

ECONOMICS SERIES

SWP 2009/17

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Do new donors have old motives?**

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Acknowledgements: The development of this paper has benefited greatly from comments received from Martin Paldam, Arye Hillman, Phillip Hone, Yariv Welzman, and various seminar and conference participants.

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Abstract

The aid allocation literature explores the motives behind development aid assistance. This literature is enormous, yet surprisingly, the extant empirical studies have in the main only focused on the motives of established donors. Consequently, relatively little is known of the motives of new donors. This paper explores the aid allocation motives of three relatively new DAC donors: Greece, Luxembourg, and Portugal. Both OLS and Tobit two-way effects estimators are used to model their aid allocation process. The results indicate that humanitarian concerns are not an important factor for these three donors. Greece contributes aid predominately to its neighbors and to transitional East European nations. Portugal is motivated by commercial interests and former colony status. The bandwagon effect exists in reverse for Portugal. Commercial interests operate also for Luxembourg. Additionally, Luxembourg appears to donate to smaller more developed countries and is less inclined to donate to East European nations.

Keywords: foreign aid allocation, bilateral aid, economic development, humanitarian concerns

JEL Codes: F35, O1, C23

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1. Introduction

For the past 40 years, development aid assistance has been an important feature of international relations, especially programs designed to alleviate global poverty and assist with economic development. In the 2000-2006 period, Development Assistance Committee (DAC) countries alone donated \$420 billion US dollars (in 2006 USD) to some 190 countries (OECD.Stat DAC2a, 2008). Given the magnitude of the resources involved, it is understandable that both the effects of development aid and the criteria upon which aid is allocated have attracted a great deal of interest. According to Doucouliagos, Paldam, and Christensen (2007), the Aid Allocation Literature consists of 166 academic empirical papers. These papers cover a range of models, donor countries, recipients, and time periods. One interesting and rather surprising feature of this literature is that it has largely ignored the role of new donors. For example, relatively little is known about the aid allocation process among comparatively new DAC donor countries, such as Greece, Luxembourg, and Portugal, and little is known about new non-DAC donor countries, such as Kuwait, Israel, Saudi Arabia, and China.¹ Those studies that have investigated specific donor countries have focused on established donors, such as the UK, the US, Australia, and Scandinavian countries. The principal aim of this paper is to identify some of the motives of the newer DAC donors for donating development aid.

Analysis of aid allocation is an important complement to the aid effectiveness literature. Recent reviews have cast doubts about the effectiveness of official development assistance in meeting its primary goals of generating growth and alleviating poverty (see, for example, Doucouliagos and Paldam 2006, 2008, and 2009).² One reason for the failure of development aid might be the motive for allocating aid. For example, if aid is allocated to meet recipient country development needs, then the aid ineffectiveness result would be a sad indictment on the ability of donors to make their contributions work. However, if aid is allocated predominantly for non-development reasons, then the failure to alleviate poverty might be an incidental outcome.

¹ Typically, aid from these countries is included in cross-sectional or panel data analysis. The two exceptions are Alesina and Wedder (2002) and Neumayer (2003), who each report a separate estimate for Portugal. Neumayer also provides one estimate for Luxembourg.

² These reviews find that aid has had positive specific regional effects, but not across developing countries on average.

Renewed international focus on extreme poverty and hunger culminated in the United Nations Millennium Declaration, adopted by the General Assembly in September 2000 (UN, 2000). This declaration provides clear aims and goals associated with poverty reduction. It would therefore be reasonable to expect that development aid would be allocated with poverty reduction as its primary goal, and that donor countries would focus their aid programs on the poorest of the world's countries.

Testing for donor motives indicates whether stated intentions are met by actual action, and provides an indication of the political will of the donor to tackle poverty in developing countries and meet the Millennium goals. Donor countries with established aid programs have a history of aid allocation in line with motives that range from poverty reduction, through perceived obligations to old colonies and other historic ties, to military and strategic interests. This paper examines whether countries that have commenced donating development aid relatively recently have the same old motives of strategic interests and historical ties, or are motivated more by real poverty reduction, in line with increasing and renewed international interest in this "genuine" and humanitarian motive.

The three new donors analyzed in this paper provide an interesting contrast. Both Greece and Portugal are relatively newly industrialized nations. Portugal has former colonies that might influence aid allocations, while Greece has several neighbors whose level of comparative development might affect her aid allocation. Luxembourg is an established developed nation surrounded by developed neighbours.

The paper is organized as follows. Section 2 provides a brief review of the motives for allocating aid. A brief discussion on each of the new donor countries is presented in section 3. The analytical approach is presented in section 4, while section 5 discusses the data. Section 6 presents and interprets the results. Section 7 discusses some of the robustness tests. Section 7 concludes.

2. Donor motives

Numerous studies have examined the motives behind aid allocations for established donors (for a comprehensive list of studies see Doucouliagos, Paldam, and Christensen, 2007). Researchers have explored several allocation criteria. The most obvious motive is recipient/humanitarian need. This is typically proxied by income per capita (usually GNP) of the recipient country. Some studies (Neumayer, 2003 and Gounder, 1995) also use the Physical Quality of Life Index (PQLI), or life expectancy (Tarp *et al*, 1999) to supplement

the income measure as an indication of the level of poverty in a recipient country. Population size is also used frequently as a measure of need: a larger poorer country might be deemed to be more deserving than a smaller one.

Most studies include some measure of commercial ties and interests, such as exports to the recipient country (Tarp et al, 1999, Gounder, 1995 and McGillivray and Oczkowski, 1992). A third group of variables relates to ‘good behaviour’. This includes variables such as the degree of democracy (Alesina and Dollar, 2000 and Tarp et al, 1999), or some measure of human rights.

