Are 'New' Donors Different? Comparing the Allocation of Bilateral Aid between Non-DAC and DAC Donor Countries

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Abstract: Major DAC donors are widely criticized for weak targeting of aid, selfish aid motives and insufficient coordination. The emergence of an increasing number of new donors may further complicate the coordination of international aid efforts. On the other hand, new donors (many of which were aid recipients until recently) may have competitive advantages in allocating aid according to need and merit. Project-level data on aid by new donors, as collected by the PLAID initiative, allow for empirical analyses comparing the allocation behavior of new versus old donors. We employ Probit and Tobit models and test for significant differences in the distribution of aid by new and old donors across recipient countries. We find that new donors (i) focus on closer neighbors, (ii) care less for recipient need, (iii) exhibit a weaker bias towards badly governed countries, (iv) respond to disasters, but with fewer resources than old donors, and (v) do not pursue commercial self interest.

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1.   Introduction

According to Woods (2008: 1221), there is a silent revolution going on in international development cooperation, with an increasing number of 'new' or 'emerging' donors "quietly offering alternatives to aid-receiving countries." More than 30 donor countries operate outside the Development Assistance Committee (DAC) of economically advanced OECD members (Paulo and Reisen 2010). As a matter of fact, various non-DAC donors are not so new in international development cooperation. Manning (2006: 384) stresses that many of them have "a good deal of experience." Some non-DAC donors have provided aid to Africa for more than half a century now (Kragelund 2008).

Yet, the quantitative importance and allocation behavior of these donors is hard to pin down exactly. The OECD reports aggregate net disbursements of non-DAC aid of US$ 26.2 billion during the 2001-2007 period (in current prices).[1] Bilateral aid, the focus of the subsequent analysis, accounted for about 85 percent of this sum. However, information on the distribution of non-DAC aid across recipient countries is scarce. For instance, China does not disclose its aid allocation.

Anecdotal evidence on how alternative sources of aid are spent has provoked a controversial debate on whether such alternatives are a change for the better for international development cooperation, or even the aid recipients. The notion of "rogue aid" (Naím 2007) clearly represents an extreme view, but concerns about the motives underlying the allocation of non-DAC aid are widely shared. Indeed, these concerns are not too different from those well known to scholars of aid allocation by traditional DAC donors.

First of all, new donors are blamed to pursue their own commercial and political interests. Using aid as a means to promote donor exports and getting access to raw materials in recipient countries figures prominently among the former. Woods (2008: 1205) notes that "a quest for energy security, enlarged trading opportunities and new economic partnerships" is common to most non-DAC donors.[2] Second, by granting aid to corrupt and undemocratic regimes, new donors could undermine efforts by traditional donors to grant aid according to merit of recipient countries – even though earlier findings by Alesina and Weder (2002) on the missing link between corruption and traditional aid suggest that there may be little for

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[1] For details, see Table 33 in various issues of OECD (a). This source provides summary information for various non-DAC donors, but reliable summary data are missing for some countries that are widely believed to be major donors, notably China. Note that Korea joined the DAC in November 2009; given that our period of observation ends in 2008 (see below for details) we include Korea as a non-DAC donor.
[2] See also Paulo and Reisen (2010) on the intensified "scramble for extraction rights." According to Kragelund (2008), some non-DAC donors state officially that the aim of their aid is political rather than altruistic.

non-DAC donors to jeopardize.[3] China is the preferred villain with respect to commercial and political selfishness, but similar charges are also directed at other Asian donors such as India (Manning 2006; Woods 2008), Arab countries (Villanger 2007), and Venezuela (Manning 2006; Naím 2007).

On the other hand, one might suspect that emerging donors provide better targeted aid than the traditional and more advanced DAC members. Various new donors, including South Korea, have been at the receiving end of foreign aid until recently. Given their own experience on what helped them develop, new donors may have a better understanding of recipient needs, while recipients may be more inclined to take lessons from donors such as Brazil, China, and Korea than adhering to conditions attached to DAC aid. Apart from focusing on particularly poor recipient countries, a needs-based allocation of non-DAC aid may also be reflected in new donors playing an increasingly important role in disaster relief and post-conflict resolution (Harmer and Cotterrell 2005).

Empirical studies systematically addressing these propositions in a multivariate framework hardly exist. The available evidence is almost exclusively descriptive, with Kragelund (2008) providing a most informative overview covering essentially all non-DAC donors. The econometric study of Neumayer (2003a) represents a notable exception. While Neumayer's analysis is restricted to Arab donors and does not extend beyond 1997, we assess the aid allocation across recipient countries for a group of 16 non-DAC donors in the more recent past (2001-2008). We draw on the newly released PLAID database that offers project-related information on the engagement of donors in specific recipient countries.

The data we use are described in more detail in section 2. Section 3 introduces the Probit and Tobit models and presents our empirical results. We find that new donors (i) focus on closer neighbors, (ii) care less for recipient need than old donors, (iii) exhibit a weaker bias towards badly governed countries, (iv) respond to disasters, but with fewer resources than old donors, and (v) do not pursue commercial self interest.

2.   Aid Data and stylized facts

We draw on PLAID version 1.9, released in January 2010, to identify aid activities by non-DAC donors since 2001. Though often labeled 'new' or 'emerging' donors, several of the donor countries considered here are in fact engaged in international development cooperation for quite some time. This applies especially to Arab donors such as Kuwait, Saudi Arabia and

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[3] Reisen (2007) addresses another concern, namely that concessional lending by new donors, notably China, free-rides on previous debt relief by traditional donors and gives rise to renewed debt vulnerability especially in Africa. He finds this concern to be misplaced. On the issue of debt sustainability see also Manning (2006).

the United Arab Emirates; the first national Arab aid agency (the Kuwait Fund for Arab Economic Development) was established in 1961 (Neumayer 2004; Manning 2006). These labels are rather meant to distinguish these donors from the well documented and thoroughly analyzed aid activities of DAC member countries.

We cover 16 new donors in the following and overall aid commitments by these donors in the order of $6.3 billion in 2001-2008 (in constant prices of 2000).[4] This figure clearly understates the aid activities of the donor group under consideration. Coverage over time is far from complete for various donors in the sample (see Table 1 for details). For Poland and Taiwan the source reports only where these donors are active, but not how much aid they spend there.[5] Saudi Arabia discloses aid allocation by the Saudi Fund for Development, though not by the Ministry of Finance (Neumayer 2003a: 138).[6] Despite all these limitations, the overall amount of aid distributed by our sample of donors comes close to Danish aid granted bilaterally throughout 2001-2008 ($7.1 billion in constant prices of 2000); and the figure is similar to average annual commitments in recent years by a major DAC donor such as Germany (again in 2000 prices). In other words, the subsequent analysis is quantitatively relevant even though we lack data on aid allocation by some prominent new donors such as China, India, and Venezuela.

In contrast to Neumayer's (2003a) analysis of the allocation of Arab aid, we also cover donors from East and Southeast Asia, Latin America, and Central and Eastern Europe. In quantitative terms, however, the sample is clearly dominated by Kuwait, Saudi Arabia and the United Arab Emirates.[7] Among the remaining donors, it is only for South Korea that annual average commitments exceeded $100 million. At the opposite extreme, five donors in Latin America and the Baltics allocated commitments of less than $1 million annually (Table 1).

Our sample of new donors is fairly diverse in other respects, too. Arab countries are not only experienced donors, as noted above. In contrast to new donors from other regions, they also form "a quite cohesive group" (Manning 2006: 374) with "substantial co-financing of projects" (Neumayer 2004: 284). Arab donors may offer lessons on aid harmonization and

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[4] Note that the OECD presents country allocations of aid *disbursements* from some non-DAC donors since recently (http://stats.oecd.org/qwids/; accessed: March 2010). In line with Neumayer (2003b), however, we prefer analyzing aid *commitments* over which donors have full control. Furthermore, the OECD source does not distinguish between major Arab donors; it does not present any data for various donors listed in Table 1 (Brazil, Chile, Colombia, Estonia, Latvia, Lithuania, Rep. of South Africa, Taiwan and Thailand). Aggregating Arab aid may blur differences in the allocation behavior between Kuwait, Saudi Arabia and the United Arab Emirates (see below). The lack of data for various small donors reduces the heterogeneity of the sample of new donors considerably.

[5] Consequently, Poland and Taiwan are included in our Probit estimations when we focus on whether or not to give aid at all, but have to be dropped in Tobit estimations where the focus is on aid flows.

