View metadata, citation and similar papers at core.ac.uk

brought to you by CORE

provided by Research Papers in Econ

Department of Economics
Issn 1441-5429
Discussion paper 06/10

On the Channel and Type of Aid: The Case of International Disaster Assistance

Paul A. Raschky* **and Manijeh Schwindt**

Abstract:

The aim of this paper is to determine the drivers of a donor's decision on the composition of aid. We apply a dataset on international post-disaster assistance between 2000 and 2007 that includes information on the channel (bilateral vs. multilateral) and type (cash vs. in-kind) of each aid flow. Our results suggest that the choice of the channel and type of disaster assistance is mainly determined by strategic interests and transaction costs. Moreover, we find differences in the allocation behavior of OECD and non-OECD countries.

Keywords: Foreign aid, natural disasters, bilateral vs. multilateral, type of aid

JEL classification: O17, O19, Q54

* [Corresponding author], Department of Economics, Monash University, 900 Dandenong Rd., Caulfield VIC 3145, Australia; email: paul.raschky@buseco.monash.edu.au

Institute of Public Finance, University of Innsbruck, Universitaetsstrasse 15, A-6020 Innsbruck and alpS - Centre for Natural Hazard and Risk Management, Grabenweg 3, A- 6020 Innsbruck, Austria; email: manijeh.schwindt@uibk.ac.at.

© 2010 Paul A. Raschky and Manijeh Schwindt
All rights reserved. No part of this paper may be reproduced in any form, or stored in a retrieval system, without the prior written permission of the author.

1 Introduction

The development literature has been investigating the determinants of foreign aid allocation for more than 30 years. Dudley & Montmarquette (1976) proposed a theoretical model that explains the supply of foreign aid by the donor countries' demand for foreign aid impact. Since then, numerous empirical studies examined the relationship between the recipient country's needs, the donor country's strategic and political interests and the amount of foreign aid given (e.g. Alesina & Dollar 2000, Neumayer 2003, Kuziemko & Werker 2006, Hoeffler & Outram 2008).

The lack of more detailed aid data constrained economic scholars to focus empirical research on the geographical allocation of the amount of aid. Hence, the majority of existing studies make the implicit assumption that all donors give the same type of aid and use the same channels or that all aid is motivated by the same reasons. The recent emergence of more eleborate aid datasets, both on national and international level, allowed reserachers to analyze the donor's decision on the type of aid as well as the channel of aid. Thiele, Nunnenkamp & Dreher (2007) use sectorally disaggregated data in order to investigate whether foreign aid is allocated in line with the Millennium Development Goals. Neumayer (2005) finds that in contrast to general development aid the allocation of food aid is not dominated by strategic interests. Moreover, some papers have a closer look on aid allocation through private and multilateral channels in contrast to bilateral aid. Koch, Dreher, Nunnenkamp & Thiele (2009) find that Non-Governmental Organizations (NGOs) a) allocate more foreign aid to countries in need[1], b) do not prefer to work in difficult environments, c) act less autonomously than expected, d) choose locations in line with other NGOs and e) allocate more foreign aid to similiar countries. Furthermore, Dreher, Mölders & Nunnenkamp (2007) and Nunnenkamp, Weingarth & Weisser (2009) investigate the determinants of aid allocation by Swedish and Swiss NGOs, respectively and Dollar & Levin (2006) find that multilateral donors tend to act more in accordance with the motive of merit than bilateral donors. In contrast, Nunnenkamp & Öhler (2009) not only distinguish between private and official aid but also

disaggregate aid figures for various official German aid channels in order to show that aid through different channels is not motivated for the same reasons.

In line with the above mentioned literature, we argue that the analysis of foreign aid allocation is a necessary first step but not sufficient to derive implications about donor countries' behavior. In order to get a more comprehensive picture of the motivation of donor countries' incentives to provide aid, the decision on both the type and the channel of aid need to be considered. What criteria influence a donor country's decision whether to assist by cash transfers or in-kind transfers? Why do countries pay bilateral aid to one country and multilateral aid to another? Our results suggest that the choice of the channel and type of aid is determined by four main motives: strategy, merit, transaction costs and need. This study relates to the literature on aid allocation by providing a positive analysis of the key drivers of the composition of aid but does not attempt to make a normative statement on the efficiency of specific channels or types of aid.

The main purpose of this paper is threefold: First, we test if the key results from the aid allocation literature (i.e. the donor's decision on the amount of aid) also apply to the donors' decision on the composition of aid. Second, we identify additional variables that particularly drive the donors' decision on the composition of aid. Third, the dataset allows us to distinguish between the behaviour of "traditional" donor countries (i.e. OECD countries) and "new" donor countries (i.e. non-OECD countries).

The remainder of the paper is organized as follows: In the next section we present the hypotheses for our analysis. Data and estimation strategy are presented in the third section. The fourth section concludes.

2 The determinats of the channel and type of international disaster relief

The existing literature on foreign aid has already identified some key determinants of the decision on the geographical allocation as well as the decision on the amount of the contribution. Further,

Fink & Redaelli (2009) have included additional variables that drive the decision on post-disaster assistance in particular. We build up on these findings, discuss them in relation to the donors' decision on the composition of aid in a post-disaster context and derive our hypotheses. In addition, we investigate factors that have received less attention in existing studies but might be important for the decision on the channel and type of aid.

Humanitarian need

The literature on foreign aid allocation usually measures a countries' need using GDP per capita (GDP p.c.). However, in the case of natural disaster assistance, the need of a country is usually measured by the number of fatalities or the number of people being affected. Fink & Redaelli (2009) find that more catastrophic events in terms of fatalities and people affected attract more post-disaster aid. Whereby the effect of the social magnitude on the amount of the contribution appears to be clear, the decision on the channel and type of aid is less obvious. The number of fatalities or people affected by a natural disaster is not only an indicator for the humanitarian need but also for the complexity of the "environment" the donor has to act in. Large-scale catastrophes leave areas without connection to the outside and it is hard for potential donors to receive information about the demands of the victims on the spot. In addition, natural disasters damage or even completely demolish the means necessary to distribute disaster relief (e.g. physical infrastructure such as roads) as well as to coordinate relief activity (e.g. telecommunication or local public administration). Multilateral agencies have a comparative adavantage over single countries in such difficult environments. They are more likely to get access to the key decision makers in the local governments and have access to a bigger pool of experts familiar with local language and customs as well as the affected area. Multilateral agencies also have a longer experience in dealing with the aftermath of large-scale catastrophes and they are less dependent on local infrastructure than the majority of individual donors (e.g. UN cargo planes).

The relationship between the choice of the type of disaster assistance and humanitarian need is

largely dependent on the context of the catastrophe. However, all else equal, it is reasonable to assume that disasters with a bigger social magnitude increase the burden on the recipient country. A higher level of fatalities or people affected raises the demand for rescue teams and emergency assistance specialists from other countries. The local suppply of safe drinking water, food, clothes and medicine might also be constrained and therefore increases the likelihood of in-kind transfers. Therefore we hypothesize:

Hypothesis 1: Donors are more likely to deliver multilateral disaster assistance/in-kind assistance for higher levels of humanitarian need (measured by the number of fatalities and the number affected).

Socioeconomic background

In accordance with Fink & Redaelli (2009) socioeconomic background entails the measures GDP p.c., population and population density. GDP p.c. does not only serve as protection against the effects of natural disasters (e.g. Kahn 2005, Anbarci et al. 2005), it also increases the country's ability to cope with the aftermath of the disaster. Developed countries can easier absorb the adverse effects of natural catastrophes and return faster to business as usual. Larger countries could have more absorptive capacities as well as economies of scale[2] in dealing with post-disaster situations. Population density can increase the ex-ante chance of more fatalities due to higher concentration of potential victims; however more densely populated areas might have better social networks and find it easier to cope with the aftermath of a disaster (Fink & Redaelli 2009). Similar to the argumentation above, due to exceptional circumstances donors might prefer to assist via multilateral agencies in countries with low levels of GDP p.c. This might also be the case for larger countries, since individual donor countries are unlikely to know the regional differences in a large country as good as multinational agencies. However, the influence of population density on the choice of the channel of aid is ambiguos. On the one hand, natural disasters in densely populated regions might

increase the risk of epidemics and other infectious diseases. Again, more difficult environments should increase the likelihood of multilateral disaster assistance. On the other hand, densely populated areas might be equipped with better catastrophe management tools and therefore not need the help of a multilateral agency but rather bilateral assistance.

Hypothesis 2: Donors are more likely to deliver multilateral disaster assistance if the recipient country is characterized by low levels of GDP p.c., large population and high population density.

Merit

In societies with weak institutions and governance transfers often do not reach their desired recipients and therefore fail to reach the goal of stabilization. This might be even more true for disaster assistance which is paid in case of emergencies where due to the exeptional circumstances minor attention is paid to the correct handling of the money received. The results of the literature on aid effectiveness are in line with World Bank study "Assessing Aid" (1998) which suggests that the impact of foreign aid is higher if the receiving country is in need and has good quality of institutions. Moreover, this study argues that in environments where the above mentioned conditions of strong institutions and policies are violated, bilateral assistance from one government to the other is unlikely to be successfull. In these circumstances a close cooperation with the affected society might circumvent the misuse of foreign assistance. Opposed to bilateral assistance, multilateral agencies might have better information about the risks in aid receiving countries and access to civil society. Moreover, since donor countries lack commitment power, Svensson (2000) argues that the delegation of aid to agencies which are less risk averse and have plausible commitment techniques could provide incentives in the receipient country to generate own effort. For this reason it seems plausibel when the UN-Millennium Project (2005) suggests to transfer money through NGOs in cases where the receipient country is characterized by weak institutions and policies.[3] Dollar & Levin (2006) show that multilateral assistance is more selective with respect

to the motive of merit than bilateral aid.

Apart from the channel of aid the type might also be relevant for the ability to achieve stabilization. Therefore, a broad strand of literature discusses the effectiveness of conditional transfers (e.g. tied aid and in-kind transfers) and cash transfers, respectively. Although some researchers view untied transfers as the most efficient (e.g. Cassen et al. 1986), restricted transfers, e.g. in-kind transfers, might be better suited for the reduction of misuse due to weak institutions and governance as well as efficient targeting since cash transfers are easier to embezzle than in-kind transfers (e.g. Amegashie et al. 2007). Moreover, the literature of the Samaritan's Dilemma is closely related to the choice of the type of aid. The theoretical model of Coate (1995) suggests that in-kind transfers could circumvent the potential risk that recipients rely on relief to bail them out. Amegashie et al. (2007) investigate how donor countries' choice of the composition of cash and in-kind transfers adjusts to changes of governance (measured by political rights index and civil liberties index of Freedom House) in recipient countries. While multilateral donors reward (penalize) decreases (increases) in moral hazard behavior by reducing (rising) the proportion of in-kind relative to cash-transfers, bilateral donors do not react to changes in governance. Nevertheless we hypothesize:

Hypothesis 3: Donors are more likely to deliver multilateral disaster assistance/in-kind assistance if the recipient country is characterized by weak quality of institutions and policies.

Strategic interests

As mentioned in the introduction, donor countries' aid allocation behavior is not only motivated by altruistic reasons but also by strategic considerations. However, donor countries which have non-stabilization goals, i.e. strategic or political interests, in mind might use other measures as well to follow their strategic interest, e.g. use the channel and type of transfers which recipient governments value higher. In order to gain utility from strategic influence in the recipient country, it

is important for the donor country to ensure that the source of disaster assistance is visible for the recipient country. Donor countries transferring money directly to recipient governments might be more successful in building up political ties, since the signaling feature of bilateral aid allows more visibility than partly anonymous transfers via a multilateral agency.

In addition, it is reasonable to assume that aid receiving governments value cash payments higher than in-kind payments because they can use it in accordance with their own preferences (Bermeo 2007).

Hypothesis 4: Donors are more likely to give bilateral transfers/ cash transfers to countries where they want to promote strategic or political interests.

