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**Working Paper**

# Why it pays for aid recipients to take note of the millennium challenge corporation: Other donors do!

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# Why it pays for aid recipients to take note of the Millennium Challenge Corporation: Other donors do!

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# Why it pays for aid recipients to take note of the Millennium Challenge Corporation: Other donors do!

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Abstract: It is widely believed that the Millennium Challenge Corporation (MCC) has grossly fallen short of high expectations raised by the Bush administration in 2002. From the perspective of potential recipient countries, the crucial issue is whether the MCC increased the overall pool of aid resources available to them. We argue that this question extends far beyond the distribution of the limited MCC resources. By employing OLS and treatment-effects estimations, we assess how other US aid agencies and non-US donors reacted to MCC decisions. We find that positive signaling effects tend to dominate possible substitution effects not only for overall US aid but also for multilateral donors. Regarding other bilateral donors the evidence is mixed.

Keywords: official development aid, Millennium Challenge Corporation, additionality, signaling, United States, other DAC donors
JEL code: F35

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## 1. Introduction

In March 2002, President Bush announced with great fanfare to increase the US budget for official development assistance (ODA) by $5 billion annually and to decide on the distribution of these funds on strictly performance-based criteria. The so-called Millennium Challenge Account (MCA) was announced as the US contribution to the UN Conference on Financing for Development in Monterrey, Mexico. Taken at face value, it represented "a jump of 50 percent from the baseline level of official development assistance" (Brookings 2008: 2). Furthermore, the MCA would break with the past of politically or commercially motivated ODA and consider recipient need and merit to be the cornerstones of targeting aid. Eligibility to aid from the Millennium Challenge Corporation (MCC), established in 2004 as an independent entity to administer MCA funds instead of the existing Agency for International Development (USAID), would be restricted to low-income countries with a proven record of "ruling justly, investing in their people, and encouraging economic freedom."[1]

Its short history notwithstanding, MCC's allocation decisions leave little doubt about the strict selectivity of granting aid to needy and deserving recipients.[2] The "hurdles approach" (Radelet 2003: 24) requires from potential recipient countries to score higher than the median on half the eligibility criteria across peers in the same income category. The number of signed compacts, i.e., the multi-year agreements between MCC and eligible countries on aid programs targeted at reducing poverty and stimulating economic growth, is still fairly small.[3] At the same time, the MCC "has been extraordinarily slow in disbursing the sizeable amount of funding appropriated to it, raising questions about the efficacy of this new model of performance and ownership-based aid giving" (Lancaster 2008: 8).

The combination of performance-based selectivity and delayed and rather small MCC disbursements might render the MCC fairly unappealing to aid recipient countries. They have little reason to step up efforts to fight corruption, provide greater freedoms and invest more in activities that local elites might not prefer unless there is a return in terms of higher aid inflows. President Bush declared that MCC aid would be "above and beyond existing aid requests in the current budget, submitted to Congress" (as quoted by Brown, Siddiqi and

[1] The quote is from the speech of President Bush in 2002 as quoted by Radelet (2003: 1). The threshold of per-capita income was $1435 in the first two years (2004 and 2005), but later raised to about $3000 (and $3600 in 2008) to cover lower-middle income countries. While the higher threshold was controversial, the eligibility of recipients with incomes below and, respectively, above the original threshold was judged separately. For detailed accounts of the MCA initiative, the creation of the MCC and the specification of the 16 (later 17) eligibility criteria, see, e.g., Radelet (2003; 2008), Brainard et al. (2003) as well as Rieffel and Fox (2008).

[2] The justification for these allocation criteria came from World Bank studies according to which aid was most likely to be effective in poor countries with reasonable economic policies and basic institutions in place (e.g., Burnside and Dollar 2000). Later evidence qualified this view in several respects; for a critical overview, see Doucouliagos and Paldam (2009).

[3] For details see Table 1 below.

Sessions 2006: 1). Yet it is hard to decide *a priori* whether MCC-induced complementarities and substitution effects actually resulted in more aid flows to needy and deserving countries.

In section 2, we discuss various propositions related to the issue of additionality. Importantly, we argue that complementarities and substitution effects may not be restricted to US aid. We present our OLS and treatment-effects estimations in section 3. We find concerns unjustified that MCC would not result in additional US aid for eligible countries due to redirected aid from other US sources. Furthermore, the reactions of multilateral donors suggest that positive signaling effects have dominated over possible substitution effects. Regarding bilateral DAC donors other than the United States the evidence is mixed.

## 2. Stylized facts and hypotheses on additionality

The issue of MCC-induced additional aid can be addressed from different angles. Most obviously, MCC activities suggest that direct effects are bound to be small compared to expectations raised in 2002. Since its creation in 2004 MCC has committed about $7.1 billion for compacts with 20 countries (see "obligations" in Table 1). This sum pales against the $5 billion annually to be achieved in the third year of MCC operations, as announced by President Bush at the UN summit in Monterrey (see also Brookings 2008). In a critical evaluation of the MCC, the US Government Accountability Office (2008) observed that the length of time required for compact development has increased substantially since MCC made its first eligibility selections. According to this report, MCC expects future compact development to take three years on average from eligibility selection to entry into force.

Apart from MCC obligations falling substantially short of earlier announcements, actual disbursements of MCC aid are seriously lagging behind planned disbursements. At the end of 2007, actual disbursements were just about 25 percent of planned disbursements (US Government Accountability Office 2008).[4] Table 1 indicates that the gap has remained large. Disbursements account for 40 percent of all obligations related to the eight compacts that entered into force in 2005 or 2006 and are, thus, close to the end of the compacts' five-year timeline.

President Bush's claim that MCC aid would be "above and beyond existing aid" has so far mainly been discussed with respect to overall trends in US aid, rather than country-specific allocations. For instance, Brown, Siddiqi and Sessions (2006: 1) lament that overall budgetary requests by USAID, the major agency traditionally engaged in international

[4] See also Rieffel and Fox (2008) and Lancaster (2008).

development cooperation, were "stagnant in the 'post-MCA' period (FY 2005-06)." By contrast, Rieffel and Fox (2008: 25) find it "hard to see any substitution" as aggregate bilateral aid from the United States "has grown rapidly over the past five years." Fleck and Kilby (2010) stress that the increase in the overall US aid budget is largely due to the War on Terror. US aid to Afghanistan, Iraq, Jordan and Pakistan skyrocketed in the aftermath of the terrorist attacks in September 2001 (see also Figure 1). As a matter of fact, it is difficult to decide on the counterfactual, i.e., on what would have happened to overall US aid in the absence of the MCC.