[6] Figures collected by Kragelund (2008: 566) suggest that the Saudi Fund for Development accounted for just a fraction of total aid by Saudi Arabia in 2005.

[7] For detailed descriptive studies of Arab aid activities, see Neumayer (2004) and Villanger (2007).

coordination even to DAC members. The new donors are also likely to differ on whether they consider DAC standards and allocation criteria to be relevant. Various donors listed in Table 1 are members of the EU (all six countries in Central Europe and the Baltics) and/ or the OECD (Hungary, Poland, Slovak Rep., and Korea). Aid allocation by these donors may closely resemble that of DAC members. Korea has actually become a DAC member in November 2009.[8] Hungary, Poland, and the Slovak Republic have observer status, participate in DAC meetings, and are considering membership.[9] By contrast, most of the remaining non-DAC donors are probably less keen to follow DAC guidelines such as the so-called Paris Declaration of 2005 on Aid Effectiveness (see also Kragelund 2008).

Table 1 – Data availability on project-related aid commitments from PLAID version 1.9 (January 2010) for 16 new donors[a]

	Years covered[b]	Aid, $ million[c], all years covered		Remarks
		Sum	Annual average	
Brazil	2001; 2004-2008	22.10	3.68	
Chile	2002-2008	2.56	0.37	
Colombia	2007-2008	0.40	0.20	
Estonia	2001-2008	6.24	0.78	
Hungary	2003-2008	17.44	2.91	
Korea, Rep.	2001-2007	839.14	119.88	
Kuwait	2001-2007	3446.84	492.41	
Latvia	2005-2008	1.75	0.44	
Lithuania	2003-2005; 2007-2008	2.60	0.65	2008: amounts missing
Poland	2003-2007	--	--	Amounts missing; only active or not
Saudi Arabia	2002-2005	897.01	224.25	
Slovak Rep.	2004-2006	16.13	5.38	
South Africa, Rep.	2005-2007	94.62	31.54	
Taiwan	2001-2008	--	--	Amounts missing; only active or not
Thailand	2007	6.89	6.89	
United Arab Emirates	2001-2004; 2008	973.80	194.76	

[a] 'New' principally refers to donor countries that are not members of the OECD's Development Assistance Committee (DAC). However, we do not consider some small non-DAC countries with high per-capita income in the present study; excluded are: Iceland, Lichtenstein, Monaco. – [b] The present analysis does not use (scattered) data prior to 2001, nor obviously incomplete data for 2009. – [c] In constant prices of 2000.

[8] See: http://www.oecd.org/document/50/0,3343,en_2649_33721_44141618_1_1_1_1,00.html (accessed: February 2010).
[9] See: http://www.oecd.org/faq/0,3433,en_2649_33721_1798258_1_1_1_1,00.html (accessed: February 2010).

The allocation of aid by the three largest DAC donors – United States, Japan and Germany – in 2001-2008 serves as a benchmark to address the question of whether new donors behave differently. The top-3 account for more than half of total commitments by all DAC donor countries in the 2006-2008 period. They represent the quantitatively most relevant benchmark, even though the overall group of 22 DAC countries is quite heterogenous including more altruistic and more selfish donors. Data for traditional donors are also commitments, as reported in the OECD's Creditor Reporting System (http://stats.oecd.org/Index.aspx?DatasetCode=CRSNEW), converted into constant 2000-$ with DAC deflators.[10] Unsurprisingly, annual average aid commitments of major DAC donors exceed those of non-DAC donors by a wide margin. For instance, the annual average of German aid to all recipient countries in 2001-2008 of $4.5 billion (in constant prices of 2000) is nine times the annual average reported for the largest non-DAC donor, Kuwait, reported in Table 1.

In contrast to major DAC donors, new donors are typically active in a limited number of recipient countries (Figure 1). Two small donors, Latvia and Lithuania, grant aid to less than ten recipients. More surprisingly, aid by some other small donors in Europe and Latin America proliferates over considerably more recipients than aid by larger donors such as the Rep. of South Africa and the United Arab Emirates. However, Korea is clearly an outlier among new donors, serving as many recipients as the three major DAC donors.[11]

Aid allocation by Korea also resembles that of major DAC donors with regard to the relatively weak concentration on the largest recipients. The top-5 recipients account for less than half of total (bilateral) Korean aid. By this measure, only German aid is considerably more dispersed. Three recipients among the Korean top-5 also belong to the top-5 of Japanese aid – Indonesia, Iraq and Viet Nam. Two of the three Arab donors (Kuwait and Saudi Arabia) also allocate about half of their bilateral aid to the top-5 recipients, whereas aid by the United Arab Emirates is much more focused in terms of (i) the number of countries receiving any aid at all and (ii) the concentration of aid amounts on the top-5 recipients. With just two exceptions (China and Pakistan), all recipients ranking among the top-5 of any of the three Arab donors are also members of the Arab League. This suggests that Arab solidarity remains

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[10] See: http://www.oecd.org/dataoecd/43/43/34980655.xls (accessed: February 2010). Note that the data reported by PLAID for these donors also draws on the CRS.

[11] According to Figure 1, Korea has been active in even more recipient countries than all major DAC donors (throughout the whole period under consideration, though not necessarily in each year). However, this is at least partly because the source used for the latter (OECD a) no longer lists some relatively advanced countries as aid recipients (so-called Part II countries until 2005); for instance, Korea reported aid to Brunei Darussalam, Israel and Romania which are all excluded from the list in OECD (a).

an important determinant of aid allocation by these donors, as previously observed by Neumayer (2003a). However, aid from Latin American as well as Central European donors appears to be regionally concentrated, too.[12]

3.   Method and results

We employ two different estimators to test our hypotheses. In the first step we look at donors' decisions to allocate aid to a country at all, while in the second step we look at their decision on the amount of aid to be given once recipients have been selected. For the first step we employ Probit models, where the dependent variable is a binary indicator showing whether or not a particular donor committed aid in any year to a particular country over the period of study. Standard errors are clustered at the donor level. For the second step we assume that the same set of variables determines both whether a country is selected as aid recipient and how much aid is being allocated to that country, and accordingly use the Tobit estimator, again clustering standard errors.[13]

We focus on the 2001-2008 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. The variables that we employ below, however, can hardly be assumed to explain this volatility. Rather, we expect them to be able to explain whether a donor is present in a particular country in some years, or the amount of aid committed on average (see also Gupta, Pattillo and Wagh 2006). In the second step of the regression analysis, we take the annual average of (logged) absolute amounts of aid 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 2003b).

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. We expect the effects of per-capita GDP to be significantly negative for both old and new donors. Second, we use "control of corruption" (Corruption for short) as presented by Kaufmann, Kraay and Mastruzzi (2009) to measure institutional development, with higher index values indicating less corruption. It is ambiguous a priori whether the effect on aid differs between old and new donors. Some critics suspect that new donors undermine efforts by the donor community to reward good governance (e.g., Naím 2007), but it is also

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[12] Graphs portraying the geographical distribution of aid by groups of donors are available from the authors on request.
[13] For a more detailed discussion of methodological issues related to the aid allocation literature, see Neumayer (2003b).

well known that old donors are less selective than their rhetoric might make us believe (e.g., Alesina and Weder 2002).

Third, we control for (logged) population of recipient countries to capture the often-reported small country bias. In the second step of the analysis, controlling for population is required as the dependent variable is not in per-capita terms. Fourth, we account for the (logged) distance between capital cities in the recipient and the donor country, assuming that new donors are more likely to give aid to countries that are closer to them.[14] To account for commercial donor interests, we include the share of the donor's overall exports accounted for by a particular recipient country (in percent) as well as a recipient country's endowment of mineral and energy resources, proxied by the depletion of these resources in percent of GNI. We use averages over the sample period for population and mineral and energy depletion. Per-capita GDP and corruption might themselves be affected by aid flows so that we take lagged values of these variables from the year 2000. The recipient country's share in the donor's exports might also be endogenous. We employ the average over the 1999-2001 period to smooth the data for annual volatility. The baseline variables will be augmented or replaced by a number of different indicators to test for the robustness of results, as will be detailed below.

We run pooled regressions for all donors, including Germany, Japan, and the United States, rather than performing regressions for each individual donor and comparing the individual results with some benchmark countries. Pooling donors increases our flexibility to statistically test for differences and similarities among donors. Note, however, that we do introduce dummies for each individual donor below; we interact these dummies with our explanatory variables, mirroring individual donor regressions.