Transaction costs

A third aspect which might be relevant for the donor countries behavior, but received minor attention so far, is the role of transaction costs. Fink and Radaelli (2009) show that more emergency aid is paid to countries being geographically closer to the donor country. Since distance is often used as a proxy for bilateral trade, they interpret this relationship from a strategic perspective.[4] However, our main point of interest is to derive factors which explain the choice of the channel and type of emergency assistance and in this respect an alternative interpretation of distance is possible. Donor countries might choose to assist via a multilateral agency in cases where the recipient country is geographically unconnected and therefore transaction costs are high. Similarly, the transaction cost argument would imply that multilateral transfers are more likely if donor and recipient country do not share the same language.With respect to the choice of the type of aid this argument would suggest to use cash transfers for more distant recipients and in-kind assistance for the neighboring countries.

Hypothesis 5: In oder to minimize transaction costs, donors are more likely to use multilateral aid /

cash for more distant countries and countries without a similar language.

Interaction of institutional quality and strategic interests

In Hypothesis 3 and 4 we propose that bilateral assistance/cash transfers are more likely to be provided to countries with good policy performance as well as to countries which are of strategic and political interest for the donor country. But how do donor coutries react when these two explanatory variables interact? Is good policy performance less of a constraint for bilateral/cash transfers if strategic interests are very high? To our knowledge the literature of aid allocation has not investigated this question so far. However, since a) the results of Dollar and Levin (2006) do not show a singnificant relationship between bilateral aid and good policies and b) Amegashie et al. (2007) suggest that the composition of bilateral aid is not adjusted to changes in the moral hazard behavior of the recipient country, we assume that the influence of strategic interests on the choice of the channel and type of aid is superior to the influence of the quality of institutions and policy. Therefore, our last hypothesis states:

Hypothesis 6: The probability of donors assisting by bilateral transfers/ cash transfers is decreasing in the interaction of quality of institutions and strategic interests.

3 Empirical analysis

3.1 Research design and data

We are interested in the decision of potential donor countries (i.e. every country that has not been directly affected by a disaster) to provide post-disaster assistance and the channel and type the actual donors choose. In order to examine the effect of humanitarian needs of a recipient country and strategic interests of a donor country, we construct a basic dyadic dataset for each major natural disaster (that is included in the EM-DAT dataset) in a given country between 2000 and 2007. For any given disaster in a country, all remaining countries are considered as potential donor nations. Including only those cases where one potential donor actually provided aid in our regression would

truncate the data. All potential donors (including OECD and non-OECD-countries) that did not provide post-disaster assistance are coded zero and this information is used in the first stage selection estimates. The combination of 228 disasters, where information on both the channel and type of disaster aid is available, and 187 potential donor nations, results in a basic dataset of 42,636 observations. However, this number is reduced to 25,836 due to missing data. After excluding private donations and donations made via NGOs[5] 1,341 observations remain where governments have actually provided an aid contribution. 901 donations were made by OECD-countries and 440 by non-OECD-countries. The final dataset includes only natural disasters where we can control for the social magnitude of the catastrophe and therefore not all humanitarian catastrophes that are included in the FTS OCHA database.[6] This excludes for example civil wars and certain famines that are not directly related to droughts. The final dataset provides a mixture of donor-recipient pairs that is rather unique in the empirical foreign aid literature. Although the majority of observations include emergency aid flows from OECD to developing countries, some emergency aid flows go from relatively poor countries (e.g. Afghanistan) to relatively rich countries (e.g. Japan, Republic of Korea).

To test our hypotheses we construct the following set of dependent dummy-variables: The first variable, *aid*, switches to one if a donor has provided some assistance after disaster i in country j and is zero otherwise. The second variable, *bilateral*, describes the channel of aid. It is one for bilateral and zero for multilateral disaster assistance. The third variable, *cash*, defines the type of bilateral post-disaster aid. It switches to one for cash and zero for in-kind. In accordance with our hypotheses, the explanatory variables can be organized in five groups. First, social magnitude and socioeconomic indicators: Disaster measures comprise of indicators for the social magnitude of disaster *i* the number of fatalities and affected in a disaster (in thousands).[7] To control for differences in the measurement of social magnitude, we control for the type of disasters by including disaster type specific fixed effects in all specifications. We include the natural logs of GDP p.c., population as well as population density as socioeconomic variables. Second, indicators

for transaction costs: To account for transaction cost-related differences in the type and channel of disaster-relief we include the geographical distance between the donor and recipient country. In addition, we construct a dummy variable indicating whether the donor and the recipient speak the same language.[8] Third, variables for institutional quality and good governance: To control for the recipient country's institutional quality we include a number of performance indicators. The governance indicators we use in our analysis are the Polity IV index of democracy (Marshall & Jaggers 2005), the World Bank's rule of law and corruption control indexes. Fourth, measures for strategic interests: In choosing relevant variables that are good empirical proxies for donors' strategic interests in the recipient country we follow the existing empirical literature (e.g. Alesina & Dollar 2000, Berthelemy & Tichit 2004, Fink & Redaelli 2009). It includes two variables related to geo-political aspects, colonial history between the donor and the recipient as well as an updated version of Gartzke's affinity index that is constructed using voting patterns in the United Nations General Assembly. We also add the total value of the donor's exports to the recipient as a control for bilateral trade relationships. In addition, we include the recipient's oil endowment by constructing a dummy that switches to one if the country's oil exports account for more than 30 % for the country's total merchandise exports. To control for a potential relationship between institutional quality in the recipient country and strategic interests of the donor we further include interaction terms between these two variables. However, the interpretation of interaction terms between continuous variables, where one variable can feature positive as well as negative values (e.g. the institutional quality variables, rule of law and corruption control) is difficult. We therefore transform the continuous, institutional quality variables into dichotomous variables that take the value of one if the institutional variables have a value larger than zero. In non-linear models the sign, size and significance of the interaction term cannot be evaluated by simply looking at the estimated coefficient (Ai and Norton 2003). We therefore apply the procedure proposed by Norton et al. (2004) to calculate the correct coefficients and standard errors for the interaction terms.

3.2 Econometric strategy

Our goal is to identify the driving factors of the likelihood of choosing a) a certain channel for disaster aid (bilateral vs. multilateral) and b) a certain type of disaster aid (cash vs. in-kind). However, a number of countries do not receive international disaster assistance at all. The newer empirical literature on aid allocation (e.g. Balla and Reinhardt (2008), McGillivray and Oczkowski (1992) and Neumayer (2002) has conceptualized the analysis in two stages, a gate-keeping and a level-setting stage. The decision on both the channel and the type is basically conditional on the decision to provide post-disaster assistance at all.

In our case, the model consists of two stages: The first stage (gate-keeping stage) defines the cases where actual post-disaster aid is given. The selection variable is a latent variable y_1^* and equals one if aid is given. The second stage is the outcome stage and is estimated in two separate specifications. In the first specification it describes the cases where bilateral aid (channel stage) was given, while in the second specification (type stage) it describes the cases when cash was contributed rather than in-kind. In either of the two specifications we denote this second stage latent variable as y_2^*. We derive the following system:

$$y_1^* = x_1\beta_1 + u_1 \tag{1}$$

$$y_2^* = x_2\beta_2 + u_2 \tag{2}$$

where

$$\begin{pmatrix} u_1 \\ u_2 \end{pmatrix} \sim N\left\{\begin{pmatrix} 0 \\ 0 \end{pmatrix}, \begin{bmatrix} 1 & \rho \\ \rho & 1 \end{bmatrix}\right\}$$

x_i and u_i are the explanatory variables and the error terms for the first and the second stage, respectively. ρ is the correlation between the first and second stage errors. We employ two estimators to test our hypotheses.[9] First we use a simple two-stage estimator: In the first stage of the two-stage estimator we use a probit estimator to analyze the determinants that drive the decision of a donor to provide disaster assistance to country *j* after disaster *i* or not. This stage includes all potential donors (all countries except for the recipient affected by the disaster). At the second stage it is determined which channel and which type has been chosen conditional that the recipient has received aid. Again probit is used at this stage. This approach requires that the errors in both stages are not correlated. In the context of disaster assistance it appears to be a rather unrealistic assumption that the decision on the channel or type stage do not take into account information from the gate-keeping stage.

The standard approach to deal with this issue is to apply the two-step estimator developed by Heckman (1979). For the gate-keeping stage of this model, the adequate technique of estimation is Probit. The traditional Heckman model requires that the second stage outcome equation is estimated using OLS. Given the dichotomous character of our dependent variable at the second stage, OLS would probably produce biased results. Dubin & Rivers (1989) developed an extended selection model where second stage is estimated using a probit model, which is applied in this paper.

The application of a sample selection model requires unique information in the explanatory variables x_1 and x_2 to separately identify the parameters in the gate-keeping and channel/type stages. In the context of aid-allocation, it is rather difficult to find variables that exclusively define the gate-keeping stage. Neumayer (2003) has applied the total amount of aid in any given year as exclusionary variable in his analysis on Arab aid allocation. Koch et al. (2009) used shared religious beliefs between the donor and the recipient countries and Balla and Reinhardt (2008) took colonial relationship, bilateral trade and aggregate FDI as selection variables. We ran a series of regressions using each of the above mentioned variables in separate specifications and only the dummy-variable

for previous colonies fulfilled the exclusivity criterion. In addition, we use a variable that measures the mortality risk due to natural hazards in a certain country. Consider Bangladesh as an example. Bangladesh suffers hundreds of fatalities from severe floods and hurricanes almost on a yearly basis. While the country is perceived to be exposed to natural hazard risk and is therefore more legitimate to receive disaster assistance, the donor's decision on the channel and type of aid is dependent on the social magnitude and type of the disaster.

3.3 Results

We start with the presentation of the probit results for the gate-keeping stage in Table 1. One proxy for the humanitarian dimension of the disaster, the number of fatalities has a significant and positive effect on the likelihood that a contribution is made. Calculating the marginal effects, a 10 % increase in the number of fatalities increases the probability of receiving disaster assistance by 7 %. In contrast to results in the ODA-literature, but in accordance with the findings by Fink & Redaelli (2009), smaller countries are more likely to receive disaster assistance. GDP p.c. appears to have no significant effect. Democracies (measured by the policy variable) have a higher likelihood of being target of disaster aid, while the coefficients for the good governance indicators, rule of law and corruption control, show significant signs that contradict our hypothesis. Countries with lower quality institutions seem to attract more disaster assistance. Fink & Redaelli (2009) find a similar trend for policy performance indicators; however their results are not significantly different from zero. Trading partners are also more likely to receive disaster aid, while the coefficient for oil exporting countries is positive but only significant on a 10%-level. The specifications in columns 7 and 8 introduce dummies that account for either low levels in rule of law or high corruption. The interaction term between low levels in rule of law and oil exporting countries has a positive and significant sign. These results suggest that being an oil-exporting country *per se* does not suffice to raise the strategic interests of a donor. However, the combination of being an oil-exporting country and bad governed makes it more likely to receive a contribution after a humanitarian catastrophe.

Interacting the imports from donors-variable with the institutional indicators does not yield significant results.

[Table 1 about here]

Table 2 summarizes the second stage estimates on the decision on the channel of disaster aid if a contribution has been made. The dependent variable is a dummy that equals one if the contribution was bilateral and zero if it was multilateral. Disasters with a large number of fatalities are more likely to attract multilateral aid. Donor countries are more likely to delegate disaster assistance to multinational organization when the event has catastrophic proportions and the chaotic and complex nature of the situation demands a variety of skills and knowledge. Less distant countries and countries with the same language are more likely to receive bilateral aid which confirms the transaction cost hypothesis. Opposed to our third hypothesis, democracies as well as countries with lower levels in the World Bank's index for the rule of law are also more likely to receive assistance via a multinational agency rather than bilaterally. The signs of coefficients for the strategic variables point in opposing directions. Trading partners are more likely to receive bilateral aid while oil exporting countries have a higher probability of receiving multilateral aid. Interestingly, applying again the interaction term between bad governance and oil exporting country reveals a positive and significant sign.

[Table 2 about here]

In the next step we analyze the determinants of the type of emergency aid. In contrast to the estimates on the channel of aid, the level of democracy has no significant impact on the type of disaster assistance. Rule of law and corruption control even significantly increase the likelihood of receiving cash rather than in-kind transfers. Again the strategic variables have opposing signs. Trading partners are more likely to receive cash aid, while oil-exporting countries have a higher probability of receiving in-kind transfers.

