frac{\partial f(\bullet)}{\partial Q^R} \frac{\partial Q^R}{\partial R_i} \qquad (5)$$

Making the reasonable assumption that $\frac{\partial Q_i^D}{\partial D_i}$ is increasing in R_i,[8] the donor's optimal choice of D_i, D_i^*, increases with α. It is inversely related to γ and to the donor's aid share $\overline{A_i}$. Conversely, R_i^* decreases with α and increases with γ and $\overline{A_i}$.

Development outcomes are maximized in the model when α = 0 and $\overline{A_i}$ = 1 and the donor sets the ratio of the marginal products of D_i and R_i equal to γ. Trust in country systems ($\frac{R_i}{A_i}$) is sub-optimal from a development standpoint if α > 0 or $\overline{A_i}$ < 1.

We assume for simplicity that donor responses to γ are not inconsistent with maximizing development outcomes. This assumption could be relaxed, for example, by altering the model so that $\frac{\partial R_i^*}{\partial \gamma}$ varies positively with α, if donors with more skeptical domestic constituents are thought to be more sensitive to corruption and mis-management in recipient countries. We also abstract from the possibility that aid volumes may be related to α or $\overline{A_i}$. For example, R_i^* could be increased by greater geographic specialization among donors: $\overline{A_i}$ would increase to one if two donors, each with an aid share of ½ in each of two recipients, agreed to an aid "trade." However, the visibility of a donor agency's activities may decline if concentrated in fewer recipients, with potentially adverse impacts in turn on political support for aid provision.

A dynamic extension of the model could endogenize γ so that it improves with R_i and with targeted technical assistance, and deteriorates with D_i. A donor with a higher aid share and longer-term commitment to aiding the country, i.e. a donor with a more "encompassing interest" in Olson's (1982) terminology, would have stronger incentives to invest in reforms intended to reduce leakages, i.e to increase γ.

[8] This is a sufficient but not necessary condition for this comparative statics result. If it is not satisfied, other parameter restrictions would be necessary. See Appendix 1 for the comparative statics analysis.

The remainder of this paper is devoted to empirical tests of the model's predictions. The next section describes how we operationalize $\frac{R_i}{A_i}$, γ, α and $\overline{A_i}$ using data from the Survey on Monitoring the Paris Declaration and other sources.

3. Data and Hypotheses

Measuring trust in country systems

We operationalize $\frac{R_i}{A_i}$, the share of recipient-managed aid, using the OECD DAC's 2008 Survey on Monitoring the Paris Declaration (SMPD). This survey provides indicators of aid delivery practices not included in the DAC's standard aid reporting systems for donors. Survey indicators cover the number of missions and country analytic studies donors undertake jointly, the share of technical assistance that is coordinated with recipient governments' capacity building programs, and other aid management practices. Most of these indicators are beyond the scope of the present study, and we focus on the few that address most directly donors' use of country financial management systems for implementing aid projects and programs.

The SMPD is designed to measure progress toward a set of specific targets for 2010 agreed by donors and recipients on delivering aid in ways believed to enhance its development effectiveness. A baseline survey was conducted in 2006, and a report by the DAC (OECD, 2008a) summarizes progress toward the targets comparing the 2006 and 2008 survey results. The report's conclusions regarding progress are highly tentative, however, because of data quality issues concerning the 2006 survey.

Based on lessons learned, guidance on definitions was substantially strengthened for the second round survey, and the comparability of data reported by donors and by recipients was improved significantly relative to the 2006 survey (OECD, 2008a). Moreover, the number of recipient countries participating increased from 34 in 2006 to 54 in 2008. For purposes of this study, therefore, we treat 2006 as a pilot exercise, and use data only from the 2008 survey.[9]

We measure trust in country systems using three variables constructed from the SMPD:

1) use of recipients' public financial systems for the management of aid funds (*PFM*),

2) direct budget support (*DBS*), including sector budget support, and

3) aid disbursed through program-based approaches (*PBA*), inclusive of budget support.

[9] A third and final survey is scheduled for 2010, and comparisons over time with the 2008 survey should be reasonably valid.

Use of public financial management systems (*PFM*) is constructed in turn as a simple average of four other variables: use of national (i) budget execution procedures, (ii) financial reporting procedures, (iii) auditing procedures, and (iv) procurement systems. Detailed criteria for these four PFM dimensions are provided in Appendix 2. Correlations among these four variables average .66 (ranging from .54 to .77). Findings presented below for *PFM* change very little if any one of its four components is analyzed instead.[10]

In the SMPD, donors report total aid disbursements for the calendar year 2007, excluding humanitarian aid and debt relief. They also report how much of this aid was "for the government sector." The latter includes aid disbursed to NGOs, parastatals or private companies if and only if it is provided in the context of an agreement with officials authorized to act on behalf of central government. Aid to the government sector reported in the SMPD, aggregated over all recipients, was roughly $37 billion, or 82.7% of total aid.

Following OECD (2008a), we measure *PFM* as a share of aid to the government sector, while budget support (*DBS*) and program-based approaches (*PBA*) are measured as a share of total aid. Aid not for the government sector clearly does not use country PFM systems, so *PFM* alternatively could be calculated as a share of total aid. However, providing aid to NGOs or other private entities in the absence of an agreement with the government does not always reflect a donor's desire to avoid weak country systems. Governments of some middle-income nations are not very concerned about obtaining aid or interfering with its provision to NGOs, and a sizeable share of aid may go directly from donors to NGOs. For these recipients, donors' use of PFM systems as a share of total aid would be a misleading indicator of trust in country systems. In any case, results reported below are unchanged if we replace government sector aid with total aid in the denominator of *PFM*.

Some aid projects may be provided in support of program-based approaches, even if they are not part of an agreement with governments. Hence the DAC monitoring indicators measure *PBA* and *DBS* (a subset of *PBA*) as a share of total aid, not as a share of aid to the government sector. Again, however, our empirical findings are not sensitive to this choice of denominator.

We classify aid delivered through program-based approaches as recipient-managed because the programs are led by government and reflect its priorities, and include processes for harmonizing donor procedures and using some country systems (see Appendix 2). Subject to those conditions, aid delivered in the form of projects can qualify as program-based, even if it does not use country PFM systems. As the case of *PBA* illustrates, the distinction between donor-managed and recipient-managed aid is more accurately depicted on a continuum than as a

[10] Results based on each of the four *PFM* components are available on request.

dichotomy.[11] Despite more rigorous definitions in the 2008 SMPD compared to the 2006 survey, donors still use some subjective judgment in determining whether or not project aid is program-based, so *PBA* may contain more measurement error than *DBS* or *PFM*.

All three dependent variables measure (to some degree) donors' investment in the "public good" of improving recipient country systems, as well as donors' trust in countries' existing systems to use aid funds productively. Budget support and program-based aid usually are premised on policy dialogues with government, and are often explicitly or implicitly conditioned on certain policy reforms. Thus, *DBS* and *PBA* also measure (in part) donors' trust in a common approach to development that may be country led, but influenced by the World Bank, IMF or other donors with leading roles in policy dialogues.

In the SMPD sample, all three dependent variables range from 0% to 100%. Means for *PFM*, *DBS* and *PBA* respectively are 34%, 11.9% and 31%. Table 1 provides summary statistics for these and other variables in the analysis.

Independent variables

Independent variables mostly fall into one of three groups:

- Trustworthiness of country systems (γ in the model)
- Trust in aid's effectiveness (in general) on the part of the donor's constituents (α)
- Donor's ability to benefit from investments in country systems ($\overline{A_i}$)

We define *donor aid share* as the percentage of total aid (inclusive of aid not to the government sector) to recipient j accounted for by donor i. This variable corresponds to $\overline{A_i}$ in the model in Section 2, and is predicted to increase use of country systems. A donor providing a larger share of aid to a recipient has a larger reputational stake in the country's development (Knack and Rahman, 2007) and internalizes more of the benefits of investments in strengthening country systems. The sample mean for *donor aid share* is 6.4%, with a minimum value of 0.01%[12] (three observations) and a maximum of 70.4% (Australia in Papua New Guinea).[13]

Donors' reputational stake in a recipient's development may also be greater, other things equal, in countries it once colonized. For example, media accounts of genocide, civil war and

[11] "Even budget support…may not be fully aligned to the country budgeting process" if it is not committed or disbursed in time to be incorporated fully into policy and planning frameworks (OECD 2008: 13). Conditions often attached to budget support also may be inconsistent with the principle of country ownership.

[12] Values of 0 are not present in the sample because the dependent variables are all undefined for donor-recipient pairs with no aid transfers.

[13] Larger donors at the global level do not necessarily have higher average aid shares at the recipient level, as some donors concentrate their aid in fewer countries. For example, Portugal's average aid share (14%) exceeds the average for the U.S. (12.9%), although the U.S. provided more than 100 times as much total aid to countries in the sample as Portugal.

corruption in Rwanda and the Democratic Republic of Congo often implicate Belgium's exploitative and misguided colonial policies in these territories between 1901 and 1962. Former colonial powers may also retain, even many years after independence, a stronger sense of responsibility for the development of ex-colonies. Colonial ties are shown to influence aid allocations by donors across recipients in Alesina and Dollar (2000).[14] We hypothesize that the former colonial power will be more willing than other donors to trust country systems. The dummy variable *colonial tie* is set equal to 1 for all donor-recipient pairs (such as UK-Ghana) where the recipient was once part of the donor's colonial empire.[15] A colonial tie is present in about 5% of the SMPD observations. Although *colonial tie* is not explicitly in the model in Section 2, intuitively it can be considered a proxy for the term $\overline{A_i}$.

Recipient country characteristics comprise a second set of independent variables. Most of these measure, in one way or another, the trustworthiness of recipient country systems, corresponding to γ in the model. The most direct measures of the quality of country systems are from the World Bank's "Country Policy and Institutional Assessments" (CPIA). For brevity we re-name the CPIA's "Quality of Budgetary and Financial Management" as *PFM Quality*. Higher ratings reflect a comprehensive and credible budget linked to policy priorities, effective financial management systems to ensure that the budget is implemented as intended, and timely and accurate accounting and fiscal reporting. "Transparency, Accountability and Corruption in the Public Sector" is re-named *Transparency*; it assesses the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained. A third variable we use is *Quality of Macro/Fiscal Policy*, constructed as the simple average of two CPIA indicators on "Macroeconomic Management" and "Fiscal Policy."[16] These two indicators assess the quality of the monetary/exchange rate and aggregate demand policy framework, and the short- and medium-term sustainability of fiscal policy, taking into account monetary and exchange rate policy and the sustainability of the public debt**.** Full definitions for all of these CPIA indicators are provided in Appendix 3.

Weaker country systems as measured by lower scores on *PFM Quality* and *Transparency* reflect increased risks to donors of corruption scandals, diversion of funds to lower priority uses,

[14] However, Berthelemy and Tichit (2004) find this pattern has weakened in recent years, and the correlation between *donor aid share* and a dummy for former colonial ties is only .14 in the SMPD.
[15] Colonies are assigned only to their last colonial master; e.g. Rwanda and Burundi are assigned only to Belgium, which occupied those parts of German East Africa in 1916.
[16] These two variables are correlated at .71 for the 54 countries in the SMPD sample. Results below obtained using *Quality of Macro/Fiscal Policy* are very similar, but slightly weaker, if either of its two components is used instead.

or inability to account for how funds were spent. We therefore expect coefficients to be positive for these two variables, in our use-of-country-systems regressions. We expect *Quality of Macro/Fiscal Policy* to be associated with greater use of budget support and other program-based approaches, because they depend for their success on the ability to plan and determine budget priorities in a meaningful way (Foster and Leavy, 2001). As Mosley and Eeckhout (2000) assert: "A certain degree of macro stability is a precondition for any planning."