In any case, additionality at the aggregate level (or the lack thereof) is of limited interest to possible candidates of MCC aid. It is rather country allocations that matter for them.[5] Policymakers in candidate countries appear to be confident that the prospect of MCC aid is worthwhile the efforts of passing the hurdles by fighting corruption, providing greater freedoms and investing more in the people they rule. In December 2005, Armenia's Minister of Foreign Affairs, Vartan Oskanian, stated in a TV interview: "We are now in a situation where any step away from democratization and a repeat of electoral fraud would have an economic cost. And I can name that cost: 235 million dollars," i.e., the MCC compact that was signed in March 2006 (Table 1).[6] More generally, a recent study finds "substantial evidence" on MCC-related incentive effects, i.e., potential recipient countries intensifying their efforts to fulfill the MCC's eligibility criteria (Johnson and Zajonc 2006).

Yet it is far from assured that such efforts will have the desired effects and result in higher aid inflows. Previous literature offers various arguments pointing into different directions concerning US aid channels. Particular attention has been paid to the relations between MCC and USAID. Radelet (2003) suspected that the high profile given to the MCA could draw staff and resources from USAID. Likewise, Brainard et al. (2003: 195) were concerned that "the less prominent and less popular development aid programs administered by USAID will be progressively squeezed over time…, as the best performers move to the MCA." However, these authors expect that such as squeeze would primarily erode funding for the majority of countries *not* becoming eligible for aid from the MCA.

As concerns countries being selected for compacts by MCC, it was not stipulated when MCC went into operation whether or not these countries would remain eligible for

[5] This is not to ignore that the chances of getting MCC aid would decline if the War on Terror diverted aid funds away from development cooperation in the strict sense (Fleck and Kilby 2010), or if the slow disbursing MCC became "a fat target for [budget] cuts" (Rieffel and Fox 2008: 11) in an increasingly tight government budget environment.

[6] The quote is from Emil Danielyan's press report, titled "Oskarian Warns of Economic Cost of Vote Rigging;" see: http://www.armenialiberty.org/articleprintview/1579898.html (accessed: March 2010).

development assistance by USAID (Brainard et al. 2003, Prud'homme 2007). Conclusive evidence on MCC replacing USAID does not exist. Rieffel and Fox (2008: 25) observe that the US Government Office of Management and Budget (OMB) pressed for cuts in USAID funding for countries with compacts, and conclude that "some degree of conflict between USAID and MCC is almost inevitable." However, (incomplete) additionality would still be present unless MCC funds were fully offset by cuts in USAID funding. Furthermore, a judgment on additionality can only be made when appropriately controlling for other factors. Brown, Siddiqi and Sessions (2006) caution against drawing rash conclusions on substitution effects: While the funding of compact countries from USAID's Development Assistance (DA) account declined in 2002-2006, they fared better than non-MCA recipients which suffered more serious reductions in DA funding.

Some structural and institutional characteristics of US aid render complementarities with MCC aid more likely than strong substitution effects. As noted by Brainard et al. (2003), only a third of US bilateral ODA has traditionally been granted to recipients based on development considerations.[7] Assistance allocated on the basis of political and security goals has historically played a major role. At the same time, development agencies such as MCC and institutions such as the US Department of Defense can not reasonably be expected to allocate aid on the basis of jointly agreed country quotas. In other words, country allocations by the latter type of institutions are unlikely to be affected negatively by MCC allocations. To the contrary, political and security goals regained prominence in the War on Terror (Fleck and Kilby 2010). Complementarities with MCC aid are also likely once recalling that President Bush's initiative at the UN summit in Monterrey was another major reaction to the terrorist attacks in September 2001. Similarly, MCC is unlikely to have negative effects on allocations of emergency relief. Put differently, various important aid items have little potential overlap with MCC activities to support economic development in needy and deserving recipient countries.

Principally, the overlap with traditional ways to deliver development-oriented assistance in the strict sense is considerably larger. Brown, Siddiqi and Sessions (2006) argue that MCC eligibility might even result in lower US aid inflows if US budget-makers wrongly assumed that a country will receive compact funding simply because it is MCC eligible. Overall inflows might decline if funds from other sources were cut immediately, while the iterative process from the selection of eligible countries to compact-related disbursements is interrupted or seriously delayed.

[7] In addition to the aforementioned DA account, Brainard et al. (2003) also subsume the Child Survival and Health account under this heading.

However, premature reactions of this sort would be surprising as country allocations of US aid tend to be path dependent. For instance, Moss, Roodman and Standley (2005) assess changes in country allocations by USAID after 2001 due to the War on Terror and find strong inertia in aid flows.[8] Fleck and Kilby (2010) test for the robustness of their findings on the poverty orientation of US aid by excluding MCC aid from overall aid and achieve practically identical results.[9] According to Brainard et al. (2003: 148), ODA from the DA account is among the least flexible US aid instruments due to widespread earmarking by Congress, single-year appropriations, and cumbersome programming practices. Moreover, even though originally designed to address development needs, DA country allocations often result from foreign policy priorities.[10] Overlaps should thus remain limited as long as MCC's mission to allocate aid strictly according to need and merit is not perverted in a similar way.

In launching the MCC, the US administration took "a decidedly unilateral approach to development assistance" (Radelet 2003: 16-17). Other donor countries were hardly consulted on the initiative. As a matter of fact, other donors expressed concerns about MCC's program implementation and perceived neglect of aid harmonization according to the Paris Declaration on Aid Effectiveness (Rieffel and Fox 2008). Conclusive evidence is lacking, however, if and how the allocation behavior of other donors was affected by MCC's engagement in compact countries.