[Table 3 about here]

These second stage results might be biased due to the omission of the inverse Mills ratio. Tables 4

and 5 replicate the results for the channel and type stage using the Heckman probit approach. A dummy for colonial relationship as well as a variable accounting for the recipient country's mortality risk due to natural hazards has been included in the first stage probit estimates. The results are largely robust, except for the strategic variable that accounts for trade volume with the recipient country where the coefficients lose their significance. However, the Wald test does not reject the null hypothesis of independent equations and thus our results from the basic two stage approach appear to be unbiased. Although the coefficients for the trade variable appear to be significant in the two-stage estimates and the Wald test favors the two-stage instead of the Heckman approach, the results should be interpreted with care.

[Table 4 about here]

[Table 5 about here]

The analysis so far has assumed that the variables that explain the choice on the composition of aid do not differ between countries. The empirical literature, however, suggests that donors' decision on ODA (e.g. Alesina & Dollar 2000, Kuziemko & Werker 2006) and disaster aid (e.g. Fink & Redaelli 2009) are not the same across donor nations. For expositional convenience, we limit our analysis to a comparison between OECD and non-OECD countries. This robustness test basically splits the sample in OECD and non-OECD donor subsamples and repeats the estimates in tables 1 - 3 for each subsample, respectively.

At the gate-keeping stage the estimates for both sub-samples are very similar and basically reflect the results from the full sample estimates. The decision to provide emergency assistance is driven by the magnitude of the disaster and some strategic variables in both OECD and non-OECD countries. The coefficient of the trade variable is virtually identical in both samples[10]. The results for the channel and type stage for each subsample are shown in Table 6. At the channel stage, the negative sign of the polity variable in full sample (Table 2) appear to be largely driven by the non-OECD subsample.

Regarding the type of disaster aid, non-OECD countries appear to be more concerned about the rule

of law and corruption control index when they supply cash, while the coefficient for the trade variable is larger in size and appears to have a better level of statistical significance (at the 1 %-level) for the OECD subsample than for the non-OECD counterpart (significance only at the 10 % level). The effect of the oil-exporting dummy is negative in both subsamples.

[Table 6 about here]

4 Conclusion

The aim of this paper was to have a closer look on donor countries' aid allocation behavior by distinguishing between bilateral and multilateral assistance as well as cash and in-kind assistance. Our results show that strategic concerns (trade relations) are not only relevant for the geographical allocation of aid, but also for the decision on the type and the channel of aid. The empirical application shows that recipient countries are more likely to receive bilateral transfers, if the disaster is less complex, transaction costs are low or the donor country is a trading partner. The likelihood of receiving cash rather than in-kind assistance again increases if the donor country is a trading partner.

Donor countries' behavior appears to be only reflected in the geographical allocation of disaster assistance, but also in the choice of the channel and type of aid. Countries which were so far supposed to allocate aid in line with the motive of need or merit might follow their strategic interests by allocating bilateral assistance or cash to countries which are of particular strategic and political interest for them. The dataset also includes post-disaster aid flows from non-OECD countries to OECD countries. Splitting the sample along into OECD and non-OECD countries, we find differences in the allocation behavior between these two groups: while non-OECD countries seem to pay more attention to corruption control and rule of law, OECD countries attach more importance to strategic interests.

References

Ai, C. & Norton, E. C. (2003), Interaction terms in logit and probit models. *Economics Letters* **80**, pp. 123-129.

Alesina, A. F. & Dollar, D. (2000), Who gives foreign aid to whom and why? *Journal of Economic Growth* **5**(1), 33-63.

Amegashie, A. J., Ouattara, B. & Strobl, E. (2007), Moral hazard and the composition of transfers: Theory with an application on foreign aid. CESifoWorking Paper No. 1996, CESifo.

Anbarci, N. & Escaleras, M. & Register, C. A. (2005), Earthquake fatalities: the interaction of nature and political economy. *Journal of Public Economics* **89**(9-10), pp. 1907-1933.

Balla, E. & Reinhardt G. Y. (2008), Giving and receiving aid: Does conflict count? *World Development* **36**(12), 2566-2585.

Bermeo, S. B. (2007), Utility maximization and strategic development - A model of foreign aid allocation. Department of Politics, Princeton University, http://www.allacademic.com/meta/p211087_index.html.

Berthelemy, J.-C. & Tichit, A. (2004), Bilateral donors' aid allocation decision - a three-dimensional panel analysis. *International Review of Economics & Finance* **13**(3), 253-274.

Cassen, R., et al. (1986), Does aid work? Oxford: Oxford University Press.

Coate, S. (2001), Altruism, the Samaritan's dilemma, and government transfer policy. *American Economic Review* **85**(1), 46-57.

Correlates of War 2 Project (2008), Colonial/Dependency contiguity data, 1816-2002. *http://correlatesofwar.org* Version 3.0.

Dilley, M. Chen, R. S., Deichmann, U. Lerner-Lam., A. L., Arnold, M. Agwe, J., Buys, P., Kjekstad, O.Lyon, B. & Yetman, G. (2005), Natural disaster hotspots: A global risk analysis. Disaster Risk Management Series No. 5, The World Bank and Columbia University, Washington D. C.

Dollar, D. & Levin, V. (2006), The increasing selectivity of foreign aid, 1984-2003. *World Development* **34**(12), 2034-2046.

Dreher, A., Mölders, F. & Nunnenkamp, P. (2007), Are NGOs the better donors? A case study of aid allocation for Sweden. Working Paper 1383, Kiel Institute for the World Economy, Kiel.

Dubin, J. A. & Rivers, D. (1989), Selection bias in linear regression, logit and probit Models. *Journal of Economic Growth* **5**(1), 33–63.

Dudley, L. & Montmarquette, C. (1976), A model of the supply of bilateral foreign aid. *American Economic Review* **66**(1), 132–142.

EM-DAT (2008), The OFDA/CRED international disaster database – www.emdat.be, Universite catholique de Louvain, Belgium.

Fink, G. & Redaelli, S. (2009), Determinants of international emergency aid: Humanitarian need only? World Bank Policy Research Working Paper No. 4839, The World Bank.

Gleditsch, K. S. & Ward, M. D. (2001), Measuring space: A minimum distance database. *Journal of Peace Research* **38**, pp. 749-768.

Haveman, J., http://www.macalester.edu/research/economics/page/haveman/trade.resources/Data/Gravity/language.txt

Heckman, J. J. (1979), Sample selection bias as a specification error. *Econometrica* **47**(1), 153-161.

Hoeffler, A., and V. Outram (2008). Need, merit or self-interest: What determines the allocation of aid? CSAE Working Paper 2008-19, Oxford: Centre for the Study of African Economies.

Kahn, M. E. (2005), The death toll from natural disasters: The role of income, geography and institutions. *The Review of Economics and Statistics* **87**(2), pp. 271-284.

Kaufmann, D., Kraay, A. & Mastruzzi, M. (2008), Governance matters VII: Aggregate and individual governance indicators 1996-2007. World Bank Policy Research Paper No. 4654, The World Bank.

Koch, D-J., Dreher, A., Nunnenkamp, P. & Thiele, R. (2009), Keeping a low profile: What determines the allocation of aid by non-governmental organizations? *World Development* 37(5), pp. 902-918.

Kuziemko, I. & Werker, E. (2006), How much is a seat on the security council worth? Foreign aid and bribery at the United Nations. *Journal of Political Economy* **114**(5), 905–930.

Marshall, M. G. & Jaggers, K. (2005), Polity IV project. Political regime characteristics and transition, 1800-2004. Version 2004.

McGillivray, M. & Oczkowski, E. (1992), A two-part sample selection model of British bilateral aid allocation. *Applied Economics* **24**(12), 1311-1319.

Nancy, G. & Yontcheva, B. (2006), Does NGO aid go to the poor?: Empirical evidence from Europe. IMF Working Paper No. 06/39.

Norton, E. C. ,Wang, H. & Ai, C. (2004), Computing interaction effects and standard errors in logit and probit models. *The Stata Journal* **4**(2), pp. 154-167.

Neumayer, E. (2002), Is good governance rewarded? A cross-national analysis of debt forgiveness. *World Development* **30**(6), pp. 913-930.

Neumayer, E. (2003), What factors determine the allocation of aid by Arab countries and multilateral agencies? *Journal of Development Studies*, **39**(4), 134-47.

Neumayer, E. (2005), Is the allocation of food aid free from donor interest bias? *Journal of Development Studies* **41** (3), pp. 27-40.

Nunnenkamp, P., Öhler, H. (2009), Aid allocation through various official and private channels: Need, merit and self-interest as motives of German donors. Kiel Working Paper, 1536, Kiel Institute for the World Economy.

Nunnenkamp, P, J. Weingarth & J. Weisser (2009), Is NGO aid not so different after all? Comparing the allocation of Swiss aid by private and official donors. *European Journal of Political Economy* **25**(4): 422-438.

Svensson, J. (2000), When is foreign aid policy credible? Aid dependence and conditionality. *Journal of Development Economics* **61**(1), 61-84.

Thiele, R., P. Nunnenkamp & A. Dreher (2007), Do donors target aid in line with the Millennium Development Goals? A sector perspective of aid allocation. *Review of World Economics* **143** (4), pp. 596-630.

United Nations Comtrade (2007), United Nations commodity trade statistics database. http://comtrade.un.org.

United Nations Office for the Coordination of Humanitarian Affairs (OCHA) (2009), Financial Tracking Service (FTS) – The global humanitarian aid database. http://ocha.unog.ch/fts/pageloader.aspx

UN-Millennium Project (2005), Investing in development: A practical plan to achieve the Millennium Development Goals.

Voeten, E. & Merdzanovic, A. (2009), United Nations General Assembly voting data, hdl:1902.1/12379 unf:3:hpf6qokddzzvxf9m66yltg= =, Georgetown University.

World Bank (1998), Assessing aid: What works, what doesn't and why. Oxford: Oxford University Press.

World Bank (2006), World development indicators, CD-Rom. Washington, D.C.

Table 1. Determinants of disaster aid activity (gate-keeping stage), Probit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	0.136***	0.082***	0.082***	0.136***	0.169***	0.129***	0.080***	0.081***	0.090***	0.089***
	(0.029)	(0.027)	(0.027)	(0.029)	(0.036)	(0.029)	(0.026)	(0.026)	(0.034)	(0.034)
Ln(Affected)	0.025	-0.005	-0.006	0.032	0.017	0.028	-0.007	-0.010	-0.001	-0.003
	(0.028)	(0.013)	(0.013)	(0.030)	(0.032)	(0.025)	(0.014)	(0.013)	(0.016)	(0.016)
Ln(GDP p.c.)	-0.091	-0.051	-0.058	-0.082	-0.321***	-0.107*	-0.076	-0.084	-0.312***	-0.309***
	(0.055)	(0.068)	(0.072)	(0.061)	(0.064)	(0.060)	(0.064)	(0.066)	(0.080)	(0.084)
Ln(Population)	-0.177***	-0.134***	-0.137***	-0.187***	-0.404***	-0.183***	-0.144***	-0.142***	-0.356***	-0.356***
	(0.035)	(0.028)	(0.028)	(0.041)	(0.054)	(0.033)	(0.028)	(0.028)	(0.047)	(0.044)
Pop dens.	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.065***	-0.053***	-0.054***	-0.073***	-0.042***	-0.062***	-0.053***	-0.053***	-0.029***	-0.029***
	(0.009)	(0.007)	(0.007)	(0.010)	(0.009)	(0.009)	(0.007)	(0.007)	(0.009)	(0.009)
Common language	0.215**	0.038	0.035	0.308***	0.079	0.233**	0.042	0.029	-0.080	-0.098
	(0.103)	(0.096)	(0.095)	(0.112)	(0.115)	(0.105)	(0.097)	(0.095)	(0.107)	(0.105)
Polity	0.112***			0.078***	0.085***	0.118***				
	(0.020)			(0.018)	(0.019)	(0.020)				
Former colony	0.845***	0.899***	0.898***	0.574***	0.140	0.857***	0.908***	0.903***	0.156	0.148
	(0.124)	(0.153)	(0.152)	(0.138)	(0.146)	(0.124)	(0.154)	(0.152)	(0.159)	(0.155)
Hazard mortality	0.019	0.028*	0.031*	0.031	0.043*	0.023	0.034**	0.034**	0.058***	0.054**
	(0.019)	(0.017)	(0.017)	(0.020)	(0.023)	(0.018)	(0.017)	(0.016)	(0.309)	(0.302)
Rule of Law		-0.149*								
		(0.090)								
Corruption			-0.132							
Control			(0.090)							
Affinity index				-1.468***						
				(0.158)						
Imports from donor					0.283***				0.274***	0.306***
					(0.020)				(0.039)	(0.047)
Oil dummy						0.292*	-0.376**	-0.303		
						(0.173)	(0.175)	(0.201)		
Low Rule of Law							0.144		0.209	
							(0.100)		(0.154)	
Oil dummy X							0.534**			
Low Rule of Law [a]							(0.239)			
High corruption								0.122		0.395**
								(0.151)		(0.168)
Oil dummy X								0.480*		
High corruption [a]								(0.255)		
Imports from donorX									-0.006	
Low Rule of Law [a]									(0.035)	
Imports from donorX										-0.039
High corruption [a]										(0.046)
Constant	0.330	1.073	1.177	1.897**	5.021***	0.413	1.372*	1.453*	5.547***	5.387***
	(0.748)	(0.760)	(0.788)	(0.858)	(0.954)	(0.782)	(0.713)	(0.769)	(0.965)	(0.996)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.148	0.110	0.109	0.188	0.262	0.151	0.111	0.111	0.211	0.212
N	24241	25817	25817	23389	24241	24241	25817	25817	25817	25817

