

**Donor Competition for Influence in  
Recipient Countries**

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## **Abstract**

The analysis of official development assistance has always struggled with the contradiction between its more altruistic motivations for global development and its easy adaptation as an instrument for the donor's pursuit of self-interested foreign policy objectives. In the international system foreign aid may thus become a forum for both cooperative and competitive interactions between donors. This chapter explores the interdependence of aid by reviewing the literature on donor interdependence, with a particular focus on donor competition for influence in recipient states. We then present a simple theoretical framework to examine donor competition, and provide some preliminary empirical testing of resulting hypotheses. We conclude that while the evidence about competition is mixed, the behaviour of some donors is consistent with their pursuit of influence in certain recipient states.

## **Introduction**

For many poorer countries, official development assistance (ODA) from donors is a critical means of financing development programs. Many low-income countries face meagre domestic savings bases and restricted opportunities for taxation, and have thus come to rely on capital inflows from abroad. While international private capital flows have expanded dramatically over the past 25 years, these remain fairly heavily concentrated in only a few emerging market countries. Consequently, for many countries ODA remains important for financing capital accumulation, government expenditures, and imports. As a result, ODA remains the focus of a considerable amount of research, which it has been for the past half century.

One strand of this research on ODA consists of the many studies that have attempted to identify the factors that determine the allocation of development assistance. These studies typically use regression analysis to ascertain which recipient country characteristics are associated with greater or lesser ODA flows. One of the debates that this line of research has often addressed is that of donor motivation, with a focus on determining the relative importance of “recipient need” and “donor interests” in generating observed allocation patterns. Most key donors have been examined using this lens, though often without regard for the behaviour of other donors.

The idea of competition between donors obviously co-existed with the earlier pre-1990 literature. In the context of the Cold War, it was clear that the “Western bloc” and “Soviet bloc” used aid (as well as military assistance and other inducements) to win over client states. This inter-bloc antagonism was accepted as a basic feature of the international system, but was rarely investigated empirically because of the absence of comparable data. The common data reporting standards of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) instead provided an empirical basis for investigating the

presumably more constructive interdependence and collaboration amongst DAC donors. This DAC-focused analysis became even more prominent after the Cold War ended.

More recently, some researchers have recognized the possibility that even relatively like-minded donors may interact with one another in important ways. Initially the analysis dealt primarily with donor collaboration, taking its cue from the strand of analysis that emphasized the altruistic and recipient-focused dimension of foreign aid. Eventually the range of potential donor interactions under consideration expanded to include strategic competition between donors, even between members of the DAC.

The purpose of this chapter paper extends these analyses of donor interaction by considering the possibility that they use their expenditures to maximize their influence in different recipient states. The roots of this paper, therefore, are firmly planted in the “donor interests” model. Where the paper diverges from most traditional studies is in giving donors explicitly competitive motivations. Influence is not simply a function of the donor’s own contributions, but rather depends on their generosity relative to that of other donors.

In substantive terms this chapter first reviews in some detail the literature on donor behaviour, with particular attention being paid to the recent work on donor interactions. We then present a simple conceptual framework to outline the implications of donor competition for the allocation of aid. We then present some simple tests of the hypotheses that emerge from our theorizing about competition. A final section concludes with a summary, the policy implications, and a consideration of research extensions.

## **Literature Review**

Questions surrounding the competitive and collaborative elements of donor behaviour are firmly rooted in a broader literature that examines the factors that drive aid allocation. Traditionally, the aid allocation literature has suggested that donor behaviour tends to be driven by donor self-interest (Alesina and Dollar, 2000; Maizels and Nissanke, 1984; McKinlay and Little, 1977; Schraeder, Hook and Taylor, 1998), recipient need (Faust, 2011), or a combination of both (Berthelemy, 2005; Hoeffler and Outram, 2008).

Within the literature, the finding that aid activities are determined by donor specific factors, typically political and economic interests, is well documented. Early allocation studies (McKinlay and Little, 1978a, 1978b, 1979; Maizels and Nissanke, 1984), find clear evidence that aid allocation patterns are typically more consistent with donor interests than recipient-specific factors. Using separate equations to estimate the influence of recipient need and donor interest on aid allocation, McKinlay and Little (1977, 1978b) test the determinants of ODA flows from France and the United States. They conclude that while there are some differences amongst donors, allocation patterns are generally more consistent with donor interests. Similarly, Maizels and Nissanke (1984) test for differences in the balance between recipient need and donor interest in the bilateral allocations of several large donors, concluding that donor interest explains 80 per cent of variation in per capita aid allocations from 1978-1980.

The significance of donor interests in determining aid activities is echoed by Alesina and Dollar (2000), who combine variables for both recipient characteristics and donor interests into a single equation and show that aid allocation is primarily determined by donor strategy (including colonial linkages). More recently, Berthelemy (2005) finds that donors not only use ODA to reinforce political ties with recipients, but that many donors also target aid towards key economic and trading partners.