The CPIA indicators are produced annually by World Bank staff for aid allocation purposes, for approximately 135 developing countries. Assessments are on a 1 to 6 scale, including half-point increments. For example, a 3.5 rating would be assigned to a country meeting some of the criteria for a rating of 3 and some of the criteria for a rating of 4. We use the CPIA ratings from 2006, just prior to the 2007 calendar year covered by the SMPD.[17] In our sample both *PFM Quality* and *Transparency* range only from 2 to 4.5, with means of 3.4 and 2.9 respectively. The range for *Quality of Macro/Fiscal Policy* (the simple average of two CPIA indicators) is 2.25 to 5, and the mean is 3.9.

Use of country systems is expected to be greater in countries with stronger "national development strategies" as assessed in World Bank (2007).[18] These qualitative assessments were based on three criteria (OECD, 2008a):

- Existence of an authoritative country-wide development policy
- Realism of the development policy with clearly-identified priorities
- Well-costed policies that can be funded

No country in the 2008 SMPD sample received the top grade of A. Eight were graded B, 27 as C, 6 as D and 1 as E. Only low-income countries eligible for the World Bank's IDA aid were graded, so 12 middle-income countries in the SMPD are missing data. We code *Strategy* on a 1-4 scale with B grades equal to 4 and E grades equal to 1.[19]

We expect use of country systems to be greater in countries that have fulfilled donors' requirements for debt relief eligibility under the HIPC initiative. Donors' engagement with these countries has been unusually intensive, including technical assistance aimed at improving PFM systems and enabling donors and citizens to track public expenditures more effectively. The

[17] The CPIA includes 12 other questions in addition to the ones we use, but most of them (e.g. policies for gender equality, environmental sustainability) are not relevant to this study. Despite moderate to high inter-correlations among the CPIA variables, most of them do not produce significant results in our use-of-country-systems regressions, when substituted for the more theoretically-relevant variables we use. The CPIA indicators we use are designed specifically to assess public sector systems for managing public funds including aid. Other well-known "governance" indicators are designed to assess risks to foreign investors (e.g. the International Country Risk Guide) or protection of individual rights (e.g. Freedom House).

[18] These assessments are not done by the same Bank staff responsible for the CPIA.

[19] Testing dummy variables for each grade (and for the missing data countries) does not change any of the conclusions yielded from our use of the single cardinal indicator *Strategy*.

HIPC countries were required to formulate and implement national development strategies and achieve macroeconomic stability. Some of these national strategies - including those for Mozambique, Tanzania and Uganda - express an explicit preference for budget support (Williamson and Agha, 2008). Debt relief funds are excluded from the SMPD, but the same strategies and reforms that justified provision of debt relief can also justify increased use of country systems, including budget support. Also, the HIPC Initiative's success demonstrates that for this set of aid recipients, donors have managed to act collectively to overcome the usual parochial interests limiting aid's developmental impact. Donors' experience with HIPC can be expected to have some residual influence over their aid management decisions in HIPC countries for at least several years following implementation of debt forgiveness. Our *HIPC completion* dummy variable is coded 1 for the twenty countries in the SMPD sample that had completed the process by 2007, the year for which the survey measures use of country systems.

Budget support is sometimes used as a means of disbursing aid more quickly where aid levels are high (de Renzio, 2005). Budget support is typically accompanied by a policy dialogue between donor agencies and recipient governments: donors are more confident that non-earmarked aid will be used productively if they have had some input into development policy choices. Where aid levels are lower, however, donors have less leverage to engage government on policies, and may in any event choose not to incur the costs of achieving policy consensus (Foster and Leavy, 2001). Aid thus tends to take the form of projects, where aid is relatively low. Accordingly, our *DBS* and *PBA* regressions control for the *aid share of GDP* for recipients, with the expectation of positive coefficients.[20] The *aid share of GDP* in the sample averages 10.8%, with a low of 0.2% for the Dominican Republic and a high of 56.3% for Liberia.

Donor characteristics comprise a third set of determinants of trust in country systems. A first-level distinction, between multilateral and bilateral (i.e. national) donors, reflects their differing mandates. Multilateral aid agencies were established in part to resolve collective action problems plaguing bilateral donors. They are better insulated from political pressures to demonstrate short-term visible results to elected officials and taxpayers. Multilaterals "are cases of joint delegation from multiple principals" that may "enable the agency to commit itself to procedures that would not be easy to implement for a bilateral donor, such as transparent and competitive procedures for tendering and procurement" (Martens et al., 2002: 21). They also have a comparative advantage in aid activities that "involve spillover effects" which bilaterals

[20] Aid levels may not be entirely exogenous to the existence of a policy dialogue, and ideally we would be able to measure the existence and strength of policy dialogues more directly. Also note that policy dialogues on particular issues typically involve multiple donors, so we use total aid/GDP to a recipient from all donors, and not each donor's aid as a share of recipient GDP.

"might have difficulty internalizing" (Martens et al., 2002: 65). Some multilaterals view donor coordination as part of their mandates. For example, the World Bank and UN partner with the OECD-DAC in its harmonization agenda and in the Paris Declaration monitoring effort.[21] The World Bank has taken a lead role in promoting the principle of "country ownership" since it adopted its "Comprehensive Development Framework" in 1999.[22] For these reasons, we expect use of country systems to be greater for multilateral than for bilateral donors.

Among multilaterals, we further differentiate the MDBs (multilateral development banks including the World Bank, IMF and several regional development banks) from other multilateral agencies including the UN system and European Commission (EC). The non-MDB multilaterals are a heterogeneous group, but for multiple reasons we expect their use of country systems to be lower than the MDB's use. In the EC, "responsibility rests in the hands of serving politicians from member states," so its decisions are less apolitical than other multilateral agencies that "have genuinely delegated their management to an executive board" (Martens et al., 2002: 47). National representatives in EC foreign aid decision-making committees devote considerable effort to pursuing opportunities for their own nation's aid contractors (Martens et al., 2002: 193). Also, much EC and UN aid is in the form of technical assistance, reducing the share of aid provided in the form of direct budget support.

Among bilateral donors, we differentiate between OECD-DAC donors and non-DAC donors. Use of country systems is expected to be higher for DAC donors, because of the DAC's leading role in donor harmonization initiatives, and peer reviews of members' aid programs that now include assessments of their consistency with Paris Declaration principals and objectives.

The DAC donors can be divided further, between the "Nordic Plus" group and others. Nordic Plus donors include Denmark, Finland, Norway, Sweden, Ireland, the Netherlands, and the United Kingdom. The group's purpose is to improve complementarities among its members, through division of labor based on comparative advantages (NORAD, 2006; de Renzio, 2005). By reducing the number of sectors and countries each donor operates in, transactions costs for recipients can be reduced, at the price of reduced visibility for the donors. We take membership in the Nordic Plus group as a proxy for low "skepticism" of aid effectiveness among the domestic constituencies of these bilateral donors. Empirical support for this hypothesis could be interpreted as merely indicating that donors committed to certain parts of the Paris Declaration agenda tend to be committed to other parts of it. At a minimum, however, tests of the Nordic

[21] The OECD-DAC is itself a multilateral agency, representing most of the OECD's bilateral donor countries. The OECD-DAC is not a donor agency, but conducts peer reviews of its members' aid programs, maintains aid databases, and pursues research and advocacy work on improving aid effectiveness.

[22] However, "ownership" is sometimes criticized as a euphemism for developing countries' adoption of policies advocated by the Bank and other donors (OECD, 2008b).

Plus dummy can help show whether or not there is a striking degree of variation among the DAC bilateral in use of country systems.

"Vertical funds" (sometimes called "global funds") comprise a last set of donors. These donors have limited sector-specific mandates, such as the environment, primary education, or particular diseases. In the SMPD, most aid from vertical funds is accounted for by the Global Fund to Fight AIDS, Tuberculosis and Malaria. It disbursed 1.9% of the aid represented in the survey (about the same amount as Spain, Denmark or Sweden), in 47 of the 54 SMPD recipient countries. Only five donors disbursed funds in more countries in the survey. Vertical-fund programs, particularly in health, are generally viewed as having weak country "ownership," driven predominantly by concerns over global public goods (World Bank, 2006). They are often criticized for using parallel implementation units outside normal government structures, with overlapping or redundant "reporting systems, procurement policies and procedures not aligned to national guidelines.." (World Bank, 2006: 22). We therefore expect vertical funds to be associated with lower use of country systems in general. Vertical funds are not generally mandated with providing budget support, but they are often designed to be compatible with sector strategies and programs (in health, education or other relevant sectors).

For the DAC bilateral donors, we can go beyond these donor group dummies and attempt to measure domestic constituents' trust in aid effectiveness in general (α in the model) using data from public opinion surveys. We expect stronger public support for development aid to increase a bilateral donor agency's use of country systems. Where support for aid is relatively weak, aid agency officials will be under more pressure to show that the funds they are provided produce visible results directly attributable to its efforts. These "results" may include not only development objectives but also commercial or national security objectives for the donor country. Project aid, often administered using parallel procurement and other systems, is more conducive than budget support for linking aid funds to visible, attributable results, including employment of donor-country aid contractors.

Data for testing this hypothesis are available from three different public opinion surveys: Gallup International's 2002 "Voice of the People" survey (equations 1 and 2), the 1995-1998 round of World Values Surveys (equations 3 and 4), and the 2004 Eurobarometer. These surveys each cover a somewhat different sample of donor countries, as shown in Table 2. Thirty donors are represented in one or more of the surveys, but only four (Finland, Germany, Spain and Sweden) are included in all three. The question inquiring about support for development aid is worded somewhat differently in each survey. The percentage of respondents indicating greater support for aid in the WVS is correlated at .85 with the corresponding percentage from Gallup

International, and is correlated at .49 with the percentage supporting aid in Eurobarometer. Support for aid in Gallup and Eurobarometer, however, are correlated at only .18. The two donors with the weakest support for foreign aid in both the WVS and Gallup International are the U.S. and Japan; neither of them is included in Eurobarometer.

Sample Composition

The DAC survey includes only 54 aid recipients, but coverage on the donor side is fairly comprehensive. Appendixes 4a and 4b, respectively, list the percentage of all aid reported in the SMPD accounted for by donor and by recipient. All DAC donors, bilateral and multilateral, are included, as well as vertical funds (e.g. the Global Fund and the GAVI Alliance) and several non-DAC bilateral donors. The various UN agencies are treated as a single donor in the survey, with their data collected and reported by the UNDP. Aid volumes to the 54 recipients as reported in the DAC survey closely approximate the corresponding aid totals in the DAC's official aid database, compiled from an entirely separate reporting system.

