Refugee movements and aid responsiveness

Mathias Czaika and Amy Mayer

Refugee Movements and Aid Responsiveness

Mathias Czaika & Amy Mayer

Department of International Economic Policy, University of Freiburg

Abstract

This article analyses the impact of refugee migration movements on the long-term and short-term aid allocation decisions of bilateral donors. We distinguish between different types of forced migrants: internally displaced persons (IDPs) that stay in their country of origin, cross-border refugees that flee to neighboring countries, and asylum seekers in Western donor states. For the period 1992 to 2003, empirical evidence on 18 donor and 148 recipient countries suggests that short-term emergency aid is given to all types of refugee situations, but is predominantly directed towards the countries of origin. For the allocation of long-term development aid, donor states focus even more on the sending-countries of forced migrants; in general, they increase aid volumes only for the home countries of refugees, not for the hosting countries. This preference for the countries of origin is even stronger when these are sending-countries of asylum seekers to the Western aid-giving states.

Keywords: Bilateral aid allocation, refugee movements

INTRODUCTION

Foreign aid serves a multitude of objectives. For some donor states, the allocation and type of aid is largely shaped by concerns for the development needs of recipient countries, while other states use aid rather as an instrument of foreign and commercial policy interests. Since the early 1990s, the criteria for bilateral aid allocation decisions have shifted towards some new objectives (Hjertholm & White, 2000). One of these new goals of development policy is mitigating the root causes of the heightened migration pressure from refugees and other migrants coming from developing countries to Western industrialized countries. The prevention of refugee movements and the cessation of long-lasting refugee situations have gained priority in international politics as primary development and foreign policy objectives, although bilateral donor governments have, as yet, been rather slow in implementing these objectives (UNHCR, 2006a).

Western countries that are preferred destinations for asylum seekers and refugees are, in principle, more sensitive to addressing migration and refugee issues in the formulation of their development aid strategies. For instance, the German government expresses its concerns regarding large refugee movements (e.g. (BMZ, 1994; BMZ, 2006). During the height of the asylum crisis in the early 1990s, the German Federal Ministry for Economic Cooperation and Development (BMZ) phrased a concept paper for their development assistance policy, which explicitly aims to (i) achieve the elimination of the reasons that cause flight and unwanted emigration, (ii) provide support for neighboring first asylum countries in coping with refugee crises and the alleviation of their burdens, and (iii) provide aid for reintegrating returning refugees into their country of origin (BMZ, 1994). Other Western asylum destinations have similarly rephrased their development policies to focus more on migration-related issues.[1]

---

[1] For instance, French Foreign Minister, Bernard Kouchner, on his first visit to Africa in June, 2007, called for more development aid to help curb emigration (Reuters, 2007). Or, in 2002, Prime Ministers Tony Blair of the United Kingdom and Jose María Aznar of Spain announced a plan to link aid provision to migrants sending countries to their willingness to cooperate in containing illegal immigration (see Bhagwati, 2003).

This study examines the question whether Western bilateral donor governments indeed responded to forced migration flows, and if yes, how their aid allocation policies have changed in face of this 'age of migration' (Castles & Miller, 2003) since the end of the Cold War. In particular, we investigate how different types of refugee populations influenced the respective cross-country aid allocation decisions of bilateral donors. We analyze whether internal displacements, cross-border refugee migration movements or flows of asylum-seeking people towards Western countries have had any significant influence on the bilateral aid giving patterns of the affected donor states. Aid allocation determinants and differences between donors are tested using a large panel dataset covering the post-Cold War period from 1992 until 2003. Three relatively robust results are discovered: first, donors differentiate between internal and external displacements, i.e. cross-border refugee outflows create significantly greater donor responsiveness than displacements that are confined within the country of origin. Second, cross-border refugee movements attract significantly more aid to the respective countries of origin than to the (neighboring) first asylum countries that host the bulk of the global refugee stock. And third, refugee movements that reach the Western donor countries 'physically' as asylum seekers provoke an even larger aid response.

The remainder of this article is structured as follows: the next section provides a brief review of aid allocation and forced migration literature. Then, a description of the empirical framework is outlined with a short discussion of the set of explanatory variables that is used to explore and test bilateral aid-migration patterns. Finally, the regression results for both the allocation of Official Development Assistance (ODA) and emergency aid are discussed. This article concludes with some final remarks on the policy implications.

REFUGEE MOVEMENTS: SOME POLICY OPTIONS

The 1951 'UN Convention on the Status of Refugees', amended by the Protocol of 1967, defines a refugee as an individual, who owing to a

"[...] well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, [...] is unwilling to return to it." (Article 1, The 1951 Convention Relating to the Status of Refugees)

The interpretation and implementation of this convention is contingent on the country where an asylum application is placed. But the principle of 'non-refoulement' denies a signing country the right to refuse protection to asylum seekers, even when refugee status is not granted.[2] Although the basic classification of refugee status has not changed, the number of persons seeking protection abroad has multiplied in recent decades (Widgren, 1989; Schuck, 1997; Hatton, 2004). Additional to the increasing number of cross-border refugees, the global population of internally displaced persons (IDPs) has also increased tremendously during the same period (UNHCR, 2004). However, IDPs and cross-border refugee movements have predominantly been a phenomenon of the developing world, particularly since the end of the Cold War. Although these refugee movements have become increasingly intercontinental, the majority of displaced populations remain in the region of origin (Hatton & Williamson, 2005)). Only a small, but increasing, share of the total population of these 'forced' migrants has the resources to seek asylum in Western industrialized countries.[3] There, particularly since the growing numbers of asylum seekers in the early and mid-90s, domestic pressure to restrict asylum immigration

---

[2] Many individuals who are not granted refugee status according to Article 1 may still not be deterred as the Conventions' Article 33 declares that *"no contracting state shall expel or return ('refouler') a refugee in any manner whatsoever to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion."*

[3] As there tend to be multiple reasons for emigration, the distinction between legitimate and illegitimate refugees becomes more and more delicate. A common but not unproblematic way to separate 'voluntary' from 'forced' migrants refers to the original motivation of the migrant to leave the place of origin. According to this, the underlying root cause of voluntary migration is economic, while either internal or cross-border refugee movements are rather caused by non-economic factors as mentioned in the Geneva Convention (see above).

continues to increase due to the perception that socio-economic costs of integrating people with completely different ethno-cultural background are too high (Stein, 1986; Boswell, 2003).