While the majority of the literature continues to emphasize the significance of donor interests, suggesting that donor specific factors play a major role in determining donor behaviour, the centrality of donor-specific factors in determining aid allocation was partially challenged by Mosley (1981), McGillivray and White (1993), and Lumsdaine (1993), who found some early evidence to suggest that donors partially base allocation on recipient need. More recently, Faust (2011) finds that the most transparent donors tend to allocate aid based on recipient need, while Hoeffler and Outram (2008) and Berthelemy (2005) show that both recipient need and donor interests are important determinants of aid allocation.

Similarly, a series of recent studies have found that donors are increasingly allocating aid based on the policy conditions of recipient countries (Berthelemy and Tichit, 2004; Sundberg and Gelb, 2006; Claessens, Cassimon and Van Campenhout, 2009; Dietrich, 2012), suggesting that donor behaviour is increasingly influenced by recipient-specific factors and behaviour.

The aid allocation literature has become increasingly sophisticated in its portrait of donor decision-making and more nuanced in its understanding of the key elements of donor behaviour. What has been less well developed, however, is its relative neglect of the potential for strategic interaction between donors and how such interactions might influence donor activities.

### *Fragmentation, Herding, and Orphaning*

In general the literature examining the interaction between donors has highlighted four key types of behaviour: herding, orphaning, competition and coordination. Underlying each type of behaviour is the basic understanding that donor behaviour is often correlated and may even be partially determined in a causal process by the behaviour of other donors.

Early evidence that donors consider the actions of other donors in making aid related decisions is presented by Hickman (1993) and Katada (1997), who examine the possibility that ODA allocations from some donors could affect the allocation behaviour of others. In examining the determinants of Japanese aid allocation, both find evidence to suggest that Japanese aid preferences are partially determined by the allocation preferences of other donors, particularly the US (Katada, 1997; Hickman, 1993), and Great Britain (Hickman, 1993). While the evidence of “cue taking” presented in these early studies are based on analysis drawn from an individual case, their findings provide the first real evidence that donor behaviour may be influenced by the preferences and behaviours of other donors.

Rowlands and Ketcheson (2002) pursue this analysis further, examining ten major donors in sub-Saharan Africa and testing for convergence or divergence in their patterns of allocation. Traditional econometric analysis is used to test for the influences on donor allocations of other donors (the U.S. separately and the donor group as a collective) as well as for the activities of the World Bank and the International Monetary Fund (IMF). In general there is evidence that while some countries (France and Belgium) have become more closely aligned with the donor community as a whole, the end of the Cold War was generally marked by a reduction in inter-donor convergence.

Evidence of cue taking suggests that donors may exert ‘herd’ like behaviour in their aid activities. In conducting a cross-donor examination of the relationship between the total aid provided by G7 donors and the ODA effort by other donors, Arvin, Savage and Scigliano (1998) find that Canada is the only G7 country to show signs of herd behaviour in its aid activities as indicated by the presence of a positive correlation between the aid efforts of Canada and those of its G7 partners.



Similar methods were used by Vazquez (2008), Berthelemy (2005), and Tarp et al (1998), who capture the so called ‘bandwagon effect’ in their analyses of donor behaviour. For Vazquez, evidence of ‘bandwagoning’ is apparent in the case of Spanish aid allocation, where an increase in aid receipts to a particular recipient increased the likelihood that the recipient would also receive aid from Spain by 41%. Using a two-step Heckman model, Berthelemy (2005) further finds that donors increase aid to particular recipients when the total assistance from bilateral and multilateral partners to that country increases. While these studies provide early evidence that donors may respond to the allocation preferences of other donors through increasing aid to internationally preferred recipients, questions of the pervasiveness of herd behaviour in determining aid allocation and the size of the effect remained unanswered.

Frot and Santiso (2009) provide the first attempt to systemically understand herd behaviour between donors. Building on the bandwagoning literature, Frot and Santiso develop a measure of herd behaviour to identify the proportion of changes (increases or decreases) in aid allocation to any recipient in comparison to average changes in aid to that recipient from all donors. Using country programmable aid to control for aid channels prone to clustering (humanitarian aid, debt relief, and food aid), and controlling for covariates that are likely to generate uniform response from donors (such as conflict, democratization, or foreign intervention), Frot and Santiso find evidence that herd behaviour is a significant feature in aid allocation. More specifically, their results show that ‘herding’ patterns could explain 11% of aid allocations and that bilateral donors tend to exhibit ‘herd’ behaviour more often than multilateral counterparts.

While Frot and Santiso’s (2009) herding measures mark a step towards understanding herd behaviour in donor activities, their analysis leaves significant room for further exploration. As noted by Davies and Klasen (2013), Frot and Santiso’s analysis focuses on the direction of changes to aid

allocation without addressing the magnitude of the changes to aid flows related to herd behaviour. Moreover, Frot and Santiso's analysis fails to offer an account of changes to herding over time, particularly in relation to international standards that may alter aid allocation such as selectivity and the focus on good governance (Davies and Klasen, 2013). Perhaps most significantly, Davies and Klasen point out that Frot and Santiso's study does not meaningfully engage with the concept of 'lead donorship' and makes minimal effort to understanding and distinguish between donors that serve as 'leaders' and those that form part of the 'herd' (Davies and Klasen, 2013).