The political and/or strategic interests of a country can be measured by colonial or Commonwealth status (Alesina and Dollar, 2000, Neumayer, 2003 and McGillivray and Oczkowski, 1992) or military aid/arms expenditure (Neumayer, 2003 and Gounder, 1995). Some studies (e.g. Tarp *et al.* 1999 and McGillivray and Oczkowski 1992) also include aid from other donor countries to measure the “bandwagon” effect (or the opposite).

Alesina and Dollar (2000) examine the motives of a range of donor countries both in aggregate and individually. They find that smaller countries tend to receive more aid, as do more open countries (p.38). This result applies both in aggregate and for individual countries, though it is not nearly as significant as the colonial status of the recipient. More democratic countries also tend to receive more aid, though this result varies amongst individual donors.

Significantly, colonial past is a major determinant of aid. Alesina and Dollar (2000) find that colonial status (being a former or current colony) counts for significantly more than democracy and openness. For some donors it is also much more important than the income level of the recipient country. Aid from France depends primarily on colonial status rather than income levels or good policy measures. Japanese aid seems to depend more on political alliances as determined by United Nations voting patterns (p.50).

The Nordic countries tend to give more to poorer countries³, as does the United States of America. The U.S. however targets about a third of its aid to its “special interest” countries, Israel and Egypt [Alesina and Dollar, 2000, p. 55].

The results for the U.S., Japan, and France are significant as they are three of the biggest donors of bilateral aid. Together with Germany, they account for 70% of bilateral aid [Alesina and Dollar, 2000]. Thus a significant amount of bilateral aid is not allocated primarily on the basis of need, but rather on colonial status and political alliances.

³ This is supported by Tarp *et al.* (1999), who find that “poor people in need” (p. 151) received more than 40% of Danish bilateral aid over the period of their study (1960 – 1995), though this was starting to trend downward towards the end of the period.

McGillivray and Oczkowski (1992) examine British bilateral aid between 1980 and 1987. Roughly 60% of British aid is distributed bilaterally. They find that per capita GNP was significant in allocating aid (and the amount of aid allocated), and that British aid seemed to be allocated generally in line with that of the DAC as a whole. They also find that there was a significant bias towards Commonwealth member nations – 78% of British bilateral aid goes to former British colonies. Commercial interests (represented by British exports to recipient countries) became more pronounced during the 1980s.

Neumayer (2003) looks at the factors that determine multilateral aid allocations through four regional development banks (the African, Asian, Caribbean and Inter-American Development Bank) and three United Nations Agencies (United Nations Development Programme (UNDP), the United Nations Children’s Fund (UNICEF) and the United Nations Regular Programme of Technical Assistance (UNTA).

Neumayer finds that there is a bias towards less populous countries (as do Alesina and Dollar, 2000). In addition, Neumayer finds that poorer countries receive more of this multilateral aid, and that countries with higher levels of political freedom also receive higher levels of aid than an equivalently poor country with less political freedom.

Both recipient need and donor interest motives appear to apply to the allocation of bilateral aid by Australia [Gounder, 1995]. Gounder finds that both motives apply to varying degrees in different years (between 1986-87 to 1991-92).

Doucoulagos and Paldam (2007) have recently reviewed some of the aid allocation criteria through meta-analysis of 124 empirical studies. The authors assess the importance of recipient country size, and explore the existence of three effects: the poverty effect (recipient income has a negative effect on aid allocation); the middle-income effect (the aid-income curve is convex); and the population effect (population size has a negative effect on aid allocation). They find that there is indeed an income effect but no middle income bias in aid allocations. They also find that there exists a population bias: “Countries with larger populations receive larger amounts of aid, but not in proportion to their GDP: Aid as a percentage of GDP falls, the more populous a nation is.” (p. 25)

3. The new donors

In this section we present a brief overview of development assistance provided by the three new donors. Table 1 lists all the DAC donors, together with their first year of Official Development Assistance (ODA) contributions.

Table 1: DAC donors and year of first ODA commitments

Country	Year ODA commenced	Country	Year ODA commenced
Australia	1965	Japan	1960
Austria	1961	Luxembourg	1990
Belgium	1960	Netherlands	1960
Canada	1960	New Zealand	1970
Denmark	1960	Norway	1960
Finland	1970	Portugal	1987
France	1960	Spain	1980
Germany	1960	Sweden	1960
Greece	1996	Switzerland	1960
Ireland	1974	United Kingdom	1960
Italy	1960	United States	1960

Source: OECD.Stat DAC3a, 2008. Countries in bold are analyzed in the paper

3.1 Greece

Greece first became a net donor in 1996. Prior to that, Greece received ODA mainly from Britain, the USA, and West Germany (Pelt, 2006). The DAC conducted a peer review of Greece's development aid in 2006 (OECD DAC, 2006a). The review found that:

- Aid from Greece has been concentrated in the Balkan and Black sea countries – these are neighboring countries to Greece that are in “post conflict situations and/or undergoing economic transition”. It is in Greece's interests for these countries to become more stable politically and economically. There is also stronger public awareness of and sympathy for Greek aid going to more immediate neighbors.
- The Balkan and Black Sea countries will become ineligible for DAC aid in the medium term. Consequently, Greece has widened her list of recipient countries in the second 5 years of her aid program to include Middle Eastern and Sub-Saharan African countries, particularly since 2003, in line with the Millennium Development Goals.
- Greece will need to triple development aid in real terms to meet the European Union target of 0.51% of Gross National Income to ODA by 2010 (over USD\$1billion). The

report suggests that increased public awareness of development aid (despite wide support for humanitarian assistance) will be needed to support the shift in focus from immediate regions, as well as the large increase in aid needed to meet the EU 2010 target.

- ODA disbursements in 2004 were USD\$321million or 0.16% of Greek GNI; The DAC average was 0.26%. However Greece also hosted large numbers of Albanian secondary school students, at a cost of 0.07% of GNI. Greece is arguing to have this included in DAC estimates.
- More recently Greece has shown increasing humanitarian participation in the world community, particularly in her response to the 2004 Tsunami, the 2005 earthquake in Pakistan, and the 2006 Lebanon crisis.