In contrast to MCC effects on other US aid channels, the issue of additionality has received only scant attention with respect to aid from third sources. This is surprising as the reactions of non-US donors are important for recipients to assess the expected return, in terms of higher overall aid inflows, from efforts to become eligible to MCC aid. Given MCC's particular role and mission, other donors could have responded in two opposite ways: (i) mimicking MCC's approach of selectively rewarding needy and deserving recipients in order to help improve the effectiveness of aid, or (ii) redirecting their own aid to non-MCC recipients, e.g., to avoid a widening gap between "aid darlings" and "aid orphans."[11]

Complementarities between aid from MCC and other donors would result if the latter tried similar strategies of recipient-owned and performance-based aid programs. According to Radelet (2003), compact proposals made by recipient countries could even provide the basis for co-financing by other donors. MCC's signaling might be particularly appealing to

[8] As a matter of fact, among the aid allocation variables in their regressions, only initial aid and population proved to be significant at conventional levels.
[9] The above noted delays in distributing MCC funds are offered as an explanation by Fleck and Kilby (2010). Note, however, that their analysis covers MCC operations only until 2006.
[10] For example, the top DA recipients in the budget request for FY 2004 were Afghanistan, Pakistan, Sudan, and Indonesia (Brainard et al. 2003).
[11] See Rogerson and Steensen (2009) for a succinct account of the issue of aid darlings and orphans.

relatively small donor countries. Their incentive to free-ride on MCC's assessments is relatively strong, taking into account that monitoring about 100 low and lower-middle income countries and keeping record of recent changes in performance-based allocation criteria is time-consuming and costly.

Positive signaling effects of MCC's decisions would be most likely if other donors accepted MCC's approach as superior to traditional practices in improving aid effectiveness. This might not be the case, however. The justification underlying MCC operations – i.e., aid allocation according to need and merit ensuring aid to be effective – has been increasingly qualified and disputed.[12] Furthermore, mimicking MCC may blur the visibility of other donors and, thus, render it more difficult to sustain public and political support at home. "Showing the flag" appears to be important to all donors as a sign of getting credit for their efforts (OECD 2006).[13] It is open to question whether this will lead other donors to try retaining their position where MCC enters, or shifting elsewhere to avoid being eclipsed by the prominent new player.

Positive signaling effects would obviously result in additional aid flows from other donors to MCC eligible countries. Maintaining distinct allocation criteria would have ambiguous effects depending on the degree to which aid was redirected by other donors. While net effects are hard to predict *a priori*, it appears to be unlikely that aid reductions by other donors would fully offset MCC allocations (see also Radelet 2003: 132). This proposition has at least tentative empirical support from some previous studies on aid allocation. For instance, Berthélemy (2006) as well as Claessens, Cassimon and Van Campenhout (2009) include aid granted by other donors as a determinant of bilateral aid allocations. The results of the former study depend on the method of estimation; there is substitution instead of complementarity once fixed effects are accounted for, while the size of both negative and positive coefficients points to elasticities clearly below one. Claessens, Cassimon and Van Campenhout (2009) find statistically weak complementarity among donors, which they attribute to signaling effects and donor coordination. It should be noted, however, that the results of these studies are probably largely driven by various donors reacting (more or less) similarly to changing conditions in aid receiving countries. Our focus here is on how other donors react to a unilateral move by one major actor such as the creation of MCC by the United States.

[12] See, e.g., Lancaster (2008: 49-50) and the literature given there.

[13] For example, EU External Relations Commissioner Benita Ferrero-Waldner assured the members of EU parliament in 2008 that it was her "greatest challenge" to make EU aid more visible and "show the flag" more in the future (http://www.euractiv.com/en/foreign-affairs/parliament-wants-visibility-eu-external-aid/article-174254; accessed: March 2010).

## 3. Method and results

We employ two different estimators to test our hypotheses. In the first step we look at changes in the amount of aid given to a particular recipient without taking stock of the potential endogeneity of being selected for MCC aid. These regressions are estimated with OLS. Our preferred model is, however, a treatment-effects model which accounts for selection in MCC in the first place (implemented as *treatreg* in Stata 11.0).

We focus on the 2002-2008 period and estimate our models employing cross-sections rather than time-series cross-section data. The reason is that aid flows are rather volatile from one year to the other (Gupta, Pattillo and Wagh 2006). The variables that we introduce below, however, can hardly be assumed to explain this volatility. Rather, we expect them to be able to explain overall changes in aid over a longer period of time. We take the difference in (logged) absolute amounts of aid between the periods 2002-2004 and 2006-2008.[14] We use absolute amounts as donors are more likely to allocate a fixed overall amount of money per country, rather than distributing aid on a per-capita basis (Neumayer 2003). We use aid disbursements and commitments rather than choosing between them. While donors have full control over commitments (Neumayer 2003), disbursements are arguably more relevant from the recipients' perspective.

In line with the previous literature on aid allocation, we include a standard set of possible determinants as explanatory variables. First of all, the logged per-capita GDP of recipient countries provides an indicator of need which has repeatedly been shown to shape the distribution of aid. Second, we use "regulatory quality" as presented by Kaufmann, Kraay and Mastruzzi (2009) to measure institutional development, with higher index values indicating "better" environments. Third, we control for (logged) population of recipient countries to account for the fact that the dependent variable is not in per-capita terms. Finally, we follow Moss, Roodman and Standley (2005) and include (the log of) initial aid among our set of regressors to control for inertia in aid allocation. All control variables are for the year 2004, the starting year of MCC.[15]

Table 2 presents the estimations for bilateral US aid. The OLS results of columns 1 – 6 show that changes in aid are decreasing with higher amounts of initial aid in 2004. The coefficient implies an elasticity of around 0.7 and is significant at the one percent level

[14] We exclude 2005 from the analysis as the first MCC compacts were just signed in that year. Note that, in the case of US aid, six countries received no aid in the first or second period. We add one US$ in order not to lose these observations when taking logs. Our results are robust when we instead use the lowest value of aid other than zero (US$ 10,000).

[15] See Appendix A for the exact sources of our variables and Appendix B for descriptive statistics.

throughout. This result is in line with Moss, Roodman and Standley (2005) who also look at changes in US aid (between the periods 1998-2001 and 2002-2005). The elasticity for population is of similar magnitude and also is significant at the one percent level throughout. The positive coefficient implies that the change in aid is increasing with population in 2004. Initial income and institutional quality are not significant at conventional levels, which is in line with Moss, Roodman and Standley (2005).