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is aid, a dummy that switches to 1 if a contribution was made. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively

Table 2. Determinants of the channel of disaster aid, Probit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.128**	-0.038	-0.040	-0.129**	-0.090*	-0.080*	-0.055	-0.063*	-0.027	-0.032
	(0.052)	(0.037)	(0.037)	(0.051)	(0.051)	(0.045)	(0.036)	(0.037)	(0.036)	(0.038)
Ln(Affected)	-0.003	0.008	0.013	-0.005	-0.014	-0.034	0.020	0.032*	0.009	0.020
	(0.030)	(0.019)	(0.020)	(0.028)	(0.028)	(0.026)	(0.020)	(0.019)	(0.020)	(0.020)
Ln(GDP p.c.)	0.235**	0.054	0.077	0.214*	0.039	0.316***	0.126	0.155	0.019	0.071
	(0.116)	(0.123)	(0.130)	(0.119)	(0.119)	(0.113)	(0.111)	(0.115)	(0.128)	(0.135)
Ln(Population)	0.067	0.034	0.035	0.059	-0.153**	0.097	0.022	0.004	-0.053	-0.049
	(0.066)	(0.050)	(0.053)	(0.065)	(0.071)	(0.061)	(0.046)	(0.048)	(0.070)	(0.066)
Pop dens.	-0.001**	-0.001***	-0.001***	-0.001**	-0.001*	-0.001***	-0.002***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.097***	-0.127***	-0.128***	-0.095***	-0.093***	-0.112***	-0.126***	-0.126***	-0.123***	-0.121***
	(0.017)	(0.019)	(0.019)	(0.017)	(0.018)	(0.017)	(0.019)	(0.019)	(0.019)	(0.020)
Common language	0.957***	0.409	0.425*	0.971***	0.796***	0.859***	0.505*	0.561**	0.292	0.366
	(0.247)	(0.251)	(0.254)	(0.242)	(0.252)	(0.252)	(0.257)	(0.264)	(0.248)	(0.253)
Polity	-0.170***			-0.165***	-0.208***	-0.177***				
	(0.045)			(0.047)	(0.046)	(0.043)				
Former colony	0.429	-0.011	0.001	0.468*	0.224	0.378	-0.029	-0.021	-0.126	-0.103
	(0.275)	(0.367)	(0.367)	(0.275)	(0.309)	(0.286)	(0.370)	(0.366)	(0.355)	(0.339)
Hazard mortality	-0.017	-0.027	-0.032	-0.016	-0.025	-0.047	-0.043	-0.036	-0.047	-0.038
	(0.037)	(0.030)	(0.032)	(0.037)	(0.039)	(0.039)	(0.030)	(0.031)	(0.034)	(0.035)
Rule of Law		0.321*								
		(0.170)								
Corruption			0.227							
Control			(0.214)							
Affinity index				0.193						
				(0.348)						
Imports from donor					0.195***				0.212**	0.202**
					(0.037)				(0.083)	(0.088)
Oil dummy						-1.038***	-2.364***	-2.606***		
						(0.239)	(0.243)	(0.289)		
Low Rule of Law							-0.433**			
							(0.197)			
Oil dummy X							1.984***			
Low Rule of Law [a]							(0.285)			
High corruption								-0.218		0.608
								(0.260)		(0.486)
Oil dumm Xy								2.119***		
High corruption [a]								(0.360)		
Imports from donor X									-0.180**	
Low Rule of Law [a]									(0.083)	
Imports from donor X										-0.154*
High corruption [a]										(0.090)
Constant	-1.191	-1.028	-1.326	-1.043	3.470*	-1.484	-1.218	-1.455	0.018	-0.883
	(1.641)	(1.163)	(1.201)	(1.686)	(1.821)	(1.596)	(1.085)	(1.252)	(1.534)	(1.730)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.258	0.209	0.205	0.260	0.297	0.286	0.227	0.223	0.223	0.216
N	829	1109	1109	808	829	829	1109	1109	1109	1109

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is bilateral, a dummy that switches to 1 if the aid flow was bilateral.. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively

Table 3. Determinants of the type of disaster aid, Probit

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.083***	-0.046	-0.048	-0.085**	-0.058*	-0.071**	-0.058*	-0.065*	-0.041	-0.047
	(0.032)	(0.036)	(0.036)	(0.036)	(0.033)	(0.034)	(0.034)	(0.035)	(0.036)	(0.038)
Ln(Affected)	0.034	-0.005	0.000	0.045	0.031	0.023	0.004	0.017	-0.004	0.009
	(0.029)	(0.014)	(0.015)	(0.029)	(0.028)	(0.026)	(0.016)	(0.014)	(0.015)	(0.015)
Ln(GDP p.c.)	0.160**	-0.125	-0.100	0.165**	0.043	0.176**	-0.062	-0.034	-0.147	-0.100
	(0.068)	(0.091)	(0.097)	(0.066)	(0.071)	(0.070)	(0.096)	(0.101)	(0.100)	(0.101)
Ln(Population)	0.069	0.048	0.054	0.028	-0.061	0.081*	0.062	0.042	0.009	0.003
	(0.049)	(0.042)	(0.044)	(0.052)	(0.060)	(0.048)	(0.039)	(0.044)	(0.061)	(0.063)
Pop dens.	-0.001***	-0.000	-0.000	-0.001**	-0.001**	-0.001***	-0.000**	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	0.040**	-0.013	-0.015	0.022	0.046***	0.037**	-0.012	-0.013	-0.009	-0.010
	(0.016)	(0.018)	(0.018)	(0.018)	(0.016)	(0.016)	(0.018)	(0.018)	(0.018)	(0.018)
Common language	0.215	-0.082	-0.057	0.197	0.156	0.191	-0.084	-0.015	-0.165	-0.103
	(0.194)	(0.205)	(0.215)	(0.187)	(0.188)	(0.193)	(0.204)	(0.212)	(0.201)	(0.213)
Polity	0.031			0.000	0.014	0.024				
	(0.027)			(0.027)	(0.028)	(0.027)				
Former colony	0.125	0.011	0.021	0.018	-0.006	0.106	-0.010	0.011	-0.094	-0.056
	(0.246)	(0.232)	(0.232)	(0.251)	(0.254)	(0.245)	(0.227)	(0.226)	(0.230)	(0.226)
Hazard mortality	0.021	-0.019	-0.021	0.012	0.017	0.012	-0.034*	-0.025	-0.032	-0.022
	(0.027)	(0.018)	(0.019)	(0.027)	(0.027)	(0.027)	(0.021)	(0.020)	(0.020)	(0.021)
Rule of Law		0.405***								
		(0.145)								
Corruption			0.364**							
Control			(0.184)							
Affinity index				-0.905***						
				(0.256)						
Imports from donor					0.111***				0.085	0.094
					(0.029)				(0.060)	(0.060)
Oil dummy						-0.340*	-0.772*	-1.114***		
						(0.197)	(0.263)	(0.306)		
Low Rule of Law							-0.509*		-0.346	
							(0.234)		(0.352)	
Oil dummy X							0.405			
Low Rule of Law [a]							(0.360)			
High corruption								-0.341		-0.029
								(0.238)		(0.342)
Oil dummy X								0.649		
High corruption [a]								(0.416)		
Imports from donor X									-0.053	
Low Rule of Law [a]									(0.057)	
Imports from donor X										-0.062
High corruption [a]										(0.056)
Constant	-4.556***	-0.979	-1.312	-3.169**	-1.997	-4.579	-1.471	-1.659	-0.283	-0.922
	(1.165)	(0.991)	(1.026)	(1.289)	(1.368)	(1.145)	(0.960)	(1.099)	(1.258)	(1.360)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.068	0.049	0.044	0.089	0.087	0.073	0.056	0.050	0.055	0.044
N	825	1106	1106	804	825	825	1106	1106	1106	1106

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is cash, a dummy that switches to 1 if the aid contribution was cash. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table 4. Determinants of the channel of disaster aid, Heckman

Pr(bilateral=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.171***	-0.037	-0.040	-0.161**	-0.090	-0.122***	-0.051	-0.060	0.012	0.001
	(0.050)	(0.049)	(0.051)	(0.063)	(0.108)	(0.047)	(0.053)	(0.049)	(0.065)	(0.079)
Ln(Affected)	-0.018	0.005	0.009	-0.021	-0.022	-0.049*	0.016	0.027*	0.006	0.015
	(0.031)	(0.018)	(0.019)	(0.032)	(0.032)	(0.025)	(0.019)	(0.016)	(0.015)	(0.016)
Ln(GDP p.c.)	0.239**	0.021	0.035	0.213*	0.012	0.303***	0.080	0.102	-0.133	-0.068
	(0.104)	(0.129)	(0.135)	(0.113)	(0.200)	(0.105)	(0.117)	(0.120)	(0.170)	(0.208)
Ln(Population)	0.135*	0.013	0.011	0.112	-0.156	0.155**	-0.018	-0.027	-0.208	-0.185
	(0.070)	(0.065)	(0.067)	(0.096)	(0.224)	(0.073)	(0.065)	(0.062)	(0.148)	(0.176)
Pop dens.	-0.001**	-0.001***	-0.001***	-0.001**	-0.001**	-0.002***	-0.002***	-0.001***	-0.001	-0.001*
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
Distance	-0.066*	-0.131***	-0.132***	-0.073	-0.094***	-0.093**	-0.132***	-0.131***	-0.120***	-0.121***
	(0.036)	(0.023)	(0.023)	(0.054)	(0.032)	(0.037)	(0.022)	(0.022)	(0.025)	(0.025)
Common language	0.807***	0.437*	0.461*	0.869**	0.798***	0.777***	0.551**	0.601**	0.242	0.311
	(0.264)	(0.255)	(0.259)	(0.363)	(0.248)	(0.277)	(0.261)	(0.268)	(0.250)	(0.292)
Polity	-0.191***			-0.172***	-0.198***	-0.188***				
	(0.053)			(0.055)	(0.073)	(0.058)				
Rule of Law		0.342**								
		(0.172)								
Corruption			0.261							
Control			(0.203)							
Affinity index				0.504						
				(0.792)						
Imports from donor					0.204				0.298**	0.295*
					(0.152)				(0.119)	(0.164)
Oil dummy						-0.988***	-2.393***	-2.686***		
						(0.215)	(0.224)	(0.271)		
Low Rule of Law							-0.386**		0.233	
							(0.189)		(0.392)	
Oil dummy X							2.064***			
Low Rule of Law [a]							(0.268)			
High corruption								-0.295		0.650
								(0.260)		(0.488)
Oil dummy X								2.264***		
High corruption [a]								(0.342)		
Imports from donor X									-0.153**	
Low Rule of Law [a]									(0.060)	
Imports from donor X										-0.152*
High corruption [a]										(0.087)
Constant	-1.016	-0.648	-0.869	-1.301	3.550	-1.529	-0.701	-0.838	2.280	1.148
	(1.566)	(1.193)	(1.206)	(1.623)	(2.637)	(1.638)	(1.083)	(1.220)	(2.221)	(2.758)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wald Test	0.211	0.846	0.820	0.633	0.961	0.456	0.699	0.749	0.399	0.550
N	828	1109	1109	807	828	828	1109	1109	1109	1109