Using a spatial econometric framework that examines country allocations between 1988-2007, Davies and Klasen (2013) seek to extend Frot and Santiso's analysis in order to account for variations over time, the differences in 'leading' effects between donors, and to examine donor behaviour in different recipient groups such as 'darlings' and 'orphans'. Davies and Klasen use GMM procedures to estimate the strategic interaction of donors, examining changes in gross bilateral ODA disbursements and controlling for factors that traditionally influence aid allocation (such as donor interest, recipient need, and recipient institutions). They find that the donor allocation preferences has a significant and robust positive effect on the allocation preferences of other bilateral donors, where a 1% increase in aid by another donor leads to a 0.3% increase in a donor's own aid allocation. In these cases, most donors tend to follow the allocation decisions of the largest five bilateral donors. The effect is particularly strong prior to 2000 and has become weaker more recently, which could suggest some success in efforts to increase donor specialization and coordination. The authors also find that the positive dependence of aid allocation is large in Sub-Saharan Africa and the Middle East and is particularly significant for aid 'orphans'.

The current state of the herding literature has left several questions unanswered. Firstly, current studies have treated ‘herd’ donors as a unified whole and have made little effort to distinguish between donors or donor groupings. Although attempts have been made to determine which donors ‘lead’ donor behaviour (Davies and Klasen, 2013), little attention has been paid to differences between donors that exhibit herd behaviour. This raises important questions concerning which donors are more or less prone to herd like behaviour and whether there are clear differences between specific donor groupings ie. emerging donors, mid-size donors, etc. Such analysis could serve to highlight the rationale underlying herding and could deepen current knowledge of donor behaviour.

Secondly, discussions of herd behaviour place little emphasis on the timelines that contribute to herd behaviour. While Frot and Santiso (2009) control for humanitarian and food relief, the effects of other shocks or crises (both economic or political) in recipient countries has not been examined in terms of their relation to herd behaviour. The question is whether donors respond to such shocks as a herd. Particularly in the case of economic crises, herd behaviour could be problematic to the degree that it causes donors to focus limited resources on a few favoured recipients. A deeper exploration of when donors tend to herd could provide further insight into the intricacies of donor behaviour.

### *Competition and Co-ordination*

The idea of herding lies somewhere between the notion of non-causal correlation across donor aid patterns and a more conscious donor interactions derived from competitive or collaborative impulses. Attributing aid correlations to competition or co-ordination implies the

existence of some sort of strategic calculation on the part of donors. One extreme form of co-ordination emerges in the early analysis of Trumbull and Wall (1994).

Trumbull and Wall (1994) break from earlier studies of aid allocation, which focused on the specific preferences of individual donors, by considering the influence of cross-donor interactions on donor behaviour. They test whether ODA from the donor community should be treated as jointly determined according to a single common model of aggregate donor behaviour derived from the simultaneous optimisation decisions of donors. While Trumbull and Wall find that aid allocation is largely determined by recipient need, their inclusion of interactions between donors as a determinant of donor behaviour marked a significant contribution (Wall, 1995).

Political scientists have also suggested that there is an emergent “aid regime” that is of particular relevance for “middle power” donors such as Canada, the Netherlands, Norway, and Sweden (Stokke, 1989; Lavergne, 1995; Black and Therien, 1996). In addition to arising from a congruence of interests and philosophies, there are distinct multilateral institutions such as the World Bank, the International Monetary Fund, and the DAC, for the development and spread of jointly developed themes and priorities for ODA (Black and Therien, 1996).

These institutional mechanisms for coordination, however, are not omnipotent, and some key players seem either unable, or in some cases unwilling (Clift, 1988), to exercise leadership in coordinating the aid activities of others. Some researchers, such as Whittington and Calhoun (1988), cast doubt on the extent to which donor behaviour matches the rhetoric of coordination. They claim that “[t]o date the campaign for donor co-ordination has been carried out at a fairly superficial level...Part of the problem is simply that all donors want to *co-ordinate*, but no one wants to be *co-ordinated*” (Whittington and Calhoun, 1988: 306-307, their emphasis).

The introduction of strategic interaction into discussions of donor behaviour is not insignificant and gave rise to analyses that move from the traditional understanding that aid allocation is linked to donor-recipient relations, to acknowledging that donor-donor interactions are also likely to contribute to patterns of aid allocation. In general, questions surrounding the strategic interaction of donors as a determinant of aid are central for understanding the degree to which aid allocation is determined by competition or collaboration between donors. The basic logic underlying competitive behaviour between donors is the understanding that primary donorship in any given recipient provides the donor with additional compensation in the form of influence or pro-donor policies (Knack 2004; Bueno de Mesquita and Smith, 2007). At the same time, questions of aid effectiveness and a general understanding that coordination is beneficial for development causes donors to face dual incentives associated with pursuing self-interested action through competition for influence in key recipients, while attempting to further developmental objectives through coordination.