Recipient governments decide whether or not to volunteer their country for the survey. The 54 self-selected recipients potentially differ systematically from other aid recipients. For larger countries, the costs of government participation in data collection may be relatively low. Countries more dependent on development aid are likely to have an interest in monitoring their progress on Paris Declaration provisions over time and in comparison to other countries. We therefore expect inclusion in the survey to be associated with lower income per capita and higher aid per capita. Countries already intensively engaged with donors to qualify for debt relief may have a greater interest in results, as well as lower participation costs, so a dummy for countries reaching the HIPC completion point should be positively related to survey participation.

Table 3 reports probit regression results, with the dependent variable coded 1 for countries participating in the SMPD and coded 0 for all other aid recipients. As expected, countries that are larger, more aid dependent, poorer, and that have completed the HIPC process have significantly higher probabilities of inclusion in the SMPD.

Controlling for these four variables, survey participation is unrelated to other plausible determinants, such as political openness (measured by the well-known Freedom House indexes). Nor does geography matter. Although 63% of aid-recipient countries in Sub-Saharan Africa are in the SMPD, compared to only 26% from other regions, this difference is accounted for by income, aid and HIPC status. An Africa dummy, if added to the probit regression, produces a small and insignificant coefficient. Finally, we tested for the possibility that countries with more representation within the donor agencies leading the harmonization effort were more likely to be included in the survey. Specifically, we found that aid recipients with more voting power in the

IMF and World Bank, and with more nationals on the IMF staff (with data from Barro and Lee, 2005), were no more likely to participate in the SMPD.[23]

The fact that larger, poorer, more aid dependent and HIPC-completion countries are better represented in the SMPD suggests caution in interpreting the findings presented below. Results from our analyses of the 54-country SMPD sample may not fully generalize to all aid recipients, despite the fact they account for $45 billion in ODA (not including debt relief and humanitarian aid), more than half of the total ODA delivered to all aid recipients.

4. Results

Donors choose whether or not to use country systems. Their choices, however, reflect some combination of donor and recipient country characteristics. Both sources of variation turn out to be important, but as shown in Table 4, recipient characteristics matter somewhat more than donor characteristics. Each of the three dependent variables (arranged across columns) is regressed on, alternatively, (1) a full set of donor dummy variables, (2) a full set of recipient dummies, and (3) both sets together. Recipient dummies alone explain 28% of the variation in *PFM*, compared to 21% for donor dummies. Donor and recipient dummies explain an equal share (21%) of the variation in *DBS*. Recipient dummies explain 23% of the variation in *PBA*, compared to only 14% for donor dummies. The importance of recipient characteristics has implications for the possible inclusion of SMPD-derived indicators in rankings of donor performance. Namely, if donor aggregates on use of country systems are not adjusted for recipient characteristics, donors can climb in the rankings merely by avoiding riskier countries.

The remainder of this section tests more substantive hypotheses regarding donor and recipient characteristics affecting use of country systems. We estimate regressions of the form:

$$y_{ij} = \beta Z_{ij} + \delta X_i + \eta M_j + u_{ij} \quad (6)$$

where y_{ij} is the share of donor i's aid to recipient j that is recipient-managed, Z_{ij} is a vector of regressors that vary by donor and recipient, while X_i and M_j respectively vary only by donor and by recipient.

The dataset can be treated as an unbalanced panel, with anywhere between 1 and 54 observations per donor. We can exploit this structure of the data to conduct stronger tests of Z_{ij} that control for donor and recipient fixed effects, with regressions of the form:

$$y_{ij} = \beta Z_{ij} + v_i + w_j + \varepsilon_{ij} \quad (7)$$

[23] Nor are these variables associated with greater use of country systems, if included in the tests reported in the subsequent section.

Similarly, tests of X_i and M_j respectively can control for recipient effects or donor effects:

$$y_{ij} = \beta Z_{ij} + \delta X_i + w_j + \varepsilon_{ij} \qquad (8)$$

$$y_{ij} = \beta Z_{ij} + \eta M_j + v_i + \varepsilon_{ij} \qquad (9)$$

In regressions of the form (7) and (8), we correct for non-independence of errors within clusters of observations pertaining to each donor. In focusing on recipient-level determinants, in (9), we correct instead for non-independence of errors within recipient clusters.

Table 5 tests two variables that vary across both donors and recipients, so we are able to control for donor and recipient dummies as in (7). Use of country systems is not significantly associated with *colonial tie* in any of the regressions reported in Table 5. It is similarly insignificant if included in tests reported in subsequent tables, and its inclusion does not materially affect any other estimates. We therefore drop it from those subsequent tables, in the interests of space and simplicity.[24]

Results on *donor aid share* however are consistent with the theory in section 2. Its coefficient is positive and highly significant for each of the three dependent variables in equations 1-3. Each 1-percentage-point increase in *donor aid share* is associated with an increase *PFM* of about 0.65 percentage points, e.g. from the mean of 26% to 26.65%. A 3-percentage-point increase in *donor aid share* is associated with an increase in *DBS* of about 1 percentage point, e.g. from the mean of 12% to 13% of aid. If we did not control for donor fixed effects, results such as these could be interpreted as merely showing that larger donors such as the World Bank and EC make more use of country systems. Because donor dummies are included, however, these results imply that a given donor makes more use of country systems in those recipients where its share of aid is larger.

Despite the inclusion of donor and recipient dummies, coefficients for *donor aid share* in equations 1-3 may be biased upwards. Its numerator, A_i, is the sum of donor-managed aid D_i and recipient-managed aid R_i. The latter is also in the numerator of the dependent variables, *PFM*, *DBS* and *PBA*. Measurement error in *donor aid share* may thus be correlated with measurement error in use of country systems.[25] Moreover, an omitted variable such as donor-

[24] We experimented with different definitions for *colonial tie* and none were found to be related to use of country systems. In one variation, all ex-colonies of EU members were coded as "colonies" for purposes of the EU aid program. In another variation, the ACP (African, Caribbean and Pacific) countries with favored status for EU development aid were coded as EU "colonies." Other ties (such as the U.S. in Afghanistan) may be more important than many colonial ties, but we refrained from creating our own *ad hoc* indicator of donors' reputational stake in countries' development.

[25] Measurement error in R_i would create an upward bias in the correlation between *donor aid share* and use of country systems. Measurement error in D_i however would create a downward bias.

varying perceptions of corruption in a recipient could produce a positive bias: if donor i is more pessimistic than other donors about corruption in recipient j, it may respond by reducing both its aid levels and its reliance on country systems. Corruption indicators, or recipient dummies in regressions of the form (7) or (8) above, can control only for donors' common perceptions of corruption in recipient countries.

In equations 4-6 of Table 5 we address this problem by substituting *donor aid share* values from 2005 for the 2007 values used in equations 1-3. Regressing use of country systems in 2007 on 2005 *donor aid share* values should reduce, if not eliminate, any positive bias. The 2007 *donor aid share* values are from the SMPD, while the 2005 values are from the OECD-DAC's Creditor Reporting System (CRS). Some donors included in the SMPD did not report data in the 2005 CRS, so numerous observations are lost. Results in equations 4-6 are therefore not directly comparable to those in equations 1-3. Despite the smaller sample, *donor aid share* retains its positive and significant coefficients in equations 4-6. In the *PFM* regressions, its coefficient drops only from .647 (equation 1) to .63 (equation 4). Coefficients decline by more than one third in the *DBS* and *PBA* regressions but remain highly significant.

Admittedly, measuring *donor aid share* two years prior to use of country systems does not fully resolve the potential problem of an upward bias in coefficient estimates. Subject to this caveat, our results are consistent with the prediction that donors are more likely to rely on country systems when they have a larger reputational stake in a recipient's development outcomes, and when they internalize more of the benefits of investing in those systems..

Recipient characteristics, including trustworthiness of country systems, are tested in Tables 6 and 7. The dependent variable in Table 6 is *PFM*, while results for *DBS* and *PBA* are reported in Table 7. Donor fixed effects are included in all of these regressions, and standard errors are adjusted for non-independence within recipient clusters of observations.

As in Table 5, *donor aid share* is positive and significant in Table 6, equation 1. So is *HIPC completion*: use of PFM systems is 9.3 percentages points higher, other things equal, in countries completing the HIPC qualifying process.

Both *PFM Quality* and *Transparency* are associated with greater use of PFM systems, although *Transparency* is only marginally significant.[26] Each half-point increment in *PFM Quality* is associated with an increase of 5 percentage points in use of PFM systems. A similar increase in *Transparency* has a slightly smaller 3.5 percentage-point effect.

[26] These two variables are correlated at .53, and omitting either one of them increases the coefficient and significance of the other one.

Equation 2 substitutes *Strategy* for the two CPIA indicators. Each one-grade increment in the quality of countries' national development strategies is associated with an increase of more than 8 percentage points in use of PFM systems. This effect is only marginally significant, however. Nor is it robust to the inclusion of the CPIA variables, in equation 3, where the coefficient for *Strategy* is negative but not significant.[27] Although quality of national development strategies is one of the Paris Declaration monitoring indicators, the indicator has been criticized for its close identification with certain donors. The World Bank and IMF have encouraged or required formulation of strategies for recipients of concessional loans and debt relief, and the quality of the strategies is assessed by World Bank staff. If strategies are often Bank-driven, their Bank-assessed quality may have little influence on decisions of some other donors advocating different approaches to development. When the specification in Table 6, equation 2 is tested separately for the 39 World Bank observations and for all others, *Strategy* is estimated to increase use of PFM systems by 21 percentage points for the Bank sample, but by only 8 percentage points for non-Bank observations.[28]

The inclusion of *Strategy* reduces the sample size by about one fifth, as the quality of development strategies was not assessed for middle-income countries. For this low-income sample, the coefficient for *PFM Quality* in equation 3 is nearly double its magnitude in equation 1. Because *Strategy* is not a robust predictor of trust in country systems, and its inclusion cuts the sample size substantially, we omit it from subsequent tests.

If using country systems strengthens them while bypassing them weakens them (OECD, 2008a), then *PFM Quality* and *Transparency* may be subject to endogeneity bias. We address this issue in Table 6, equation 4 by using lagged (2004, instead of 2006) values of *PFM Quality* and *Transparency*. Coefficients do not change much from their equation 1 magnitudes and *PFM Quality* retains its significance, but *Transparency* is no longer significant at the .10 level.[29]

Results for *PFM Quality* and *Transparency* are potentially weaker for donors other than the World Bank. The CPIA assessments are done by Bank staff, so they are particularly likely to affect decisions by the Bank on aid implementation. Equation 5 (Table 6) replicates the base specification of equation 1, but dropping the 49 World Bank observations. Results for the CPIA variables (and for the other regressors) are unaffected by dropping World Bank observations.

[27] *Strategy* is correlated with *PFM Quality* and *Transparency* at .77 and .53 respectively.
[28] In a full set of donor-by-donor tests, *Strategy* is significantly associated with greater reliance on country PFM systems only for France, Japan, Norway and the United Kingdom.
[29] Data on CPIA are available for 41 fewer observations in equation 4 than in equation 1, but the sample change is not responsible for the weaker result on *Transparency*. The 2006 *Transparency* value, tested for the smaller 2004 sample, produces a coefficient of 8.2 with a t-statistic of 2.16.