Notes: Results of the 2nd stage estimates. Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is bilateral, a dummy that switches to 1 if the aid flow was bilateral. The Wald test for independent equations tests if the correlation between the errors of the first and the second stage equations is significantly different from zero. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table 5. Determinants of the type of disaster aid, Heckman

Ln(Fatalities)	-0.108**	-0.045	-0.046	-0.106**	-0.137**	-0.087*	-0.065*	-0.072*	-0.004	-0.024
	(0.043)	(0.041)	(0.042)	(0.050)	(0.061)	(0.046)	(0.038)	(0.038)	(0.046)	(0.052)
Ln(Affected)	0.031	-0.007	-0.003	0.041	0.016	0.020	0.002	0.015	-0.005	0.007
	(0.031)	(0.013)	(0.014)	(0.033)	(0.042)	(0.027)	(0.017)	(0.014)	(0.014)	(0.013)
Ln(GDP p.c.)	0.184***	-0.148	-0.127	0.181***	0.199	0.195***	-0.087	-0.063	-0.257**	-0.182
	(0.068)	(0.091)	(0.096)	(0.065)	(0.127)	(0.070)	(0.097)	(0.099)	(0.110)	(0.115)
Ln(Population)	0.101*	0.032	0.037	0.057	0.160	0.106*	0.045	0.032	-0.131	-0.089
	(0.059)	(0.050)	(0.052)	(0.073)	(0.209)	(0.061)	(0.049)	(0.053)	(0.100)	(0.118)
Pop dens.	-0.001**	-0.000	-0.000	-0.001**	-0.001	-0.001***	-0.000*	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	0.053***	-0.017	-0.019	0.035	0.059***	0.046**	-0.013	-0.012	-0.019	-0.017
	(0.020)	(0.023)	(0.024)	(0.027)	(0.014)	(0.020)	(0.023)	(0.023)	(0.017)	(0.018)
Common language	0.164	-0.062	-0.034	0.140	0.088	0.153	-0.051	0.008	-0.170	-0.113
	(0.210)	(0.202)	(0.212)	(0.229)	(0.204)	(0.215)	(0.199)	(0.209)	(0.183)	(0.208)
Polity	0.003			-0.015	-0.033	0.004				
	(0.037)			(0.034)	(0.053)	(0.039)				
Rule of Law		0.412***								
		(0.150)								
Corruption			0.381**							
Control			(0.185)							
Affinity index				-0.637						
				(0.554)						
Imports from donor					-0.055				0.179**	0.165
					(0.164)				(0.087)	(0.111)
Oil dummy						-0.392*	-0.768**	-1.148***		
						(0.202)	(0.308)	(0.327)		
Low Rule of Law							-0.501**		-0.242	
							(0.231)		(0.347)	
Oil dummy X							0.425			
Low Rule of Law [a]							(0.403)			
High corruption								-0.406*		0.046
								(0.236)		(0.382)
Oil dummy X								0.710*		
High corruption a								(0.430)		
Imports from donor X									-0.049	
Low Rule of Law a									(0.049)	
Imports from donor X										-0.068
High corruption a										(0.055)
Constant	-4.280***	-0.718	-1.008	-3.284**	-3.833**	-4.434***	-1.083	-1.250	1.593	0.358
	(1.248)	(0.985)	(1.002)	(1.276)	(1.625)	(1.234)	(0.976)	(1.044)	(1.578)	(1.722)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wald Test	0.389	0.812	0.807	0.571	0.378	0.577	0.987	0.944	0.219	0.462
N	825	1106	1106	804	825	825	1106	1106	1106	1106

Notes: Results of the 2nd stage estimates. Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is cash, a dummy that switches to 1 if the aid contribution was cash. The Wald test for independent equations tests if the correlation between the errors of the first and the second stage equations is significantly different from zero. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table 6. Comparison between OECD and Non-OECD countries, channel and type stage, Probit

		OECD					Non-OECD				
Channel Stage	*Ln(Fatalities)*	-0.105**	-0.107**	-0.112***	-0.078*	-0.068	-0.051	-0.052	-0.381***	-0.323***	-0.353***
		(0.050)	(0.050)	(0.042)	(0.043)	(0.045)	(0.048)	(0.047)	(0.134)	(0.110)	(0.096)
	Ln(GDP p.c.)	0.178	0.236*	0.329***	0.050	0.368***	-0.357	-0.403	0.126	-0.024	0.993**
		(0.128)	(0.135)	(0.107)	(0.112)	(0.113)	(0.257)	(0.262)	(0.189)	(0.189)	(0.386)
	Common language	0.546*	0.556*	1.123***	0.855***	1.034***	0.298	0.355	0.268	0.108	-0.105
		(0.330)	(0.333)	(0.333)	(0.331)	(0.354)	(0.418)	(0.399)	(0.420)	(0.438)	(0.430)
	Polity			-0.025	-0.043	-0.030			-0.283***	-0.299***	-0.426***
				(0.050)	(0.044)	(0.052)			(0.091)	(0.099)	(0.130)
	Rule of Law	0.441**					0.576*				
		(0.220)					(0.304)				
	Corruption Control		0.226					0.769**			
			(0.266)					(0.342)			
	Affinity index			-0.359					0.574		
				(0.360)					(0.456)		
	Imports from donor				0.277***					0.308**	
					(0.045)					(0.147)	
	Oil dummy					-0.815***					-2.671***
						(0.247)					(0.662)
Type Stage	*Ln(Fatalities)*	-0.080*	-0.081*	-0.081*	-0.060	-0.074*	-0.041	-0.050	-0.113	-0.071	-0.044
		(0.046)	(0.046)	(0.044)	(0.039)	(0.043)	(0.053)	(0.049)	(0.071)	(0.070)	(0.071)
	Ln(GDP p.c.)	-0.045	-0.001	0.207**	0.075	0.195**	-0.461***	-0.476***	0.067	-0.031	0.239
		(0.118)	(0.125)	(0.085)	(0.095)	(0.090)	(0.133)	(0.138)	(0.182)	(0.188)	(0.175)
	Common language	0.455**	0.464**	0.674***	0.638***	0.730***	-1.381***	-1.239**	-0.925**	-0.871**	-1.034**
		(0.223)	(0.227)	(0.209)	(0.201)	(0.210)	(0.501)	(0.529)	(0.414)	(0.398)	(0.433)
	Polity			0.030	0.059	0.066			-0.062	-0.068	-0.105
				(0.039)	(0.037)	(0.041)			(0.067)	(0.070)	(0.068)
	Rule of Law	0.294*					0.894***				
		(0.153)					(0.250)				
	Corruption Control		0.186					0.992***			
			(0.192)					(0.305)			
	Affinity index			-1.167***					0.857*		
				(0.283)					(0.443)		
	Imports from donor				0.107***					0.102*	
					(0.034)					(0.059)	
	Oil dummy					-0.109					-1.532***
						(0.240)					(0.389)

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Channel stage: Dependent variable is bilateral; a dummy that switches to 1 if the aid flow was bilateral. Type stage: Dependent variable is cash, a dummy that switches to 1 if the aid contribution was cash. ***, **, * indicate significance at the 1, 5 and 10%-level.

APPENDIX:

Table A.1. List of recipient countries' total fatalities and number of disasters

Recipient	Fatalities	Disasters	Recipient	Fatalities	Disasters
Afghanistan	669	6	Lao, PDR	15	1
Albania	1	1	Madagascar	602	5
Algeria	971	4	Malawi	567	3
Argentina	23	1	Malaysia	80	1
Armenia	n.a.	1	Maldives	102	2
Azerbaijan	31	1	Mali	2	2
Bahamas, The	1	1	Mauritania	1	1
Bangladesh	2,309	4	Mexico	84	3
Belize	44	3	Micronesia, Fed. Sts.	48	3
Bolivia	271	6	Moldova	-	1
Botswana	3	1	Mongolia	23	2
Brazil	50	1	Morocco	708	2
Bulgaria	17	1	Mozambique	908	3
Cambodia	403	2	Myanmar	307	2
Central African Rep.	1	1	Namibia	2	1
Chile	40	3	Nepal	657	2
China	1,185	4	Nicaragua	33	4
Colombia	109	2	Niger	4	2
Comoros	1	3	Oman	76	1
Costa Rica	24	4	Pakistan	74,137	7
Cuba	22	4	Panama	11	1
Czech Republic	18	1	Papua New Guinea	n.a.	1
Djibouti	51	2	Peru	815	5
Dominica	2	1	Philippines	3,070	5
Dominican Republic	830	3	Poland	27	1
Ecuador	21	4	Portugal	14	1
El Salvador	863	3	Romania	33	2
Ethiopia	498	1	Russian Federation	101	2
Fiji	17	1	Senegal	28	1
Georgia	6	3	Seychelles	3	1
Ghana	72	3	Solomon Islands	52	2
Grenada	39	1	Somalia	350	2
Guatemala	n.a.	1	Sri Lanka	35,634	3
Guinea	n.a.	1	St. Lucia	1	1
Guyana	34	1	Sudan	85	3
Haiti	2,857	4	Suriname	3	1
Honduras	21	2	Tajikistan	27	4
Hungary	1	2	Thailand	8,449	2
India	38,730	7	Togo	41	1
Indonesia	172,214	10	Tonga	n.a.	1
Iran	28,110	5	Turkey	219	2
Jamaica	29	4	Uganda	18	1
Japan	40	1	Ukraine	9	1
Kenya	173	3	Uruguay	9	2
Korea, DPR	934	3	Vanuatu	3	3
Korea, Republic of	210	2	Venezuela	80	2
Kyrgyzstan	38	2	Vietnam	844	3
			Zimbabwe	70	1

Table A.2. List of donor countries' total contributions and number of donations

Donor	Total contribution (in USD)	Events	Donor	Total contribution (in USD)	Events
Afghanistan	500,000	2	Iceland	473,627	13
Algeria	2,489,199	5	India	23,630,944	10
Andorra	58,386	2	Indonesia	n.a.	1
Angola	n.a.	1	Iran	347,380	3
Argentina	n.a.	8	Ireland	40,573,378	131
Armenia	n.a.	2	Israel	2,357,000	17
Australia	54,936,086	115	Italy	76,690,358	121
Austria	11,436,846	40	Japan	445,981,017	195
Azerbaijan	622,000	4	Jordan	n.a.	3
Bahrain	n.a.	1	Kazakhstan	n.a.	2
Bangladesh	100,000	2	Kenya	75,000	1
Belarus	113,018	1	Korea, DPR	130,000	5
Belgium	44,886,419	79	Korea, Republic of	1,576,709	22
Bolivia	n.a.	1	Kuwait	3,366,013	12
Botswana	482,000	3	Kyrgyzstan	27,093,596	2
Brazil	200,000	13	Lao, PDR	75,000	3
Bulgaria	103,717	2	Latvia	446,726	6
Burundi	20,000	1	Lebanon	n.a.	1
Canada	108,799,910	204	Lesotho	110,000	2
Chile	30,000	7	Libya	1,500,000	6
China	14,009,631	56	Liechtenstein	305,278	7
Colombia	100,000	5	Lithuania	252,631	5
Costa Rica	n.a.	1	Luxembourg	12,165,218	46
Croatia	n.a.	2	Malawi	100,000	2
Cuba	129,965	7	Malaysia	5,138,948	18
Cyprus	756,462	17	Malta	10,854,817	1
Czech Republic	5,498,495	20	Mauritania	200,336	3
Denmark	60,283,135	146	Mauritius	80,000	3
Dominican Republic	196,370	3	Mexico	4,127,922	8
Ecuador	13,237	4	Moldova	455,307	5
Egypt	300,000	3	Monaco	640,081	16
El Salvador	n.a.	1	Morocco	496,980	9
Eritrea	n.a.	1	Namibia	800,000	1
Estonia	577,084	9	Nepal	235,391	4
Fiji	9,700	1	Netherlands	101,964,604	139
Finland	25,055,726	56	New Zealand	15,536,259	50
France	48,601,080	118	Nicaragua	n.a.	1
Gabon	200,000	1	Nigeria	1,150,000	3
Germany	174,339,341	371	Norway	117,858,752	223
Ghana	100,000	1	Oman	100,000	3
Greece	27,047,570	51	Pakistan	157,560	3
Guatemala	n.a.	2	Palau	51,772	2
Guyana	20,000	1	Panama	n.a.	2
Honduras	n.a.	1	Peru	111,130	8
Hungary	1,005,267	19	Poland	6,966,713	25

Table A.2. List of donor countries' total contributions and Number of donations (cont.)