Results of pooled regressions

Column 1 of Table 2 shows the marginal effects for our basic specification of the Probit model, at the mean of the explanatory variables.[15] Given that new and old donors are pooled in the same regression, we have to include a dummy for the new donors to account for their lower level of aid as compared to the old donors Germany, Japan, and the United States. In this pooled regression, we test for the overall impact of our explanatory variables on the presence of the donor in a particular recipient country, imposing the (slope) coefficients to be the same among new and old donors. As can be seen, the new donor dummy has the expected

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[14] For example, Harmer and Cotterrell (2005) find that humanitarian aid by non-DAC donors is concentrated in neighboring countries.
[15] We use Stata 11.0's margin command to calculate marginal effects.

negative coefficient and is significant at the one percent level. On average, new donors are almost 70 percent less likely to be present in a recipient country as compared to the three old donors.

The results show that the probability of a donor being present in a recipient country increases with corruption and decreases with resource extraction, at the one percent level of significance. At the ten percent level, donors are more likely to give aid to countries with higher shares in the donor country's exports. Distance, population, and per-capita GDP are all marginally insignificant. Table 3 shows the pairwise correlations between the explanatory variables to allow checking whether the insignificance of these standard explanatory variables might be due to multicollinearity among them. Control of corruption and per-capita GDP are indeed highly correlated, raising some concern that the insignificance of per-capita GDP is due to the inclusion of the corruption variable. In fact, when we exclude control of corruption, per-capita GDP becomes significant at the one percent level, with the expected negative coefficient (not shown in the table).

In column 2 of Table 2 we turn to testing for peculiarities in the allocation behavior of the new donors. We now allow the slope of each explanatory variable to be different across new and old donors; in other words, we interact each explanatory variable with the dummy for new donors. As is well known, we cannot directly interpret the coefficient of an interaction term in a non-linear model. As Ai and Norton (2003: 123) point out, "the magnitude of the interaction effect in nonlinear models does not equal the marginal effect of the interaction term." It can even be "of opposite sign." Moreover, a simple t-test on the coefficient of the interaction term is not appropriate to test for the significance of the interaction. Rather than showing the coefficients of the explanatory variables, column 2 therefore shows the marginal effects of each explanatory variable and the corresponding t-statistic (in parentheses), evaluated for the new donor dummy equal to zero and, respectively, equal to one, at the mean of the other explanatory variables. The number in brackets shows the p-value corresponding to a Wald-test for equality in the marginal effects of a specific variable across new and old donors.

In interpreting the results in column 2, we focus on the coefficients for the new donors. The Probit estimates cover all new donors listed in Table 1, including Poland and Taiwan for which information on aid amounts is missing. In contrast to Germany, Japan and the United States, new donors are typically more selective in letting recipients pass the so-called gate-keeping stage (see Section 2). Probit models offer limited insights for old donors giving aid to almost all recipient countries. Hence, the Tobit models presented below are preferred for comparing new and old donors.

The probability of a new donor being present in a recipient country decreases with distance, at the five percent level of significance. Also at the five percent level, new donors are more likely to be present in countries with larger populations. In contrast to what has previously been found for many DAC members (e.g., Dollar and Levin 2006), new donors do not appear to base their gate-keeping decisions on recipient need as proxied by per-capita income. Nor does merit play a role at this stage. Quite the contrary, donors are more likely to be engaged in more corrupt countries, at the one percent level of significance. While this may be in line with notions of "rogue aid" (Naím 2007), results for the variables on commercial interest do not support such a view: There is no significant impact of the relative importance of recipient countries as export markets on the presence of new donors, and the impact of resource extraction is even negative and highly significant. Trade and resource-related motives may shape aid allocation at the gate-keeping stage by selected donors such as China, but generalizing such a verdict for a broader set of new donors is clearly unwarranted according to our findings.

To get a more detailed picture of whether and to what extent these findings are driven by the specific choice of explanatory variables out of the larger set of theoretically equally plausible determinants, we collected a substantial number of additional variables. As measures of need, we consider the prevalence of malnutrition (measured as height for age in percent of children under 5), mortality rates of infants (per 1000 children), and the Human Development Index, which provides a broader measure of need by combining life expectancy at birth, literacy rates, school enrolment rates and per-capita GDP. All these measures are closely related to various components of the Millennium Development Goals. In addition, Harmer and Cotterell (2005) provide a detailed account of the increasingly diverse range of official donors involved in crisis-affected countries by granting humanitarian aid in the aftermath of natural disasters. We therefore also collected data on the number of people affected by disasters. More detailed definitions, sources, and descriptive statistics for these variables are provided in the Appendix.

As alternative or additional indicators of institutional quality, we consider voice and accountability, political stability, government effectiveness, regulatory quality, and the rule of law, all taken from Kaufmann, Kraay and Mastruzzi (2009). In addition, we use (the absence of) civil liberties and political rights from Freedom House (2009), a dummy variable equal to one for so-called fragile states according to the World Bank's CPIA (Country Policy and Institutional Assessment), and the failed state index provided by the Fund for Peace.

To proxy donors' political self-interests, the literature suggests to consider a recipient country's voting behavior in the United Nations General Assembly (UNGA). Various

empirical studies show that developing countries get more aid and better terms from donors when they have closer political ties with the donor, as measured by their UNGA voting (Thacker 1999; Alesina and Dollar 2000; Barro and Lee 2005; Dreher and Jensen 2007; Kilby 2009b). Relying on data from Kilby (2009a),[16] we calculate the number of times a country votes the same as a particular donor (either both voting yes, both voting no, both voting abstentions, or both being absent). We then divide by the total number of votes in a particular year to derive a measure of voting coincidence between zero and one. We also calculate this measure for important votes only, as detailed by the United States Department of State. Again, more information on these additional variables is provided in the Appendix.

Clearly, when there is no precise guidance by theory on which variables to control for, the choice of variables will to some extent be arbitrary. To minimize the degree of arbitrariness in the present study, we rely on the correlation among the variables of interest to decide on whether to include them in addition to, or as a substitute for the variables already included in the regressions. Note that we are not interested in the effect of a particular variable per se, but in the relative importance of the three different groups of variables (need, merit, and donor interest) on the allocation behavior of donors. Hence, we consider it appropriate to refer to the correlation among variables within the three groups.

As can be seen in Table 3, all variables related to need are highly correlated with each other. Including them in addition to per-capita GDP thus adds little, as multicollinearity renders it unlikely that we can identify the individual effects of these variables. The relative exception among the variables of need is the (log) number of people affected by disasters, with a correlation with per-capita GDP below 0.45. Turning to the institutional quality variables, Table 3 shows extremely high correlations among the variables taken from Kaufmann, Kraay and Mastruzzi (2009). Based on the correlation matrix, we decided to include two additional variables from this group – political rights and the index for fragile states. The correlation among the variables on donor interest is generally lower (see the lower panel of Table 3). We thus include UNGA voting on keyvotes and the dummy for shared religion.

Column 3 of Table 2 shows the results when including the additional variables and imposing the impact to be the same for both types of donors, while column 4 shows the interactions with the dummy for new donors. Note that we will use the remaining variables not included in these columns to test for the robustness of our results further below. Columns 5 and 6 replicate the regressions excluding the (additional) variables that prove insignificant at conventional levels. Again focusing on new donors, the results for the standard aid

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[16] We thank Christopher Kilby for sharing his revision of Voeten and Merdzanovic's (2009) UNGA data.

determinants given in columns 4 and 6 are very similar to those of the base specification in column 2. The only exception is that new donors no longer exhibit a large-country bias. As for the variables added to the regression, only the number of people affected by disaster turns out to have a strongly significant (and positive) impact on aid allocation by the new donors. This is in accordance with Harmer and Cotterrell's (2005) observation that non-DAC donors play an increasingly important role in humanitarian aid.

Table 4 repeats the analysis focusing on aid amounts as dependent variable and using Tobit rather than Probit. We then obtain:

$$y_{ij} = \max(0, x_{ij}\beta + u_{ij})$$
$$u_{ij} \mid x_i, v_i \sim Normal(0, \sigma_u^2)$$

(1)

where y_{ij} stands for (log) aid from donor i to recipient country j and x_{ij} refers to the determinants of aid as outlined above; u_{ij} is an iid error term. The coefficient β cannot be interpreted directly in the context of the nonlinear Tobit model. Instead, we are interested in the overall marginal effects of the explanatory variables on $E(y_{ij} \mid x_{ij})$. We calculate them at the mean of the respective covariates using stata's margin command. Note that we have to exclude Poland and Taiwan from the list of new donors as we do not have information on the amounts of aid given by these countries.