Equation 6 drops a different set of observations, those for middle-income aid recipients. The World Bank publicly releases the CPIA ratings only for low-income ("IDA eligible") countries. Equations 1-5 include non-public CPIA ratings for 15 middle-income countries representing about 18% of the observations in equation 1. Results based only on publicly-available data for *PFM Quality* and *Transparency*, presented in Equation 6, are stronger, compared to results for the full sample in equation 1. The coefficient for *PFM Quality* is about two-fifths larger, and statistical significance improves for both *PFM Quality* and *Transparency*, despite the reduction in sample size. In this low-income sample, however, the coefficient for *HIPC completion* is smaller and no longer significant.

Budget support by definition uses country PFM systems. Equation 7 returns to the full sample of observations, but differs from equation 1 in adding *DBS* as a regressor. Conceivably, the other right-hand-side variables increase *PFM* in equations 1-6 only by increasing *DBS*. As expected, *DBS* is strongly related to *PFM* in equation 7. More importantly, *donor aid share*, *HIPC completion* and *PFM Quality* retain their effects, indicating that they are associated with greater use of PFM systems for project aid and other non-budget-support aid. The coefficient for *Transparency* is cut in half, however, and it is no longer significant when controlling for *DBS*.

Table 7 replaces *PFM* with the other two dependent variables, *DBS* and *PBA*. Right-hand-side variables are somewhat different. For reasons explained above in Section 3, we add the regressors *aid/GDP* and *Quality of Macro/Fiscal Policy*. Rather than including three (somewhat collinear) CPIA variables, we drop *PFM Quality* from the *DBS* and *PBA* regressions, where it is not significant. In equations 1 and 2, *donor aid share* is positively and significantly associated with *DBS* and *PBA*, as in the two-way fixed effects tests of Table 3. In *HIPC completion* countries, *DBS* is 4.4 percentage points higher, and *PBA* is nearly 16 points higher. Each 1-point increase in *Quality of Macro/Fiscal policy* and in *Transparency* is associated with, respectively, 7.3 and 5.9 percentage point increases in *DBS*. However, their coefficients are not significant for *PBA* in equation 2. Aid levels are significantly related to budget support (equation 1), but not to program-based aid (equation 2). Each 3 percentage-point increase in *aid/GNP* is associated with a 1 percentage point increase in budget support.

The model's explanatory power for *PBA* is somewhat lower than for *DBS*, likely due to greater measurement error in program-based aid. Although the criteria for determining whether aid qualifies as *PBA* are more explicit in the 2008 SMPD than in the 2006 survey, there is still more room for subjective judgment in classifying aid as *PBA* than in classifying it as *DBS*.

Equations 3 and 4 in Table 7 drop the World Bank observations, but otherwise are identical to (respectively) equations 1 and 2. Results change only trivially.

Equations 5 and 6 drop middle-income countries, but otherwise are identical to (respectively) equations 1 and 2. The most notable change is that *Quality of Macro/Fiscal Policy* and *Transparency* are significantly related to program-based aid in this low-income sample (equation 6); their coefficients were somewhat smaller and not significant in equation 2.

Donor characteristics, including proxies for domestic constituents' trust in aid's effectiveness, are tested in Tables 8 and 9. These tests control for recipient fixed effects, and correct for non-independence of standard errors within donor clusters of observations.

Based on the discussion in Section 3, donors are classified into six groups: *Nordic Plus*, *other DAC bilateral*s, *non-DAC bilaterals*, *MDBs* (multilateral development banks), *non-MDBs* (other non-bank multilaterals), and *Vertical funds*. Dummy variables are tested for five of these groups in Table 8, with *other DAC bilaterals* as the reference category.

Large differences are observed across the groups. In equation 1, *PFM* is 16 percentage points higher on average for *Nordic Plus* members than for the reference group. The *Nordic Plus* donors also deliver much more aid in the form of *DBS* (equation 2) and *PBA* (equation 3) than most other donor groups. Use of country systems is lower for non-DAC bilaterals as expected, although the difference with DAC bilaterals is significant only for *PBA* (equation 3).

Results for the two multilateral-donor dummies are generally consistent with the proposition that these donor agencies were created in part to resolve exactly the sort of collective action problems leading to sub-optimal use of country systems by bilaterals. Use of country systems is significantly higher for *MDBs* than for *other DAC bilaterals*. The *MDBs* coefficient is similar in magnitude to the *Nordic Plus* coefficient in the case of *DBS* (equation 2), but somewhat smaller in the case of *PFM* (equation 1) and *PBA* (equation 3). The *non-MDBs* – a category including the EC and UN agencies – differ very little from the reference category: *PBA* is 4.6 percentage points higher (equation 3), but *PFM* and *DBS* are not significantly different from the *other DAC bilaterals*.

The *Vertical funds* are very similar to the *Nordic Plus* group in PFM and PBA. Although *Vertical funds* provide very little budget support (2.9%)[30], they do not differ significantly from the reference category on *DBS* in equation 2.

The donor groups thus exhibit substantial variation, and in general in ways consistent with the predictions from Section 3. Some important variation may still be hidden within some of these groupings, however. In Equations 4-6, we explore this possibility by adding dummy variables for four prominent donors. The two largest *non-MDBs* – the UN and EC – differ in

[30] The only two instances of budget support from vertical funds in the SMPD are to Jordan from the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and to Bolivia from IFAD.

important respects. The EC is more like a bilateral agency, with decisions influenced more directly by its member governments (Martens et al. 2002: ch. 2; Degnbol-Martinussen and Engberg-Pedersen, 2003: ch. 7). It is a leader in providing budget support, as confirmed by the EC dummy in equation 5. Some UN agencies specialize in humanitarian aid, which is not included in the SMPD. Other UN agencies providing mostly technical assistance; it does not count as budget support and rarely uses PFM systems, consistent with the large negative coefficient for the UN dummy in equation 4 of Table 8.

The DAC bilaterals are already split into two groups in equations 1-3, the *Nordic Plus* group and all others. Equations 4-6 add dummies for two large bilateral donors - the U.S. and Japan - that are well-known for favoring project-based aid over budget support. Corruption concerns are voiced often in U.S. debates on foreign aid, e.g. in Congress and in Wall Street Journal editorials. "Congress insists that aid is spent on identifiable sets of measureable activities" and its earmarks and reporting requirements severely restrict the use of budget support or reliance on recipients' procurement and other PFM systems in managing project aid (OECD, 2006). Negotiators for the U.S. insisted on weakening or eliminating Paris Declaration targets for budget support and use of country procurement systems (Mokoro Ltd., 2008b: 23).[31] Results in equations 4-6 confirm the expectation that Japan and (particularly) the U.S. use country systems less than do other bilaterals.

For bilateral donors, Table 9 tests three different survey measures of domestic constituents' trust in aid's effectiveness, from *Gallup International*, the *WVS*, and *Eurobarometer*. As expected, public support for aid is associated with greater use of country systems, as shown in Table 9. Coefficients on the public opinion variables are all positive, and significant in most cases, with t-values ranging from 1.43 to 3.75. For each 5-point increase in the percentage of *WVS* respondents who are strongly in favor of their country increasing economic aid to poorer countries, *PFM* increases by nearly 4 percentage points and *DBS* increases by 1 percentage point. The U.S., unsurprisingly, is somewhat of an outlier in terms of weak support for aid, but results are not dependent on inclusion of its observations in the sample. The strongest effects of public opinion on *DBS* are obtained using *Eurobarometer* (equation 6), which excludes U.S. observations.

It might be objected that public opinion is partly endogenous to how aid is delivered. If use of country systems improves aid's effectiveness in reducing poverty, support for aid may

[31] In contrast, the U.S. led the effort to include a Paris Declaration provision on "managing for results" because "reporting on results is critical to demonstrating aid effectiveness and to sustaining public and Congressional support for U.S. assistance" (USAID, 2006). However, USAID's own reporting system "focuses mainly on physical deliverables" such as number of schools or clinics, rather than on outcomes (OECD, 2006).

increase. We find this argument implausible for several reasons. At this point, the assertion that use of country systems increases aid effectiveness is an untested hypothesis, and any positive effects would likely be too small to account for much of the large cross-donor variation in public support for aid. Moreover, public opinion in each of the three surveys is measured at least several years prior to the dependent variables. The strongest results are found using *WVS*, from surveys conducted mostly in 1995 and 1996, more than a decade prior to the SMPD, when use of country PFM systems and direct budget support were much less prevalent for donors in general.

To this point, we have included donor and/or recipient fixed effects in all of our tests. This method most effectively captures the influence of otherwise unmeasured determinants of use of country systems. Depending on the specification, however, Hausman tests do not always indicate fixed effects are preferred over random effects. In such cases, it is common to use random effects instead of fixed effects, on efficiency grounds. We therefore present random effects results for *PFM*, *DBS* and *PBA* in equations 1-3 (respectively) of Table 10. Donor and recipient characteristics can be included together in these tests. However, we do not include the public opinion variables from Table 9, because they cut the sample size by half or more.

Most results obtained using fixed effects tests change very little in the random effects tests. Coefficients for *donor aid share* are somewhat smaller using random effects, for *PFM* and *PBA* (equations 1 and 3 in Table 10), but not for *DBS* (equation 2). Results for *HIPC completion*, *aid/GNP*, and the three CPIA variables change very little in most cases. One exception is that *Transparency* is highly significant in the *PBA* regression in Table 10; the corresponding t-stat using fixed effects was only 1.52 (equation 2 of Table 7). The only notable change in results for the donor groupings dummies is for the *non-MDBs*: their coefficients in *DBS* and *PBA* random effects regressions (Table 10, equations 2 and 3) remain positive, but are smaller in magnitude. When recipient fixed effects were included (Table 8, equation 3), *PBA* was significantly higher for the *non-MDBs* than for the omitted category of *other DAC bilaterals* but in random effects the difference is smaller and not significant.

Equations 4-6 in Table 10 report random effects tobit models for each of the three dependent variables, which are bounded by 0% and 100%.[32] For example, of the 782 observations in equation 1, *PFM* equals 0% for 203 cases and 100% for 37 others. All results

[32] Fixed-effects tobit estimates are biased, so we report tobit results only for random effects models. The value added of tobit estimation is relatively small (Angrist and Pischke, 2009), so we report tobit results only to show our main results from linear (fixed and random effects) regressions are robust to the most obvious nonlinear alternative.

significant at conventional levels in equations 1-3 remain significant in their respective counterparts using tobit in equations 4-6, and no coefficients change sign.[33]

For space reasons we do not report a table of results for random effects versions of the Table 9 (fixed effects) tests showing public support for aid increases trust in country systems. However, results (available on request) changed only trivially using random effects or random effects tobit instead of fixed effects.

5. Conclusions

The Paris Declaration has placed the use of recipient country systems firmly on the international aid effectiveness agenda. This paper identifies and tests three broad explanations for donor agencies' inability or unwillingness to rely more on country systems. First, and most fundamentally, country systems are often not very trustworthy so their use implies significant reputational and fiduciary risks to donors. Where PFM and other aid management systems are sufficiently weak, donors' use of parallel systems for managing aid can be fully consistent with maximizing development objectives. We provide empirical evidence supporting the proposition that use of country systems is strongly related to their quality, contradicting findings from more casual analyses that the *PFM Quality* indicator from the World Bank's CPIA only weakly predicts donors' use of PFM systems (OECD, 2009a, 2009b).