What drives the international refugee migration pattern? Rotte, Vogler & Zimmermann (1997) find evidence that the emigration pressure on refugees is reduced by both a decreasing per-capita income gap between the country of origin and the intended country of asylum and an increase in the absolute level of per-capita income. Furthermore, the migration propensities of refugees are lessened by diminishing levels of economic hardship, political oppression, violence, and human rights abuses in the country of origin and increasing restrictiveness of asylum policies in the host country (Hatton, 2004; Neumayer, 2005).[4] In contrast, Gosh (1992) provides evidence that improving economic conditions along with political reforms may initially lead to a rise in emigration, while in the long run, at a higher level of income, the desire to leave the home country decreases. However, neither Hatton (2004), nor Neumayer (2005) or Rotte et al. (1997), find empirical evidence for this migration or refugee 'hump'. As central actors, Western industrialized countries are basically confronted with a balancing act between humanitarian aspects and their 'self-protection interests': concerned with the (prevention of) large inflows of asylum seekers towards the own country, they are also impelled in upholding solidarity with these highly vulnerable individuals. On the other hand, many (mostly African) developing countries perceive that they shoulder a disproportionate burden of hosting refugees in comparison to the international community, since the largest part of the global refugee population is hosted in the region of origin, mostly in conflict-neighboring countries, and only a small share finds refuge in Western industrialized countries (UNHCR, 2004). Many donor governments address this problem and express their intention to share this refugee burden of developing countries either financially or 'physically'. In fact, burden-sharing and migration prevention, that is the attempt to prevent asylum migration to Western countries by stabilizing the region of origin, are possibly two sides of the same interest.

---

[4] Czaika (2008) models the influence of economic incentives and individual persecution on the migration decision-making of refugees.

There continues to be controversy in the academic debate regarding the effectiveness of development aid in tackling and relieving the causes of refugee movements. On the one hand, it is highlighted that the influence of aid intervention on the root causes of emigration and the success of altering deeply rooted political and economic grievances in the country of origin are rather limited (e.g. Byrne, 2003). On the other hand, development assistance is, under certain conditions, effective in reducing conflict risk by promoting economic progress. That is, even if aid does not have a significant (positive) impact on the quality of policy in a recipient country, it nevertheless might enhance economic growth, which might reduce conflict risk, and as a consequence, lower the propensity to emigrate (e.g. Collier & Hoeffler, 2002). However, Rotte et al. (1997) and Neumayer (2005) provide some evidence that, at least in the long run, aid for the support of democracy or economic development to reduce refugee migration flows is effective.

Beyond these questions of aid effectiveness, the facts about the determinants of aid allocation policies of donor governments are much more stylized. Generally, and throughout the empirical literature of the last decades, convincing evidence has been put forward that donor self-interest variables like trade relations, political similarity, geographical distance, military expenditures or colonial ties are the most important determinants of bilateral aid allocations.[5] Beside these 'hard' factors of economic and political self-interest, the influence of recipient need on bilateral aid allocations is less distinctive. The evidence shows that donor preferences for poverty alleviation or other human development factors, like the promotion of democracy and human rights, are rather volatile with respect to time and differ largely between donor states (Alesina & Dollar, 2000; Neumayer, 2003; Nunnenkamp & Thiele, 2006).

We contribute a new aspect to this literature on aid allocation determinants with its particular focus on the influence of refugee movements. There are basically two alternative explanations for the underlying motives for donors to respond to refugee migration. Western donor states might either respond to various types of refugee migration by transferring different forms of aid (i.e. short-term emergency versus

---

[5] See for example, e.g., Dudley & Montmarquette (1976), McKinlay & Little (1977, 1978), Maizels & Nissanke (1984), McGillivray (1989), Trumbull & Wall (1994), Alesina & Dollar (2000), Neumayer (2003), Berthélemy & Tichit (2004), or Berthélemy (2006).

long-term development aid) for reasons of 'self-protection' against large emigration movements, or because of altruistic (humanitarian) burden-sharing motives. Thus, the underlying argument of the subsequent analysis presumes that the more a donor state perceives itself as (negatively) 'affected' by refugee movements, the more it reacts by channeling aid either to the country of origin or to any other first asylum country for migration prevention and/or burden-sharing purposes, respectively. We presume that donor countries perceive themselves to be more affected by refugee migration when refugees travel farther away from their homes into other developing countries, since their propensity to subsequently move on to Western countries is larger. According to this assumption, donor countries should, ceteris paribus, transfer less aid to countries with internally displaced persons and more to countries with a large number of cross-border refugees, and even more to countries that send a significant number of asylum seekers to Western countries.

EMPIRICAL ANALYSIS

The following empirical analysis tests whether bilateral aid allocation decisions are influenced by any type of refugee migration. Based on the core hypothesis that donor states respond more generously if they perceive themselves as 'affected' by any type of refugee movement, we will test whether ceteris paribus countries with internally displaced persons (IDPs) receive less bilateral aid than countries that receive cross-border refugees. With respect to cross-border refugee populations, we distinguish between aid that is received by the countries of origin and aid that is received by the first asylum countries. Although the two underlying motives of migration prevention and burden-sharing basically overlap, we suggest that aid to the first asylum countries is rather motivated by altruistic burden-sharing intentions, while aid to the country of origin is rather motivated by migration prevention interests by reducing emigration

pressure and/or inducing voluntary repatriation of cross-border refugees and asylum seekers.[6]

In this respect, we also test whether asylum seekers that enter the Western (donor) countries provoke a particular donor response to the respective sending-countries.

1.1 METHODOLOGY

For testing these outlined hypotheses, three different estimation techniques are applied to check for robustness of the results: A standard two-part model, a Heckman sample selection model and a linear fixed effects model. For a discussion of these alternative estimation methods in the context of foreign aid allocation decisions see, for example, Neumayer (2003) and Berthélemy (2006).

The reason that the robustness of the results is controlled for by these alternative estimation models is that the truncated dependent aid variable is not fully continuous with a positive probability mass at the value zero (given that aid disbursements are non-negative). The literature provides different estimation techniques to account for non-linearity and the existence of a censored dependent variable (Apodaca & Stohl, 1999; Neumayer, 2003; Berthélemy & Tichit; 2004).[7]

The problem can be formally described as follows:

$$Pr(Y_{ijt} > 0) = F(\alpha + \gamma X_{ijt} + \varepsilon_{ijt}), \tag{1}$$

$$Y_{ijt} = \beta + \delta Z_{ijt} + \mu_{ijt} . \tag{2}$$

Bilateral aid transfer Y is estimated in the first stage as a binary dependent variable, while in the second stage, the aid allocation equation is only based on the sub-sample with positive observations. The set of independent variables is given by X and Z, α and

---

[6] This argument seems more plausible to the authors than interpreting it vice versa: aid to first asylum countries intended by migration-prevention interests and aid for countries of origin as burden-sharing.