The results of column 1 are fairly similar to those in Table 2 above. New donors provide less aid, at the one percent level of significance. The amount of aid increases with corruption and decreases with resource extraction, also at the one percent level. Contrary to the results above, countries absorbing a higher share of donor exports receive no more aid from that donor, on average. Aid increases with population, with an elasticity of 0.2. Aid now decreases with per-capita GDP, with an elasticity of almost 0.5. Distance between capital cities of the donor and the recipient country is again not significant at conventional levels when pooling new and old donors.

In column 2 we interact the explanatory variables with the dummy for new donors. The results for new donors are qualitatively exactly the same as compared to the Probit results in Table 2. All significant coefficients remain significant, while the insignificant ones remain insignificant. Even the levels of significance are the same in most cases. As concerns the comparison of old and new donors that is of main interest here, some interesting behavioral differences emerge. New donors are clearly distinct from the three old donors in favoring neighboring recipients. The difference in coefficients of the distance variable between the two groups is significant at the five percent level. A highly significant difference also exists with

respect to recipient need: per-capita GDP does not play a role for the aid allocation of new donors, while Japan, Germany and the United States favor poorer countries.[17] Both donor groups are more active in countries with higher levels of corruption, but the effect is significantly stronger for the old donors. This runs counter to the hypothesis that new donors might compromise ongoing efforts to reward good governance. Finally, commercial interest appears to be absent for both donor groups. Given that the effect of resource extraction is even negative for new donors, there is a significant difference between new and old donors also with respect to this variable.

The inclusion of additional variables (columns 3-6) does not alter the above comparisons. As for the additional variables, new and old donors alike are strongly engaged in countries facing disasters. However, the coefficients on the (logged) number of people affected suggest that the quantitative impact on aid from old donors is more than four times as large as the quantitative impact on aid from new donors (an elasticity of 0.83 as compared to 0.18 in column 4). According to the corresponding Wald tests, this difference is significant at the one percent level (see columns 4 and 6).

Significant differences between new and old donors also arise with regard to fragile states and UN General Assembly voting. Old donors tend to avoid fragile states, whereas new donors appear to be indifferent. Somewhat surprisingly, conformity in UN voting affects aid from our control group of DAC donors negatively.[18] While the pattern for new donors differs from that for old donors at the one percent level, it does not support the view that aid from the latter is politically motivated. Rather, new donors are again indifferent. Another surprising result relates to joint religion which does not significantly shape the allocation of aid by new donors either. It appears that Neumayer's (2003a) finding of religion-based solidarity is restricted to Islamic ties shaping the allocation of Arab aid, but cannot be generalized for a broader group of new donors with varying religious foundations.

Results for individual donors

Table 5 looks at the behavior of the individual new donors rather than lumping them together in the new donor dummy. The table reports marginal effects based on regressions including one dummy for each individual donor and interacting one of the explanatory variables at the

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[17] The quantitative effect of per-capita GDP on aid from old donors is surprisingly large, with aid declining by 2-2.5 percent if per-capita GDP increases by one percent.

[18] Among many others, Alesina and Dollar (2000) analyze the impact of UN voting on bilateral aid. Results from their panel analysis show that countries voting with Japan receive more bilateral aid, while voting with the United States has no impact when controlling for US interests in the Middle East. Voting with other major donor countries has no impact. Other papers examining the impact of voting in the UN General Assembly on bilateral aid include Alesina and Weder (2002), and Fleck and Kilby (2006). Kilby (2006) employs UN voting patterns in his analysis of donor influence on the Asian Development Bank.

time with each of the individual donor dummies. While we thus allow for different impacts of one explanatory variable at the time, we impose the effect of the remaining explanatory variables to be equal, to reduce computational complexity.[19] For each explanatory variable, we report the marginal effect for the average old donor and the corresponding t-statistic. We also show the marginal effects and t-statistics for the individual new donors, and the p-value from a Wald test comparing the respective marginal effect with the marginal effect of the old donors. Table 5 presents Tobit results given that this is our preferred approach to assess differences between new and old donors.

The individual new donors appear to behave fairly similar along several dimensions. Most notably, with the exception of Korea, the new donors uniformly allocate significantly more aid to neighboring recipients. In all cases, this behavior is significantly different from the three old donors who tend to favor more distant countries. Likewise, the majority of new donors give more aid to more corrupt countries, to countries affected by disasters and to countries with lower resource extraction, corroborating the aggregate findings discussed above. For the first two variables, differences between old and new donors are again significant throughout, for the latter only in some cases. More specifically, the elasticity of aid in reacting to disasters is considerably smaller for all new donors than for the large three old donors considered as the benchmark. The positive correlation of aid with corruption does not imply for any of the new donors under consideration that new donors compare unfavorably with old donors in disregarding merit as an allocation criterion; rather the opposite is the case.

On the other hand, all new donors are to blame for comparatively week targeting of aid according to recipient need. This is even though a strong variation can be observed in the extent to which individual new donors take recipient need into account. For instance, even within a supposedly homogenous group such as the Arab donors, aid by the United Arab Emirates is biased towards richer countries, whereas the opposite holds for Kuwait and Saudi Arabia. Indeed, the poverty orientation of Kuwait's aid comes closest to that of old donors' aid.

Finally, some new donors seem to use aid as a means to promote their exports to recipient countries. According to our Tobit results, this applies to Saudi Arabia as well as all three Latin American donors. At the same time, the Wald tests point to significant differences, at the five percent level, to the benchmark of old donors for three out of these four new donors (Chile is the exception). However, the majority of new donors considered here is no more (or less) commercially motivated to grant aid than the three old donors.

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[19] Interacting all variables with all dummies at the same time would result in 128 interaction terms (16 countries times 8 variables).

Tests for robustness

We test for the robustness of our results based on the specification of column 6 in Table 4, employing alternative indicators of need, merit and self-interest. The corresponding regression results are reported in Table 6. In column 1, the overall aid budget enters as an additional explanatory variable to account for the size of donors. This renders the new donor dummy insignificant but leaves results otherwise unaffected. According to columns 2-4, most of the results are robust to the inclusion of different indicators of need instead of focusing on per capita GDP. In particular, all indicators of need suggest that the old donors exhibit a needs-based aid allocation while the new donors do not, with differences between the two groups being significant at the one percent level throughout.

Likewise, as shown in columns 5-11, our key results remain intact when we employ alternative institutional indicators. As concerns the question of whether aid allocation is based on merit, old donors are uniformly shown to give more aid to countries with lower institutional quality. Some institutional indicators do not have an impact on aid from new donors, while other indicators reveal a bias towards less well-governed countries. In all cases except civil liberties, however, the conclusion is that old donors honor merit significantly *less* than the new donors. Finally, using UNGA voting as a proxy for political donor interest (column 12) rather than UNGA voting on keyvotes as above roughly replicates the result in Table 4, column 4.

4.   Summary and conclusions

An increasing number of actors engage in international development cooperation outside the OECD's Development Assistance Committee (DAC) of official donors. Some of these 'new' donors have been blamed for providing "rogue aid" (Naím 2007) and undermining the merit-based aid allocation by traditional donors. On the other hand, donors that have been at the receiving end of foreign aid until recently might be more familiar with recipient need and, therefore, provide better targeted aid.

We address these conflicting hypotheses by making use of the recently released PLAID data on the allocation of aid by 16 new donors across essentially all developing countries and emerging economies during the 2001-2008 period. The sample includes new donors from various regions and with widely different overall aid budgets. The three largest DAC donor countries, the United States, Japan and Germany, serve as a benchmark. We employ Probit and Tobit models covering recipient need, merit, and donors' self interest as major motives of bilateral aid commitments.

Our results strongly suggest that the current debate about the strengths and weaknesses of new aid sources is hardly informed by solid empirical evidence. It is in various respects that aid allocation by new donors differs from traditional patterns. But none of these differences fits easily into the stereotypes characterizing the current debate. Least surprisingly perhaps, almost all new donors in our sample are fairly selective at the gate-keeping stage and favor neighboring countries as recipients. It is true that new donors are more likely to be present in corrupt recipient countries, and they also provide more aid to such recipients. However, new donors exhibit a weaker, rather than stronger bias towards badly governed countries than the control group of traditional donors. Likewise, we find little reason to blame new donors for using aid as a means to promote commercial self-interest.