Second, donors' trust in country systems is influenced by their mandates and by their constituents' faith in the development effectiveness of aid. Multilateral donors (particularly the development banks) use country systems more than bilaterals. Among bilateral donors, we show that popular support for aid is associated with greater use of country systems. Where voters are more skeptical of aid, we argue, the bilateral agency is compelled to micro-manage aid expenditures to produce tangible, visible outputs that can be plausibly attributed to its funds.

Third, we find that a donor's use of country systems is greater when it has a more "encompassing interest" in a recipient's development. When a donor's share of all aid provided to the recipient is higher, it internalizes more of the benefits of its use of country systems.

As a general rule, donors will incur the full costs of their own decisions to trust in country systems, in the form of increased risks to their aid funds. In contrast, the benefits – in the form of positive development results agencies can cite when lobbying to maintain or increase their budgets – will be shared among many donors. In the absence of an effective coordination mechanism, therefore, use of country systems is likely at sub-optimal levels for most donors.

[33] Coefficient magnitudes are not directly comparable between random effects and random effects tobit: in tobit, a coefficient measure the marginal effects of a one-unit change in a regressor, evaluated at the means of the other regressors, on the latent (unobserved) dependent variable.

The donors' own harmonization initiatives, led by the OECD-DAC and World Bank, are a partial solution to the under-provision of recipient-managed aid. Other possible policy responses address the trustworthiness of country systems, tolerance for risk among donor country voters, or donors' ability to internalize more of the benefits from their use of country systems.

The Paris Declaration itself emphasizes the importance of strengthening weak country systems, and technical assistance from donors can contribute importantly to this objective. The multi-donor Public Expenditure and Financial Accountability program (www.pefa.org) replaces numerous uncoordinated donor projects supporting diagnostic and analytic work, financing for reform, and technical support for reform implementation in PFM. Progress in reforming PFM systems however tends to occur only over very long time periods, and involves political as well as technical challenges, with resistance from certain public officials who benefit from maintaining less-transparent systems and procedures (OECD, 2009b; Allen, 2009; IEG, 2008).

Bilateral donor agencies can attempt to increase the tolerance of risk in aid programs by highlighting the development benefits of using country systems, as part of their public and parliamentary relations efforts (OECD, 2009b: 41). Understandably, the Paris Declaration targets and aid management practices will never resonate as much with non-specialists as debt relief or even the Millenium Development Goals. However, donors might be able to enlist some opinion leaders (including prominent entertainers or economists with experience in aid advocacy) to help sell the principle of "country ownership" and stressing the damaging effects of donors' use of parallel systems.

Concentrating a typical donor's aid in fewer countries and sectors would reduce the enormous transactions costs imposed on recipient governments. It would also tend to increase donors' use of country systems, as the leading donors in a recipient would internalize a greater share of the benefits. Even if donors' aid shares were all unchanged in a country, but divisions of labor by sector were sharpened, donors would have less incentive to micro-manage aid. The lead donor for education, for example, would have a strengthened reputational stake in education outcomes, and similarly for the lead donor in health. Incentives for them would shift away from delivering donor-managed, successful-looking projects, and toward working with governments to deliver improved sector-wide development outcomes. Concentrating aid in fewer countries or sectors, however, potentially reduces a donor agency's visibility, with possibly adverse consequences for its budget.

> Representatives of aid constituencies who visit aid-receiving countries may easily get the impression that the aid from their own country or international organization is making footprints everywhere in the country, at least everywhere they happen to appear, in accordance with a well-designed traveling program

> prepared by local authorities in cooperation with respective embassies or agency residential representations. (Andersen, 2000: 193).

Visibility of aid, of this sort, would run into decreasing returns much more quickly if aid were concentrated more by sector and by country instead of fragmented.

Bilateral donors with tenuous domestic support for aid face a tradeoff between meeting the Paris Declaration goals and the Monterrey Consensus goal of increasing aid levels. Nominal earmarks can sometimes reduce these tradeoffs; e.g. budget support can be disguised by a donor as aid targeting a particular health issue, as a useful fiction to help sustain domestic support for aid provision.

Another means of making progress toward the Paris goals, without reducing support for the donor's aid budget, is simply to shift aid allocations so that recipients with stronger management systems are favored even more than they are now. This response could create aid "orphans," a result not envisioned or advocated in the Paris Declaration. It also has implications for the increasingly-popular practice of ranking donors (e.g. Roodman, 2006; Easterly and Pfutze, 2008). Use of country systems and other Paris Declaration monitoring indicators, aggregated to the donor level, are obvious candidates for inclusion in future rankings (Center for Global Development, 2007). We show in Table 4, however, that recipient characteristics explain more variation in use of country systems than do donor characteristics. Any ranking of donor performance based on the SMPD data should adjust for differences in risk across donors' aid portfolios. For example, rankings could be based on donor dummy coefficient estimates from two-way fixed effects models that net out recipient effects. If donors were ranked on the unadjusted aggregates, the surest way to move up in the rankings would be to cease giving any aid to countries with less trustworthy systems.

Other possible policy responses to facilitate progress toward the Paris Declaration'a goals go beyond the scope of our model. In particular, we have ignored incentives within donor agencies, but there are ways to raise the reputational stakes for staff members in a country's development – in effect internalizing more of the benefits of using country systems within the agency. Staff members in many donor agencies arguably are rotated too frequently, shortening the time period in which they need to produce measurable outputs for their annual performance reviews. When staff do need to be re-assigned from one country or region to work on another one, their ongoing projects should remain part of their work programs until they are completed. Even completed projects can be evaluated with respect to their sustained benefits, feeding into current and future performance evaluations.

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Table 1

	mean	Std. dev.	Min.	Max.	N
Dependent Variables					
Use of PFM systems	34.0%	33.6%	0%	100%	782
Direct budget support	11.9%	22.3%	0%	100%	798
Program-based approaches	31.0%	34.1%	0%	100%	787
Independent Variables					
Donor aid share	6.42%	8.80%	0.01%	70.4%	832
Former colonial relationship	4.93%	21.66%	0%	100%	832
HIPC completion countries	38.9%	48.8%	0%	100%	832
PFM quality (CPIA 13)	3.41	0.55	2.0	4.5	826
Transparency (CPIA 16)	2.92	0.52	2.0	4.5	826
Macro/fiscal policy (CPIA 1 & 2)	3.89	0.51	2.25	5	826
Quality of operational development strategy	3.08	0.63	1	4	656
Aid/GNI (%)	10.8%	10.4%	0.2%	56.3%	813
"Nordic plus" countries	0.18	0.39	0	1	832
Non-DAC bilateral donors	0.04	0.20	0	1	832
Multilateral development banks	0.13	0.34	0	1	832
Non-MDB multilateral donors	0.24	0.43	0	1	832
Public support for aid (%)					
Gallup International, 2002	63.8%	14.1%	45.0%	91.0%	424
World Values Surveys, 1995-98	18.0%	10.1%	6.7%	35.5%	236
Eurobarometer, 2004	33.0%	9.0%	11.0%	58.0%	306

Table 2
Public Support for Foreign Aid in Donor Countries

survey donor	WVS 1995-8 "very much for" aid	Gallup International 2002 should “give more aid”	Eurobarometer 2004 aid share of budget “too small”
Australia	17.7%	63%	.
Austria	.	.	21%
Belgium	.	.	36%
Canada	.	64%	.
Switzerland	.	71%	.
Czech Rep.	.	.	18%
Germany	18.2%	68%	25%
Denmark	.	53%	35%
Spain	33.1%	91%	58%
Estonia	.	.	17%
Finland	15.2%	61%	31%
France	.	.	35%
UK	.	69%	38%
Greece	.	.	30%
Hungary	.	.	11%
Ireland	.	87%	30%
Italy	.	83%	30%
Japan	9.8%	45%	.
Korea	.	87%	.
Lithuania	.	.	24%
Luxembourg	.	71%	19%
Latvia	.	.	27%
Netherlands	.	50%	33%
Norway	21.9%	63%	.
New Zealand	11.9%	.	.
Poland	.	83%	35%
Portugal	.	89%	22%
Sweden	35.5%	69%	29%
Turkey	.	87%	.
USA	6.7%	45%	.

Gallup: Do you think that the wealthier nations *should give more* financial help to the poorer nations or are they *giving enough now*? (Should give more/are giving enough now)
WVS: Some people favor, and others are against, having this country provide economic aid to poorer countries. Are you personally: very much for/for to some extent/somewhat against/very much against
Eurobarometer: Do you think that the share of its budget that the [respondent’s country] Government dedicates to development aid is: too big/too small/about right

Table 3
Determinants of Inclusion in Paris Declaration Monitoring Survey

	Marginal effect (robust z-stat.)
Population (log)	0.191 (3.57)
GDP per capita (log)	-0.237 (-3.94)
Aid per capita (log)	0.176 (2.55)
HIPC completion	0.322 (2.28)

Sample size is 139. Pseudo R^2 =.46. Marginal effects are evaluated at mean of other independent variables.

Table 4
Explanatory power of donor and recipient dummies

	Use of PFM systems	Direct budget support	Program based approaches
Donor dummies	.21	.21	.14
Recipient dummies	.28	.21	.23
Donor & recipient	.44	.40	.36
N	782	798	787

Table 5: Donor Share of Aid and Use of Country Systems

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Use of PFM systems	Budget support	Program-based aid	Use of PFM systems	Budget support	Program-based aid
Donor aid share in recipient	0.647**	0.331***	0.741***			
	(3.17)	(4.02)	(4.80)			
Recipient is ex-colony of donor	-3.098	1.452	0.500	-4.017	2.243	2.256
	(-0.50)	(0.24)	(0.14)	(-0.67)	(0.40)	(0.57)
Donor aid share (CRS 2005)				0.644**	0.219	0.501
				(3.63)	(3.08)	(3.09)
Donor dummies?	Yes	yes	yes	yes	yes	yes
Recipient dummies?	Yes	yes	yes	yes	yes	yes
Observations	782	798	787	648	666	655
No. of donors	57	58	58	27	27	27
R^2	0.46	0.41	0.377	0.46	0.41	0.37

Robust t-statistics are reported in parentheses below point estimates, *** p<0.01, ** p<0.05, * p<0.1. Standard errors are corrected for non-independence within clusters of donor observations.