The first two columns include a dummy for countries with an MCC compact. While compacts have no significant effect on disbursements (column 1), the change in commitments is higher with compacts, at the one percent level. The coefficient implies that a recipient country with a compact receives more than 4 times the increase in aid from all US sources as compared to a country without a compact (i.e., e^1.665-1). While this increase is substantial,[16] the magnitude is driven to some extent by six countries that did not receive any aid in the first or second period (Ukraine, Libya, Belarus, Antigua & Barbuda, St. Kitts-Nevis, Maldives). Excluding these countries reduces the effect by almost half, while the coefficient remains significant at the one percent level.

Columns 3 and 4 replicate the analysis using a dummy that is one if a particular country received a compact or a so-called threshold program, and zero otherwise. Threshold programs provide more limited funds (up to 10 percent of total MCC funds) and are meant to help countries having made considerable progress in becoming eligible for compacts by addressing bottlenecks and improving the country's scores on specific aspects of governance and/ or policy.[17] While the results for commitments (column 4) are similar to those obtained above, the change in disbursements (column 3) now also rises at the one percent level of significance with a compact or threshold program.

Finally, we test whether being eligible to MCC aid itself has an impact on overall US aid flows. The results show that changes in aid disbursements (column 5) and commitments (column 4) are significantly higher for eligible countries, with coefficients being significant at the five, and, respectively, one percent level of significance.

The remaining columns of Table 2 account for selection effects as, arguably, the same omitted variables might account for changes in aid and being selected by MCC. For the first stage of the treatment model, we use the same variables as we use in the second-stage regression, (log) population, (log) per-capita GDP, and regulatory quality. We also include the interaction between per-capita GDP and regulatory quality, to account for the possibility that

[16] We interpret these results as if aid actually increased throughout. Otherwise, the coefficient implies that any decrease in aid would be less for countries with a compact.
[17] See Appendix C for more details.

need and institutional quality might be considered to be substitutes for donors when deciding whether to select a country in the first place. We assume that the effect of regulatory quality is higher for poorer countries. In other words, we do not expect countries to be selected as aid recipients when their per-capita GDP exceeds a certain threshold, even if regulatory quality is very high. While we do not report the first-stage regression in a table to reduce clutter, what we find is much in line with this hypothesis. At the one percent level of significance, the interaction term is negative, while per-capita GDP and regulatory quality are themselves also significant at the one percent level, with a negative and, respectively, positive coefficient.[18]

The results for the second stage of the model, reported in columns 7 – 12, are much in line with those reported for OLS above. As an exception, compacts not only lead to higher changes in commitments, but also in disbursements (at the ten percent level of significance). Throughout, the coefficients increase in magnitude once we account for selection. Our results imply that the increase in disbursements is more than 10 times higher when receiving a compact, more than 3.4 times higher when receiving a compact or threshold program, and more than 6 times higher when being eligible for MCC aid.

It should be noted that these findings do not necessarily imply that countries receive more aid from US sources in absolute amounts. MCC countries might also have fared better relatively to non-MCC countries if the latter suffered larger declines in aid (Brown, Siddiqi and Sessions 2006). Hence, it is interesting to check whether recipients picked by MCC receive more aid or whether countries not selected simply receive less. Among our sample, 22 countries with compacts or threshold programs benefited from increases in aid disbursements, while aid to 13 countries was actually reduced (but not as much as it would without MCC aid, on average). In other words, President Bush's claim in 2002 that MCC aid would be "above and beyond existing aid" does not hold for each individual MCC country, but overall the United States seems to have kept its promise regarding additionality.

The next question is whether and how other donors react to MCC decisions. Any benefits of receiving more US aid may be eroded if other donors redirect their own aid to non-MCC countries, e.g., to avoid a widening gap between "aid darlings" and "aid orphans." To assess this possibility Table 3 replicates the analysis for all other bilateral donors. The dependent variable is thus the change in total bilateral aid excluding bilateral aid from the United States. As can be seen, once we control for selection, the impact of compacts is no longer significant at conventional levels. This implies that any positive signaling effects would have been offset by substitution effects due to redirected bilateral aid. It is important to

[18] We calculate the marginal effects at the mean of the explanatory variables, using the margin command of Stata 11.0.

note, however, that there is no evidence suggesting that the reactions of other bilateral donors have eroded the impact of a compact on US aid. Once we consider threshold programs and compacts at the same time, the dummy remains significant at the ten percent level. Quantitatively, the impact is cut by more than half as compared to the effect on US aid. MCC eligibility increases commitments, at the ten percent level of significance, but not disbursements. Again, the quantitative effect is substantially lower.

We turn to multilateral donors next. Overall, the results reported in Table 4 are similar to those shown for bilateral aid from the United States above. The change in aid increases with higher population and less initial aid, at the one percent level of significance throughout. However, changes in multilateral aid are increasing with poverty in 2004. Regulatory quality is also significant in some of the regressions, with a positive coefficient. Taking account of selection, all MCC-related variables are significant at the ten percent level at least, with a positive coefficient. The quantitative effects are lower as compared to US aid, but substantially higher as compared to bilateral aid from other donors. Specifically, the increase in disbursements is more than 6 times higher with compacts, 2.5 times higher with a compact or threshold program, and 4.5 times higher with MCC eligibility.[19]

The different reactions of multilateral and bilateral donors suggest that the former are more inclined to accept MCC as a model of performance-based aid allocation than bilateral donors are. It remains open to question, however, whether multilateral donors reacted autonomously to MCC signals. There is plenty of evidence that multilateral aid can be controlled by the multilaterals' major shareholders. McKeown (2009) clearly documents that the United States virtually controls major decisions at multilateral organizations; Fratianni and Pattison (2005) summarize evidence showing that the G7 are in full control of the IMF on the big issues and that staff autonomy is restricted to areas of marginal interest to its shareholders. The recent empirical literature on political influences on the IMF shows that developing countries indeed get better terms from the IMF when they have closer ties with the United States, as measured by their voting behavior in the UN General Assembly (Thacker 1999, Stone 2002, Vreeland 2005, Dreher and Jensen 2007) or temporary membership in the UN Security Council (Dreher, Sturm and Vreeland 2009a). Regarding the World Bank, Schneider et al. (1985) and Frey and Schneider (1986) find the distribution of loans to be dominated by political considerations; Fleck and Kilby (2006) show that World Bank lending significantly reflects US influence. According to Dreher, Sturm and Vreeland (2009b), temporary members of the UN Security Council receive significantly more projects than non-members, which they

[19] Excluding Ukraine, Libya and Belarus the corresponding effects are about 2 times, 1.05 times, and 1.7 times, respectively, while the coefficients are significant at the five percent level.

attribute to the influence of the World Banks' major shareholders. Arguably, when the United States can influence major multilateral donors to give more aid to countries being temporary members of the UN Security Council, or voting with them in the UN General Assembly, we can also expect their influence to increase multilateral aid to MCC countries. However, the present analysis cannot discriminate between different hypotheses explaining the complementarity of MCC and multilateral aid.