With the 2005 Paris Declaration for Aid Effectiveness, coordination between donors has become a distinct component of the aid agenda. However, recent research has shown that many donors have failed to coordinate their aid activities despite increasing emphasis on the importance of coordination as a means for reducing fragmentation and improving the quality of aid programming. According to Nunnenkamp et al. (2013), donor coordination has actually weakened since the emergence of the Paris Declaration. Nunnenkamp et al. find that while changing aid priorities has led to a reduction in aid fragmentation, the costs of coordination, such as a reduced ability for donors to link individual aid resources to clear outcomes, may outweigh potential gains to aid effectiveness for donors and lessen the incentive to coordinate.

According to Steinwand (2013), the propensity for donors to compete or coordinate aid activities is linked to both collective actions problems and incentives based on the distinction between the provision of public or private goods, and the presence of a ‘lead donor’ with long-lasting ties to a particular recipient country. The model for donor coordination is grounded in an attempt to see whether aid from one donor produces ‘spill-ins’ for the aid decisions of other donors. Analysing differences in cases where lead donorship is present, and cases where it is absent, (as established using Herfindahl-Hirschman index of donor concentration), the model uses varying connectivity weights (larger weight for cases with a lead donor) to capture complementarities and substitutions in aid provision for each recipient country and donor from 2004-2010. In developing a theory that combines spatial autoregressive models and non-parametric model discrimination techniques, Steinward finds evidence of collusion in the provision of private good aid in the presence of a lead donor, and a lack of coordination and competition in the absence of a lead donor.

While Steinward suggests that the presence of a lead donor alters the behaviour of other donors involved within a given recipient, Lebovic (2005) examines the incentive to be the largest donor in any given recipient. According to Lebovic, donors benefit from being the largest aid contributor beyond the payoff associated with a given level of aid. Using a Heckman treatment model to assess bilateral disbursements from the United States, Japan, France, Germany, and the United Kingdom to 101 recipient countries between 1970 and 1994, Lebovic’s model accounts for both whether a recipient country has a given contributor as a primary donor, as well as for the amount of aid that the country receives from that donor. Lebovic finds indirect evidence that primary donorship is linked to donor interest, suggesting that donors establish themselves as primary donors in priority countries to capitalize on the prestige and symbolic benefits that stem from being the largest contributor.

While Lebovic's study finds clear evidence of competitive behaviour and the desire by donors to secure the 'top-spot' within recipient countries, the model offers little in terms of understanding the dynamic responses of donors in instances when other donors seek to secure lead donorship. Based on the understanding that lead donorship provides benefits for donors, it is likely that others may seek to challenge top donors in order to extract additional influence over important partners. To our knowledge, the current literature fails to provide any attempt to model competitive interactions in terms of donor responses to potential threats to lead donorship.

Recently, some studies have sought to focus specific recipient-level factors that prompt competitive behaviour by donors. Focusing specifically on donor competition for export markets, Fuchs et al. (2013) and Barthel et al. (2013) test whether commercial and political self-interest has prevented coordination between donors. In examining the aid efforts of France, Germany, Japan, the United States and the United Kingdom, Fuchs et al. asks whether commercial and political self-interest has also worked against closer coordination among donors. Focusing on aid allocation from 1971-2008, the authors test the hypothesis that closer donor coordination of aid activities is prevented by competition among donors for export markets and political influence in recipient countries. Empirically, the authors build on an approach that compares aid portfolios within pairs of donor countries and uses the similarity of portfolios as a proxy for donor coordination. Closer similarity in allocation preferences by pairs of donors towards any recipient is assumed to reflect less coordination. The authors find that competition for export markets and political support from recipients prevents donors from coordinating aid more closely, suggesting that donors actively use aid to compete for influence in recipient countries.

Similarly, Barthel et al. (2013) examines competition for recipient export markets between OECD-DAC donors as a factor that influences donor behaviour regarding aid allocation. The

authors analyse aid allocation using sector-specific aid data from 1995-2011 and assume that the impact of export competition is expected to matter more for aid projects in the economic infrastructure and production sectors than for aid projects for social development (health, education etc.). The authors use a fixed-effects Logit model to estimate 'eligibility' of recipients to receive donor funds followed by a linear fixed-effects estimator to measure the actual amount of aid allocated to a recipient. Barthel et al. find that donors that export to similar recipients are more likely to compete with each other for export market share, suggesting that aid allocation is likely to be spatially dependent on the actions of other donors. In essence, Barthel et al. suggest that donors are likely to make aid allocation decisions based on the donors they are competing against for strategic influence.