Table 6: Recipient Characteristics and Use of Country PFM Systems

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Change in sample/specification:	Basic	Strategy	Strategy & CPIA	Lagged (2004) CPIA	WB obs. dropped	IDA countries only	Budget support
Donor aid share (%)	0.592***	0.424**	0.506**	0.663***	0.668***	0.484***	0.450***
	(3.88)	(2.07)	(2.40)	(4.71)	(3.96)	(2.88)	(3.05)
HIPC recipient	9.262**	11.892**	6.420	11.765***	10.188**	5.925	6.964*
	(2.26)	(2.68)	(1.47)	(3.06)	(2.51)	(1.33)	(1.80)
PFM Quality (CPIA 13)	9.981**		18.839***	10.290**	9.988**	14.157***	8.547**
	(2.45)		(3.02)	(2.25)	(2.49)	(3.87)	(2.36)
Transparency (CPIA 16)	7.189*		7.910**	5.909	6.842*	7.066**	3.513
	(1.90)		(2.45)	(1.55)	(1.84)	(2.28)	(0.98)
Operational Development Strategy		8.329*	-6.033				
		(1.79)	(-1.09)				
Budget support (%)							0.552***
							(8.10)
Constant	-28.668	1.334	-38.912	-28.848	-28.650	-39.145	-19.155
	(-2.28)	(1.79)	(-3.48)	(-2.37)	(-2.26)	(-3.66)	(-1.77)
Donor dummies?	yes	yes	yes	yes	yes	yes	yes
Recipient dummies?	no	no	no	no	no	no	no
Observations	778	626	622	737	729	633	745
No. of donors	57	53	53	57	56	53	57
R^2	0.32	0.33	0.39	0.32	0.33	0.38	0.42

Robust t-statistics are reported in parentheses below point estimates, *** p<0.01, ** p<0.05, * p<0.1. Standard errors are corrected for non-independence within clusters of recipient observations.

Table 7: Recipient Characteristics and Use of Budget Support and Program-Based Approaches

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Budget support	Program-Based aid	Budget support	Program-Based aid	Budget support	Program-Based aid
Change in sample:			WB obs. dropped	WB obs. dropped	IDA countries	IDA countries
Donor aid share	0.397***	0.760***	0.358***	0.774***	0.340***	0.665***
	(3.48)	(3.90)	(3.08)	(3.41)	(3.19)	(3.32)
HIPC country	4.383*	15.703***	5.031*	16.406***	4.098	12.930***
	(1.79)	(3.66)	(1.98)	(3.77)	(1.54)	(3.24)
Quality of macro/fiscal policy (CPIA 1 &2)	7.286***	4.277	6.768***	3.986	7.606***	5.741*
	(3.27)	(1.02)	(2.79)	(0.86)	(3.09)	(1.70)
Transparency (CPIA 16)	5.915***	8.215	5.944**	8.460	6.378***	10.159**
	(2.77)	(1.52)	(2.63)	(1.49)	(2.97)	(2.40)
Aid/GDP (%)	0.321**	0.158	0.296*	0.122	0.317**	0.066
	(2.28)	(0.81)	(1.96)	(0.64)	(2.09)	(0.35)
Constant	-41.244	-22.020	-39.797	-21.636	-43.214	-29.239
	(-5.84)	(-1.62)	(-5.32)	(-1.45)	(-5.20)	(-2.34)
Donor dummies?	yes	yes	Yes	yes	yes	Yes
Recipient dummies?	no	no	No	no	no	No
Observations	773	762	725	716	638	632
No. of donors	58	58	57	57	54	54
R^2	0.32	0.27	0.31	0.27	0.33	0.29

Robust t-statistics are reported in parentheses below point estimates, *** p<0.01, ** p<0.05, * p<0.1. Standard errors are corrected for non-independence within clusters of recipient observations.

Table 8: Donor Characteristics and Use of Country Systems

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Use of PFM systems	Budget support	Program-based aid	Use of PFM systems	Budget support	Program-based aid
Donor aid share	0.367	0.355***	0.609***	0.542***	0.369***	0.659***
	(1.62)	(3.33)	(5.39)	(2.97)	(3.94)	(4.91)
"Nordic-Plus" Countries	16.128***	13.862***	17.702***	11.331***	12.033***	17.346***
	(3.61)	(4.41)	(5.85)	(3.82)	(4.11)	(5.70)
non-DAC bilateral donors	-8.427	-2.156	-14.011***	-12.736**	-3.986	-14.237***
	(-1.40)	(-0.66)	(-2.65)	(-2.33)	(-1.29)	(-2.74)
Multilateral development banks	12.316**	14.352***	10.590***	6.011*	12.338***	9.740***
	(2.50)	(5.08)	(3.79)	(1.90)	(4.75)	(3.21)
Non-bank multilaterals	-8.335	5.244	4.626**	-4.704	-1.075	11.030
	(-1.16)	(1.00)	(2.33)	(-0.51)	(-0.332	(1.04)
Vertical funds	17.881*	-2.306	19.442**	13.564	-4.213***	19.139**
	(2.04)	(-1.39)	(2.43)	(1.61)	(-3.13)	(2.40)
EC				-2.098	12.085***	-9.267
				(-0.22)	(3.36)	(-0.86)
UN				-18.780*	-2.622	-6.927
				(-2.04)	(-0.75)	(-0.65)
US				-28.622***	-8.784***	-4.077**
				(-11.78)	(-7.66)	(-2.08)
Japan				-10.053***	-5.328***	0.923
				(-6.76)	(-6.27)	(0.69)
Constant	26.892	4.656	20.582	30.875	6.487	20.737
	(8.50)	(3.56)	(15.61)	(18.98)	(6.29)	(16.04)
Donor dummies?	No	no	No	EC,UN, USA, Japan only		
Recipient dummies?	Yes	yes	Yes	Yes	yes	Yes
Observations	782	798	787	782	798	787
No. of donors	57	58	58	57	58	58
R-squared	0.36	0.32	0.31	0.40	0.35	0.31

Robust t-statistics are reported in parentheses below point estimates, *** p<0.01, ** p<0.05, * p<0.1. Standard errors are corrected for non-independence within clusters of donor observations.

Table 9: Public Support for Aid in Donors and Use of Country Systems

	(1)	(2)	(3)	(4)	(5)	(6)
survey	Gallup International 2002		World Values 1995-1998		Eurobarometer 2004	
Dependent variable	Use of PFM systems	Budget support	Use of PFM systems	Budget support	Use of PFM systems	Budget support
Donor aid share	0.536	0.410**	0.711	0.311***	1.271**	0.435
	(1.28)	(2.79)	(1.79)	(6.57)	(2.52)	(1.21)
"Nordic Plus" Countries	19.653***	13.883***	17.875*	8.593***	10.355**	12.547***
	(3.41)	(3.94)	(2.25)	(4.60)	(2.14)	(3.41)
Non-DAC bilateral donors	-18.163***	-4.927			-11.324	2.575
	(-3.08)	(-1.30)			(-0.75)	(0.48)
Public support for aid (%)	0.354*	0.159	0.771***	0.205*	0.247	0.235*
	(2.01)	(1.66)	(3.75)	(1.84)	(1.43)	(2.45)
Constant	2.478	-5.619	-39.768	-12.846	21.036	-1.404
	(0.21)	(-0.90)	(-3.18)	(-1.61)	(3.52)	(-0.35)
Donor dummies?	no	no	no	no	no	no
Recipient dummies?	yes	yes	yes	yes	yes	yes
Observations	391	412	218	227	287	294
No. of donors	20	20	9	9	21	21
R-squared	0.44	0.48	0.50	0.46	0.54	0.51

Robust t-statistics are reported in parentheses below point estimates, *** p<0.01, ** p<0.05,
* p<0.1. Standard errors are corrected for non-independence within clusters of donor observations.

Table 10: Alternative estimation methods

	(1)	(2)	(3)	(4)	(5)	(6)
Method	Random effects			Random effects tobit		
Dependent variable	PFM	Budget support	PBA	PFM	Budget support	PBA
Donor aid share	0.391*	0.396***	0.672***	0.863***	1.327***	1.076***
	(1.87)	(4.20)	(4.58)	(4.38)	(5.50)	(4.60)
HIPC Completion	11.018***	3.905*	15.431***	15.154***	10.621***	25.226***
	(2.82)	(1.88)	(5.16)	(4.61)	(2.54)	(6.28)
PFM Quality (CPIA 13)	9.495***			15.000***		
	(4.47)			(4.42)		
Transparency (CPIA 16)	6.399***	5.490***	6.745***	9.331***	13.802***	10.026**
	(3.21)	(3.26)	(2.61)	(2.84)	(3.00)	(2.24)
Quality of Macro-Fiscal Policy (CPIA 1 & 2)		7.352***	4.727		26.271***	9.350**
		(3.35)	(1.47)		(5.30)	(2.03)
Aid/GNI (%)		0.312***	0.13142		0.995***	0.175
		(3.82)	(1.13)		(4.60)	(0.85)
"Nordic Plus" countries	17.652***	14.774***	20.720***	23.946***	31.658***	26.632***
	(3.92)	(4.89)	(5.25)	(3.28)	(4.06)	(4.43)
Non-DAC bilateral donors	-9.692*	-2.388	-14.670***	-18.966*	-20.478	-50.085***
	(-1.77)	(-0.72)	(-3.45)	(-1.90)	(-1.45)	(-4.00)
Multilateral development banks	11.730**	16.517***	11.039***	19.061**	34.822***	16.695**
	(2.41)	(3.16)	(3.37)	(2.34)	(4.01)	(2.37)
Non-bank multilaterals	-10.461	0.343	2.134	-14.163	12.129	5.765
	(-1.52)	(0.09)	(0.67)	(-1.62)	(1.20)	(0.79)
Vertical funds	18.338**	-3.168	16.804*	31.786***	-34.969**	24.237**
	(2.08)	(-1.91)	(1.93)	(3.30)	(-2.48)	(2.88)
Constant	-28.594	-44.884	-24.737	-69.588	-196.85	-72.635
	(-3.97)	(-4.35)	(-2.32)	(-5.72)	(-9.71)	(-4.41)
Observations	778	773	762	778	773	762
Number of Donors	57	58	58	57	58	58
R^2 overall	.20	.22	.19	--	--	--

Robust z statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Standard errors are corrected for non-independence within clusters of donor observations in equations 1-3.

Appendix 1: Comparative Statics Analysis

Max $\alpha \cdot q^D(D_i) + \overline{a_i} \cdot f[q^D(D_i), q^D(D_{-i}), \gamma q^R(R_i, R_{-i})]$ s.t $A_i \geq D_i + R_i$

Langragian and first order conditions will then be

$$L(r_i, d_i; \lambda) = \alpha \cdot q^D(D_i) + \overline{a_i} \cdot f[q^D(D_i), q^D(D_{-i}), \gamma q^R(R_i, R_{-i})] + \lambda(A_i - D_i - R_i)$$

$$\alpha \cdot q^{D'} + \overline{a_i} \cdot q^{D'} \cdot f_{q^D} = \lambda$$

$$\overline{a_i} \cdot \gamma \cdot q^{R'} \cdot f_{q^R} = \lambda$$

or

$$\alpha \cdot q^{D'} + \overline{a_i} \cdot q^{D'} \cdot f_{q^D} = \overline{a_i} \cdot \gamma \cdot q^{R'} \cdot f_{q^R}$$

To isolate the effect of changes in the "skepticism" or "leakage" parameters we need to totally differentiate the first order condition with respect to these parameters. This would leave us with the following equation:

$$q^{D'} \cdot d\alpha + \alpha \cdot q^{D''} \cdot dD + \overline{a_i} \cdot q^{D'^2} \cdot f_{q^D q^D} \cdot dD + \overline{a_i} \cdot q^{D''} \cdot f_{q^D} \cdot dD + \overline{a_i} \cdot q^{D'} \cdot q^{R'} \cdot f_{q^D q^R} \cdot dR =$$

$$\overline{a_i} \cdot \gamma \cdot q^{R'} \cdot q^{D'} f_{q^R q^D} \cdot dD + \overline{a_i} \cdot \gamma \cdot q^{R'^2} \cdot f_{q^R q^R} \cdot dR$$