Donor	Total contribution (in USD)	Events
Portugal	10,127,312	30
Qatar	22,350,468	13
Romania	2,639,255	8
Russian Federation	6,615,748	27
Rwanda	10,000	2
San Marino	19,807	1
Saudi Arabia (Kingdom of)	83,804,806	63
Seychelles	n.a.	1
Singapore	4,850,500	23
Slovakia	2,705,516	21
Slovenia	709,334	17
South Africa	3,852,500	10
Spain	73,199,347	78
Sri Lanka	n.a.	1
Sudan	10,000	1
Swaziland	15,000	1
Sweden	107,626,853	210
Switzerland	19,264,147	113
Syrian Arab Republic	n.a.	5
Tajikistan	n.a.	1
Thailand	1,085,202	13
Trinidad and Tobago	2,625,000	5
Tunisia	n.a.	3
Turkey	40,724,138	58
Ukraine	n.a.	2
United Arab Emirates	34,668,256	35
United Kingdom	306,310,134	343
United States of America	460,435,164	495
Venezuela	1,800,000	11
Vietnam	n.a.	1
Zambia	20,000	3

Table A.3. Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Bilateral	1341	0.535	0.499	0	1
Cash	1341	0.165	0.371	0	1
Ln(Fatalities)	1341	18,478	42,784	0	165,708
Ln(Affected)	1341	2,063,052	10,517,813	0	300000000
Ln(GDP p.c.)	1299	3,851	3,259	540,819	27,114
Ln(Population)	1341	96.833	229.605	0.084	1,304.500
Pop dens.	1341	178.712	245.403	1.531	1,097.327
Distance	1340	6.445	3.908	0.143	19.312
Common language	1341	0.102	0.303	0	1
Polity	836	8.264	2.555	0	10
Rule of Law	1116	-0.543	0.548	-1.740	1.320
Corruption	1116	-0.582	0.466	-1.510	1.480
Affinity index	1255	0.772	0.241	-0.425	1
Imports from donor	1313	953	8,802	0	270,461
Oil dummy	1341	0.113	0.316	0	1

Table A.4. Variable Definition and Source

Variable	Description	Source
Emergency aid	Dummy variables describing the channel (bilateral vs. multilateral) and type (cash vs. in-kind) of emergency relief	FTS, OCHA (2009)
Fatalities	Total number killed by a natural disaster	EM-DAT, CRED (2008)
Affected	Total number affected by a natural disaster	EM-DAT, CRED (2008)
Disaster dummies	Describe which type of natural disaster occurred.	EM-DAT, CRED (2008)
GDP p.c.	GDP per capita (US Dollars in 2000 prices)	World Bank (2008), World Development Indicators
Population	Total Population expressed in thousands	World Bank (2008), World Development Indicators
Population density	Population per km^2	World Bank (2008), World Development Indicators
Distance	Distance between donor's and recipient's capitals	Gleditsch & Ward (2001)
Common Language	Dummy variable, 1 if donor and recipient have the same official language	Jon Haveman, Trade dataset http://www.macalester.edu/research/economics/page/haveman/trade.resources/Data/Gravity/language.txt
Polity	Polity 2 indicator from the Polity IV project	Marshall & Jaggers (2005)
Former colony	Dummy variable = 1 if recipient was once donor's colony	Correlates of War 2 Project (2008)
Hazard mortality	GIS-data on mortality risk from natural hazards. Country means (0-10). (own calculations)	Dilley et al. (2005)
Rule of Law	Perception of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	Kaufmann et al. (2008)
Corruption control	Perception of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as influence of elites.	Kaufmann et al. (2008)
Affinity index	Extended Gartzke index on voting patterns in the UN General Assembly. Takes a value between -1 (donor and recipient never voted the same and 1 donor and recipient always voted the same.	Voeten and Merdzanovic (2009)
Imports from donor	Total value of bilateral imports from donor country	Comtrade (2007)
Oil dummy	Dummy variable = 1if recipient oil exports exceeds 1/3 of total exports (own calculations)	World Bank (2008), World Development Indicators
Low Rule of Law	Dummy variable = 1 if Rule of Law index < 0 (own calculations)	World Bank (2008), World Development Indicators
High corruption	Dummy variable =1 if Corruption control Index<0 (own calculations)	World Bank (2008), World Development Indicators

[1] See also Nancy & Yontcheva (2006)

[2] For example, maintaining post-disaster recovery teams, specially trained water purification or K-9 units.

[3] Note that we do not investigate whether NGOs are indeed stronger engaged in countries with weak institutions. For a detailed analysis of NGO's aid allocation behavior, see Koch, et al. (2009).

[4] One could also argue that the strategic nature of this relation results from the necessity to prevent migration flows from the affected country to the neighboring donor country.

[5] Including NGOs into the sample does not change the results.

[6] The disasters are (figures in parentheses indicate the number of emergency contributions): Drought (106), earthquake (346), epidemic (3), extreme temperature (3), flood (452), Insect infestation (3), landslides (15), volcano (21), wave/surge (209), wild fires (6), and wind storms (177).

[7] Similar to the work by Fink & Redaelli (2009) we include both magnitude variables at the same time in all our specifications. The number of fatalities or affected taken on their own sometimes deliver an incomplete picture of the situation. For example, volcanic eruptions in 2002 in Ecuador affected about 128,150 people but did not result in any direct fatalities. The correlation between the number of fatalities and the number affected is very low (0.033).

[8] We also ran regressions on specifications including a variable for shared religious beliefs between the donor and the recipient. However, the coefficient did not appear to be significantly different from zero.

[9] A number of empirical studies including Koch et al. (2009), Fink and Redaelli (2009) also apply a Tobit estimator. Given the nature of the dependent variables in the second stage the application of Tobit would not be appropriate in our case.

[10] The results of the gate-keeping stage are not reported due to space constraints. They are available upon request from the authors.

Referees' Appendix

This appendix includes additional results which are not presented in the manuscript. These results are available from the authors upon request.

Figure R 1 is a graphical illustration of the GIS-data used to construct the variable Hazard mortality which is based on the work by Dilley et al. (2005).

Table R 1 presents the first stage of the Heckman estimates presented in Tables 4 & 5.

Tables R 2 and R 3 summarize the estimation results at the gate-keeping stage for OECD and non-OECD countries (Table 6), respectively.

Tables R 4, R 5, R 6 and R 7 present the complete estimation results of table 6 (channel and type stage) for OECD and non-OECD countries.

Figure R 1: Illustration of GIS Data on hazard mortality for variable *Hazard Mortality*