Moreover, Cutrone (2010) focuses on the political incentives for donors to cooperate or compete for influence in key recipient countries. Based on the understanding that cooperation results from states being situated on the same side of the recipient state in policy space, Cutrone tests for competitive behaviour between donor 'blocks' (donors who cooperate with each other relative to other donors or donor 'blocks'). The author uses data from 1960-2005, focusing specifically on 14 donors (US, France, Germany, Japan, UK, Sweden, Spain, Denmark, Netherlands, Canada, Belgium, Australia, Soviet Union, and PRC). The hypotheses are tested using OLS models, testing differences in the allocation of economic as well as military aid. Cutrone finds that a cooperating block is likely to increase aid in response to increased aid levels by competing donors, suggesting that donors both account for and respond to the presence of other donors in recipient states.

Cutrone's attempt to model the competitive relationship between 'blocks' of donors raises questions about alternative donor 'blocks' that could also be driving competitive interactions. In



particular, recent concerns over the emerging or BRICS donors, such as those expressed by Naim (2007), suggest that traditional donors are likely to begin competing with new donors groups. Analysing the competitive interaction between traditional and new donors would be a significant addition to the current literature, though undertaking the traditional empirical analysis of donor behaviour will currently be constrained by insufficient comparable data between DAC and many non-DAC donors.

Recently, Annen and Moers (2012) have sought to engage with questions of donor strategic interactions to help develop a model to explain donor fragmentation. Annen and Moers develop and test a game-theoretic framework to model donor interactions based on the assumption that each donor seeks to maximize its aid impact relative to other donors. The model predicts that large donors tend to engage in a strategic complementarity, where an increase in aid from other donors is likely to be met by a similar increase by a large donor. The opposite appears true for small donors, where smaller donors will attempt to maximize their relative impact by allocating more aid to countries that receive less from other donors. In terms of fragmentation, the model shows that donors that maximize the relative aid impact spread their budgets across a number of recipients in a unique Nash equilibrium, causing aid fragmentation.

While Annen and Moers' study offers an important interpretation and model for understanding donor strategic interaction, they do not seek to assess differences in donor behaviour towards particular recipients (Annen and Moers, 2012). By not engaging with the donor-recipient relationship, current findings obscure differences between recipients that could alter donor preferences towards certain countries, such as the strategic values for particular donors or recipient need. Approaches that combine attempts to examine donor strategic

interaction while accounting for the donor-recipient relationship could help to fill this gap (Annen and Moers, 2012).

There appear to be two main gaps that arise from the current literature on the competitive or collaborative elements of donor behaviour. Firstly, a key challenge underlying the finding that donors actively compete for influence in recipient countries is the understanding that if donors provide aid to secure self-interest and exert influence over recipients, then the phenomenon of aid ‘orphaning’ should not be observed for an extended period of time. Based on the understanding that aid orphans, by definition, are not attracting large aid inflows, influence-seeking donors acting in self-interest should theoretically view aid orphans as a location to extract an additional benefit from aid at a relatively lower cost. The absence of such interventions by donors leaves room for the exploration of the recipient and donor related factors that prevent donors from competing for influence in orphaned countries. While the studies by Fuchs et al. (2013), Barthel et al. (2013), and Cutrone (2010) make some progress towards identifying certain recipient characteristics that generate either cooperative or competitive behaviour by donors, there remains scope for the exploration of additional variables to explain differences in the cooperative or competitive behaviour by donors in various recipient countries.

Perhaps more significantly, the current literature largely fails to provide a dynamic model of donor behaviour, one that is able to account for not only the rationale for competitive versus cooperative behaviour, but that provides a basic model for understanding how donors respond to the actions of other donors. Questions of how donors respond to changes in the aid spending of other donors and whether donors respond to changes in aid levels or changes in the proportion of aid provided to any given recipient remain missing from our current understanding of donor behaviour.

The next section discusses some of the broad issues and consequent hypotheses of explicit strategic interaction between donors.

### **A Conceptual Model of Donor Competition**

In this section we examine briefly a conceptual model of donor competition in which donors seek to maximize their influence in a recipient state. The analysis, some of which is derived from earlier formal modelling by Rowlands (2008), focuses on the idea that donors may seek to become a major donor in a recipient country, i.e. to be amongst the top ranked donors as determined by relative contributions.<sup>1</sup> The justification is that if donors are seeking influence in recipient states, then they must seek to be of sufficient importance to have their views considered by the recipient, which has limited resources to deal with each of a potentially long list of donors. Being ranked in the top few donors will presumably give donor officials greater access to key decision makers in the recipient state's government. Although this is only one approach to motivating competitive behaviour, it seems a reasonable and policy-relevant formulation to explore.