[7] For a discussion on different approaches for tackling sample-selection biases, see, for instance, Heckman (1979), Manning, Duan & Rogers (1987), Leung & Yu (1996), or Puhani (2000).

β are constants, γ and δ are vectors of coefficients, and ε and μ are independent and normally distributed error terms. $F(.)$ represents the cumulative distribution function. Indices i and j specify respective donor and recipient countries, and t indicates the time period.

A first, and common, approach is to estimate the binary estimation model and the level model separately, i.e. the binary first stage of aid eligibility applies a logit (or alternatively a probit) model, while on the second level stage a linear model is run with the reduced dataset. Here, the crucial assumption is that the choice of an aid recipient is independent from the respective aid levels. However, the error terms are not necessarily independent, and thus, it is likely that the second-stage regression on aid levels is biased. Nevertheless, this model is used as a benchmark; its results are checked by the following two alternative approaches.

The Heckman sample selection model estimates the two stages simultaneously, assuming that the error terms å and ì of the eligibility stage and the level stage regressions are not independent, which is a plausible assumption. Therefore, the binary stage is still run with a logit estimation, while the level stage includes additionally the inverse Mill's ratio from the first stage in order to correct for selection bias. Aid allocation equation (2) is then modified to be:

$$Y_{ijt} = \beta + \delta Z_{ijt} + \rho \sigma f(\alpha + \gamma X_{ijt} + \varepsilon_{ijt})/F(\alpha + \gamma X_{ijt} + \varepsilon_{ijt}) + \mu_{ijt}, \qquad (3)$$

with ρ representing $Cov(\varepsilon, \mu)$, σ denoting $Var(\mu)$, and $f(.)/F(.)$ capturing the inverse Mill's ratio.[8]

Since the results of the Heckman model are qualitatively not very different from those obtained from the linear regression on the reduced dataset (Equation 2), the properties of the selection equation and of its error term are not particularly important when estimating the regression on aid levels.[9] This result is similar to those of e.g. Alesina & Dollar (2000), or Berthélemy (2006), who all conclude that a linear regression was basically as good as a Heckman estimation.

---

[8] For some caveats of this approach in the context of aid allocation, see e.g. Neumayer (2003).

[9] The coefficient of the inverse Mill's ratio is insignificant, indicating that selection bias does not seem to be a problem in our sample.

Finally, a fixed effects model is applied for the aid level equation to control for donor-recipient-specific heterogeneity, which might not be captured by the set of explanatory variables. The inclusion of donor-recipient fixed effects may also correct for the problem of unobserved as well as missing variables. Compared to the other two approaches, some results for the fixed effects regression are significantly different, indicating that donor-recipient heterogeneities matter and should not be neglected, particularly in a large dataset.[10]

Furthermore, as donor decisions on aid allocations and the actual aid transfers are predominantly not settled in the same year, most variables enter with a one-year time lag. This also reduces potential simultaneity problems. Estimation results are reported with standard errors which are robust in terms of arbitrary heteroscedasticity and serial correlation.

1.1.1 DATA

The sample contains 18 donor countries and 148 recipient countries, covering the years from 1992 to 2003. Data on both bilateral (long-term) development aid and (short-term) emergency aid are provided by the Development Assistance Committee of the OECD (OECD, 2006). Both dependent variables are defined in per capita terms. ODA is characterized by its composition of grants and highly concessional loans, the objective of promoting economic development and welfare, and its distribution by the official sector.[11] We use ODA gross disbursements instead of commitments, since they reflect the aid volume actually transferred to the recipient country.[12] For emergency

---

[10] We tested the fixed-effect model against random-effects, but the Hausman test rejected the latter.

[11] Chang, Fernandez-Arias & Serven (1999) discusses the many shortcomings of the official development aid data from the OECD that include the underestimation of the aid content, the over-representation of loans with high concessionality, as well as the constant interest rate of 10% used to calculate the grant element of the highly concessional loans. They developed the aid measure EDA (effective development assistance) to eliminate most of the failures of ODA. However, as Ovaska (2003) proves that both concepts yield essentially the same results, the standard ODA measures are used.

[12] Neumayer, 2003 states that gross data are non-negative and conceptually closer to commitments than net ODA disbursements, but the problem with gross data is that parts of

aid, we use disbursement data provided by the Creditor Reporting System (CRS) of (OECD, 2006). For the dependent variables (only for aid levels) and most explanatory variables, we use logarithms for capturing possible non-linear effects and to interpret estimates as elasticity (Neumayer, 2003).

As the core explanatory variables, four respective categories of refugee migration are distinguished: (i) internally displaced persons (*IDP*), i.e. refugees who did not (yet) cross borders, (ii) total stock of refugee outflow (*Ref origin*), i.e. number of cross-border refugees by country of origin, (iii) total stock of refugees living in a recipient country (*Ref asylum*), i.e. the number of hosted refugees, and (iv) asylum applicants in the Western donor country (*Asylum seeker*), i.e., persons applying for asylum status according to UN convention in the donor country. For all categories, the respective variables are defined in absolute numbers and all data are provided by (UNHCR, 2006b).[13]

It is presumed that donor states respond differently towards each one of the four refugee categories. According to the previous section, the question of the underlying motives of donors is of subordinate interest in this analysis, since for all categories of refugees, both migration prevention interests and altruistic (humanitarian) motives can apply. The other control variables reflect categories of donor self-interest, recipient need and good governance.[14] The *Bilateral trade* variable captures the major commercial interests of the donor. It is defined by goods and services exported to the recipient country as share of total exports. Hereby, we assume that larger trade volumes result in larger aid amounts. Although a reversal effect may exist due to aid-tying, Lloyd, Morrissey & Osei (2001) find no evidence that tied aid increases bilateral

---

the amounts disbursed are not at the country's unrestricted disposal, as they are used to repay current loans.

[13] **Fehler! Verweisquelle konnte nicht gefunden werden.** in the Appendix displays the correlation matrix for this set of explanatory variables. It indicates that most of the cross-correlations are not significant. Therefore, we should not have multicollinearity problems between the different refugee variables.