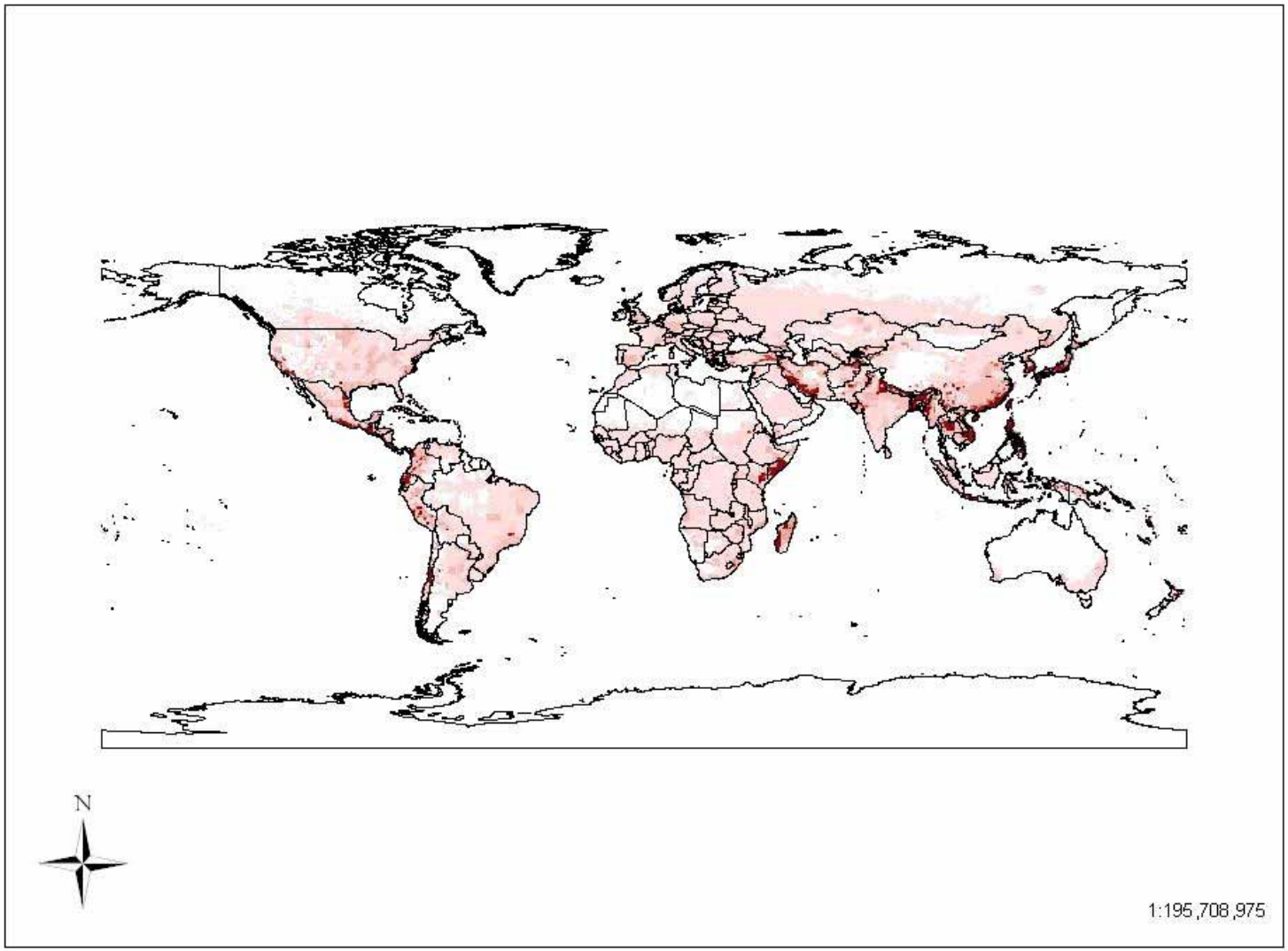

Table R.1. Heckman First Stage results for Table 4 & 5

Pr(aid=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	0.136***	0.082***	0.082***	0.137***	0.169***	0.129***	0.080***	0.081***	0.090***	0.089***
	(0.029)	(0.027)	(0.027)	(0.029)	(0.036)	(0.029)	(0.026)	(0.027)	(0.034)	(0.034)
Ln(Affected)	0.025	-0.005	-0.006	0.032	0.017	0.029	-0.007	-0.010	-0.001	-0.003
	(0.028)	(0.013)	(0.013)	(0.030)	(0.032)	(0.025)	(0.014)	(0.013)	(0.016)	(0.016)
Ln(GDP p.c.)	-0.090	-0.051	-0.058	-0.082	-0.322***	-0.106*	-0.077	-0.085	-0.313***	-0.309***
	(0.055)	(0.068)	(0.072)	(0.061)	(0.065)	(0.060)	(0.065)	(0.066)	(0.080)	(0.084)
Ln(Population)	-0.177***	-0.134***	-0.137***	-0.187***	-0.404***	-0.184***	-0.144***	-0.142***	-0.356***	-0.356***
	(0.035)	(0.029)	(0.028)	(0.041)	(0.054)	(0.033)	(0.028)	(0.028)	(0.047)	(0.044)
Pop dens.	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.064***	-0.053***	-0.054***	-0.073***	-0.042***	-0.062***	-0.053***	-0.053***	-0.029***	-0.029***
	(0.009)	(0.007)	(0.007)	(0.010)	(0.009)	(0.009)	(0.007)	(0.007)	(0.009)	(0.009)
Common language	0.216**	0.038	0.034	0.308***	0.078	0.234**	0.041	0.029	-0.080	-0.098
	(0.103)	(0.096)	(0.095)	(0.112)	(0.115)	(0.105)	(0.097)	(0.095)	(0.107)	(0.104)
Polity	0.112***			0.078***	0.085***	0.117***				
	(0.020)			(0.018)	(0.019)	(0.020)				
Former colony	0.851***	0.896***	0.895***	0.589***	0.139	0.864***	0.901***	0.899***	0.154	0.145
	(0.126)	(0.159)	(0.160)	(0.149)	(0.148)	(0.126)	(0.164)	(0.160)	(0.135)	(0.134)
Hazard mortality	0.018	0.029	0.031*	0.030	0.043*	0.022	0.035*	0.034**	0.059***	0.055**
	(0.018)	(0.018)	(0.018)	(0.020)	(0.024)	(0.019)	(0.018)	(0.017)	(0.022)	(0.021)
Rule of Law		-0.149*								
		(0.090)								
Corruption			-0.132							
Control			(0.091)							
Affinity index				-1.460***						
				(0.165)						
Imports from donor					0.283***				0.274***	0.305***
					(0.020)				(0.039)	(0.047)
Oil dummy						0.292*	-0.376**	-0.303		
						(0.172)	(0.176)	(0.201)		
Low Rule of Law							0.143		0.207	
							(0.100)		(0.154)	
Oil dummy X							0.534**			
Low Rule of Law							(0.239)			
High corruption								0.122		0.395**
								(0.151)		(0.168)
Oil dummy X								0.480*		
High corruption								(0.255)		
Imports from donor X									-0.005	
Low Rule of Law [a]									(0.035)	
Imports from donor X										-0.039
High corruption [a]										(0.046)
Constant	0.331	1.076	1.181	1.895**	5.023***	0.416	1.379*	1.457*	5.548***	5.385***
	(0.748)	(0.761)	(0.790)	(0.860)	(0.953)	(0.782)	(0.716)	(0.771)	(0.964)	(0.996)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	24241	25817	25817	23388	24241	24241	25817	25817	25817	25817

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is aid, a dummy that switches to 1 if a contribution was made. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.2. First Stage results for Table 6 – Gate keeping stage OECD countries

Pr(aid=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	0.151***	0.057	0.058	0.140***	0.169***	0.145***	0.055	0.055	0.065	0.065
	(0.033)	(0.037)	(0.037)	(0.033)	(0.037)	(0.031)	(0.035)	(0.035)	(0.041)	(0.041)
Ln(Affected)	0.029	0.010	0.009	0.031	0.026	0.033	0.008	0.006	0.009	0.007
	(0.034)	(0.020)	(0.021)	(0.034)	(0.037)	(0.030)	(0.021)	(0.020)	(0.022)	(0.021)
Ln(GDP p.c.)	-0.037	-0.036	-0.048	-0.011	-0.221***	-0.046	-0.066	-0.068	-0.199**	-0.193**
	(0.070)	(0.082)	(0.085)	(0.076)	(0.074)	(0.074)	(0.078)	(0.077)	(0.090)	(0.091)
Ln(Population)	-0.217***	-0.146***	-0.150***	-0.220***	-0.394***	-0.224***	-0.162***	-0.162***	-0.289***	-0.302***
	(0.045)	(0.040)	(0.040)	(0.046)	(0.065)	(0.043)	(0.039)	(0.040)	(0.058)	(0.056)
Pop dens.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.055***	-0.052***	-0.053***	-0.063***	-0.044***	-0.051***	-0.050***	-0.050***	-0.043***	-0.041***
	(0.016)	(0.015)	(0.015)	(0.017)	(0.016)	(0.016)	(0.015)	(0.015)	(0.016)	(0.016)
Common language	0.346**	0.411***	0.397***	0.321**	0.154	0.367**	0.438***	0.413***	0.258*	0.215
	(0.150)	(0.147)	(0.146)	(0.148)	(0.145)	(0.148)	(0.153)	(0.151)	(0.156)	(0.152)
Polity	-0.017			-0.035*	-0.033	-0.009				
	(0.021)			(0.021)	(0.021)	(0.022)				
Former colony	0.245**	0.160	0.162	0.136	-0.044	0.257**	0.172	0.169	-0.097	-0.112
	(0.119)	(0.144)	(0.144)	(0.132)	(0.127)	(0.117)	(0.144)	(0.143)	(0.159)	(0.152)
Hazard	0.019	0.062**	0.066**	0.017	0.025	0.023	0.069**	0.068**	0.076**	0.070**
mortality	(0.022)	(0.029)	(0.028)	(0.023)	(0.023)	(0.022)	(0.028)	(0.027)	> (0.032)	(0.030)
Rule of Law		-0.174								
		(0.137)								
Corruption			-0.142							
Control			(0.134)							
Affinity index				-0.948***						
				(0.221)						
Imports from					0.185***				0.138***	0.197***
donor					(0.026)				(0.049)	(0.054)
Oil dummy						0.268	-0.807***	-0.716**		
						(0.243)	(0.310)	(0.331)		
Low Rule of							0.167		0.216	
Law							(0.170)		(0.260)	
Oil dummy X							1.119***			
Low Rule of Law [a]							(0.420)			
High corruption								0.194		0.621**
								(0.202)		(0.253)
Oil dummy X								1.032**		
High corruption [a]								(0.427)		
Imports from donor X									0.015	
Low Rule of Law [a]									(0.041)	
Imports from donor X										-0.046
High corruption [a]										(0.052)
Constant	2.487***	1.926**	2.083**	3.303***	6.147***	2.464***	2.329***	2.329**	4.833***	4.615***
	(0.889)	(0.930)	(0.943)	(0.939)	(1.078)	(0.908)	(0.900)	(0.934)	(1.128)	(1.116)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	3786	4155	4155	3697	3786	3786	4155	4155	4155	4155

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is aid, a dummy that switches to 1 if a contribution was made. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.3. First Stage results for Table 6 – Gate keeping stage Non-OECD countries

Pr(aid=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	0.155***	0.132***	0.132***	0.156***	0.180***	0.151***	0.130***	0.131***	0.135***	0.134***
	(0.048)	(0.037)	(0.037)	(0.049)	(0.051)	(0.053)	(0.036)	(0.037)	(0.039)	(0.040)
Ln(Affected)	0.067*	-0.002	-0.002	0.069*	0.057	0.068*	-0.006	-0.009	0.001	-0.001
	(0.039)	(0.017)	(0.017)	(0.041)	(0.040)	(0.039)	(0.019)	(0.018)	(0.017)	(0.018)
Ln(GDP p.c.)	-0.085	-0.117	-0.118	-0.092	-0.222**	-0.099	-0.150	-0.162	-0.283***	-0.292**
	(0.105)	(0.111)	(0.118)	(0.105)	(0.104)	(0.104)	(0.104)	(0.107)	(0.108)	(0.116)
Ln(Population)	-0.250***	-0.190***	-0.193***	-0.254***	-0.370***	-0.253***	-0.205***	-0.203***	-0.332***	-0.328***
	(0.067)	(0.046)	(0.046)	(0.069)	(0.079)	(0.065)	(0.045)	(0.045)	(0.056)	(0.054)
Pop dens.	-0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.110***	-0.098***	-0.098***	-0.113***	-0.089***	-0.110***	-0.098***	-0.098***	-0.072***	-0.072***
	(0.014)	(0.010)	(0.010)	(0.015)	(0.012)	(0.015)	(0.010)	(0.010)	(0.009)	(0.009)
Common language	0.403**	-0.016	-0.019	0.453***	0.318*	0.410**	-0.024	-0.034	-0.078	-0.092
	(0.161)	(0.115)	(0.114)	(0.168)	(0.170)	(0.164)	(0.110)	(0.111)	(0.120)	(0.119)
Polity	0.005			-0.001	0.011	0.009				
	(0.021)			(0.020)	(0.022)	(0.019)				
Hazard	0.003	-0.005	-0.003	0.007	0.018	0.005	0.003	0.002	0.017	0.015
mortality	(0.026)	(0.022)	(0.023)	(0.027)	(0.030)	(0.027)	(0.023)	(0.022)	(0.024)	(0.024)
Rule of Law		-0.175*								
		(0.105)								
Corruption			-0.170							
Control			(0.120)							
Affinity index				-0.625***						
				(0.239)						
Imports from					0.183***				0.213***	0.243***
donor					(0.028)				(0.043)	(0.060)
Oil dummy						0.126	-0.360*	-0.292		
						(0.208)	(0.189)	(0.215)		
Low Rule of							0.145		0.242	
Law							(0.128)		(0.163)	
Oil dummy X							0.489**			
Low Rule of Law [a]							(0.246)			
High corruption								0.096		0.300*
								(0.194)		(0.172)
Oil dummy X								0.457*		
High corruption [a]								(0.268)		
Imports from donor X									-0.039	
Low Rule of Law [a]									(0.040)	
Imports from donor X										-0.067
High corruption [a]										(0.058)
Constant	1.099	1.808	1.874	1.833	3.566***	1.182	2.287**	2.416**	4.588***	4.549***
	(1.270)	(1.194)	(1.251)	(1.316)	(1.368)	(1.282)	(1.084)	(1.165)	(1.248)	(1.305)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	19990	21197	21197	19244	19990	19990	21197	21197	21197	21197

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is aid, a dummy that switches to 1 if a contribution was made. [a] Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.4. Second stage results for Table 6 – Channel stage OECD countries

Pr(bilateral=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.113***	-0.105**	-0.107**	-0.112***	-0.078*	-0.068	-0.120**	-0.125***	-0.084	-0.090*
	(0.043)	(0.050)	(0.050)	(0.042)	(0.043)	(0.045)	(0.049)	(0.048)	(0.053)	(0.052)
Ln(Affected)	-0.079**	0.016	0.025	-0.080**	-0.102***	-0.102***	0.029	0.040*	0.019	0.029
	(0.035)	(0.024)	(0.025)	(0.033)	(0.027)	(0.028)	(0.026)	(0.024)	(0.027)	(0.024)
Ln(GDP p.c.)	0.330***	0.178	0.236*	0.329***	0.050	0.368***	0.258**	0.304**	0.021	0.105
	(0.108)	(0.128)	(0.135)	(0.107)	(0.112)	(0.113)	(0.127)	(0.131)	(0.129)	(0.134)
Ln(Population)	0.170***	0.113**	0.111*	0.153**	-0.126*	0.186***	0.088*	0.071	-0.138	-0.142*
	(0.062)	(0.053)	(0.057)	(0.060)	(0.071)	(0.060)	(0.049)	(0.052)	(0.089)	(0.075)
Pop dens.	-0.001**	-0.001***	-0.001***	-0.001***	-0.001*	-0.001***	-0.002***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.063***	-0.081***	-0.084***	-0.066***	-0.051**	-0.080***	-0.078***	-0.080***	-0.070***	-0.069***
	(0.022)	(0.021)	(0.022)	(0.023)	(0.023)	(0.023)	(0.022)	(0.022)	(0.023)	(0.023)
Common language	1.136***	0.546*	0.556*	1.123***	0.855***	1.034***	0.756**	0.805**	0.226	0.284
	(0.340)	(0.330)	(0.333)	(0.333)	(0.331)	(0.354)	(0.329)	(0.333)	(0.333)	(0.312)
Polity	-0.015			-0.025	-0.043	-0.030				
	(0.049)			(0.050)	(0.044)	(0.052)				
Former colony	0.474*	0.333	0.336	0.452	0.208	0.445	0.321	0.326	0.007	0.017
	(0.286)	(0.335)	(0.331)	(0.294)	(0.345)	(0.296)	(0.334)	(0.330)	(0.388)	(0.387)
Hazard	0.019	-0.039	-0.046	0.019	0.008	-0.009	-0.053	-0.048	-0.056	-0.059
mortality	(0.032)	(0.035)	(0.037)	(0.032)	(0.033)	(0.035)	(0.038)	(0.038)	(0.041)	(0.040)
Rule of Law		0.441**								
		(0.220)								
Corruption			0.226							
Control			(0.266)							
Affinity index				-0.359						
				(0.360)						
Imports from					0.277***				0.345***	0.341***
donor					(0.045)				(0.116)	(0.102)
Oil dummy						-0.815***	-7.803***	-8.025***		
						(0.247)	(0.269)	(0.295)		
Low Rule of							-0.470*		0.282	
Law							(0.261)		(0.604)	
Oil dummy X							7.777			
Low Rule of Law [a]							(.)			
High corruption								-0.169		0.934*
								(0.311)		(0.560)
Oil dummy X								7.894		
High corruption [a]								(.)		
Imports from donor X									-0.162	
Low Rule of Law [a]									(0.110)	
Imports from donor X										-0.132
High corruption [a]										(0.105)
Constant	-4.737***	-4.125***	-4.670***	-4.103**	1.320	-4.494***	-4.278***	-4.634***	-0.351	-1.418
	(1.578)	(1.422)	(1.444)	(1.634)	(1.775)	(1.626)	(1.330)	(1.466)	(1.615)	(1.814)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	598	748	748	577	598	598	748	748	748	748