On the other hand, the poverty orientation of aid from new donors is clearly weak by DAC standards. This is even though new donors are fairly active in responding to natural disasters, notwithstanding overall budget constraints. However, recipient need as measured by per-capita income, malnutrition and child mortality has a strikingly weak impact on the allocation of aid by new donors. For most new donors, any greater familiarity with recipient need does not translate into needs-based targeting.

All in all, our results challenge both the critics of new donors as well as the optimists expecting better targeted aid from new donors. This is not to ignore the limitations of the present study. We lack data for important new donors such as China and India. Unless these donors become more transparent and release comparable data on their aid allocation, it is hard to tell whether the similarities observed for the present sample would carry over to a still more

heterogeneous group of new donors. In other words, rash generalizations are clearly unwarranted as information gaps continue to be wide. Arguably, new donors resemble the older bunch in one important respect, namely that both categories disguise considerable variation within these groups with regard to need, merit and self-interest as motives underlying aid activities.

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Figure 1 — Concentration versus Proliferation of Aid by Non-DAC and DAC Donors, 2001-2008

number of recipient countries.

Poland and Taiwan not listed due to missing aid amounts.
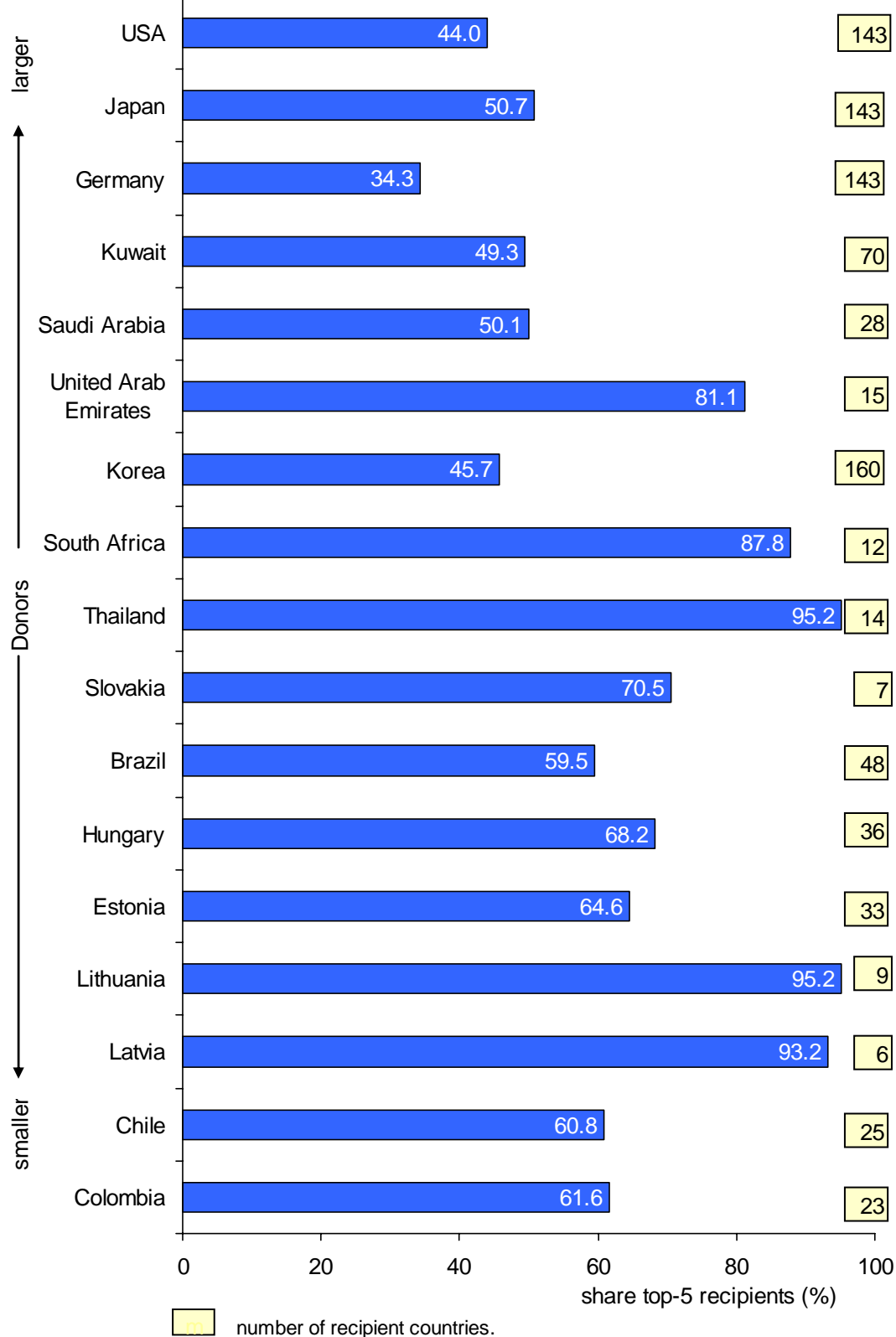
Source: PLAID database; OECD CRS database

Table 2: Determinants of aid, Probit

	(1)	(2)	(3)	(4)	(5)	(6)
New donor dummy	-0.691***	-0.781***	-0.696***	-0.785***	-0.700***	-0.781***
	(9.25)	(11.22)	(7.90)	(10.27)	(9.17)	(11.07)
(log) Distance		[0.040]		[0.004]		[0.033]
All donors/ old donors	-0.080	0.001	-0.109**	0.0001*	-0.093	0.0001***
	(1.39)	(1.30)	(2.00)	(1.89)	(1.49)	(9.11)
New donors		-0.085**		-0.104***		-0.094**
		(2.04)		(2.86)		(2.13)
(log) Population		[0.011]		[0.851]		[0.923]
All donors/ old donors	0.014	-0.0004***	-0.018	-0.0001**	-0.014	-0.0002***
	(1.60)	(2.61)	(1.37)	(2.45)	(1.28)	(9.51)
New donors		0.017**		-0.002		-0.001
		(2.48)		(0.20)		(0.12)
(log) GDP p.c.		[0.848]		[0.883]		[0.991]
All donors/ old donors	-0.036	-0.003	-0.029	-0.001**	-0.029	-0.001***
	(1.44)	(1.57)	(1.10)	(2.53)	(1.05)	(4.74)
New donors		-0.006		-0.003		-0.001
		(0.38)		(0.18)		(0.05)
Control of corruption		[0.002]		[0.048]		[0.009]
All donors/ old donors	-0.093***	0.0003	-0.086**	0.0002**	-0.087***	0.0001*
	(3.39)	(0.82)	(2.23)	(2.32)	(2.88)	(1.65)
New donors		-0.069***		-0.064**		-0.064***
		(3.05)		(1.97)		(2.61)
Share in donor exports		[0.257]		[0.379]		[0.278]
All donors/ old donors	0.032*	0.001***	0.038	0.0002	0.034*	0.0003
	(1.80)	(3.58)	(1.62)	(1.20)	(1.72)	(1.57)
New donors		0.019		0.019		0.019
		(1.18)		(0.89)		(1.10)
Mineral and energy depletion		[0.000]		[0.001]		[0.002]
All donors/ old donors	-0.002***	0.0001	-0.001**	0.000*	-0.001	0.000***
	(2.80)	(1.62)	(2.34)	(1.78)	(1.25)	(4.42)
New donors		-0.002***		-0.001***		-0.001***
		(3.93)		(3.34)		(3.02)
(log) People affected by disasters				[0.002]		[0.000]
All donors/ old donors			0.032***	0.0001**	0.031***	0.0001***
			(3.85)	(2.00)	(3.84)	(3.35)
New donors				0.020***		0.020***
				(3.05)		(3.50)
Political rights				[0.648]		
All donors/ old donors			0.009	0.0001***		
			(0.71)	(3.36)		
New donors				0.004		
				(0.46)		
Fragile state dummy				[0.116]		[0.081]
All donors/ old donors			-0.059**	0.0005***	-0.054***	0.001***
			(2.54)	(3.15)	(2.61)	(2.73)
New donors				-0.031		-0.029*
				(1.55)		(1.70)
UNGA voting on keyvotes				[0.684]		
All donors/ old donors			-0.104	-0.0003		
			(0.36)	(1.26)		
New donors				0.108		
				(0.41)		
Shared religion dummy				[0.584]		
All donors/ old donors			-0.061	-0.000		
			(0.54)	(0.01)		
New donors				-0.058		
				(0.55)		
Number of observations	2681	2681	2452	2452	2593	2593
Number of donors	19	19	18	18	19	19
log likelihood	-1290.35		-1154.39		-1230.75	
Adj. R-Square	0.25		0.27		0.26	

Notes: Reports marginal effects at the mean of the explanatory variables for old and new donors together (columns 1, 3, 5), and separately (columns 2, 4, 6). The separate effects are based on regressions including interaction terms of all explanatory variables with the new donor dummy. Brackets report p-values for tests of equality between the marginal effects for new and old donors. t-statistics in parentheses; * (**, ***) indicates significance at the ten (five, one) percent level.