Using the fact that *dR=-dD* we can rewritten the equation

$$q^{D'} \cdot d\alpha =$$

$$[(1+\gamma) \cdot \overline{a_i} \cdot q^{R'} \cdot q^{D'} f_{q^R q^D} - \overline{a_i} \cdot \gamma \cdot q^{R'^2} \cdot f_{q^R q^R} - \overline{a_i} \cdot q^{D'^2} \cdot f_{q^D q^D} - \overline{a_i} \cdot q^{D''} \cdot f_{q^D} - \alpha \cdot q^{D''}] \cdot dD$$

Therefore, dD/dα>0 if $f_{qDqR}>0$, and its sign will depend on the magnitude of the first term in the r.h.s expression relative to the other terms otherwise. Using the same approach with respect to γ and $\overline{a_i}$ one obtains:

$$-\overline{a_i} \cdot q^{R'} \cdot f_{q^R} \cdot d\gamma =$$

$$[(1+\gamma) \cdot \overline{a_i} \cdot q^{R'} \cdot q^{D'} f_{q^R q^D} - \overline{a_i} \cdot \gamma \cdot q^{R'^2} \cdot f_{q^R q^R} - \overline{a_i} \cdot q^{D'^2} \cdot f_{q^D q^D} - \overline{a_i} \cdot q^{D''} \cdot f_{q^D} - \alpha \cdot q^{D''}] \cdot dD$$

and

$$(q^{D'} \cdot f_{q^D} - \gamma \cdot q^{R'} \cdot f_{q^R}) \cdot d\overline{a_i} =$$

$$[(1+\gamma) \cdot \overline{a_i} \cdot q^{R'} \cdot q^{D'} f_{q^R q^D} - \overline{a_i} \cdot \gamma \cdot q^{R'^2} \cdot f_{q^R q^R} - \overline{a_i} \cdot q^{D'^2} \cdot f_{q^D q^D} - \overline{a_i} \cdot q^{D''} \cdot f_{q^D} - \alpha \cdot q^{D''}] \cdot dD$$

Appendix 2
Survey on Monitoring the Paris Declaration: Methodology and Indicator Definitions

Methodology

Data collection for the survey is organized around recipient countries, not donors. For a given recipient, each donor disbursing aid in calendar year 2007 completed a questionnaire, and submitted it to a "Donor Focal Point," who consolidated the data and submitted it in turn to a "National Coordinator." The National Coordinators were senior government officials responsible for completion of a short questionnaire by central government authorities, and had overall responsibility for managing the survey in country, with the assistance of the Donor Focal Point. Because the survey is based on recipients in this manner, a donor operating in 40 countries had to complete 40 questionnaires, while recipient governments in the survey had to complete only one (shorter) survey, regardless of the number of donors disbursing aid in the country.

To strengthen the quality of the survey, five regional workshops were held to ensure National Coordinators fully understood the process. Detailed definitions and guidance were provided, and an international help desk and dedicated web site were established by the OECD, UNDP and the World Bank to respond to questions from National coordinators or donor staff responsible for completing questionnaires.

Indicator Definitions

Use of national budget execution procedures

Three of these four criteria must be met to qualify:

1) Funds are included in the annual budget approved by the legislature;
2) Funds are subject to established country procedures for authorization, approval and payment of funds;
3) Funds are deposited and disbursed through the established treasury system;
4) Opening of separate bank accounts for donor funds is not required

Use of national financial reporting procedures

Both criteria must be met to qualify:

1) No separate accounting system is required to satisfy donor's reporting needs;
2) No separate chart of accounts is required to record the use of donor funds

Use of national auditing procedures

To qualify, funds are subject to audits by the country's Supreme Audit Institution using its auditing cycle and standards, and additional auditing arrangements are not requested in normal circumstances.

Use of national procurement procedures

Donors do not make additional or special requirements on governments for the procurement of works, good and services.

Direct budget support

To qualify, funds must be transferred to the national treasury and be managed using national budgetary procedures, and not earmarked for specific uses. They may be nominally earmarked for a broadly-defined sector such as education (sector budget support).

Program –based approach (PBA)

Funds qualify as PBA only if all four criteria are met:

1) recipient government (or organization) exercises leadership over the donor-supported program;
2) A single comprehensive program and budget framework is used;
3) There is a forma process for harmonizing donor procedures on at least two of the following systems: reporting, budgeting, financial management, and procurement;
4) The program uses at least two of the following systems: program design, program implementation, financial management, and monitoring/evaluation.

Appendix 3
Country Policy and Institutional Assessment (CPIA)

A. Economic Management
1. *Macroeconomic Management*
2. *Fiscal Policy*
3. Debt Policy

B. Structural Policies
4. Trade
5. Financial Sector
6 Business Regulatory Environment

C. Policies for Social Inclusion/Equity
7. Gender Equality
8. Equity of Public Resource Use
9. Building Human Resources
10. Social Protection and Labor
11. Policies and Institutions for Environmental Sustainability

D. Public Sector Management and Institutions
12. Property Rights and Rule-based Governance
13. *Quality of Budgetary and Financial Management*
14. Efficiency of Revenue Mobilization
15. Quality of Public Administration
16. Transparency, *Accountability, and Corruption in the Public Sector*

Questions used in the analysis are in italics. Detailed criteria used in assessing these are listed on subsequent pages of this appendix.

1. Macroeconomic Management.

This criterion assesses the quality of the monetary/exchange rate and aggregate demand policy framework. A high quality policy framework is one that is favorable to sustained medium-term economic growth. Critical components are: a monetary/exchange rate policy with clearly defined price stability objectives; aggregate demand policies that focus on maintaining short and medium-term external balance (under the current and foreseeable external environment); and avoid crowding out private investment. Fiscal issues, including sustainability, are covered in criterion 2 (Fiscal Policy), and debt issues are covered in criterion 3 (Debt Policy). In assessing the quality of the policy and institutional framework outcome indicators should be used to inform the determination of the score.

1	For a prolonged period of time, aggregate demand policies have generated macroeconomic imbalances and raised the risk of (or led to) balance of payment crisis; monetary/exchange rate policies have not been oriented towards price stability; and public spending has been crowding out private sector investment.
2	Aggregate demand policies are inconsistent with macroeconomic stability. Monetary and exchange rate policies do not ensure price stability; and there is significant private sector investment crowding out. Policy framework is inadequate to mitigate the effects of external/internal shocks.
3	Sporadic or partial attempts to address macroeconomic imbalances (e.g., pursue price stability, reduce current account deficits, mitigate the effects of external shocks, and avoid crowding out). In many cases the set of policies pursued are not fully consistent.
4	Aggregate demand policies pursue external and internal balances. Monetary/exchange rate policies pursue price stability; and expenditure policy intends to avoid crowding out. Policy inconsistencies or slippages, however, sometimes undermine the achievement of these objectives.
5	Aggregate demand policies pursue external and internal balances. Rapid and flexible policy response mitigates the effects of external or internal shocks. Monetary/exchange rate policies clearly target price stability, and public spending does not crowd out private investment.
6	For a prolonged period of time aggregate demand policies have maintained external and internal balance and built adequate safeguards against external/internal shocks. Monetary/exchange rate policies have maintained price stability, and public spending has not crowded out private investment.

2. Fiscal Policy

This criterion assesses the short- and medium-term sustainability of fiscal policy (taking into account monetary and exchange rate policy and the sustainability of the public debt) and its impact on growth. Fiscal policy is not sustainable if it results in a continuous increase in the debt to GDP ratio and/or creates financing needs that cannot be adequately met by the supply of funds available to the public sector. This criterion covers the extent to which: (a) the primary balance is managed to ensure sustainability of the public finances; (b) public expenditure/revenue can be adjusted to absorb shocks if necessary; and (c) the provision of public goods, including infrastructure, is consistent with medium-term growth. Sustainability is defined inclusive of off-budget government spending items and contingent liabilities. The impact of fiscal policy on economic growth depends on the marginal productivity of government spending and on the distortions introduced by taxes collected to finance this spending.

1 For a prolonged period of time fiscal policy has contributed to macroeconomic imbalances (high inflation, crowding out of private investment, and unsustainable current account deficits or unsustainable public debt). Public expenditures and revenues have been inflexible to adapt to shocks. The provision of public goods has been greatly insufficient to support medium-term growth.

2 Fiscal balance will likely to lead (or is already leading) to macroeconomic imbalances. The primary balance is insufficient to halt the increase of the ratio public debt to GDP; public expenditure and revenues are rigid to adapt to shocks without jeopardizing the quality and quantity of public goods produced; and the provision of public goods is insufficient to support medium-term growth.

3. Sporadic efforts to address macroeconomic imbalances through fiscal policy, but not maintained consistently, or implemented through ad-hoc or temporary measures that cannot be maintained (i.e., unrealistic cuts in real wages, or cuts in public investment with high long-term run returns). Public expenditure and revenue rigidities and/or delayed response result in frequent departures from the programmed balance when unexpected shocks occur. The provision of public goods in some areas is insufficient to support medium-term growth.

4. Fiscal policy consistent with macroeconomic stability and debt sustainability, but there are occasional slippages. Fiscal balance is sometimes reached at the expense of public goods provision. Fiscal policy response to shocks is reasonably rapid. The quality of public goods provision is in many areas sufficient to support growth most of the time.

5 Fiscal policies are consistent with macroeconomic stability. Fiscal balance can be financed in a non-inflationary way and is consistent with adequate credit for the private sector and a sustainable path of public debt. Public expenditures and revenues are flexible to adapt to shocks, and the provision of public goods is adequate to support growth.

6 Fiscal policy has been supporting, for an extended period of time, macroeconomic stability. The primary surplus has been managed to maintain a stable and low ratio public debt to GDP; public expenditure and revenues have adjusted to shocks without jeopardizing the quality and quantity of public goods produced; provision of public goods has been adequate to support medium-term growth.

13. Quality of Budgetary and Financial Management

This criterion assesses the extent to which there is: (a) a comprehensive and credible budget, linked to policy priorities; (b) effective financial management systems to ensure that the budget is implemented as intended in a controlled and predictable way; and (c) timely and accurate accounting and fiscal reporting, including timely and audited public accounts and effective arrangements for follow up. Each of these three dimensions should be rated separately. For the overall rating for this criterion, these three dimensions should receive equal weighting.

1 a. If there is a budget, it is not a meaningful instrument, nor an indicator of policies or tool for allocation of public resources. There is no forward look in the budget, nor any meaningful consultation with spending ministries. No consistent budget classification system is used. More than 50 percent of public resources from all sources do not flow through the budget.

b. Expenditures across broad budget categories have little or no relationship to the amounts budgeted. There is practically no monitoring and reporting of public expenditures. Payment arrears exceed 10% of total expenditures, or cannot be determined.

c. There is no reconciliation of cash accounts with fiscal records. No regular, in-year fiscal reports are produced. Public accounts are seldom prepared, or are more than five years out of date. The use of public resources is not on the public agenda.