From the perspective of recipient countries, the sum of aid flows from all bilateral and multilateral sources is what matters most. Therefore, we consider total commitments and disbursements of aid in the final step of our analysis. Table 5 shows that the increase in US aid and multilateral aid dominates the effect of total aid flows to MCC countries. As can be seen, all MCC-related dummies are significant at the ten percent level at least. In other words, MCC countries clearly benefit from additional aid at the aggregate level. According to the coefficient of the treatment model in column 8, the increase in total commitments is about 1.6 times higher for countries receiving a compact. Disbursements even increase by more than 3 times. Receiving a compact or threshold program almost doubles commitments, while increases in disbursements are almost 1.5 times higher. Increases in aid disbursements are 2.4 times higher for countries eligible to MCC, while commitments are 1.5 times higher.

## 4. Conclusions

High expectations raised with the MCC initiative in 2002 have been frustrated in several respects. Aid committed by MCC falls considerably short of the announced $5 billion per annum. Actual disbursements are typically delayed and often account for just a fraction of financial programming in the first years of compacts. Candidate countries have to pass several hurdles before becoming eligible, while facing the risk that other donors would redirect aid from them to non-eligible "aid orphans."

All the same, we find that countries with MCC compacts or threshold programs fared better than other aid recipients. The MCC effect remains positive even when considering all eligible countries, i.e., including those that had not (yet) signed binding agreements on aid programs with MCC. In some contrast to previous findings of Brown, Siddiqi and Sessions (2006), MCC countries benefited not only *relatively* more from aid than non-MCC countries, but most of the former also received higher aid in absolute terms from all US donors taken together.

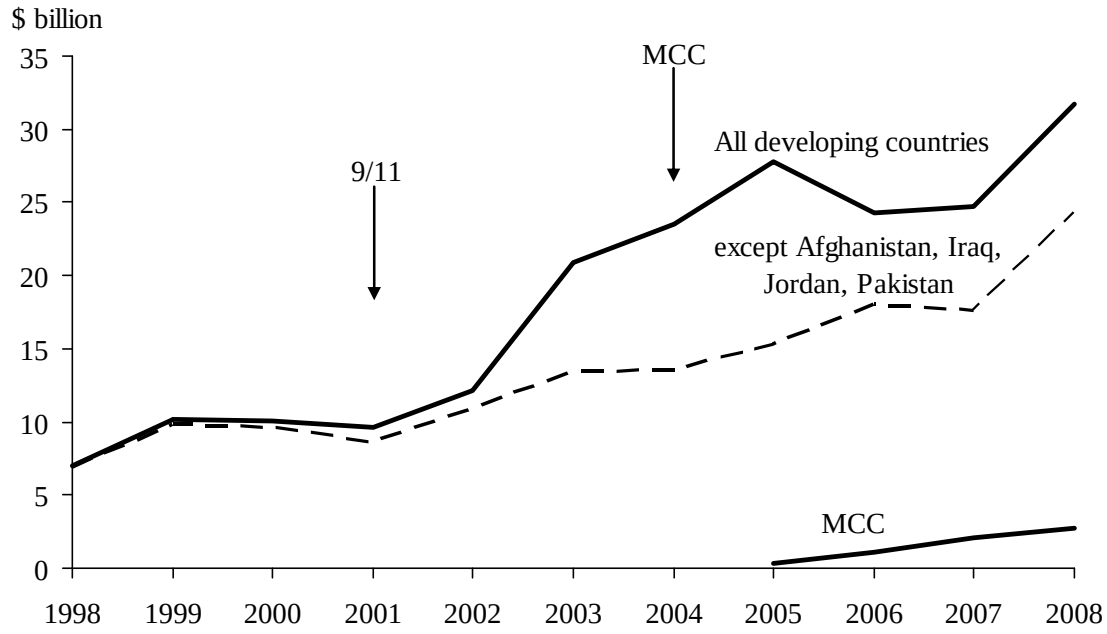
Rather than reacting to MCC decisions by redirecting their own aid efforts to "aid orphans," other donors appear to have taken MCC decisions as signaling merit of recipients

for more aid. This holds not only for traditional US donor agencies such as USAID, resulting in clearly higher changes in total US aid once the MCC engaged in a particular country. We also find that multilateral donors granted additional aid to MCC countries. Regarding aid from bilateral donors other than the United States our results are mixed. While more aid is disbursed to MCC countries when defining this group more broadly (including countries with threshold programs or all eligible countries), the more narrowly defined group of MCC countries with compacts does not receive significant increases in aid; but neither did other bilateral donors reduce their aid to countries with a compact.

Future research may help clarify why bilateral and multilateral donors reacted differently to MCC decisions. The significantly positive reaction by multilateral donors may have two explanations among which we cannot discriminate in the present analysis. On the one hand, some important multilateral donors apply similar selection criteria (e.g., the Country Policy and Institutional Assessment, CPIA, developed by the International Development Agency) and may voluntarily accept the MCC as a model of performance-based aid allocation. On the other hand, the United States may have used its leverage as a major shareholder in these organizations to make them follow the new US approach.

From the perspective of recipient countries, it is most important, however, that delayed and rather small MCC disbursements must not be mistaken as indicating meager aid-related returns to stepping up efforts to fight corruption, provide greater freedoms and invest more in the people.

Figure 1 — US bilateral aid commitments, 1998-2008




Notes: in current prices; MCC: obligations in financial year ending September 30 for compacts and threshold programs.