[14] All variables and the information on their composition and sources are provided in **Fehler! Verweisquelle konnte nicht gefunden werden.** of the Appendix.

trade volumes significantly.[15] Taking into account the economic potential, total *Population* of the recipient country is included, assuming that larger countries receive more aid. The *External debt* variable measures the total debt of the recipient country as percentage of GDP.[16] The most common recipient need variable is *Income per capita*, which approximates the economic needs of the recipient country's population: the worse the economic hardship, the more aid is allocated. However, since the income per capita is evidently only an incomplete measure for basic human needs, the Physical Quality of Life Index *PQLI* is additionally included as a proxy for human well-being in a recipient country (Morris, 1979; Moon, 1991).[17]

The number of fatalities caused by natural disasters (*NatDis deaths*) is used as a proxy for the immediate basic needs after a natural catastrophe. It measures deaths by natural disasters such as droughts, famines or earthquakes. Obviously, the allocation of aid, particularly short-term emergency aid, is expected to correspond positively to the extent of a calamity.

Good governance and democratic structures are controlled for by the *CPRI* variable, which is generated by the civil and political rights indices from (Freedom House, 2006), indicating e.g. the right to participate freely in the political process, or the freedom of expression and belief without interference by the state.[18] According to good governance rewarding policies, Western donor states are committed to promoting better democratic institutions in recipient countries by transferring larger

---

[15] Since the correlation between the two variables (0.23) is moderate, potential aid and trade simultaneity should not exert too much influence on the estimation results.

[16] In former studies, including external debt was problematic due the poor data availability. However, this has improved significantly, since the Bank for International Settlements (BIS), the International Monetary Fund (IMF), the Organization for Economic Co-operation and Development (OECD) and the World Bank (WB) operate a new joint database on external debt (JEDH, 2007).

[17] Morris (1979) develops the PQLI as an aggregate measure of infant mortality, literacy and life expectancy. All three variables are transformed to a scale from 0 (worst) to 100 (best), from which the average is taken. The PQLI is preferred to the Human Development Index (HDI), since the latter is available for fewer countries, and additionally, income per capita is not a component of the PQLI. Thus, collinearity between the two variables is avoided.

[18] See http://www.freedomhouse.org/ for an explanation of the index methodology.

amounts of aid to countries that adopt these institutions. A proxy for the political fragility and instability of the recipient country is taken into account by the number of *Battle deaths* caused by armed combats. Armed conflicts destabilize the political and economic conditions, which results in major failures of states to insure the basic needs of the population. Donor states are often rather reluctant to support politically fragile states since the allocation of development assistance is more delicate in conflicting countries (McGillivray, 2003). We nevertheless assume that migration-prevention interest of donor states prevail, so that we expect that development and emergency aid amounts increase with the number of conflict fatalities.

RESULTS

Aggregate Aid Allocation

Table 1 provides the estimation results for the allocation equation for both long-term ODA as well as short-term emergency aid.[19] It is shown that there is not much correlation between the error terms of the aid eligibility and aid level stages; thus, the results of the OLS and the Heckman two-stage procedure are basically consistent and robust in the use of these two alternative estimation methods.[20] However, the introduction of donor-recipient fixed effects into the panel regression significantly changes some of the results. The outcome for the fixed effects model suggests that we have unobserved effects that are not captured by the set of the explanatory variables. Consequently, in the subsequent discussion we refer primarily to these regression results. The coefficients for the four refugee categories show a clear-cut pattern of explanation. With respect to both aid types, the strongest effects refer to the *Asylum seeker* variable, which indicates that donor states significantly increase their aid volumes for the respective sending-countries of their asylum applicants. In fact, the effect for short-term emergency aid is even threefold larger than for long-term aid.

---

[19] Results for the first stage logit regression are available on request.

[20] The inverse Mill's ratio is in both specifications not significant. This indicates similarity of the OLS regression and the Heckman approach.

Table 1 *Aid allocation determinants, 1992-2003, 18 donors, 148 recipients*

Dependent variable	ODA			Emergency aid		
	OLS	*Heckman*	*Fixed eff.*	*OLS*	*Heckman*	*Fixed eff.*
Ln(Asylum seeker)	0.054**	0.053**	0.054**	0.129**	0.143**	0.178**
	(6.52)	(5.47)	(6.93)	(10.88)	(9.79)	(7.58)
Ln(Ref asylum)	-0.030**	-0.030**	0.001	-0.014	-0.017*	0.065**
	(5.64)	(5.47)	(0.16)	(1.59)	(1.95)	(3.31)
Ln(Ref origin)	0.020**	0.018*	0.014*	0.108**	0.122**	0.086**
	(2.80)	(1.98)	(2.21)	(9.13)	(8.31)	(3.95)
Ln(IDP)	-0.001	-0.001	0.000	0.020**	0.022**	0.025**
	(0.15)	(0.19)	(0.10)	(2.84)	(3.17)	(2.77)
Ln(Population)	-1.068**	-1.070**	-1.373**	-1.017**	-0.994**	-2.102**
	(58.86)	(52.23)	(8.59)	(34.14)	(30.32)	(4.00)
Ln(Income pc)°	-0.807**	-0.787**	-0.167*	-0.387**	-0.578**	-0.321
	(22.26)	(9.60)	(2.93)	(6.61)	(4.43)	(1.57)
Ln(Bilateral trade)°	0.403**	0.396**	0.059**	0.002	0.072	-0.022
	(35.53)	(13.78)	(4.82)	(0.10)	(1.54)	(0.58)
CPRI	-0.077**	-0.073**	-0.034*	-0.025	-0.059*	-0.049
	(5.93)	(3.84)	(2.20)	(1.14)	(1.96)	(1.06)
External Debt	-0.024**	-0.023**	-0.014	0.053*	0.045	-0.029
	(4.16)	(3.48)	(1.04)	(2.20)	(1.83)	(0.38)
PQLI	-0.003*	-0.003*	-0.001	0.000	-0.002	0.011
	(2.34)	(2.02)	(0.25)	(0.07)	(0.73)	(0.94)
Ln(Battle deaths)°	0.019**	0.020*	0.015**	0.082**	0.075**	0.040**
	(2.67)	(2.57)	(3.07)	(8.77)	(7.09)	(3.32)
Ln(NatDis deaths)°	0.075**	0.074**	0.015**	0.047**	0.050**	0.037**
	(9.27)	(9.24)	(3.60)	(3.92)	(4.11)	(3.16)
Intercept	25.65**	25.50**	22.21**	14.221**	15.63**	30.45**
	(53.85)	(35.45)	(9.37)	(17.94)	(13.35)	(3.77)
Imills		-0.141			1.526	
		(0.27)			(1.64)	
No. of obs.	16990	21520	16990		21520	
Uncensored obs.		16990			5103	
R2 (adj.)	0.250	0.251	0.854	0.406	0.406	0.653
Hausman test			272.79**			33.17**

Notes: Lagged variables are signified by (°). The Heckman estimation is run with two-stage estimation. OLS without sample selection correction. Coefficients for fixed effects are not reported. T-values are in parentheses. * (**) significant at the 5% (1%) level.