As noted, there has been relatively little formal modelling of donor competition. The closest analysis is provided by Annen and Moers (2012), who develop one of the only full formal models of donor behaviour. In their paper they first examine a two-donor, two-recipient model in which donors seek to maximize the net impact of their aid defined as “the difference between the total impact with and without the aid of that donor”, or “to what extent a donor ‘makes a difference’” (Annen and Moers, 2012;12). Their second formulation has donors maximizing

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<sup>1</sup> The underlying model takes the form of each of  $m$  donor governments deriving utility from allocating its budget ( $B$ ) amongst  $n$  recipient states and other government expenditures where the utility donor  $i$  receives from the aid allocation  $D_i^j$  to each recipient  $j$  is of the form  $U_i^j = f(D_i^j, R_i^j)$  where  $R_i^j$  is the rank of donor  $i$  in recipient  $j$ . Since the rank depends on the aid allocations of other donors, the function  $f$  will not typically be smoothly continuous and twice differentiable. Therefore standard optimizing approaches will not generally yield closed-form solutions without some very strict assumptions.

their relative net aid impact, which is closer to the competitive structure we use. They explore this model for various scenarios according to the presence or absence of fixed costs to providing aid to a recipient, linear and non-linear aid impact functions and, ultimately, the presence of additional donors (differentiated by size) and recipients. Under these stylized but none the less useful formulations, it is often possible for the authors to identify unique Nash equilibria with some specific hypotheses regarding aid fragmentation and other measures of relative donor behaviour.

In the problem considered here, donors maximizing rank adds a variety of complexities. First there is the problem of how to aggregate over the ranking achieved in different recipients. For example, if a donor ranks first in one country and third in two others, will that be deemed superior or inferior to ranking second in two countries and third in another? It is also necessary to make assumptions regarding the divisibility of the aid budget, and how donors evaluate cases where they are tied with another donor for the same rank. So any sort of solution would require some very strict assumptions about how a donor would evaluate different rank profiles, and what constraints it faces on dividing up its resources. It is also very likely that after a point, donor ranking is not important at all, and the difference between being the 17<sup>th</sup> or 18<sup>th</sup> ranked donor in a country becomes unimportant. So more intense competition is likely to occur only to achieve a very high ranking.

A simple model of maximizing rank introduces a number of significant challenges to standard optimizing models in economics, though in some ways it is consistent with many of the same basic principles.<sup>2</sup> First consider a model in which donors move simultaneously to maximize

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<sup>2</sup> For example, standard optimization would require the marginal utilities of the last dollar of donation to any recipient to be equal to each other, and to the marginal utility of other government expenditures. While this requirement would obviously still hold, the discontinuities introduced by the donor's rank makes the solution much more complex.

only their rankings. When competing over rank, however, it is often impossible to determine unique Nash equilibrium. Even in a simple two donor-two recipient model a pure strategy Nash equilibrium will emerge only under very strict conditions, such as if one donor is more than twice as large as the other (and thus able to ensure that it is the top ranked donor in all recipients). With multiple recipients and relative parity between donors the game will resemble standard games of competition in which there are no dominant strategies (though there are dominated strategies) and no pure strategy Nash equilibrium.<sup>3</sup> Instead there are only mixed strategy Nash equilibria to such game structures. Therefore almost any given aid pattern and ranking outcome could potentially emerge as a consequence of multiple donors playing mixed strategies in a simultaneous game, making the empirical evaluation of rank competition extremely difficult.

Of course it is highly unlikely that donors will only pay attention to their rank in recipient countries; at most the rank achieved is only one element of its calculation that will include at a minimum the more standard measure of the level of donation as a key determinant of the utility of aid. Different donors will presumably put different weights on each of these two characteristics of its donation, which may also be evaluated in terms of aid effectiveness. Re-introducing the more traditional determinant of donor utility will of course make the problem of identifying optimal strategies even more difficult.

Yet another important complication arises if different recipients have differentiated importance to the donors, and indeed donor-specific importance. It is very likely that some recipient states will be of greater significance to all donors due to size or strategic location. It is likely that in these cases all donors may be more anxious to compete for high rank, though

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<sup>3</sup> The classic analog would be “Colonel Blotto’s Game” in which two players allocate fixed resources (armies in the original version) over several possible locations, with each side seeking to win the most locations by having more resources (or armies) allocated there.

obviously larger donors will have the advantage in achieving top ranks. In many cases, however, recipient states may have specific value to certain donors due to trade or other commercial linkages, colonial ties, or social and political connections.

Consequently it is very difficult to identify from the empirical record of aid allocations evidence of rank competition by donors. To the extent that rank is likely to matter it is more likely to be only one of a number of factors affecting donor behaviour. The level of donation and the characteristics of the recipient are also key factors in determining the donor's utility from a particular aid allocation pattern. Picking out patterns in aid allocations by donors that are linked to considerations of rank rather than other dimensions of their optimization problem thus becomes very challenging.

Therefore we will appeal to some basic simplifications to see whether we can identify any behaviour that is consistent with donor competition over rank. The first simplification is that the public bureaucracies that determine aid allocation are most likely to make incremental decisions both because of their inherent conservatism, but also because aid program cycles are typically longer than budget cycles. It generally takes more than one year, and often three to five years, to operate a development project from initiation to completion. Therefore the sharp changes in patterns that would be associated with allocations based on a mixed strategy are unlikely to occur in reality. In addition while competition over rank may be important in some cases, for the most part we would expect that the more standard factors such as recipient characteristics and specific recipient-donor interactions will generally dominate the decision making process of donors.