*Source*: OECD (http://stats.oecd.org/qwids/); Millennium Challenge Corporation

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Table 1 – MCC compacts, 2005-2010

| Country | Signed | In force | Obligations ($ million) | Disbursements ($ million, as of Oct. 2009) |
|---|---|---|---|---|
| Madagascar (LIC) | April 2005 | July 2005 | 109.8 | 81.5 |
| Honduras (LIC) | June 2005 | Sept. 2005 | 215.0 | 109.1 |
| Cape Verde (LMIC) | July 2005 | Oct. 2005 | 110.0 | 61.1 |
| Nicaragua (LIC) | July 2005 | May 2006 | 175.0 | 75.7 |
| Georgia (LIC)[a] | Sept. 2005 | April 2006 | 295.3 | 145.9 |
| Benin (LIC) | Feb. 2006 | Oct. 2006 | 307.3 | 49.0 |
| Armenia (LMIC) | March 2006 | Sept. 2006 | 235.7 | 41.3 |
| Vanuatu (LIC) | March 2006 | April 2006 | 65.7 | 38.6 |
| Ghana (LIC) | Aug. 2006 | Feb. 2007 | 547.0 | 89.9 |
| Mali (LIC) | Nov. 2006 | Sept. 2007 | 460.8 | 46.4 |
| El Salvador (LMIC) | Nov. 2006 | Sept. 2007 | 460.9 | 49.3 |
| Lesotho (LIC) | July 2007 | Sept. 2008 | 362.6 | 17.2 |
| Mozambique (LIC) | July 2007 | Sept. 2008 | 506.9 | 11.6 |
| Morocco (LMIC) | Aug. 2007 | Sept. 2008 | 697.5 | 22.2 |
| Mongolia (LIC) | Oct. 2007 | Sept. 2008 | 285.0 | 7.9 |
| Tanzania (LIC) | Feb. 2008 | Sept. 2008 | 698.0 | 7.9 |
| Burkina Faso (LIC) | July 2008 | July 2009 | 480.9 | 0 |
| Namibia (LMIC) | July 2008 | Sept. 2009 | 304.5 | 2.0 |
| Senegal (LIC) | Sept. 2009 | not yet | 540.0 | 0 |
| Moldova (LMIC) | Jan. 2010 | not yet | 262.0 | 0 |

Notes: LIC and LMIC in brackets stand for low-income country and, respectively, lower-middle income country.
[a] Compact amendment involving an additional amount of $100 million signed in Nov. 2008.

Source: Millennium Challenge Corporation (http://www.mcc.gov/mcc/panda/index.shtml); Center for Global Development (http://www.cgdev.org/section/initiatives/_active/mcamonitor); accessed: March 2010.

Table 2: Bilateral US aid, 136 countries

| | (1) Disb. | (2) Comm. | (3) Disb. | (4) Comm. | (5) Disb. | (6) Comm. | (7) Disb. | (8) Comm. | (9) Disb. | (10) Comm. | (11) Disb. | (12) Comm. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (log) Initial aid | -0.709*** | -0.677*** | -0.706*** | -0.670*** | -0.704*** | -0.667*** | -0.703*** | -0.674*** | -0.706*** | -0.670*** | -0.704*** | -0.668*** |
| | (0.056) | (0.051) | (0.055) | (0.050) | (0.055) | (0.050) | (0.055) | (0.050) | (0.053) | (0.049) | (0.053) | (0.049) |
| (log) Population | 0.705*** | 0.743*** | 0.695*** | 0.722*** | 0.702*** | 0.732*** | 0.716*** | 0.752*** | 0.694*** | 0.722*** | 0.707*** | 0.736*** |
| | (0.099) | (0.096) | (0.097) | (0.094) | (0.097) | (0.094) | (0.100) | (0.095) | (0.095) | (0.092) | (0.096) | (0.092) |
| (log) GDP per capita | -0.343 | -0.288 | -0.188 | -0.136 | -0.274 | -0.233 | -0.138 | -0.140 | -0.123 | -0.089 | -0.172 | -0.164 |
| | (0.243) | (0.232) | (0.248) | (0.238) | (0.240) | (0.228) | (0.287) | (0.271) | (0.280) | (0.268) | (0.270) | (0.256) |
| Regularity quality | -0.274 | -0.345 | -0.476 | -0.545* | -0.374 | -0.434 | -0.527 | -0.529 | -0.560 | -0.605* | -0.512 | -0.528 |
| | (0.329) | (0.315) | (0.336) | (0.322) | (0.326) | (0.310) | (0.381) | (0.359) | (0.374) | (0.358) | (0.367) | (0.348) |
| Compact | 0.804 | 1.665*** | | | | | 2.431* | 2.858** | | | | |
| | (0.556) | (0.535) | | | | | (1.327) | (1.264) | | | | |
| Compact and/or Threshold | | | 1.173*** | 1.630*** | | | | | 1.477* | 1.848** | | |
| | | | (0.445) | (0.429) | | | | | (0.779) | (0.749) | | |
| MCC eligible | | | | | 1.196** | 1.835*** | | | | | 1.967* | 2.363** |
| | | | | | (0.486) | (0.465) | | | | | (1.097) | (1.046) |
| Method | OLS | OLS | OLS | OLS | OLS | OLS | treatment | treatment | treatment | treatment | treatment | treatment |
| R-squared | 0.577 | 0.600 | 0.592 | 0.613 | 0.589 | 0.616 | | | | | | |

Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 3: Bilateral aid, other donors, 136 countries