2 a. There is no discernible link with government policies or priorities, and no forward look in the budget. The budget is formulated without meaningful consultation with spending ministries. No consistent budget classification system is in use. Significant fiscal operations (e.g., extra-budgetary expenditures and donor funded projects of 25-50 percent of total spending by value) are excluded from the budget.

b. Actual expenditures often deviate significantly from the amounts budgeted (e.g., by more than 30 percent overall or on many broad budget categories). There is no adequate system of budget reporting and monitoring. Payments arrears exceed 10% of total expenditures.

c. Reconciliation of banking and fiscal records is undertaken less frequently than monthly, and discrepancies are often left unexplained. In-year fiscal reports are largely useless, due to lengthy delays or inaccurate data. There are significant delays (more than three years) in the preparation of the public accounts. The accounts are not (professionally) audited or submitted to the legislature in a timely way, and no actions are taken on budget reports and audit findings.

3 a. Policies or priorities are explicit, but are not linked to the budget. There is no forward look in the budget. The budget is formulated in consultation with spending ministries The budget classification system does not provide an adequate picture of general government activities. A significant amount of funds controlled by the executive is outside the budget (e.g., 10-25%), and a number of donor activities bypass the budget.

b. Expenditures deviate from the amounts budgeted by more than 20 percent overall, or on many broad budget categories. Budget monitoring and control systems are inadequate. Payment arrears are 5-10% of total expenditures.

c. Reconciliation of banking and fiscal records is undertaken less frequently than monthly, or discrepancies are not always accounted for. In-year budget reports are prepared quarterly less than 8 weeks after the end of the period, but their usefulness is undermined somewhat by inaccurate data or reporting only at high levels of aggregation. There are significant delays (e.g., more than 10 months) in the preparation of public accounts. Accounts are not audited in a timely and adequate way, and few if any actions are taken on budget reports and audit findings.

4 a. Policies and priorities are broadly reflected in the budget. Some elements of forward budget planning are in place. The budget is formulated in consultation with spending ministries, from a sufficiently early stage in the budget preparation process. The budget classification system is comprehensive, but different from international standards. Less than 10% of funds controlled by the executive are outside the budget.

b. Actual expenditures deviate from the amounts budgeted by more than 10 percent on many broad budget categories. Budget monitoring and control systems exist, but there are some deficiencies. Payment arrears may exist but are less than 5% of total expenditures.

c. Reconciliation of banking and fiscal records is undertaken satisfactorily, on a monthly basis. In-year budget reports are prepared quarterly less than 6 weeks after the end of the period, with reasonably accurate data, broken down to at least program or functional level. There are delays (e.g., more than 6 months) in preparation of the public accounts. The accounts are audited in a timely and professional manner, but few meaningful actions are taken on budget reports or audit findings.

5 a. Policies and priorities are linked to the budget. Multi-year expenditure projections are integrated into the budget formulation process, and reflect explicit costing of the implications of new policy initiatives. The budget is formulated through systematic consultations with spending ministries and the legislature, adhering to a fixed budget calendar. The budget classification system is comprehensive and consistent with international standards Off-budget expenditures are minimal, and transparent.

b. The budget is implemented as planned, and actual expenditures deviate only slightly from planned levels (by less than 10 percent on most broad categories). Budget monitoring occurs throughout the year based on well functioning management information systems. Payment arrears are negligible or non-existent.

c. Reconciliation of banking and fiscal records is practiced comprehensively, properly, and in a timely way (daily or weekly). In-year fiscal reports are prepared at least quarterly, issued within 4 weeks of end of period, and provide accurate data on all budget items, with coverage of expenditures at both the commitment and payment stages. The public accounts are prepared within 6 months of the end of the fiscal year, and include full information on revenue, expenditure, and financial assets and liabilities. Accounts are audited in a timely, professional and comprehensive manner, and appropriate action is taken on budget reports and audit findings.

6. Criteria for "5" on all three sub-ratings are fully met. In addition:

a. Budget supporting documents are submitted to the legislature, with the annual budget, with information on macroeconomic assumptions, estimates of budgetary impact of major revenue and expenditure policy changes, and comparisons to previous budget outturns or estimated outturns.

b. Funds available to spending agencies or ministries are highly predictable within the budget year. In-year adjustments are infrequent, follow pre-specified guidelines, and are consistent with stated priorities.

c. The public has timely and inexpensive access to annual budget documentation, in-year and year-end reports, and external audit reports.

16. Transparency, Accountability, and Corruption in the Public Sector

This criterion assesses the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained. Both levels of accountability are enhanced by transparency in decision-making, public audit institutions, access to relevant and timely information, and public and media scrutiny. A high degree of accountability and transparency discourages corruption, or the abuse of public office for private gain. National and sub-national governments should be appropriately weighted. Each of three dimensions should be rated separately: (a) the accountability of the executive to oversight institutions and of public employees for their performance; (b) access of civil society to information on public affairs; and (c) state capture by narrow vested interests. For the overall rating, these three dimensions should receive equal weighting. A rating for each dimension should be provided in the write-up along with its justification.

1 a. There are no checks and balances on executive power. Public officials use their positions for personal gain and take bribes openly. Seats in the legislature and positions in the civil service are often bought and sold.
b. Government decision-making is secretive. The public is prevented from participating in or learning about decisions and their implications.
c. The state has been captured by narrow interests (economic, political, ethnic, and/or military). Administrative corruption is rampant.

2 a. There are only ineffective audits and other checks and balances on executive power. Public officials are not sanctioned for failures in service delivery or for receiving bribes.
b. Decision making is not transparent, and government withholds information needed by the public and civil society organizations to judge its performance. The media are not independent of government or powerful business interests.
c. Boundaries between the public and private sector are ill-defined, and conflicts of interest abound. Laws and policies are biased towards narrow private interests. Implementation of laws and policies is distorted by corruption, and resources budgeted for public services are diverted to private gain.

3 a. External accountability mechanisms such as inspector-general, ombudsman, or independent audit may exist, but have inadequate resources or authority.
b. Decision making is generally not transparent, and public dissemination of information on government policies and outcomes is a low priority. Restrictions on the media limit its potential for information-gathering and scrutiny.
c. Elected and other public officials often have private interests that conflict with their professional duties.

4 a. External accountability mechanisms limit somewhat the degree to which special interests can divert resources or influence policy making through illicit and non-transparent means. Risks and opportunities for corruption within the executive are reduced through adequate monitoring and reporting lines.
b. Decision making is generally transparent. Government actively attempts to distribute relevant information to the public, although capacity may be a constraint. Significant parts of the media operate outside the influence of government or powerful business interests, and media publicity provides some deterrent against unethical behavior.
c. Conflict of interest and ethics rules exist and the prospect of sanctions has some effect on the extent to which public officials shape policies to further their own private interests.

5 a. Accountability for decisions is ensured through a strong public service ethic reinforced by audits, inspections, and adverse publicity for performance failures. The judiciary is impartial and independent of other branches of government. Authorities monitor the prevalence of corruption and implement sanctions transparently.
b. The reasons for decisions, and their results and costs, are clear and communicated to the general public. Citizens can obtain government documents at nominal cost. Both state-owned (if any) and private media are independent of government influence and fulfill critical oversight roles.
c. Conflict of interest and ethics rules for public servants are observed and enforced. Top government officials are required to disclose income and assets, and are not immune from prosecution under the law for malfeasance.

6 Criteria for "5" on all three sub-ratings are fully met. There are no warning signs of possible deterioration, and there is widespread expectation of continued strong or improving performance.

Appendix 4a

Donor Sample Composition

Donor	Donor's Share of Total Aid	Number of Countries in which Donor Operates
World Bank	19.92%	51
United States	12.93%	48
EC	10.30%	54
Japan	8.55%	49
United Nations	6.59%	55
Asian Dev.Bank	6.02%	10
United Kingdom	4.50%	32
African Dev.Bank	3.34%	25
Germany	3.24%	47
Canada	2.66%	36
Netherlands	2.57%	30
France	2.43%	36
Spain	1.99%	25
Global Fund	1.89%	47
Denmark	1.85%	21
Sweden	1.78%	29
Australia	1.70%	9
IDB	1.13%	9
Norway	1.07%	19
Belgium	0.80%	20
Italy	0.79%	21
Switzerland	0.59%	29
Ireland	0.53%	7
China	0.44%	3
Finland	0.40%	14
Korea	0.32%	13
IFAD	0.28%	26
IMF	0.19%	15
Luxembourg	0.17%	7
GAVI Alliance	0.16%	15
Portugal	0.12%	2
IOM	0.12%	3
Kuwait	0.09%	4
Austria	0.08%	10
New Zealand	0.06%	7
CABEI	0.06%	1
Turkey	0.06%	5
BADEA	0.05%	4
EBRD	0.05%	2
Greece	0.04%	5
Chinese Taipei	0.03%	1
IFC	0.02%	1
Isl.Dev Bank	0.02%	2
Poland	0.01%	2
Czech Republic	0.01%	2
WADB	0.01%	1

Andean Dev. Corp.	0.01%	2
Mekong River Commission	0.01%	1
Hungary	0.01%	3
SECAB	0.01%	1
OSCE	0.00%	1
OEI	0.00%	2
OPEC Fund	0.00%	1
Saudi Arabia	0.00%	1
Latvia	0.00%	1
Chile	0.00%	1
Lithuania	0.00%	1
Estonia	0.00%	1

Appendix 4b

Recipient Sample Composition

Recipient	Recipient's Share of Total Aid	Number of Donors Operating in Country
Indonesia	9.16%	21
Afghanistan	8.03%	25
Vietnam	5.90%	27
Ethiopia*	4.40%	21
Philippines	4.33%	17
Tanzania*	4.16%	23
Morocco	4.04%	13
Bangladesh	3.84%	18
Mozambique*	3.54%	26
Egypt, Arab Rep.	3.13%	17
Uganda*	2.83%	17
Ghana*	2.43%	16
Congo, Dem. Rep.	2.26%	20
Zambia*	2.04%	16
Sudan	1.87%	18
Burkina Faso*	1.83%	21
Mali*	1.80%	20
Rwanda*	1.72%	17
Kenya	1.64%	20
Cambodia	1.58%	24
Madagascar*	1.54%	11
Senegal*	1.54%	21
Haiti	1.51%	12
Liberia	1.50%	6
Nigeria	1.44%	8
Nicaragua*	1.37%	21
Nepal	1.35%	21
Cameroon*	1.15%	13
Malawi*	1.15%	15
Bolivia*	1.14%	18
Jordan	1.05%	11
Niger*	0.95%	15
Honduras*	0.95%	13
Peru	0.90%	13
Colombia	0.88%	21
Benin*	0.87%	15
Dominican Republic	0.87%	11
Papua New Guinea	0.82%	8
Lao PDR	0.77%	16
Ukraine	0.76%	16
Yemen, Rep.	0.73%	12
Mauritania*	0.71%	11
Burundi	0.67%	17
Albania	0.65%	20
Sierra Leone*	0.64%	10
Kyrgyz Republic	0.52%	14
Kosovo	0.50%	19

Moldova	0.49%	20
Cote d'Ivoire	0.42%	5
Central African Republic	0.36%	17
Cape Verde	0.34%	15
Chad	0.33%	6
Mongolia	0.26%	9
Togo	0.19%	7
Gabon	0.13%	10

*HIPC completion countries