The DAC peer review report suggests early motives for the allocation of development aid for Greece were largely aligned with Greece’s self interests of stability and economic development in her own region, but more recently there is said to have been a shift to more humanitarian concerns.

Table 2 lists the main recipients of Greek aid and the percentage of total net ODA disbursements received over the period 1996 - 2006.

Table 2: Development Aid from Greece: Top 5 recipients, % shares 1996 - 2006

Recipient Country	% of total net ODA disbursements from Greece
Serbia	26.00
Albania	21.21
Bosnia-Herzegovina	7.81
FYROM-Macedonia	6.07
Afghanistan	4.37
Other (108 countries)	34.54

Source: OECD.Stat DAC2A (2008)

3.2 Luxembourg

Luxembourg became a donor in 1990. Since that time, ODA disbursements have increased substantially, growing in real terms by an average of 18% per annum from 1995-96, to reach 0.82% of GNI in 2001 [OECD DAC, 2003]. By 2006, ODA was 0.89% of GNI in Luxembourg [OECD DAC, 2008b]. The 2003 DAC Peer Review of Luxembourg attributes this growth in Luxembourg's ODA to strong public and political support in favor of ODA, as well as sustained economic growth [OECD DAC, 2003].

Earlier DAC reviews (conducted in 1993 and 1998) identified the large number of recipient countries, with resulting difficulties in monitoring and assessing projects, as an issue to be addressed [OECD DAC, 1998]. In 1994 Luxembourg introduced a policy of targeting a small number of countries (14); by 2003 the target was reduced to 10. However a significant proportion of bilateral aid (25% in 2001, mainly co-financed with non-government organisations) goes to "project" countries; preventing increases in the dispersement of aid and increasing the proportion of ODA that goes to the target countries was a major recommendation of the 2003 review, along with increased monitoring for effectiveness in poverty reduction [OECD DAC, 2003].

Table 3 lists the main recipients of Luxembourg aid and the percentage of total net ODA disbursements received over the period 1990 - 2006.

Table 3: Development Aid from Luxembourg: Top 5 recipients, % shares 1990 – 2006

Recipient Country	% of total net ODA disbursements from Luxembourg
Cape Verde	9.02
Nicaragua	5.71
Viet Nam	5.50
Burkina Faso	4.98
Senegal	4.92
Other (117 countries)	69.87

Source: OECD.Stat DAC2A (2008)

3.3 Portugal

Portugal first became a net donor in 1987. Prior to that Portugal received ODA mainly from the USA in the post World War II period. Early Portuguese aid focused on former

colonies, particularly Portuguese speaking African countries. The DAC Peer Review of Portuguese development aid conducted in 2001 suggests a primary motive for this was “maintaining Portuguese historical, linguistic and cultural ties” [OECD, DAC, 2001]. The report criticized Portugal for not targeting poverty sufficiently or effectively. It did however praise Portugal for her rapid response to the East Timor crisis in 1999; as a result of this crisis East Timor has become a major focus for Portuguese aid.

In 1999 Portugal’s ODA was 0.26% of GNP. By 2005 this had actually fallen to 0.21% [OECD DAC, 2008]. The DAC’s latest peer review on Portugal was conducted in 2006. [OECD DAC, 2006b]. This review reported on (and welcomed) a number of changes taking place in Portugal’s ODA strategy, including a new supervisory and coordinating body for Portuguese aid. It also welcomed Portugal’s commitment to the Millennium Development Goals.

However, the report also points to a need to respond to the fragility and conflict issues in the countries Portugal donates to. It highlights the need to strengthen the poverty focus of her ODA as well as increasing the emphasis on the needs of the recipient countries. For example, the report criticized Portugal for continuing to provide education to poor countries in the form of scholarships to study in Portugal (potentially contributing to the “brain drain” from these countries) rather than developing education strategies within the recipient country [OECD DAC, 2006b].

Thus for Portugal, as for Greece, the background is one of initially focusing on self interest, largely in the form of cultural ties, with a more recent shift towards humanitarian concerns. Both countries face significant difficulties in increasing their levels of ODA as a proportion of GNP in line with the Millennium Development Goals, as well as reorienting their programs towards an increased focus on poverty reduction.

Table 4 lists the main recipients of Portuguese aid and the percentage of total net ODA disbursements received over the period 1987 - 2006.

Table 4: Development Aid from Portugal: Top 5 recipients, % shares 1987 – 2006

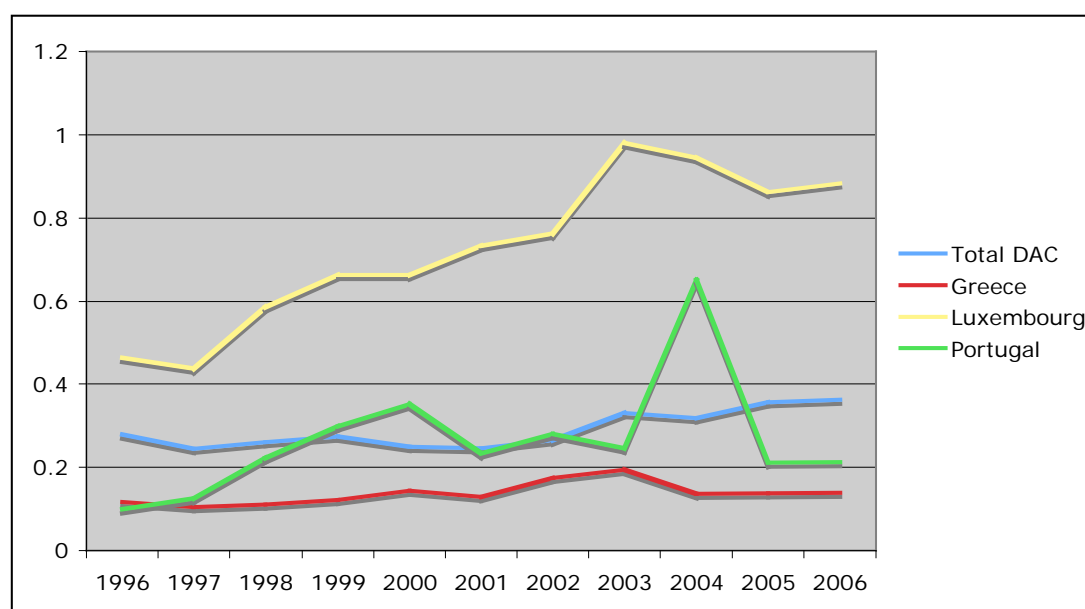
Recipient Country	% of total net ODA disbursements from Portugal
Mozambique	30.08
Angola	25.37
Timor-Leste	11.32
Cape Verde	11.19
Guinea-Bissau	9.77
Other (78 countries)	12.27