This result, compared with the outcome for the *Ref origin* variable, shows that donors have a stronger reaction towards migration movements if they are explicitly affected by the refugee outflow. Accordingly, donor states do not respond to the same extent if refugees are only displaced internally. In this case, donors respond –if they respond at all- only with short-term emergency aid without regarding the long-term need to relief protracted internal displacement situations.

This pattern of interest of donor states becomes even clearer when comparing the assistance directed towards the home countries of cross-border refugees with that for (neighboring) refugee-hosting countries (*Ref asylum*). This latter variable, which reflects the refugee-burden of first-asylum countries, is only positive and significant in the fixed effects regression on emergency aid allocation. This means that these neighboring host countries are barely 'compensated' by the international community for providing (often long-lasting) protection to these people. Development aid allocations are –on average- not affected by these refugee populations, although promotion of local integration in the first-asylum country is also often considered as a possible migration prevention strategy.

Aid assistance is shown to be primarily focused on the source countries of refugee movements and not so much on those countries bearing the burden of hosting refugees. This may suggest that donor governments rather support voluntary repatriation of cross-border refugees to their home country instead of local integration in the first asylum country. Source countries receive larger amounts of emergency and development aid for larger refugee exoduses. However, aid responsiveness of Western donor states towards the source countries of refugees is even stronger if parts of the population spill over to their own territory as asylum seekers, indicating motives of 'self-protection'. This pattern of explanation actually holds for both short-term emergency aid and long-term development assistance. However, if the displaced population does not leave the home country, but instead remains within its own borders, additional aid is –on average- only provided in form of short-term emergency aid, but not as long-term development aid. In the next section, however, disaggregation of these results will show that the willingness to respond to refugee movements by providing additional aid varies tremendously among donor states.

For the non-migration variables, the results are consistent with many other cross-country studies on foreign aid allocation. The findings assert that poorer countries receive more aid per capita throughout the different regressions. However, this result holds rather for income poverty, while the influence on non-pecuniary human development indicators is rather weak. That is, while the *Income* variable shows high significance for almost all regressions, the *PQLI* coefficients do not exert a significant influence on the donor's decision to allocate ODA or emergency aid. Furthermore, countries with better developed democratic institutions are likely to receive more development aid than those with rather autocratic tendencies. This reflects the interest of bilateral donors in rewarding good governance structures through enhanced ODA transfers. Bilateral trade volume has a predominantly positive and significant influence on the allocation of ODA, but not on the allocation of emergency aid. Thus, ODA per capita is a robust correlate to the share of exports to the recipient country. The influence of external debt, which plays a significant role in determining whether a country is eligible to receive aid (not reported), displays only a weak influence at the allocation stage.

Furthermore, with respect to population size, although large countries receive more aid in terms of total volume (see e.g. Neumayer, 2003), they receive less in terms of aid per capita: countries that are one percent larger than others receive on average around one percent less ODA per capita. This indicates that a large-country bias exists.

Finally, humanitarian catastrophes generally initiate solidarity with the affected country, regardless of whether natural disaster or violent conflict is the root cause. However, donors seem to distinguish between victims of natural disasters and those of violent clashes. While donor countries tend to allocate more ODA in the aftermath of natural catastrophes than in violent conflict situations, the pattern for emergency assistance is the other way around: countries with a high number of conflict casualties attract significantly more attention from bilateral donors in terms of emergency aid assistance than those with an equivalent number of natural disaster victims. Hence, human rights violations and armed conflicts are generally not disciplined by aid cuts, i.e. compassion seems to dominate reprehension.

Donor-specific Aid Allocation

For the purpose of testing whether there are significant differences among donor countries with respect to aid responsiveness towards refugee movements, we modify the previous fixed effects model by introducing interaction terms between the set of explanatory variables and a donor-specific dummy $D_{á}$ for a given donor á:[21]

$$Y_{ijt} = \beta + \delta' D_{\alpha} Z_{ijt} + \delta Z_{ijt} + \mu_{ijt} \,,$$
$$\text{with } D_{\alpha}(i) = 1 \text{ if } i = \alpha, \text{ and } D_{\alpha}(i) = 0 \text{ otherwise.}$$

(4)

Based on this extended fixed effects regression, Table 2 reports the coefficients (as elasticities) of these interaction terms for the *Asylum seeker* variable as well as the *IDP* variable for both ODA and emergency aid allocations.

The overall picture of this exercise is that donors respond very differently to these two types of refugee migration. For instance, countries such as Norway, Austria, or the US stand out as countries with a strong migration-sensitive aid allocation. These and other havens for asylum applicants react very strongly to increasing numbers of asylum-seekers by boosting respective foreign aid budgets towards the sending-countries. At least eleven donor states increase their aid budgets significantly (either long-term development assistance or short-term emergency aid) for the countries of origin of their respective asylum applicants. Other donor states like Japan, France, Canada and Finland do not respond at all to any of these different categories of refugee migration, while Denmark may even partially reduce its bilateral aid budget towards refugee-sending countries. [22]

---

[21] This procedure refers to the methodology described and used by Berthélemy (2006). He applies a similar exercise for the categorization of donor countries with respect to the influence of trade volumes on bilateral aid transfers.

[22] This result for Denmark is based on a rather small number of observations.