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is bilateral, a dummy that switches to 1 if the aid flow was bilateral. [a]Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.5. Second stage results for Table 6 – Channel stage Non-OECD countries

Pr(bilateral=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.378***	-0.051	-0.052	-0.381***	-0.323***	-0.353***	-0.088	-0.133**	-0.028	-0.049
	(0.132)	(0.048)	(0.047)	(0.134)	(0.110)	(0.096)	(0.054)	(0.060)	(0.045)	(0.052)
Ln(Affected)	0.140**	-0.008	-0.008	0.137**	0.129***	0.177***	0.021	0.042	-0.013	0.005
	(0.055)	(0.033)	(0.033)	(0.054)	(0.050)	(0.048)	(0.028)	(0.026)	(0.026)	(0.028)
Ln(GDP p.c.)	0.126	-0.357	-0.403	0.126	-0.024	0.993**	-0.146	-0.236	-0.205	-0.340
	(0.190)	(0.257)	(0.262)	(0.189)	(0.189)	(0.386)	(0.167)	(0.210)	(0.250)	(0.310)
Ln(Population)	0.077	0.035	0.053	0.094	-0.145	0.300**	0.095	0.031	0.102	-0.012
	(0.127)	(0.088)	(0.089)	(0.128)	(0.120)	(0.139)	(0.085)	(0.091)	(0.144)	(0.144)
Pop dens.	-0.001	-0.001**	-0.001	-0.001	-0.002	-0.003***	-0.002***	-0.001***	-0.001	-0.001*
	(0.002)	(0.000)	(0.000)	(0.002)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	-0.031	-0.092***	-0.094***	-0.029	-0.015	-0.024	-0.086***	-0.088***	-0.086***	-0.089***
	(0.033)	(0.025)	(0.026)	(0.033)	(0.042)	(0.040)	(0.025)	(0.026)	(0.019)	(0.019)
Common language	0.341	0.298	0.355	0.268	0.108	-0.105	0.329	0.493	0.333	0.373
	(0.435)	(0.418)	(0.399)	(0.420)	(0.438)	(0.430)	(0.436)	(0.449)	(0.410)	(0.410)
Polity	-0.297***			-0.283***	-0.299***	-0.426***				
	(0.092)			(0.091)	(0.099)	(0.130)				
Hazard	-0.012	0.083	0.081	-0.005	0.022	-0.097*	0.051	0.085	0.007	0.081
mortality	(0.063)	(0.056)	(0.057)	(0.060)	(0.056)	(0.055)	(0.048)	(0.056)	(0.060)	(0.066)
Rule of Law		0.576*								
		(0.304)								
Corruption			0.769**							
Control			(0.342)							
Affinity index				0.574						
				(0.456)						
Imports from					0.308**				0.736***	0.504**
donor					(0.147)				(0.198)	(0.196)
Oil dummy						-2.671***	-1.723***	-2.911***		
						(0.662)	(0.424)	(0.635)		
Low Rule of							-0.934*		-0.155	
Law							(0.530)		(0.777)	
Oil dummy X							1.070**			
Low Rule of Law [a]							(0.500)			
High corruption								-1.173***		0.261
								(0.445)		(0.702)
Oil dummy X								2.006***		
High corruption [a]								(0.687)		
Imports from donor X									-0.772***	
Low Rule of Law [a]									(0.202)	
Imports from donor X										-0.517***
High corruption [a]										(0.194)
Constant	-0.185	2.494	2.572	-1.063	4.021	-8.232**	0.479	1.873	0.454	2.219
	(2.826)	(2.684)	(2.679)	(2.872)	(2.842)	(3.936)	(2.009)	(2.607)	(3.711)	(4.057)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	224	352	352	224	224	224	352	352	352	352

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is bilateral, a dummy that switches to 1 if the aid flow was bilateral. [a]Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.6. Second stage results for Table 6 – Type stage OECD countries

Pr(cash=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.079**	-0.080*	-0.081*	-0.081*	-0.060	-0.074*	-0.089*	-0.098**	-0.064	-0.072
	(0.038)	(0.046)	(0.046)	(0.044)	(0.039)	(0.043)	(0.048)	(0.048)	(0.049)	(0.048)
Ln(Affected)	0.023	0.026	0.032*	0.033	0.017	0.019	0.028	0.043**	0.022	0.034*
	(0.032)	(0.018)	(0.019)	(0.032)	(0.031)	(0.031)	(0.020)	(0.019)	(0.020)	(0.018)
Ln(GDP p.c.)	0.193**	-0.045	-0.001	0.207**	0.075	0.195**	-0.040	0.009	-0.187	-0.104
	(0.089)	(0.118)	(0.125)	(0.085)	(0.095)	(0.090)	(0.122)	(0.128)	(0.132)	(0.131)
Ln(Population)	0.107*	0.106**	0.108**	0.070	-0.010	0.109*	0.106**	0.093*	-0.034	-0.032
	(0.060)	(0.053)	(0.054)	(0.064)	(0.070)	(0.059)	(0.052)	(0.054)	(0.077)	(0.072)
Pop dens.	-0.001***	-0.001**	-0.000*	-0.001**	-0.001**	-0.001***	-0.001***	-0.001**	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	0.024	0.006	0.003	0.002	0.034*	0.023	0.011	0.010	0.018	0.014
	(0.019)	(0.018)	(0.018)	(0.021)	(0.018)	(0.019)	(0.018)	(0.019)	(0.018)	(0.018)
Common language	0.749***	0.455**	0.464**	0.674***	0.638***	0.730***	0.513**	0.581**	0.265	0.306
	(0.204)	(0.223)	(0.227)	(0.209)	(0.201)	(0.210)	(0.221)	(0.228)	(0.217)	(0.218)
Polity	0.068*			0.030	0.059	0.066				
	(0.041)			(0.039)	(0.037)	(0.041)				
Former colony	0.033	0.144	0.156	-0.125	-0.108	0.029	0.121	0.146	-0.090	-0.042
	(0.269)	(0.242)	(0.240)	(0.272)	(0.277)	(0.269)	(0.239)	(0.236)	(0.256)	(0.251)
Hazard	0.031	-0.029	-0.033	0.016	0.024	0.028	-0.035	-0.027	-0.042	-0.037
mortality	(0.034)	(0.028)	(0.028)	(0.034)	(0.035)	(0.036)	(0.029)	(0.029)	(0.029)	(0.029)
Rule of Law		0.294*								
		(0.153)								
Corruption			0.186							
Control			(0.192)							
Affinity index				-1.167***						
				(0.283)						
Imports from					0.107***				0.192***	0.170**
donor					(0.034)				(0.074)	(0.081)
Oil dummy						-0.109	-5.940***	-6.300***		
						(0.240)	(0.272)	(0.260)		
Low Rule of							-0.553***		-0.073	
Law							(0.213)		(0.422)	
Oil dummy X							6.070			
Low Rule of Law [a]							(.)			
High corruption								-0.305		0.225
								(0.264)		(0.483)
Oil dummy X								6.377		
High corruption [a]								(.)		
Imports from donor X									-0.084	
Low Rule of Law [a]									(0.070)	
Imports from donor X										-0.047
High corruption [a]										(0.078)
Constant	-5.734***	-3.695***	-4.105***	-4.217***	-3.394**	-5.685***	-3.539***	-3.962***	-1.103	-1.918
	(1.479)	(1.249)	(1.276)	(1.636)	(1.636)	(1.480)	(1.248)	(1.336)	(1.523)	(1.565)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	597	747	747	576	597	597	747	747	747	747

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is cash, a dummy that switches to 1 if the bilateral aid contribution was cash. [a]Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.

Table R.7. Second stage results for Table 6 – Type stage OECD countries

Pr(cash=1|X)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ln(Fatalities)	-0.105	-0.041	-0.050	-0.113	-0.071	-0.044	-0.087	-0.111**	-0.046	-0.059
	(0.065)	(0.053)	(0.049)	(0.071)	(0.070)	(0.071)	(0.054)	(0.056)	(0.051)	(0.056)
Ln(Affected)	0.087	-0.080***	-0.072***	0.090	0.075	0.054	-0.032	-0.026	-0.060***	-0.047**
	(0.077)	(0.026)	(0.024)	(0.081)	(0.077)	(0.063)	(0.024)	(0.026)	(0.022)	(0.023)
Ln(GDP p.c.)	0.069	-0.461***	-0.476***	0.067	-0.031	0.239	-0.164	-0.338**	-0.193	-0.321**
	(0.172)	(0.133)	(0.138)	(0.182)	(0.188)	(0.175)	(0.126)	(0.163)	(0.129)	(0.142)
Ln(Population)	-0.192	-0.091	-0.062	-0.186	-0.291*	-0.143	-0.036	-0.088	0.001	-0.044
	(0.137)	(0.102)	(0.102)	(0.142)	(0.156)	(0.108)	(0.102)	(0.114)	(0.111)	(0.139)
Pop dens.	-0.002	-0.000	0.000	-0.002	-0.003	-0.004***	-0.001*	-0.001	-0.000	-0.000
	(0.002)	(0.000)	(0.000)	(0.002)	(0.002)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Distance	0.069**	-0.015	-0.019	0.078***	0.077***	0.061**	-0.012	-0.008	-0.025	-0.021
	(0.027)	(0.027)	(0.027)	(0.028)	(0.027)	(0.029)	(0.026)	(0.026)	(0.030)	(0.031)
Common language	-0.865**	-1.381***	-1.239**	-0.925**	-0.871**	-1.034**	-1.281**	-1.247**	-1.389***	-1.307**
	(0.393)	(0.501)	(0.529)	(0.414)	(0.398)	(0.433)	(0.502)	(0.546)	(0.490)	(0.518)
Polity	-0.072			-0.062	-0.068	-0.105				
	(0.066)			(0.067)	(0.070)	(0.068)				
Hazard	0.048	0.068**	0.066**	0.051	0.064	0.025	0.026	0.063*	0.018	0.050
mortality	(0.054)	(0.028)	(0.028)	(0.054)	(0.053)	(0.049)	(0.030)	(0.032)	(0.031)	(0.034)
Rule of Law		0.894***								
		(0.250)								
Corruption			0.992***							
Control			(0.305)							
Affinity index				0.857*						
				(0.443)						
Imports from					0.102*				0.008	0.160
donor					(0.059)				(0.095)	(0.137)
Oil dummy						-1.532***	-1.028**	-1.862***		
						(0.389)	(0.473)	(0.471)		
Low Rule of							-0.491		-0.461	
Law							(0.391)		(0.511)	
Oil dummy X							0.103			
Low Rule of Law [a]							(0.585)			
High corruption								-1.001***		-0.204
								(0.327)		(0.595)
Oil dummy X								0.905		
High corruption [a]								(0.656)		
Imports from donor X									-0.075	
Low Rule of Law [a]									(0.100)	
Imports from donor X										-0.231*
High corruption [a]										(0.132)
Constant	-4.536	5.251**	4.774**	-5.508	-2.463	-5.485	1.885	3.995	1.874	2.764
	(.)	(2.371)	(2.269)	(.)	(.)	(.)	(2.143)	(2.814)	(2.279)	(2.866)
Disaster FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2										
N	226	357	357	226	226	226	357	357	357	357

Notes: Coefficients reported; Standard errors (in parentheses) are clusters at country-year-level. Dependent variable is cash, a dummy that switches to 1 if the bilateral aid contribution was cash. [a]Coefficients and standard errors are calculated in accordance with Norton et al. (2004). ***, **, * indicate significance at the 1, 5 and 10%-level, respectively.