Source: OECD.Stat DAC2A (2008)

Figure 1 compares the aid contributions of the new donors (as a percentage of Gross National Product) to total DAC over the eleven years from 1996 to 2006.

Greece contributes the lowest amount of development aid as a percentage of GNP of the three countries for all but the first year of this period. Greece's contribution is well below the average for the DAC. Portugal's contributions were around the DAC average for the middle section of this period, increasing in 2003/4 before falling abruptly to below the DAC average in 2005. Luxembourg's contribution started well above the DAC average in this period, and has increased its lead to well over twice total DAC. The DAC average itself, while growing slowly, remains below the EU target of 0.51% by 2010.

Figure 1: ODA/OA as a percentage of GNP. New donors and Total DAC



OECD.Stat DAC3a, 2008, World Bank, 2008, World Development Indicators, <http://ddp-ext.worldbank.org/ext/DDPQQ> accessed 22/6/08

4. Analytical approach

Two key issues arise when exploring aid allocation criteria. First, there is the matter of specification: which motives should be explored empirically? Second, there is the issue of the appropriate estimator to use. We address both issues in this section.

4.1 Aid allocation variables

As noted earlier, researchers have explored several allocation criteria. We group these into three broad categories.

(1) *Recipient needs*: Humanitarian concerns are the stated objective of development aid: aid is given to poor countries to assist with poverty reduction and with economic and social development. Hence, we should expect to find a negative association between aid and per capita income. Non-linear effects are often included also in empirical investigations. Country size as measured by country population is also an important factor in this. In this paper we also consider life expectancy and economic growth as other indicators of need.

(2) *Donor commercial interests*: Donors may be motivated by their own commercial interests and seek to allocate funds to countries that will facilitate trade. While this is a self interested basis upon which to allocate aid, it need not be detrimental to development. For example, significant gains from trade arise as a result of selfish motives, as both parties can gain from voluntary exchange.⁴ Measures of commercial interests include exports to the recipient country, imports from the recipient country, foreign direct investment and debt levels with the country. In this paper, we present the results of using export shares to proxy for commercial interests.

(3) *Political economy considerations*: Several politically motivated factors can be identified. First, there are *political ties*: Countries have historical ties with each other. For example, there may be former colonial ties, or cultural and religious ties between countries. There may also exist neighborhood effects, where nations feel a natural affinity with the plight of their nearest neighbors. Second, there might exist significant *inertia/incrementalism*: Aid is distributed over time, so that there may be a significant

⁴ On the other hand, to the extent that aid allocations distort trade decisions – inducing developing countries to engage in trade that they would otherwise not have undertaken on the basis of comparative advantage – the gains from trade would be truncated.

autoregressive component in the allocation of aid. Part of this is related to the nature of aid projects. Part of it, however, arises from the nature of the bureaucracies that are in charge of the aid allocations: Bureaucracies might find it simpler to allocate aid in the current year on the same basis as it was allocated last year. Empirically, this effect can be captured with a lagged dependent variable. A third factor is the *bandwagon effect*: Donors may allocate aid simply by following what other donors are doing. This makes the allocation of aid easier, as well as less risky. It also wins points for the donor, as it conforms to the actions of other (usually more important donors). Bandwagon effects have the effect of reinforcing the humanitarian, commercial, and political objectives of the main donors. This effect is captured by including the total DAC commitments less the commitments from the donor under investigation.

In addition to these factors, there is also the issue of *good behavior*: aid may be given to countries that are behaving in a manner that is deemed to be desirable from the donor's point of view. A key factor here is the level of political freedom in the recipient country. In empirical research, this is usually measured by the Gastil index of political freedom. Another measure of good behavior is policy, typically defined as an index of budget balance, inflation rate, and trade openness. A third measure is the extent of corruption. Another popular indicator is the Freedom House measure of economic freedom, which might be considered as a much broader measure than 'good policy'. However, due to a very large number of gaps in the data, we do not consider any of these good behavior models in our analysis: We want to analyze as the aid allocations to as large number of recipients as possible.

4.2 *Econometric model*

The donor motives listed above are not all necessarily mutually exclusive. For example, there is some degree of overlap between commercial interests and political economy factors. Following prior research, our approach in this paper is to estimate a general model that nests both donor needs and recipient interests within the one model. That is, it is possible for several motives to exist simultaneously. Our approach is to explore both different combinations of motives, as well as all motives concurrently. That is, we estimate both general and specific aid allocation models, though we present the results of only the more general models.