| | (1) Disb. | (2) Comm. | (3) Disb. | (4) Comm. | (5) Disb. | (6) Comm. | (7) Disb. | (8) Comm. | (9) Disb. | (10) Comm. | (11) Disb. | (12) Comm. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (log) Initial aid | -0.885*** | -0.879*** | -0.877*** | -0.870*** | -0.877*** | -0.870*** | -0.884*** | -0.878*** | -0.878*** | -0.872*** | -0.877*** | -0.871*** |
| | (0.029) | (0.030) | (0.029) | (0.030) | (0.028) | (0.030) | (0.028) | (0.030) | (0.028) | (0.029) | (0.028) | (0.029) |
| (log) Population | 0.540*** | 0.527*** | 0.532*** | 0.518*** | 0.536*** | 0.523*** | 0.543*** | 0.530*** | 0.533*** | 0.519*** | 0.538*** | 0.524*** |
| | (0.042) | (0.044) | (0.042) | (0.044) | (0.041) | (0.044) | (0.041) | (0.044) | (0.041) | (0.043) | (0.041) | (0.043) |
| (log) GDP per capita | -0.374*** | -0.334*** | -0.322*** | -0.287** | -0.340*** | -0.299*** | -0.331*** | -0.285** | -0.291** | -0.243* | -0.317*** | -0.270** |
| | (0.108) | (0.115) | (0.113) | (0.121) | (0.108) | (0.114) | (0.125) | (0.132) | (0.125) | (0.134) | (0.119) | (0.126) |
| Regularity quality | 0.076 | -0.001 | 0.010 | -0.060 | 0.028 | -0.050 | 0.022 | -0.062 | -0.031 | -0.117 | -0.004 | -0.089 |
| | (0.147) | (0.155) | (0.153) | (0.162) | (0.146) | (0.155) | (0.165) | (0.175) | (0.168) | (0.179) | (0.162) | (0.172) |
| Compact | 0.444* | 0.525** | | | | | 0.792 | 0.917 | | | | |
| | (0.244) | (0.258) | | | | | (0.573) | (0.606) | | | | |
| Compact and/or Threshold | | | 0.449** | 0.463** | | | | | 0.604* | 0.680* | | |
| | | | (0.199) | (0.211) | | | | | (0.346) | (0.368) | | |
| MCC eligible | | | | | 0.581*** | 0.646*** | | | | | 0.760 | 0.873* |
| | | | | | (0.214) | (0.226) | | | | | (0.480) | (0.507) |
| Method | OLS | OLS | OLS | OLS | OLS | OLS | treatment | treatment | treatment | treatment | treatment | treatment |
| R-squared | 0.529 | 0.485 | 0.551 | 0.508 | 0.548 | 0.504 | | | | | | |

Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 4: Multilateral aid, 136 countries

| | (1) Disb. | (2) Comm. | (3) Disb. | (4) Comm. | (5) Disb. | (6) Comm. | (7) Disb. | (8) Comm. | (9) Disb. | (10) Comm. | (11) Disb. | (12) Comm. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (log) Initial aid | -0.886*** | -0.888*** | -0.874*** | -0.877*** | -0.875*** | -0.879*** | -0.885*** | -0.885*** | -0.883*** | -0.879*** | -0.884*** | -0.881*** |
| | (0.032) | (0.033) | (0.032) | (0.033) | (0.031) | (0.032) | (0.033) | (0.033) | (0.030) | (0.032) | (0.029) | (0.031) |
| (log) Population | 0.405*** | 0.429*** | 0.397*** | 0.422*** | 0.402*** | 0.427*** | 0.419*** | 0.436*** | 0.399*** | 0.423*** | 0.411*** | 0.431*** |
| | (0.042) | (0.044) | (0.041) | (0.043) | (0.041) | (0.043) | (0.046) | (0.045) | (0.042) | (0.043) | (0.043) | (0.043) |
| (log) GDP per capita | -0.900*** | -0.763*** | -0.813*** | -0.685*** | -0.852*** | -0.719*** | -0.722*** | -0.659*** | -0.688*** | -0.619*** | -0.732*** | -0.648*** |
| | (0.123) | (0.124) | (0.128) | (0.130) | (0.123) | (0.124) | (0.150) | (0.144) | (0.139) | (0.142) | (0.137) | (0.136) |
| Regularity quality | 0.577*** | 0.296* | 0.476*** | 0.201 | 0.519*** | 0.238 | 0.354* | 0.168 | 0.305* | 0.114 | 0.344* | 0.141 |
| | (0.153) | (0.162) | (0.158) | (0.168) | (0.153) | (0.162) | (0.188) | (0.186) | (0.177) | (0.184) | (0.178) | (0.180) |
| Compact | 0.509** | 0.398 | | | | | 1.975*** | 1.216* | | | | |
| | (0.249) | (0.263) | | | | | (0.635) | (0.630) | | | | |
| Compact and/or Threshold | | | 0.577*** | 0.501** | | | | | 1.260*** | 0.834** | | |
| | | | (0.201) | (0.214) | | | | | (0.364) | (0.374) | | |
| MCC eligible | | | | | 0.649*** | 0.574** | | | | | 1.702*** | 1.136** |
| | | | | | (0.218) | (0.232) | | | | | (0.523) | (0.525) |
| Method | OLS | OLS | OLS | OLS | OLS | OLS | treatment | treatment | treatment | treatment | treatment | treatment |
| R-squared | 0.869 | 0.862 | 0.872 | 0.866 | 0.873 | 0.866 | | | | | | |

Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Total aid, 136 countries

| | (1) Disb. | (2) Comm. | (3) Disb. | (4) Comm. | (5) Disb. | (6) Comm. | (7) Disb. | (8) Comm. | (9) Disb. | (10) Comm. | (11) Disb. | (12) Comm. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (log) Initial aid | -0.913*** | -0.904*** | -0.904*** | -0.894*** | -0.905*** | -0.894*** | -0.910*** | -0.903*** | -0.907*** | -0.895*** | -0.908*** | -0.895*** |
| | (0.024) | (0.024) | (0.024) | (0.024) | (0.024) | (0.024) | (0.025) | (0.024) | (0.023) | (0.024) | (0.023) | (0.023) |
| (log) Population | 0.479*** | 0.482*** | 0.472*** | 0.473*** | 0.476*** | 0.477*** | 0.487*** | 0.485*** | 0.472*** | 0.473*** | 0.481*** | 0.479*** |
| | (0.035) | (0.036) | (0.035) | (0.035) | (0.035) | (0.035) | (0.037) | (0.036) | (0.035) | (0.035) | (0.036) | (0.034) |
| (log) GDP per capita | -0.592*** | -0.436*** | -0.529*** | -0.381*** | -0.560*** | -0.403*** | -0.472*** | -0.389*** | -0.445*** | -0.351*** | -0.476*** | -0.373*** |
| | (0.093) | (0.094) | (0.097) | (0.099) | (0.093) | (0.094) | (0.114) | (0.109) | (0.109) | (0.110) | (0.106) | (0.103) |
| Regularity quality | 0.302** | 0.127 | 0.223* | 0.058 | 0.257** | 0.080 | 0.154 | 0.068 | 0.114 | 0.019 | 0.142 | 0.038 |
| | (0.126) | (0.127) | (0.130) | (0.133) | (0.125) | (0.126) | (0.150) | (0.144) | (0.145) | (0.146) | (0.144) | (0.140) |
| Compact | 0.443** | 0.585*** | | | | | 1.399*** | 0.964* | | | | |
| | (0.208) | (0.210) | | | | | (0.514) | (0.496) | | | | |
| Compact and/or Threshold | | | 0.493*** | 0.526*** | | | | | 0.905*** | 0.673** | | |
| | | | (0.168) | (0.172) | | | | | (0.298) | (0.299) | | |
| MCC eligible | | | | | 0.560*** | 0.676*** | | | | | 1.224*** | 0.916** |
| | | | | | (0.182) | (0.184) | | | | | (0.423) | (0.412) |
| Method | OLS | OLS | OLS | OLS | OLS | OLS | treatment | treatment | treatment | treatment | treatment | treatment |
| R-squared | 0.921 | 0.922 | 0.923 | 0.922 | 0.923 | 0.925 | | | | | | |