Table 2 *Categorization of Aid Donors*

| Donor | Elasticity of aid to number of | | | | Aid Responsiveness | |
| | Asylum seeker | | IDPs | | | |
	ODA	Emerg Aid	ODA	Emerg Aid	ODA	Emerg Aid
Norway	0.177***	0.121*	0.048***	0.073***	++	++
	(5.32)	(1.74)	(2.80)	(2.68)		
			-			+
Austria	0.175***	0.533***	0.039**	0.017	++	
	(5.77)	(5.43)	(2.41)	(0.40)		
Italy	0.110***	0.076	0.019	0.103***	+	+
	(3.15)	(0.75)	(1.00)	(2.74)		
Switzerland	0.078***	0.218***	-0.012	0.005	+	+
	(2.88)	(4.14)	(0.76)	(0.19)		
USA	0.059***	0.245**	0.032*	0.042	++	+
	(2.74)	(2.35)	(1.95)	(0.89)		
Australia	0.027	0.209**	0.055**	-0.072	+	+
	(0.85)	(2.06)	(2.56)	(1.01)		
Sweden	0.146***	0.082	0.025	0.008	+	o
	(4.75)	(0.90)	(1.54)	(0.26)		
Netherlands	0.127***	0.098	-0.006	0.012	+	o
	(3.14)	(0.82)	(0.39)	(0.36)		
Ireland	0.026	0.311	0.055***	0.083	+	o
	(0.68)	(0.49)	(2.92)	(0.53)		
Germany	0.057	0.262**	-0.031*	0.063**	-	++
	(1.21)	(2.30)	(1.83)	(2.10)		
UK	-0.017	0.193***	0.000	-0.014	o	+
	(0.64)	(2.66)	(0.00)	(0.37)		
Spain	0.071*	0.136	-0.005	0.055	+	o
	(1.79)	(0.64)	(0.25)	(0.77)		
Japan	0.067	-0.054	-0.004	-0.039	o	o
	(0.84)	(0.20)	(0.22)	(0.29)		
Finland	0.056	0.158	-0.017	0.013	o	o
	(1.11)	(1.06)	(0.91)	(0.39)		
Canada	0.025	0.234	0.000	-0.007	o	o
	(0.59)	(1.64)	(0.00)	(0.21)		
France	0.023	0.228	0.009	0.064	o	o
	(0.59)	(1.43)	(0.57)	(1.09)		
Belgium	-0.017	-0.182	-0.034*	0.032	-	o
	(0.39)	(0.87)	(1.87)	(0.78)		
Denmark	-0.105*	-	-0.056**	-	- -	
	(1.71)	-	(2.32)	-		

Notes: Elasticity estimates are based on fixed-effect regression with additional donor-specific parameters that are estimated together. T-values are in parentheses. */**/***

With regard to internal displacement, aid responsiveness is much weaker and not always in favor of the respective country. Only a third of all observed donor states react positively to internal refugee situations by allocating any additional aid towards these countries, while four countries even significantly reduce their corresponding short-term or long-term aid budgets. In particular, Italy and Norway become more generous towards countries that experience large internal displacements. As violent conflicts as well as natural catastrophes are controlled for as possible root causes for internal displacements in these countries, it is recognizable that these donors have a special interest in supporting recipient countries with a significant number of IDPs. This behavior might originate from altruism towards these people, who are generally poorly assisted by the recipient country's government or any other external donors.

Alternatively, respective donors may have farsighted migration-prevention interests: protracted and unassisted internal displacements could further destabilize the country or the whole region, which would force parts of the population to cross borders and become refugees in the region of origin or even asylum-seekers to the Western countries.

Countries of origin generally tend to receive more aid when people leave the country. As stated in Czaika (2005) this might induce counterproductive incentives, as sending countries could be tempted to enhance refugee flights (or, at least, not to prevent them) to attract more short-term and long-term aid. Countries of origin receive even more foreign aid when refugees seek asylum in the donor states and less when they stay in the region of origin. At least two explanations for this result are possible: first, urgency of a conflict situation is transmitted to the donor countries by the inflow of asylum seekers. Aid might then be an instrument for stabilizing the crisis situation in the country of origin, so that emigration might become a less attractive option and voluntary repatriation of refugees is supported. A second explanation is that asylum seekers, together with other foreign-born compatriots living in the donor country, proactively lobby the aid allocation decision-making process for the sake of

their compatriots at home (Lahiri & Raimondos-Møller, 2000; Czaika, 2005; Anwar & Michaelowa, 2006).[23]

CONCLUDING REMARKS

This study focuses on the influence of refugee movements on the allocation of long-term development aid and short-term emergency aid by Western donor countries. Until now, the aid allocation literature has not addressed this issue. Increasing refugee flows, particularly within the most fragile regions of the developing world, highlight the need of both the sending and the hosting countries for international support. Two underlying motives for an increased aid support towards conflict-affected countries are often discussed: altruistic burden-sharing towards first asylum countries and countries of origin (in case of IDPs), or migration management interests by preventing further de-stabilization of the countries of origin and reducing the emigration pressure towards the Western industrialized countries. This study suggests that bilateral aid allocation policies are primarily focused on countries of origin. This reveals that the underlying interests of donor states are rather focused on migration prevention instead of on altruistic burden-sharing motives, since first asylum host countries, as well as countries with a high number of IDPs, are widely neglected.

What do these results actually imply? In fact, some donor governments seem to be motivated to act proactively, seeking to alleviate the root causes of cross-border refugee movements by transferring aid towards refugee-sending countries. They probably do this with an intention of decreasing further refugee outflows and to increase repatriation willingness of refugees living abroad (preferably those living in the donor country itself). However, this analysis shows that this policy approach is not common to all donor countries, since they are actually very heterogeneous in their migration-related aid allocation pattern. There might be several reasons for this

---

[23] This argument is based on the theory by Lahiri & Raimondos-Møller (2000). They argue that political support is maximized by politicians (or, the government) by considering the lobbying activities of ethnic groups who may carry out propaganda or financial contributions in exchange for preferred aid policies (see also Anwar & Michaelowa, 2006). Their theoretical framework refers to the approach of Grossman & Helpman (1994).

heterogeneity. First, if donor states are not or insignificantly affected by refugee movements and asylum seekers (like Japan), then there is obviously no need for any migration-related aid policy. Second, even if a donor state is affected by refugee movements (e.g. by asylum seekers), it does not necessarily trust in the effectiveness of aid for migration prevention purposes. And third, even if a refugee-affected donor state trusts in the potential of aid-induced migration prevention, it has an incentive to free-ride on aid provisions of other donor states that are more willing to transfer aid to refugee hot spots.