These simplifications suggest that it is unlikely that we will find evidence of donor competition over rank by looking at the static patterns of aid allocations. Instead, it is important

to focus on changes in patterns. The next section presents some simple tests as to whether competition over rank appears as a feature in donor allocations of ODA.

### **Is there empirical evidence of rank competition?**

In this section we explore three simple approaches to see if rank competition amongst donors is a feature of ODA allocation patterns. The first approach is static and lays out some of the information on ranking by different donors. The second two focus on changes in donor allocations.

#### ***(i) How donors rank***

If donors were rank conscious we would expect that they would seek to have a higher proportion of high-placed rankings amongst their recipients. Table 1 presents some basic data on ODA and rankings for twenty of the largest DAC donors. The table was compiled using gross ODA disbursements from 1960-2012 in constant US dollars as taken from the OECD database. Table 1 lists the donors (column 1) according to their overall donor size (column 2) from 1960-2012, and identifies its level of activity, or how many recipients each donor was active in (column 3). The Table also indicates the difference between each donor's rank in terms of size and its rank in terms of activity (column 4). A positive (negative) number in column 4 indicates a more (less) focused program, and possibly greater (lesser) rank sensitivity. The final two columns identify the average rank and median rank of the donor.

**Insert table 1 about here.**

As noted before, it is difficult to detect rank competition out of an analysis of static allocation patterns. For example, it should be noted that it would be unlikely for top donors to be consistently ranked at the highest levels in all recipients. Therefore the fact that the United States, as the largest aggregate donor over the past fifty years or so, has an average rank of 3.3 rather than 1 is hardly unexpected.<sup>4</sup> The rank reflects not just the amount of aid, but also how many countries it has been spread over, or the degree of fragmentation, and the actual distribution across these recipients. Of course actual rankings also depend on how other donors behave and how close their aid budgets are. None the less, Table 1 provides some interesting insight about donors and their allocation patterns. First, the data highlights the extent of overall donor fragmentation. Column 4 shows the total ODA rank less the ranking in terms of activity (the number of country recipients in each year to which the donor has given ODA over the time period). Therefore column 4 gives one measure of relative fragmentation. Negative numbers show lower ODA fragmentation, while positive numbers indicate higher fragmentation. Therefore countries such as Australia, Denmark, and the Netherlands have relatively less fragmentation than other donors (by this measure) while Canada, Austria and Finland have relatively more dispersed ODA allocations.

The core insights on rank competition come from an examination of the actual and expected performance in terms of ranking. Rather than a smooth progression in the average rank, some donors appear to do relatively better or worse than expected. For example, France has an unexpectedly low average rank performance when compared to Germany amongst the largest group of donors. Norway and Canada, have higher average donor ranking performances than

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<sup>4</sup> It is important to note that the lower the average rank, the more highly ranked the country is.



other middle sized donors, while Denmark seems to have a lower than expected average rank performance. What is interesting is that despite its highly fragmented aid program, Canada performs relatively well in terms of its average ranking performance. Together, these observations suggest that Canada's aid program has several larger than expected recipients, but a large number of very small programs.

While Table 1 provides some aggregate indicative measures of relative rank performance, a clearer picture arises from the actual distribution of rankings by a donor. Figures 1 to 11 provide some sample histograms of donor rank performance from 1960-2012.

Insert Figures 1-11 here.

### ***How donors respond to others***

The first dynamic test of rank competition examines how donors respond when another donor challenges its rank in a recipient in which it ranks as one of the top donors. The rationale is that if a donor has traditionally been highly ranked in a specific recipient, it is more likely to see this recipient as an important client. Therefore if another donor increases its ODA to such a special recipient, it should provoke an increase in assistance from an incumbent that is concerned about rank.

Therefore we examined several cases where middle-ranked or smaller donors were highly ranked in a specific recipient, and examined how rankings and donations changed from 2000 to 2012.<sup>5</sup> While not a formal test, there is evidence of behaviour that is consistent with rank competition, though not necessarily confirmatory.

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<sup>5</sup> Our rankings are derived using country programmable aid (CPA) data taken from the OECD CRS database from 2000-2012 in current dollars. CPA aims to capture the proportion of aid that a donor can program for any given recipient and is used in efforts to capture the true responses of donors to changes in rank by others through focusing on the proportion of aid resources over which donors theoretically have the most control.

The first donor examined was Australia, which held a dominant role since 2000 in five, generally small, Pacific island states: Fiji, Nauru, Papua New Guinea, the Solomon Islands, and Vanuatu. In Fiji, Australia and Japan traded places as the top-ranked donor over the twelve-year period. A large decline in Japanese aid in 2004 left Australia as the primary donor in Fiji for the next five years. In 2009, an abrupt increase in Japanese assistance (from \$US 6.3 million to 23.6 million) made it the top ranked donor again. Australia, whose own assistance had declined marginally from 2008 to 2009, then increased its aid in the next three years, more than tripling from \$US 17.2 million in 2009 to 52.2 million in 2012, assuring it of top spot as Japanese aid dwindled over the same period. This event fits our definition of a challenge to a donor's status, and provoked the response we would have predicted from a rank-conscious donor. These changes could, of course, have been entirely independent, but would not likely be explained by changes in the conditions in the recipient itself, as the changes in behaviour by other donors did not suggest a sudden increase in the appeal of programs in Fiji.