Table 3: Correlation matrices

Baseline model	(1)	(2)	(3)	(4)	(5)
(1) (log) Distance	1.00				
(2) (log) Population	-0.11	1.00			
(3) (log) GDP p.c.	-0.10	-0.25	1.00		
(4) Control of corruption	0.01	-0.35	0.65	1.00	
(5) Share in donor exports	-0.33	0.19	0.15	0.09	1.00
(6) Mineral and energy depletion	-0.04	0.07	0.18	-0.22	-0.01

Need	(1)	(2)	(3)	(4)
(1) (log) GDP p.c.	1.00			
(2) Malnutrition	-0.78	1.00		
(3) Mortality rate	-0.76	0.76	1.00	
(4) Human Development Index	0.90	-0.83	-0.90	1.00
(5) (log) People affected by disasters	-0.44	0.33	0.26	-0.43

Institutional Quality	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Control of corruption	1.00								
(2) Voice and accountability	0.64	1.00							
(3) Political stability	0.71	0.64	1.00						
(4) Government effectiveness	0.91	0.69	0.72	1.00					
(5) Regulatory quality	0.80	0.74	0.65	0.89	1.00				
(6) Rule of law	0.90	0.72	0.80	0.91	0.82	1.00			
(7) Civil liberties	-0.52	-0.92	-0.53	-0.55	-0.64	-0.59	1.00		
(8) Political rights	-0.45	-0.91	-0.44	-0.49	-0.58	-0.53	0.90	1.00	
(9) Fragile state dummy	-0.46	-0.33	-0.45	-0.52	-0.43	-0.52	0.25	0.24	1.00
(10) Failed state index	-0.71	-0.70	-0.71	-0.74	-0.70	-0.77	0.59	0.56	0.51

Donor interest	(1)	(2)	(3)	(4)
(1) Mineral and energy depletion	1.00			
(2) Share in donor exports	-0.01	1.00		
(3) UNGA voting	-0.04	0.10	1.00	
(4) UNGA voting on keyvotes	-0.09	0.11	0.90	1.00
(5) Shared religion dummy	-0.08	0.10	-0.01	0.15

Table 4: Determinants of aid, Tobit

	(1)	(2)	(3)	(4)	(5)	(6)
New donor dummy	-13.003***	-12.382***	-13.235***	-11.731***	-13.054***	-12.380***
	(10.42)	(14.15)	(7.17)	(13.65)	(10.38)	(14.27)
(log) Distance		[0.020]		[0.072]		[0.011]
All donors/ old donors	-1.026	1.395	-1.198**	0.742	-1.124*	1.185
	(1.56)	(1.52)	(2.26)	(0.81)	(1.65)	(1.57)
New donors		-0.955**		-0.986***		-1.021**
		(2.34)		(3.26)		(2.43)
(log) Population		[0.583]		[0.112]		[0.169]
All donors/ old donors	0.215***	0.318	-0.120	-0.556*	-0.059	-0.445
	(2.96)	(1.22)	(1.00)	(1.81)	(0.64)	(1.41)
New donors		0.171***		-0.043		0.002
		(2.65)		(0.41)		(0.03)
(log) GDP p.c.		[0.000]		[0.000]		[0.000]
All donors/ old donors	-0.468*	-2.440***	-0.345	-2.000***	-0.390	-2.293***
	(1.76)	(9.84)	(1.26)	(12.01)	(1.31)	(14.79)
New donors		-0.132		-0.048		-0.068
		(0.65)		(0.25)		(0.29)
Control of corruption		[0.000]		[0.003]		[0.000]
All donors/ old donors	-0.814***	-1.773***	-0.713*	-1.857***	-0.718***	-1.665***
	(3.10)	(9.22)	(1.75)	(5.57)	(2.61)	(8.66)
New donors		-0.563**		-0.485		-0.477*
		(2.33)		(1.48)		(1.91)
Share in donor exports		[0.421]		[0.512]		[0.367]
All donors/ old donors	0.300	0.490	0.349	0.434	0.307	0.504
	(1.59)	(1.30)	(1.60)	(1.24)	(1.58)	(1.46)
New donors		0.155		0.164		0.154
		(0.89)		(0.76)		(0.86)
Mineral and energy depletion		[0.003]		[0.006]		[0.000]
All donors/ old donors	-0.021***	-0.001	-0.014**	0.006	-0.009	0.026***
	(2.69)	(0.87)	(2.17)	(1.23)	(1.35)	(4.75)
New donors		-0.021***		-0.015***		-0.013***
		(3.35)		(2.64)		(2.76)
(log) People affected by disasters				[0.000]		[0.000]
All donors/ old donors			0.310***	0.828***	0.292***	0.821***
			(3.97)	(8.43)	(4.10)	(6.47)
New donors				0.179**		0.182***
				(2.28)		(2.85)
Political rights				[0.953]		
All donors/ old donors			0.118	0.090		
			(0.90)	(0.72)		
New donors				0.081		
				(0.86)		
Fragile state dummy				[0.000]		[0.000]
All donors/ old donors			-0.545**	-2.118***	-0.479**	-1.973***
			(2.04)	(28.37)	(2.12)	(43.57)
New donors				-0.242		-0.215
				(1.17)		(1.12)
UNGA voting on keyvotes				[0.000]		
All donors/ old donors			0.665	-5.850***		
			(0.23)	(7.11)		
New donors				3.009		
				(1.25)		
Shared religion dummy				[0.970]		
All donors/ old donors			-0.771	-0.704		
			(0.61)	(1.52)		
New donors				-0.751		
				(0.65)		
Number of observations	2394	2394	2315	2315	2315	2315
Number of donors	17	17	17	17	17	17
log likelihood	-3882.38		-3759.94		-3767.95	
Adj. R-Square	0.11		0.12		0.12	

Notes: Reports marginal effects at the mean of the explanatory variables for old and new donors together (columns 1, 3, 5), and separately (columns 2, 4, 6). The separate effects are based on regressions including interaction terms of all explanatory variables with the new donor dummy. Brackets report p-values for tests of equality between the marginal effects for new and old donors. t-statistics in parentheses; * (**, ***) indicates significance at the ten (five, one) percent level.

Table 5: Determinants of aid, individual donors, Tobit

	(log) Distance			(log) Population			(log) GDP p.c.			Control of corruption		
Donor	coefficient	t-value	p-value	coefficient	t-value	p-value	coefficient	t-value	p-value	coefficient	t-value	p-value
Old donors	1.342*	(1.73)		-0.070	(0.33)		-2.339***	(5.05)		-2.996***	(4.74)	
United Arab Emirates	-0.716***	(25.64)	0.008	-0.121***	(4.50)	0.793	0.211***	(3.23)	0.000	0.201*	(1.95)	0.000
Brazil	-5.391***	(28.63)	0.000	0.183*	(1.69)	0.187	0.077	(0.41)	0.000	-0.268	(1.10)	0.000
Chile	-4.694***	(32.76)	0.000	0.005	(0.09)	0.686	0.486***	(4.69)	0.000	-0.049	(0.33)	0.000
Colombia	-1.255***	(18.30)	0.001	0.153***	(2.91)	0.268	0.608***	(9.20)	0.000	0.624***	(6.36)	0.000
Estonia	-1.095***	(20.58)	0.002	0.268***	(7.81)	0.079	-0.142	(1.56)	0.000	-0.958***	(11.01)	0.000
Hungary	-0.701***	(27.04)	0.008	0.240***	(7.70)	0.112	-0.306***	(3.88)	0.000	-0.974***	(11.40)	0.001
Korea	-0.330	(1.48)	0.049	-0.693***	(3.47)	0.000	0.711	(1.46)	0.000	0.921	(1.51)	0.000
Kuwait	-2.515***	(23.65)	0.000	-0.592***	(5.28)	0.000	-1.604***	(5.45)	0.003	0.422	(1.07)	0.000
Lithuania	-0.066***	(6.09)	0.070	-0.014**	(2.02)	0.785	-0.030**	(2.03)	0.000	-0.120***	(4.09)	0.000
Latvia	-0.062***	(6.88)	0.070	-0.018***	(3.18)	0.803	-0.036***	(3.09)	0.000	-0.097***	(4.80)	0.000
Saudi Arabia	-1.473***	(46.13)	0.000	0.266***	(5.51)	0.057	-0.571***	(4.58)	0.000	-0.525***	(3.34)	0.000
Slovakia	-0.366***	(21.48)	0.027	0.108***	(6.36)	0.376	-0.232***	(5.15)	0.000	-0.527***	(9.02)	0.000
Thailand	-0.794***	(17.92)	0.006	0.103***	(4.76)	0.379	-0.239***	(4.94)	0.000	-0.005	(0.07)	0.000
South Africa	-0.572***	(12.12)	0.016	-0.120***	(8.29)	0.803	-0.244***	(5.17)	0.000	-0.457***	(8.32)	0.000