We estimate three models that are commonly found in the literature. First, we combine all the above allocation criteria, and estimate versions of the following double-log

generic aid allocation equation:

$$\ln \text{Aid}_{it} = \beta_1 \ln \text{Aid}_{it-1} + \beta_2 \ln \text{DAC}_{it-1} + \beta_3 \ln \text{Pop}_{it-1} + \beta_4 \ln \text{GDPPC}_{it-1} + \beta_5 \ln \text{Trade}_{it-1} + u_i + \gamma_t + v_{it} \quad (1)$$

where \ln denotes the natural log, i and t index the i^{th} recipient at time period t , Aid is ODA, DAC is the value of total DAC ODA to recipient less ODA from the donor, Pop is country size measured by population, GDPPC is per capita real GDP, and Trade is a measure of commercial activity between the donor and the recipient. In our case we use the share of donor exports to the recipient. The error components include a standard random error term, v_{it} , as well as the country specific effects u_i and the period specific effects γ_t . The coefficient β_1 measures the size of the inertia or incrementalism effect, the coefficient β_2 measures the bandwagon effect, while β_3 and β_4 measure the effects of country size and humanitarian need respectively, and β_5 measures donor interests. Equation 1 is estimated using two-way fixed effects, allowing for both recipient country specific effects and time specific effects. The country fixed effects are included to capture unobserved preferences that are country specific, while the period fixed effects capture any time specific effects, or unobserved preferences that are specific to years. Equation 1 is estimated separately for each donor.

The log-log nature of equation 1 excludes all zero allocations. This means that it excludes non-recipients from the sample. This is potentially limiting, as zero allocations might be informative with respect to donor motives. Hence, our second model makes use of the limited dependent variable nature of the aid allocation data, and uses the Tobit random effects model.⁵ Following convention, we call this Tobit I. Our third model is the popular two-step procedure. That is, we first estimate a probit model to capture the decision as to which countries to donate to, and then the second decision on the amounts to allocate to each country (see McGillivray 2003). Again following convention, we call this Tobit II. The key and important difference between the two Tobit models and equation 1 is that the later measures aid in natural logarithms, while the second measures it in absolute amounts, enabling zero allocations to be included in the estimation.

In order to reduce sample bias, we include all the countries for which each of the new donors has contributed aid. This means that the sample contains a number of years with zero aid allocations. These arise because aid might be given to a recipient in one year but not the

⁵ The estimation of Tobit Fixed Effects model is problematic and hence we focus on Tobit Random Effects.

next, or aid might be given to a recipient at some point in time, but not from the commencement of donation, or aid might not be given at all by donor i , but is given by donor j .

The Tobit I model is given by:

$$Aid_{it}^* = \beta_1 Aid_{it-1} + \beta_2 DAC_{it-1} + \beta_3 Pop_{it-1} + \beta_4 GDPPC_{it-1} + \beta_5 Trade_{it-1} + u_i + \gamma_t + v_{it} \quad (2)$$

where Aid_{it}^* is a latent variable such that $Aid_{it} = Aid_{it}^*$ if $Aid_{it}^* > 0$, and $Aid_{it} = 0$ if $Aid_{it}^* < 0$.

That is, Aid_{it}^* is observed only for aid values greater than 0.

The Tobit II model involves a two-stage process. Stage 1 involves identifying which developing countries will receive ODA from the donor. Once these countries are identified, the amount of aid to be donated is determined in stage 2. Stage 1 normally involves the estimation of a probit model. Here we use the random effects probit model.⁶ From this, we can calculate the inverse Mills ratio, which then enters into the second stage of the estimation.

5. Data

Data on bilateral aid commitments for Greece, Luxembourg, and Portugal were obtained from the Organisation for Economic Development and Cooperation's statistical site, OECD.Stat. The data were gathered from the DAC, Table 3a, "Total ODA Commitments". A commitment is defined as "a firm written obligation by a government or official agency, backed by the appropriation or availability of the necessary funds. Commitments are considered to be made at the date a loan or grant agreement is signed or the obligation is otherwise made known to the recipient." (OECD DAC 2008). Total commitments include grants, capital subscriptions, total net loans, and other long-term capital. To be counted as ODA, the donor's main intention must be to promote the economic development and welfare of recipients. It must contain a grant element of at least 25% (OECD DAC, 2002). The data are expressed in constant US dollars. The data for total commitments for all DAC countries were also obtained from this source.

⁶ Note that identification requires at least one more variable that is distinct in the first-stage analysis. We use the total ODA budget to serve this role (see Tarp *et al.* 1999).

Data on the population of the recipient countries (in thousands) were collected from the DAC, as were data on merchandise exports to the recipient countries, and merchandise imports received by donors from the recipient countries. Merchandise trade figures were collected in current US dollars and then deflated using DAC deflators. Data on Real GDP of recipient countries were obtained from the World Bank Development Indicators and are expressed in constant 2000 US dollars.

6. Results for new donors

The results of estimating equation 1 are presented in Table 5. Column 1 presents the results for Greece. Column 2a presents the results for Luxembourg without the export shares variable, while column 2b presents the results with export shares. Two sets of results are presented for Luxembourg, because the trade figures are unavailable for Luxembourg prior to 1999.⁷ The results for Portugal are presented in column 3.

The lagged aid variable is statistically significant for all countries, indicating the importance of incrementalism and/or inertia in aid allocation decisions. The results from column 2a suggest that the size of the effect is greatest for Luxembourg. However, this does not hold when the export share variable is introduced and the shorter time period used. Greece has the largest bandwagon effect: A 10% increase in non-Greek DAC aid to the *i*th recipient, results in a 2.3% increase in Greek ODA to that recipient. In sharp contrast, there would be no response from Portugal.

Interestingly, humanitarian concerns, as measured by per capita income are not important for any of the three donors. Population size is important only for Luxembourg.

Commercial interests, as measured by export shares, appear to be unimportant to Greece, and the statistical significance of this variable for Portugal is very low. Column 2 suggests that exports are a key factor for aid allocations for Luxembourg (though this is not for the entire period over which Luxembourg has been a donor).

We conclude from Table 5 that motives differ across this group of donors. Both bandwagon effects and humanitarian concerns are unimportant for Portugal. Greek aid is driven by incrementalism and bandwagon effects. Commercial interests appear to be unimportant for both countries.