Notes: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Appendix A: Sources and Definitions

| Variable | Definition | Source |
|---|---|---|
| Aid changes | log aidt - log aidt-1 (bilateral US aid, bilateral aid from non-US donors, multilateral aid, total aid), disbursements/ commitments, annual averages 2006-2008 and 2002-2004. | OECD, International Development Statistics |
| (Log) initial aid | Initial aid (bilateral US aid, bilateral aid from non-US donors, multilateral aid, total aid) disbursements/ commitments, annual average 2002-2004, US$. | OECD, International Development Statistics |
| (Log) population | Population of recipient country, 2004. | World Bank (2009) |
| (Log) GDP per capita | GDP per capita of recipient country, 2004, US$, PPP adjusted. | World Bank (2009) |
| Regularity Quality | Regularity Quality from the World Bank's Worldwide Governance Indicators (WGI) project, 2004. | http://info.worldbank.org/governance/wgi/index.asp |
| Compact | Dummy that is one if a country signed a compact agreement in the period 2005-2008 and zero otherwise. | Millennium Challenge Corporation (http://www.mcc.gov/mcc/panda/index.shtml) |
| Compact and/or threshold | Dummy that is one if a country signed a compact and/or threshold agreement in the period 2005-2008 and zero otherwise. | Millennium Challenge Corporation (http://www.mcc.gov/mcc/panda/index.shtml) |
| MCC eligible | Dummy that is one if a country is eligible to MCC and zero otherwise. | Millennium Challenge Corporation (http://www.mcc.gov/mcc/panda/index.shtml) |

Appendix B: Descriptive Statistics

| Variable | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|
| Aid changes (disbursements USA) | 0.49 | 3.14 | -11.37 | 18.57 |
| Aid changes (commitments USA) | 0.65 | 3.11 | -11.29 | 18.59 |
| Aid changes (disbursements multilateral) | 1.59 | 2.53 | -0.72 | 19.08 |
| Aid changes (commitments multilateral) | 0.47 | 2.61 | -2.43 | 19.33 |
| Aid changes (disbursements other bilateral) | 0.52 | 2.68 | -1.50 | 18.88 |
| Aid changes (commitments other bilateral) | 0.55 | 2.72 | -2.20 | 18.97 |
| Aid changes (disbursements total) | 0.80 | 2.72 | -0.83 | 19.97 |
| Aid changes (commitments total) | 0.60 | 2.77 | -2.06 | 20.11 |
| (Log) initial disbursements USA | 16.02 | 3.80 | 0 | 21.24 |
| (Log) initial commitments USA | 16.05 | 4.00 | 0 | 22.25 |
| (Log) initial disbursements multilateral | 16.56 | 3.19 | 0 | 21.01 |
| (Log) initial commitments multilateral | 17.59 | 3.09 | 0 | 21.21 |
| (Log) initial disbursements bilateral aid, other | 18.07 | 3.14 | 0 | 21.51 |
| (Log) initial commitments bilateral aid, other | 18.11 | 3.20 | 0 | 21.59 |
| (Log) initial disbursements total | 18.62 | 3.20 | 0 | 21.91 |
| (Log) initial commitments total | 18.86 | 3.23 | 0 | 22.45 |
| (Log) population | 8.68 | 2.05 | 3.85 | 14.07 |
| (Log) GDP per capita | 7.96 | 1.01 | 5.53 | 10.19 |
| Regularity Quality | -0.53 | 0.70 | -2.32 | 1.40 |
| Compact | 0.13 | 0.34 | 0 | 1 |
| Compact and/or threshold | 0.26 | 0.44 | 0 | 1 |
| MCC eligible | 0.18 | 0.38 | 0 | 1 |

Appendix C: MCC threshold programs, 2004-2009

| Country | FY selected | Signed | Obligations ($ million) |
|---|---|---|---|
| Albania | 2004 | 1st: Apr. 2006 | 13.9 |
| | | 2nd: Sept. 2008 | 15.7 |
| Kenya | 2004 | March 2007 | 12.7 |
| Sao Tomé and Principe | 2004 | Nov. 2007 | 8.9 |
| Tanzania | 2004 | May 2006 | 11.2 |
| Timor-Leste | 2004 | --[a] | -- |
| Uganda | 2004 | March 2007 | 10.4 |
| Burkina Faso | 2005 | July 2005 | 12.9 |
| Guyana | 2005 | Aug. 2007 | 6.8 |
| Malawi | 2005 | Sept. 2005 | 20.9 |
| Paraguay | 2005 | 1st: May 2006 | 34.6 |
| | | 2nd: Jan. 2009 | 30.3 |
| Zambia | 2005 | May 2006 | 22.7 |
| Indonesia | 2006 | Nov. 2006 | 55.0 |
| Jordan | 2006 | Oct. 2006 | 25.0 |
| Kyrgyz Republic | 2006 | March 2008 | 16.0 |
| Moldova | 2006 | Dec. 2006 | 24.7 |
| Philippines | 2006 | July 2006 | 20.7 |
| Ukraine | 2006 | Dec. 2006 | 45.0 |
| Niger | 2007 | March 2008 | 23.1 |
| Peru | 2007 | June 2008 | 35.6 |
| Rwanda | 2007 | Sept. 2008 | 24.7 |
| Liberia | 2009 | --[b] | -- |

[a] Selected as eligible in Dec. 2008 once again; threshold program still under negotiation in October 2009. – [b] Threshold program still under negotiation in October 2009.

Source: Millennium Challenge Corporation (http://www.mcc.gov/mcc/panda/programs/threshold/index.shtml).

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