	Share of recipient exports			Mineral and energy depletion			(log) People affected by disasters			Fragile state dummy		
Donor	coefficient	t-value	p-value	coefficient	t-value	p-value	coefficient	t-value	p-value	coefficient	t-value	p-value
Old donors	-0.607	(0.93)		0.002	(0.16)		0.844***	(6.18)		0.396	(0.50)	
United Arab Emirates	0.085	(0.95)	0.280	0.002	(0.71)	0.993	-0.020	(1.27)	0.000	-0.546***	(4.08)	0.165
Brazil	0.632***	(5.85)	0.044	-0.020***	(3.58)	0.015	0.260***	(5.78)	0.000	-1.819***	(6.91)	0.000
Chile	0.720***	(8.77)	0.034	-0.011***	(3.28)	0.215	0.108***	(4.41)	0.000	-1.149***	(6.95)	0.017
Colombia	0.286***	(4.35)	0.167	-0.012***	(5.45)	0.241	0.152***	(9.78)	0.000	-1.422***	(11.57)	0.008
Estonia	0.025	(0.26)	0.326	0.001	(0.29)	0.893	0.190***	(11.21)	0.000	-0.182	(0.90)	0.366
Hungary	-0.046	(0.12)	0.419	-0.009***	(3.63)	0.356	0.212***	(12.11)	0.000	-0.208	(0.95)	0.345
Korea	-0.997**	(2.13)	0.563	-0.014	(1.15)	0.041	-0.172	(1.12)	0.000	-3.566***	(4.98)	0.000
Kuwait	-0.246	(1.50)	0.552	-0.144***	(7.84)	0.000	0.161**	(2.22)	0.000	0.161	(0.36)	0.563
Lithuania	0.020	(1.43)	0.335	-0.003***	(3.79)	0.688	-0.016**	(2.02)	0.000	-0.119**	(2.04)	0.497
Latvia	0.003	(0.19)	0.347	-0.005***	(3.98)	0.594	-0.009	(1.52)	0.000	-0.059	(1.40)	0.552
Saudi Arabia	0.633***	(3.02)	0.043	0.002	(0.50)	0.987	0.058**	(2.38)	0.000	-0.208	(1.15)	0.333
Slovakia	-0.142*	(1.66)	0.464	0.002*	(1.85)	0.998	0.099***	(9.15)	0.000	0.236**	(2.56)	0.823
Thailand	0.435***	(5.58)	0.108	-0.016***	(6.70)	0.132	0.126***	(10.27)	0.000	0.165**	(2.43)	0.753
South Africa	-0.009	(0.08)	0.362	-0.023***	(9.74)	0.035	0.026*	(1.66)	0.000	0.436***	(7.94)	0.958

Notes: Reports marginal effects at the mean of the explanatory variables for each donor separately. The separate effects are based on regressions including interaction terms of one explanatory variable with all donor dummies at the time. p-values are for tests of equality between the marginal effects as compared to the average old donor. t- statistics in parentheses; * (**, ***) indicates significance at the ten (five, one) percent level.

Table 6: Determinants of aid, tests for robustness, Tobit

	(1)	(2)	(3)	(4)	(5)	(6)
New donor dummy	-3.1205	-14.2856***	-12.2715***	-12.0787***	-12.3934***	-12.3490***
	(0.91)	(15.80)	(14.24)	(13.97)	(14.27)	(14.15)
(log) Distance	[0.027]	[0.021]	[0.004]	[0.010]	[0.028]	[0.020]
Old donors	0.3091	1.0744	1.2029*	1.2019*	1.1151	1.1695
	(0.63)	(1.27)	(1.91)	(1.66)	(1.29)	(1.41)
New donors	-1.2127***	-1.2273**	-1.0061**	-1.0144**	-0.9966**	-1.0167**
	(3.16)	(2.27)	(2.37)	(2.21)	(2.35)	(2.33)
(log) Population	[0.152]	[0.387]	[0.172]	[0.468]	[0.125]	[0.090]
Old donors	-0.2842	0.1669	-0.4548	-0.1980	-0.4874	-0.5044*
	(1.51)	(1.21)	(1.38)	(0.75)	(1.59)	(1.77)
New donors	0.0206	0.0091	0.0066	0.0090	-0.0057	-0.0051
	(0.23)	(0.08)	(0.09)	(0.09)	(0.07)	(0.06)
(log) GDP p.c.	[0.003]				[0.000]	[0.000]
Old donors	-1.4978***				-2.4642***	-2.6369***
	(3.63)				(10.64)	(14.42)
New donors	-0.0308				-0.1080	-0.2075
	(0.11)				(0.64)	(1.07)
Control of corruption	[0.612]	[0.058]	[0.000]	[0.000]		
Old donors	-1.0218***	-1.3724***	-2.9714***	-3.5869***		
	(3.18)	(5.95)	(13.44)	(15.62)		
New donors	-0.7188*	-0.5386	-0.5213**	-0.5670***		
	(1.81)	(1.43)	(2.50)	(2.63)		
Share in donor exports	[0.927]	[0.907]	[0.810]	[0.469]	[0.352]	[0.302]
Old donors	0.2166	0.2639***	0.2444	0.2961	0.5145	0.5595*
	(0.80)	(2.72)	(0.65)	(1.24)	(1.60)	(1.75)
New donors	0.2518	0.3004	0.1447	0.0756	0.1722	0.1756
	(1.16)	(1.01)	(0.79)	(0.40)	(0.95)	(0.91)
Mineral and energy depletion	[0.000]	[0.806]	[0.690]	[0.176]	[0.000]	[0.000]
Old donors	0.0180***	-0.0179***	-0.0103***	-0.0034	0.0220***	0.0406***
	(3.75)	(2.91)	(2.83)	(0.73)	(2.80)	(5.88)
New donors	-0.0201***	-0.0214*	-0.0133**	-0.0137**	-0.0141**	-0.0082*
	(2.66)	(1.69)	(2.13)	(2.36)	(2.42)	(1.92)
(log) People affected by disasters	[0.079]	[0.134]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	0.5539***	0.3534***	0.9766***	1.0144***	0.8458***	0.8166***
	(3.70)	(4.35)	(6.92)	(6.77)	(6.78)	(6.51)
New donors	0.2097**	0.1821**	0.1791***	0.2125***	0.1862***	0.1808***
	(2.23)	(2.28)	(3.06)	(2.88)	(3.00)	(2.91)
Fragile state dummy	[0.068]	[0.085]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	-1.2289***	-0.3274***	-0.9559***	-1.9049***	-1.7729***	-2.1191***
	(3.43)	(6.27)	(6.85)	(19.24)	(43.02)	(29.58)
New donors	-0.2729	0.0583	-0.0862	-0.1152	-0.1738	-0.1816
	(1.13)	(0.27)	(0.47)	(0.36)	(0.85)	(0.97)
(log) Budget	0.717*					
	(1.89)					
Additional variable		Malnutrition	Mortality rate	HDI	Voice	Political stab.
		[0.000]	[0.000]	[0.000]	[0.001]	[0.000]
Old donors		0.0577***	0.0271***	-8.9061***	-1.2377***	-0.9709***
		(3.94)	(7.34)	(10.05)	(11.96)	(5.38)
New donors		-0.0167	-0.0025	0.8346	-0.3538	-0.1291
		(1.16)	(0.45)	(0.50)	(1.46)	(0.87)
Number of observations	2315	1276	2394	1813	2332	2290