⁷ Prior to 1999, trade data for Luxembourg were grouped with those of Belgium.

**Table 5: Aid Allocation Criteria, New Donors, Two-Way Fixed Effects
(Dependent variable is natural log of ODA)**

Variable	Greece (1)	Luxembourg (2a)	Luxembourg (2b)	Portugal (3)
Recipient needs				
ln Population _{t-1}	1.39 (0.86)	2.96 (2.84)	3.55 (1.47)	-0.96 (-0.59)
ln Income per capita _{t-1}	-0.95 (-1.60)	0.36 (1.31)	-0.71 (-1.09)	-0.52 (-0.98)
Donor Commercial interests				
Share of exports _{t-1}	3.26 (0.91)	-	1.04 (2.69)	0.26 (1.67)
Political economy				
ln Lagged aid	0.20 (2.55)	0.33 (3.61)	0.07 (0.72)	0.14 (3.31)
ln DAC aid _{t-1}	0.23 (4.28)	0.17 (2.47)	-0.02 (-0.16)	0.05 (0.33)
Time period	1996 – 2006	1991 - 2006	1999-2006	1989- 2006
K	106	87	77	73
N	604	767	330	312
SER	0.91	0.89	0.75	0.87
Adjusted R ²	0.78	0.68	0.78	1.01

All estimates are based on two-way fixed effects model. Figures in bold are statistically significant at least at the 10% level. K is the number of countries. N is the number of observations. Replacing the share of exports with either the share of imports or the trade balance does not change the results markedly. t-statistics using robust standard errors reported in brackets.

The dependent variable in Table 5 is expressed in logarithms. This results in the loss of a large number of observations. Zero aid allocations can also be informative, but this information is lost when a logarithmic transformation is used as the dependent variable. Accordingly, Tables 6, 7, and 8 report the results when the actual dollar value of aid allocations is used, comparing results from OLS to the Tobit regression models, for Greece, Luxembourg, and Portugal, respectively.

The results differ markedly between tables 5 and 6. We compare first the OLS results from tables 5 and 6, and then compare the OLS to the Tobit regressions reported in Table 6. In the case of Greece (Table 6), only the bandwagon effect remains as a motive, once the actual aid allocations are used as the dependent variable. Unfortunately, the OLS results reported in Table 6 ignore the truncation of many observations: a large proportion of observations are censored at zero. The Tobit regressions incorporate this characteristic. Column 2 reports the results from the Tobit Random Effects model using the same variables as Table 5. Column 3 reports the results of adding two additional variables. *Neighbor* is a dummy variable taking the value of 1 for countries that are neighbors to Greece and 0 otherwise. *EastEurope* is a dummy variable taking the value of 1 for countries that are either

European countries (e.g. Malta) or belong to transitional economies (such as Albania, Bulgaria, Latvia, etc). The inclusion of these two variables makes two important differences to the results.⁸ First, the Tobit RE II model emerges as superior to the Tobit RE I model. Hence, we report the latter, which includes λ as an argument. Second, once these two variables are added, all the time dummies become statistically insignificant. Hence, we re-estimate the model without time dummies. Our preferred set of results is presented in Column 4, using the Tobit RE II model. Interestingly, commercial interests and the DAC variable are no longer statistically significant. We conclude that in the case of Greece, the key drivers for donating aid are whether a country is a neighbor and whether the recipient belongs to the transitional group of European countries. Many of Greece's neighbor's are relatively poor, and in that sense Greek aid to these countries might be considered to be driven by humanitarian concerns. However, the model controls for per capita income, thus the results suggest that the motives for granting aid to neighbors are not humanitarian. Greece appears to donate to its neighbors for political interests and security concerns.

The results for Luxembourg are presented in Table 7. Our preferred set of results is presented in column 3, using the Tobit II RW model with time dummies. Incrementalism/inertia emerges as an important factor in Luxembourg's aid allocations, always having a positive sign, which interestingly is close to 1 in column 3. The results for the other variables are not robust. Population, income per capita, and export shares all change sign once the *EastEurope* dummy is included, and a two step estimation approach is adopted. The log-likelihood ratio test suggests that the results presented in column 3 are preferred to those reported in column 2. Population has a negative coefficient, while per capita income has a positive one. Taken together, these two variables indicate that Luxembourg donates to the more developed and least populated nations. Luxembourg might prefer to donate to more developed countries as these countries will tend to generate projects that are more likely to succeed. Aid from Luxembourg would be more noticeable, and buy more reputation and political mileage, in a smaller country, hence the negative coefficient on population. The size of the coefficient on income per capita, of course, does not seem plausible. Interestingly, the coefficient on East Europe is negative. This means that Luxembourg donates less to East European transitional economies. This is consistent with the results for per capita income and population. It suggests that Luxembourg prefers to donate funds to more developed non-European nations.

⁸ Note that because Table 5 uses fixed rather than random effects, the variables *Neighbor* and *EastEurope* cannot be included in the analysis presented in that table.

For Portugal, the preferred set of results is presented in Table 8, column 4, using the Tobit RE I model without time dummies. Commercial interests are important to Portugal's aid allocations. The higher the share of exports, the larger is the amount of aid committed. The other important factors are an inverse association with DAC donations and a positive association with former colonies. Portugal does not follow DAC allocations, indeed, she tends to allocate less to those countries that receive more DAC funding. The one exception is countries that were former colonies. These receive significant amount of aid. Evidently, prior colonial status, and commercial interests, drive Portugal's aid allocation.