References

Alesina, A., & Dollar, D. (2000). Who Gives Foreign Aid to Whom and Why? *Journal of Economic Growth, 5*(1), 33–63

Anwar, M., & Michaelowa, K. (2006). The Political Economy of US Aid to Pakistan. *Review of Development Economics, 10*(2), 195–209

Apodaca, C., & Stohl, M. (1999). United States Human Rights Policy and Foreign Assistance. *International Studies Quarterly, 43*(1), 185–198

Berthélemy, J.-C. (2006). Bilateral Donors' Interest vs. Recipients' Development Motives in Aid Allocation: Do All Donors Behave the Same? *Review of Development Economics, 10*(2), 179–194

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

Bhagwati, J. N. (2003). Borders Beyond Control. *Foreign Affairs, 82*(1), 98–104

BMZ. (1994). *Konzept Flüchtlingspolitik im Rahmen der Entwicklungszusammenarbeit* (BMZ aktuell No. 040). Bonn: Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung.

BMZ. (2006). *Medienhandbuch: Entwicklungspolitik 2006/2007.* Berlin: Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung.

Boswell, C. (2003). Burden-Sharing in the European Union: Lessons from the German and UK Experience. *Journal of Refugee Studies, 16*(3), 316–335

Byrne, R. (2003). Harmonization and Burden Redistribution in the Two Europes. *Journal of Refugee Studies, 16*(3), 336–358

Castles, S., & Miller, M. J. (2003). *The Age of Migration: International Population Movements in the Modern World:* Guilford Publications.

Chang, C. C., Fernandez-Arias, E., & Serven, L. (1999). Measuring aid flows: a new approach. *World Bank Policy Research Working Paper,* (2050).

Collier, P., & Hoeffler, A. (2002). Aid, Policy And Peace: Reducing The Risks Of Civil Conflict. *Defence and Peace Economics, 13*(6), 435–450

CRED. (2006). *EM-DAT - Emergency Event Database.* Université de Louvain: Centre for Research on the Epidemiology of Disasters, from http://www.emdat.be/Database/terms.html

Czaika, M. (2005). Aid Allocation and Asylum Migration in the 1990s. *Applied Economics Quaterly, 51*(3), 289–303

Czaika, M. (2008). *The Political Economy of Refugee Migration:* University of Freiburg. *mimeo*

Dudley, L., & Montmarquette, C. (1976). A Model of the Supply of Bilateral Foreign Aid. *American Economic Review, 66*(1), 132–142

Freedom House. (2006). *Freedom of the World,* from http://www.freedomhouse.org/

Gosh, B. (1992). Migration-development Linkages: Some specific Issues and Practical Policy Measures. *International Migration, 30,* 423–456

Grossman, G. M., & Helpman, E. (1994). Protection for Sale. *American Economic Review, 84*(4), 833–850

Hatton, T. J. (2004). Seeking asylum in Europe. *Economic Policy, 19*(38), 5–62

Hatton, T. J., & Williamson, J. G. (2005). Refugees, Asylum Seekers and Policy in Europe. *CEPR working paper*, (5058).

Heckman, J. J. (1979). Sample selection Bias as a Specification Error. *Econometrica, 47*(1), 153–161

Hjertholm, P., & White, H. (2000). Foreign aid in historical perspective: background and trands. In F. Tarp & P. Hjertholm (Eds.), *Foreign Aid and Development. Lessons Learnt and Directions for the Future* (pp. 80–102). London, UK: Routledge.

JEDH. (2007). *Joint External Debt Hub of BIS, IMF, OECD and World Bank.* Washington, DC: World Bank, from http://www.jedh.org/

Lahiri, S., & Raimondos-Møller, P. (2000). Lobbying by Ethnic Groups and Aid Allocation. *Economic Journal, 110* (462), C62-79

Leung, S. Fai, & Yu, S. (1996). On the choice between sample selection and two-part models. *Journal of Econometrics, 72*(1-2), 197–229

Lloyd, T., Morrissey, O. & Osei, R. (2001). Problems with Pooling in Panel Data Analysis for Developing Countries: The Case of Aid and Trade Relationships, *CREDIT Research paper 01/14*, Nottingham: Centre for Research in Economic Development and International Trade.

Maizels, A., & Nissanke, M. (1984). Motivations for Aid to Developing Countries. *World Development, 12*(8), 879-00

Manning, W. G., Duan, N., & Rogers, W. H. (1987). Monte Carlo evidence on the choice between sample selection and two-part models. *Journal of Econometrics, 35*(1), 59–82

McGillivray, M. (1989). The allocation of aid among developing countries: A multi-donor analysis using a per capita aid index. *World Development, 17*(4), 561–568

McGillivray, M. (2003). Modelling Foreign Aid Allocation: Issues, Approaches and Results. *Journal of Economic Development, 28*(1), 171–188

McKinlay, R. D., & Little, R. (1977). A Foreign Policy Model of US Bilateral Aid Allocation. *World Politics, 30*(1), 58–86

McKinlay, R. D., & Little, R. (1978). A Foreign-Policy Model of Distribution of British Bilateral Aid, 1960-70. *British Journal of Political Science, 8*(3), 313–332

Moon, B. (1991). *The Political Economy of Basic Humanitarian Needs:* Cornell University Press, Ithaca.

Morris, D. (1979). *Measuring the Condition of the World's Poor - The Physical Quality of Life Index:* Pergamon Press, New York.

Neumayer, E. (2003). *The Pattern of Aid Giving: The Impact of Good Governance on Development Assistance.* New York: Routledge.

Neumayer, E. (2005). Bogus Refugees? The Determinants of Asylum Migration to Western Europe. *International Studies Quarterly, 49*(4), 389–409

Nunnenkamp, P., & Thiele, R. (2006). Targeting Aid to the Needy and Deserving: Nothing but Promises? *World Economy, 29*(9), 1177–1201

OECD. (2005). *Bilateral Trade Database.* Paris: OECD, from
http://www.oecd.org/document/52/0,3343,en_2649_34445_36274100_1_1_1_1,00.html

OECD. (2006). *International Development Statistics.* Paris: OECD, from
http://www.oecd.org/dataoecd/50/17/5037721.htm

Ovaska, T. (2003). The Failure of Development Aid. *Cato Journal, 23*(2), 175–188

PRIO. (2005). *Armed Conflict Database.* Oslo: Peace Research Institute.