Table 6 (continued)

	(7)	(8)	(9)	(10)	(11)	(12)
New donor dummy	-12.3751***	-12.3654***	-12.3766***	-12.4115***	-12.3828***	-12.0090***
	(14.28)	(14.23)	(14.27)	(14.32)	(14.16)	(12.38)
(log) Distance	[0.013]	[0.020]	[0.009]	[0.029]	[0.010]	[0.016]
Old donors	1.1959	1.1740	1.1771	1.1289	1.1309	1.0314
	(1.53)	(1.40)	(1.60)	(1.30)	(1.51)	(1.39)
New donors	-1.0204**	-1.0175**	-1.0206**	-0.9864**	-1.0742**	-0.9330***
	(2.41)	(2.38)	(2.44)	(2.30)	(2.54)	(2.75)
(log) Population	[0.212]	[0.246]	[0.146]	[0.143]	[0.277]	[0.169]
Old donors	-0.3749	-0.3450	-0.4714	-0.4676	-0.3074	-0.4378
	(1.19)	(1.10)	(1.51)	(1.54)	(1.08)	(1.43)
New donors	0.0287	0.0292	-0.0039	-0.0116	0.0129	-0.0051
	(0.36)	(0.37)	(0.05)	(0.14)	(0.17)	(0.07)
(log) GDP p.c.	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	-2.0781***	-2.3032***	-2.2545***	-2.6920***	-2.3095***	-2.1949***
	(10.70)	(10.39)	(12.58)	(10.21)	(15.97)	(14.70)
New donors	-0.0949	-0.1059	-0.0469	-0.1430	-0.0901	-0.0856
	(0.40)	(0.47)	(0.20)	(0.91)	(0.50)	(0.38)
Control of corruption						[0.000]
Old donors						-1.6893***
						(8.71)
New donors						-0.4804**
						(2.06)
Share in donor exports	[0.278]	[0.380]	[0.364]	[0.377]	[0.443]	[0.489]
Old donors	0.5726*	0.4987	0.5084	0.5065	0.4377	0.4310
	(1.70)	(1.45)	(1.48)	(1.52)	(1.40)	(1.15)
New donors	0.1601	0.1585	0.1567	0.1718	0.1605	0.1366
	(0.89)	(0.89)	(0.87)	(0.94)	(0.89)	(0.67)
Mineral and energy depletion	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	0.0209***	0.0229***	0.0274***	0.0309***	0.0359***	0.0221***
	(2.97)	(3.16)	(4.16)	(3.20)	(7.12)	(4.51)
New donors	-0.0114***	-0.0126**	-0.0129***	-0.0134*	-0.0098**	-0.0112**
	(2.73)	(2.37)	(2.98)	(1.96)	(2.49)	(2.32)
(log) People affected by disasters	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	0.8206***	0.8429***	0.8355***	0.8386***	0.8112***	0.8146***
	(6.41)	(6.66)	(6.58)	(7.17)	(7.12)	(7.39)
New donors	0.1810***	0.1853***	0.1852***	0.1884***	0.1855***	0.1635**
	(2.84)	(2.89)	(2.90)	(2.97)	(2.93)	(1.99)
Fragile state dummy	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Old donors	-2.1158***	-1.7595***	-2.1920***	-1.7484***	-2.1970***	-1.9772***
	(27.45)	(47.08)	(22.69)	(41.29)	(12.02)	(72.42)
New donors	-0.1989	-0.1479	-0.3061	-0.1705	-0.1472	-0.1787
	(1.05)	(0.77)	(1.58)	(0.83)	(0.80)	(0.94)
(log) Budget						
Additional variable	Gov. effectiv.	Reg. qual.	Rule of law	Civ. liberties	Failed state	UNGA voting
	[0.000]	[0.000]	[0.001]	[0.177]	[0.000]	[0.159]
Old donors	-2.0901***	-1.2720***	-1.7173***	0.4069***	0.0752***	-2.7528***
	(7.85)	(15.32)	(6.34)	(3.88)	(6.88)	(14.88)
New donors	-0.3534	-0.2890	-0.5325**	0.1680	0.0163***	2.2223
	(1.39)	(1.16)	(2.24)	(1.15)	(2.68)	(0.63)
Number of observations	2315	2315	2315	2347	2255	2315

Notes: Reports marginal effects at the mean of the explanatory variables for old and new donors separately. The separate effects are based on regressions including interaction terms of all explanatory variables with the new donor dummy. Brackets report p-values for tests in equality between the marginal effects for new and old donors. t- statistics in parentheses; * (**, ***) indicates significance at the ten (five, one) percent level.

Appendix A: Sources and definitions

Variable	Description	Source
(log) Distance between capital cities	Miles between the capital cities of the donor and recipient country.	Kindly made available by Gustavo Bobonis and Howard Shatz.
(log) Population	(log) of total population, 2001-2008.	World Bank (2009)
(log) GDP p.c.	GDP p.c., ppp, (constant 2005 international $), for the year 2000.	World Bank (2009)
Control of corruption	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Share in donor exports	Share of recipient country in percent of donor overall exports, average for 1999-2001.	IMF, Direction of Trade Statistics
Mineral and energy depletion	Product of unit resource rents and physical quanitites of energy and minerlas extracted; average 2001-2008; percent of GNI.	World Bank (2009)
(log) People affected by disasters	(log) number of people affected by disasters (per 1000 people), average for 2001-2007.	Emergency Events Database, http://www.emdat.be/
Political rights	Political rights rated on a seven-point scale, with 1 representing the most free and 7 the least free.	Freedom House (2009)
Shared religion dummy	Dummy for shared religion among donor and recipient country.	http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/LaenderReiseinformationenA-Z.jsp
Fragile state dummy	Dummy = 1 for countries with CPIA of 3.0 or below, average for 2001-2007.	World Bank, CPIA
(log) Budget	(log) Overall aid budget of donor.	PLAID; OECD, CRS
Malnutrition prevalence	Malnutrition prevalence, height for age (% of children under 5), average for 2001-2007.	World Bank (2009)
Mortality rate	Mortality rate, infant (per 1000), average for 2001-2007.	World Bank (2009)
Human Development Index	Human Development Index for the year 2000.	UNDP
Voice and accountability	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Political stability	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Government effectiveness	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Regulatory quality	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Rule of law	Index ranging from -2.5 to 2.5 with higher values corresponding to better governance.	Kaufmann et al. (2009)
Civil liberties	Civil liberties rated on a seven-point scale, with 1 representing the most free and 7 the least free.	Freedom House (2009)
Failed state index	Failed states index scores 2006 (based on evidence for 2005); range from 0 (most stable) to 120 (least stable).	http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=99&Itemid=140
UNGA voting	Voting coincidence between recipient and donor in the United Nations General Assembly; average for 2001-2008.	Kilby (2009a)
UNGA voting on keyvotes	Voting coincidence between recipient and donor in the United Nations General Assembly on votes classified as key by the US Department of State; average for 2001-2008.	Kilby (2009a)

Appendix B: Descriptive statistics (estimation sample, Table 2, column 1)

Variable	Mean	Std. dev.	Min	Max
(log) Distance between capital cities	8.29	0.75	4.62	9.42
(log) Population	15.61	1.97	10.77	20.99
(log) GDP p.c.	8.14	1.11	5.55	10.77
Control of corruption	-0.34	0.69	-1.91	2.18
Share in donor exports	0.21	0.9	0	17.3
Mineral and energy depletion	8.19	17.01	0	116.01
(log) People affected by disasters	3.97	2.85	0	12.65
Political rights	3.9	2.1	1	7
Shared religion dummy	0.44	0.5	0	1
Fragile state dummy	0.31	0.46	0	1
(log) Budget	17.02	3.64	12.23	23.46
Malnutrition prevalence	31.05	15.22	2.1	59.3
Mortality rate	43.3	35.52	2.34	165
Human Development Index	0.66	0.16	0.26	0.91
Voice and accountability	-0.32	0.81	-2	1.15
Political stability	-0.33	0.88	-2.79	1.23
Government effectiveness	-0.33	0.69	-2.14	2.26
Regulatory quality	-0.28	0.78	-2.67	1.96
Rule of law	-0.38	0.73	-2.03	1.37
Civil liberties	3.94	1.57	1	7
Failed state index	77.3	15.72	32	112.3
UNGA voting	0.72	0.16	0.14	0.94
UNGA voting on keyvotes	0.65	0.14	0.11	0.9