**Table 6: Greece, OLS, Random Effects Tobit and Two-Part Estimation procedures
(Dependent variable is \$ODA)**

Variable	Greece OLS FE (1)	Greece Tobit RE I (2)	Greece Tobit RE II (3)	Greece Tobit RE II (4)
Recipient needs				
<i>Population_{t-1}</i> (million)	0.002 (0.46)	0.0002 (0.32)	0.0010 (-0.32)	-0.0005 (-0.16)
<i>Income per capita_{t-1}</i>	-0.0001(-0.94)	-0.0002 (-1.59)	-0.0001 (-0.92)	-0.0001 (-1.06)
Donor commercial interests				
<i>Share of exports_{t-1}</i>	0.041(0.16)	0.759 (4.30)	0.092 (0.48)	0.072 (0.38)
Political economy				
<i>Lagged aid</i>	-0.17 (-1.17)	-0.035 (-0.93)	-0.051(-1.36)	-0.051(-1.36)
<i>DAC aid_{t-1}</i>	0.0004 (1.71)	0.0006 (1.77)	0.0004 (1.00)	0.0004 (1.02)
<i>Neighbor</i>	-	-	9.018 (4.15)	9.340 (4.49)
<i>EastEurope</i>	-	-	3.028 (2.14)	3.313 (2.67)
λ	-	-	-4.173 (-3.82)	-3.790 (-6.15)
Time Dummies	YES	YES	YES	NO
Time period	1996 – 2006	1996 – 2006	1996 – 2006	1996 – 2006
K	147	147	147	147
N	1,433	1,433	1,433	1,433
SER	3.21	-	-	-
Adjusted R ²	0.56	-	-	-
Log likelihood	-3619.03	-2585.54	-2547.44	-2551.55
LR test	-	-	14.96	39.49 [0.00]
No. censored observations	-	672	672	672
Within country variance	-	5.16	4.24	4.23
Between country variance	-	4.48	4.44	4.47
Wald time dummies	11.96 [0.21]	30.51 [0.00]	8.31 [0.50]	-
Wald test (prob-value)	12.54 [0.00]	55.73 [0.00]	143.91 [0.00]	136.46 [0.00]

Column 1 reports Two-Way Fixed Effects, while columns 2 to 4 report the random-effects Tobit regression model. Tobit RE II denotes estimates associated with a two-part estimation procedure, involving a random-effects probit regression at stage one, and then the random-effects Tobit model in stage two. Figures in bold are statistically significant, at least at the 10% level. K is the number of countries. N is the number of observations. λ is the inverse Mills ratio (the hazard). The Wald time dummies provide a test for the joint statistical significance of the time effects. The Wald test provides a test for the joint statistical significance of all variables included in the model.

Table 7: Luxembourg, OLS, Random Effects Tobit and Two-Part Estimation procedures
(Dependent variable is \$ODA)

Variable	Luxembourg OLS FE (1)	Luxembourg Tobit RE I (2)	Luxembourg Tobit RE II (3)
Recipient needs			
<i>Population_{t-1}</i> (million)	-0.005 (-0.58)	0.0015 (3.43)	-0.0007 (-1.90)
<i>Income per capita_{t-1}</i>	-1.91 (-2.15)	-329.56 (-4.45)	127.29 (1.81)
Donor commercial interests			
<i>Share of exports_{t-1}</i>	-0.154 (-0.44)	-0.666 (-1.67)	0.801 (2.26)
Political economy			
<i>Lagged aid</i>	0.28 (2.79)	0.668 (14.67)	0.911 (37.42)
<i>DAC aid_{t-1}</i>	-0.0001 (-0.88)	-0.0001 (-0.46)	-0.0001 (-0.92)
<i>EastEurope</i>	-	-	-0.398 (-2.75)
λ	-	-	-1.358 (-7.53)
Time dummies	YES	YES	YES
Time period	1999 - 2006	1999 - 2006	1999 - 2006
K	147	147	147
N	1,005	1,005	1,005
SER	0.70	-	-
Adjusted R ²	0.91	-	-
Log likelihood	-	-1028.30	-590.80
LR test	-	-	769.45 [0.00]
No. censored observations	-	483	483
Within country variance	-	1.19	0.01
Between country variance	-	1.06	1.21
Wald time dummies	6.90 [0.33]	10.12 [0.12]	11.84 [0.07]
Wald test (prob-value)	66.34 [0.00]	353.06 [0.00]	3519.09 [0.00]

Column 1 reports Two-Way Fixed Effects, while columns 2 to 4 report the random-effects Tobit regression model. Tobit RE II denotes estimates associated with a two-part estimation procedure, involving a random-effects probit regression at stage one, and then the random-effects Tobit model in stage two. Figures in bold are statistically significant, at least at the 10% level. K is the number of countries. N is the number of observations. λ is the inverse Mills ratio (the hazard). The Wald time dummies provide a test for the joint statistical significance of the time effects. The Wald test provides a test for the joint statistical significance of all variables included in the model.

**Table 8: Portugal, OLS, Random Effects Tobit and Two-Part Estimation procedures
(Dependent variable is \$ODA)**

Variable	Portugal OLS FE (1)	Portugal Tobit RE I (2)	Portugal Tobit RE I (3)	Portugal Tobit RE I (4)
Recipient needs				
<i>Population_{t-1}</i> (million)	-0.001 (-0.11)	-0.0001 (-0.37)	-0.004 (-0.57)	-0.004 (-0.87)
<i>Income per capita_{t-1}</i>	-0.001 (-0.01)	-24.583 (-0.82)	-4.295 (-0.12)	-5.601 (-0.18)
Donor commercial interests				
<i>Share of exports_{t-1}</i>	6.337 (0.53)	0.158 (21.43)	0.112 (10.53)	0.111 (10.58)
Political economy				
<i>Lagged aid</i>	0.008 (0.09)	0.130 (6.59)	0.032 (0.78)	0.033 (1.50)
<i>DAC aid_{t-1}</i>	-0.001 (-0.58)	0.001 (0.78)	-0.008 (-4.98)	-0.008 (-7.24)
<i>EastEurope</i>	-	-	-0.856 (-0.47)	-0.847 (-0.47)
<i>Former colony</i>	-	-	13.733 (3.77)	13.874 (5.59)
Time Dummies	YES	YES	YES	NO
Time period	1990-2006	1990-2006	1990-2006	1990-2006
K	147	147	147	147
N	2,355	2,355	2,355	2,355
SER	15.73	-	-	-
Adjusted R ²	0.25	-	-	-
Log likelihood	-9744.16	-3743.90	-3848.04	-3850.20
LR test	-	-	-	-
No. censored observations	-	1849	1849	1849
Within country variance	-	1.58	5.83	5.80
Between country variance	-	15.65	15.41	15.47
Wald time dummies	-	8.48 [0.93]	8.92 [0.92]	-
Wald test (prob-value)	-	733.40 [0.00]	290.49 [0.00]	283.20 [0.00]