Puhani, P. A. (2000). The Heckman Correction for Sample Selection and Its Critique.
Journal of Economic Surveys, 14(1), 53–68

Reuters. (2007). *Kouchner says aid can curb migration on Africa tour.* Retrieved March
19, 2008, from http://www.reuters.com/article/latestCrisis/idUSL08677457

Rotte, R., Vogler, M., & Zimmermann, K. F. (1997). South-North Refugee Migration:
Lessons for Development Cooperation. *Review of Development Economics, 1*(1), 99–
115

Schuck, P. H. (1997). Refugee Burden-Sharing: A Modest Proposal. *Yale Journal of
International Law, 22,* 243–297

Stein, B. N. (1986). Durable Solutions for Developing Country Refugees. *International
Migration Review, 20*(2), 264–282

Trumbull, W. N., & Wall, H. J. (1994). Estimating Aid-Allocation Criteria with Panel
Data. *Economic Journal, 104*(425), 876–882

UNHCR. (2004). *Global Refugee Trends.* Geneva: UNHCR.

UNHCR. (2006a). *State of the World's Refugees: Human Displacement in the New
Millennium.* Oxford: Oxford University Press.

UNHCR. (2006b). *Trends in Displacement, Protection and Solution: Statistical
Yearbook.* Geneva: UNHCR.

Widgren, J. (1989). Asylum Seekers in Europe in the Context of South-North
Movements. *International Migration Review, 23*(3), 599–605

World Bank. (2006). *World Development Indicators.* Washington, DC: World Bank.

Appendix

Table A-1 *Descriptive Statistics, Aid panel dataset*

	Mean	Median	Maximum	Minimum	Std. Dev.
ODApc	2.34	0.07	883.09	0	16.00
EMApc	0.06	0.00	44.65	0	0.57
Asylum seeker	175	1	115395	0	1596
Ref asylum	70291	1987	4150723	0	242891
Ref origin	72484	857	4552153	0	288685
IDP	32081	0	1290'	0	133514
Population	33.60	7265'	1290"	71079	130
GDPpc	4684	3446	25168	440	4265
Bilateral trade	0.0014	0.0001	0.37	0	0.0063
CPRI	4.12	4.00	7.00	1	1.82
External debt	1.13	0.59	47.09	0.00	3.36
PQLI	69	77	98	3	22.5
Battle deaths	484	0	48034	0	2858.3
Natdis deaths	328	0	30005	0	2245.2

Table A-2 *Correlation Matrix, Aid panel dataset*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) ODApc	1.00	0.08	0.02	-0.03	-0.03	-0.02	-0.03	0.06	-0.01	-0.07	-0.01	0.04	-0.02	-0.02
(2) EMApc	0.08	1.00	0.02	0.12	-0.01	0.04	-0.02	-0.06	-0.02	0.03	-0.00	-0.04	-0.00	0.01
(3) Asylum seeker	0.02	0.02	1.00	0.03	0.06	0.03	0.08	-0.00	0.11	0.04	-0.02	0.02	0.02	0.04
(4) Ref origin	-0.03	0.12	0.03	1.00	0.10	0.31	0.03	-0.22	-0.01	0.34	-0.00	-0.25	0.01	0.16
(5) Ref asylum	-0.03	-0.01	0.06	0.10	1.00	-0.01	0.15	-0.12	0.03	0.25	-0.03	-0.12	0.06	0.05
(6) IDP	-0.02	0.04	0.03	0.31	-0.01	1.00	-0.02	-0.08	-0.01	0.14	-0.02	-0.06	-0.03	0.16
(7) Population	-0.03	-0.02	0.08	0.03	0.15	-0.02	1.00	-0.04	0.31	0.12	-0.04	0.04	0.40	0.05
(8) GDPpc	0.06	-0.06	-0.00	-0.22	-0.12	-0.08	-0.04	1.00	0.17	-0.41	0.18	0.59	-0.06	-0.06
(9) Bilateral trade	-0.01	-0.02	0.11	-0.01	0.03	-0.01	0.31	0.17	1.00	-0.02	0.05	0.15	0.07	0.03
(10) CPRI	-0.07	0.03	0.04	0.34	0.25	0.14	0.12	-0.41	-0.02	1.00	-0.11	-0.42	0.02	0.16
(11) External debt	-0.01	-0.00	-0.02	-0.00	-0.03	-0.02	-0.04	0.18	0.05	-0.11	1.00	0.01	-0.02	0.00
(12) PQLI	0.04	-0.04	0.02	-0.25	-0.12	-0.06	0.04	0.59	0.15	-0.42	0.01	1.00	-0.03	-0.09
(13) Natdis deaths	-0.02	-0.00	0.02	0.01	0.06	-0.03	0.40	-0.06	0.07	0.02	-0.02	-0.03	1.00	0.04
(14) Battle deaths	-0.02	0.01	0.04	0.16	0.05	0.16	0.05	-0.06	0.03	0.16	0.00	-0.09	0.04	1.00

Table A-3 *Data Definitions and Sources, Aid panel dataset*

Variable	Definition	Source
Ln(ODApc)	Log of Official Development Assistance per capita (in 2002 US$)	OECD, 2006: International Development Statistics
Ln(EMApc)	Log of Emergency aid per capita (in 2002 US$)	OECD, 2006: Creditor Reporting System
Ln(Asylum seeker)	Log of number of bilateral asylum applications registered in donor country	UNHCR, 2006b: Statistical Yearbook, CD-ROM
Ln(Ref Asylum)	Log of number of refugees registered in recipient country	UNHCR, 2006b: Statistical Yearbook, CD-ROM
Ln(Ref Origin)	Log of number of refugees originating from recipient country	UNHCR, 2006b: Statistical Yearbook, CD-ROM
Ln(IDP)	Log of number of internally displaced persons in recipient country	UNHCR, 2006b: Statistical Yearbook, CD-ROM
Ln(Population)	Log of number of inhabitants (in mill.)	World Bank, 2006: World Development Indicators
Ln(GDPpc)	Log of GDP per capita (in current US$, PPP)	World Bank, 2006: World Development Indicators
Ln(Bil. trade)	Log of bilateral trade volume (exports in current US$) as share of total exports	OECD, 2005: International Trade by Commodity Database
CPRI	Average of Civil Rights Index and Political Rights Index (ranging from 1 (best) to 7 (worse)	Freedom House, 2006: Freedom in the World
External debt	Ratio of External debt (in mio. of current US$) to GDP (in mio. of current US$)	JEDH, 2007: Joint External Debt Hub
PQLI	Average of literacy rate, adjusted mortality rate and adjusted life expectancy (scaling from 0 (worst) to 100 (best)).	Own calculations based on data from World Bank, 2006: World Development Indicators
Ln(Battle deaths)	Log of number of annual battle fatalities	PRIO, 2005: Armed Conflict Database
Ln(NatDis deaths)	Log of number of casualties caused by natural disasters	CRED, 2006: EM-DAT: Emergency Event Database