Column 1 reports Two-Way Fixed Effects, while columns 2 to 4 report the random-effects Tobit regression model. Tobit RE II denotes estimates associated with a two-part estimation procedure, involving a random-effects probit regression at stage one, and then the random-effects Tobit model in stage two. Figures in bold are statistically significant, at least at the 10% level. K is the number of countries. N is the number of observations. The Wald time dummies provide a test for the joint statistical significance of the time effects. The Wald test provides a test for the joint statistical significance of all variables included in the model.

It is pertinent to compare the motives of the new donors to the more established donors. On the one hand, we expect that new donors will be more effective at making aid work, as they have the experience of the established donors to draw upon. On the other hand, if established donors are successful in allocating aid to poverty reduction, that might free up new donors to pursue other motives.

We do not present regressions for the established donors. However, we do draw upon previous reviews of the evidence. Doucouliagos and Paldam (2007) apply meta-analysis to 124 empirical studies and establish a negative coefficient on income. While the effect is small, it is robust. Our own primary data analysis thus stands in sharp contrast to the evidence for established donors. While humanitarian concerns might play a small role in the aid allocation decisions of established donors, it plays no role at all in the allocations of new donors. This finding is of some concern as it runs counter to wishes of the United Nations Millennium Declaration.

7. Robustness

Several robustness tests were conducted. First, we transformed the data from annual flows to five-year averages. Five-year averages will smooth away any year-to-year fluctuations and might reveal long-term associations. They do, however, come at a cost of losing detailed information, and result in a much smaller number of observations. Second, we used alternative indicators of humanitarian need. We replaced, sequentially, per capita income with: economic growth, life expectancy, and infant mortality.⁹ Third, we truncated the data further. The logic for doing this is that it might be the case that small aid allocations are largely a random process. For example, small amounts might be given in response to emergency relief, or they might be allocated on criteria that are not reflected by the main humanitarian, commercial and strategic interests. To test for this effect, we transformed into zero any aid allocation that was less than 0.1% of the donor's annual aid budget: we considered also 0.5% as the cutoff point. This artificial truncation converts smaller aid allocations into zero and leaves larger aid allocations, that might be more strategically and policy driven. These results are summarized in table 9. None of these robustness tests alter our main conclusions. The one exception is the case of Portugal when 5-year averages are

⁹ The data for these alternative measures of humanitarian need come from the World Development Indicators. In all cases, the use of these measures results in a smaller number of observations.

used.¹⁰ This is the one instance where humanitarian needs emerge as an important motive for aid allocation.

**Table 9: Robustness Tests,
Alternative Measures of Recipient Needs and Forced Truncation of Samples**

Variable	Alternative measures of recipient needs, Greece	Alternative measures of recipient needs, Luxembourg	Alternative measures of recipient needs, Portugal
Income per capita	-0.0001 (-1.06)	127.29 (1.81)*	-5.601 (-0.18)
Income per capita, 5-year average	-0.0001 (-1.38)	0.0001 (0.53)	-0.0010 (-5.79)***
Economic growth	2.875 (0.86)	-1.4789 (-1.62)	-2.5202 (-0.36)
Life expectancy	0.0086 (0.39)	-0.0029 (-0.44)	-0.11706 (-0.98)
Infant Mortality	0.0001 (0.02)	0.0017 (0.92)	-0.0001 (0.01)
Income per capita, truncation of sample, at 0.1%	0.0004 (1.71)*	94.83 (0.53)	-5.5581 (-0.18)
Income per capita, truncation of sample, at 0.5%	-0.0001 (-0.21)	823.99 (3.16)***	-5.5074 (-0.17)

Notes: Each cell reports the coefficient on humanitarian need from separate regressions. For comparison purposes, the first row reproduces the key result from Tables 6, 7 and 8. Sample sizes vary depending on the measure of humanitarian need used.

8. Summary

Development aid assistance is an important billion dollar global industry. More importantly, it is seen by many to be a critical mechanism for economic development and alleviating the plight of the third world. Donors, and citizens from donor countries, want to see global poverty reduced. While much attention has been devoted to the motives of established donors, particularly France, the US, Scandinavia and the UK, little is known about new and emerging donors. This paper offers an initial exploration into the motives of three donors, Greece, Luxembourg, and Portugal.

The results show a diversity of motives. Greece allocates aid to her neighbors, as well as to transitional East European economies: other countries certainly do receive aid but these allocations appear to be random. Luxembourg tends to allocate development aid to smaller

¹⁰ Note that the other results for Portugal remain, particularly former colony status.

developing nations and those that are relatively *more* developed. Commercial interests are important for both Luxembourg and for Portugal. Portugal also gives more aid to her former colonies. The aid allocation from all three countries does, however, share one common feature: None of them give more aid to poorer countries. That is, over the period studied, humanitarian concerns are not a significant feature of aid giving. This finding is robust to the measurement of the dependent variable (be it in logarithms or actual dollar allocations) and is robust to estimation (be it OLS or censored regressions). This aspect deserves further research. Why are the new donors not allocating aid on the basis of humanitarian needs? Are the newer non-DAC donors also motivated by non-humanitarian concerns? How might aid allocations be reoriented towards poverty alleviation?

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