A similar response seemed to follow Australia's displacement as top donor in Vanuatu by the United States in 2008. A tenfold increase in U.S. assistance (from \$US 2.3 million to 25.8 million) left it ranked first and Australia ranked second. As in the case of Fiji, the following years saw a steady increase in Australian aid up to 2012 to more than double its 2008 level, which restored its status as top donor (especially as US aid quickly declined to its traditional level) As top donor, Australia was not ever challenged in this way in Nauru, Papua-New Guinea, or the Solomon Islands; Australia has ranked first by a significant amount in all three since 2001. In the Solomon Islands and Vanuatu (and more marginally in Papua New Guinea) there is some similar evidence of New Zealand responding to large increases in Japanese ODA in an attempt to

restore its second rank as donor, though Japan's adjustment to New Zealand does not indicate a similar concern over rank.

The second set of recipient countries examined were ones where Canada ranked relatively highly. In one case, Haiti in 2009, an abrupt increase in Spanish aid from \$US 30.6 million to 130.4 million was followed in the next year by an increase in Canadian aid from \$US 84.2 to \$142.6 million, restoring it to its traditional second rank behind the United States (far and away the largest donor to Haiti). The year 2010 also saw large aid increases from France and Norway, which suggests that other factors may have been at play. In Canada's case, however, it maintained its second rank for the remainder of the period under review. There were no other cases observed where Canada seemed to respond to major ODA increases from other donors that displaced it from a top ranked position. In the case of Jamaica it briefly held top donor status in 2001 after nearly quadrupling its ODA that year, but the following year saw a decline by two-thirds while the United States increased its assistance and recovered its top spot, which it held for all subsequent years. In most of the cases examined there were few instances where Canada had a traditionally high ranking, so it was difficult to identify instances that could be considered as "challenges" to its status.

As a small donor Portugal has focused its scarcer ODA budget on former colonies, and typically maintained consistently high rankings amongst their donors. In large recipients such as Angola it has not maintained top status, and its donation changes do not appear to reflect a clear pattern of defending its ranking amongst the top five donors (though recent increases in 2011 and 2012 have allowed it to become the second largest donor after the United States). In Guinea-Bissau and Sao Tome and Principe it has always maintained top status without other donors displacing it. In Cape Verde it briefly lost top status in 2009 following a substantial (20 percent)

decline in its ODA and a 50 percent increase in aid from the United States. The following three years saw dramatic increases in Portuguese aid to Cape Verde (almost a four-fold increase) which returned it to top donor status, a pattern consistent with the hypothesis of defending rank. In Timor Leste, by contrast, the support for the hypothesis is weaker, with the diminution in Portugal's rank as donor being driven in large part by its own reduced aid flows, the steady increase in aid from Australia, and the more volatile flows from Japan.

We also examined the behaviour of Sweden, the Netherlands, and Ireland. There are few cases in which these countries had a long-standing role as a top donor, and no evidence that their displacement from these higher ranks precipitated a defensive response. For these donors, then, there did not appear to be much evidence that would support a hypothesis of defending rank.

The second test of dynamic interaction focuses on three cases where a donor experienced a large increase and a large decrease in its overall ODA budget. These significant changes in budget represent important opportunities to reallocate resources. For countries interested in preserving rank it should lead to a marked expansion in its ranking performance relative to what would have been the case if its budget increase or decrease was simply allocated proportionally to its list of recipients.

We test whether donors consider rank when responding to large changes in their aid budgets by calculating the largest proportional increases and decreases of the top 20 bilateral donors from 2000-2012. For each case, we calculated the difference between the frequency of the expected rank if donors responded to budget changes by altering allocation to each recipient by an amount that is proportionally equivalent to the overall budget change and the actual frequency of ranks following a large change in donor budgets.

Underlying this calculation is the assumption that donors that are not rank conscious would respond to a large increase or decrease in aid budgets by distributing the budgetary change equally among current recipients in a manner that is proportional to the change in budget. The difference between the proportional rank frequency and the actual rank frequency should show whether donors consider rank when responding to large budgetary changes. In instances of a budget increase, we would expect rank conscious donors to show positive values on the top few rank positions. This would suggest that donors disproportionately allocated aid in countries where they sought to secure a top rank position more frequently than would have naturally occurred under a proportional rank change. In the case of a budget decrease, we would expect to see negative values on many of the lower rank positions with little change to the frequency of higher rank places. This would suggest that when faced with a budget decrease, donors actively reduce aid in countries where they ranked poorly in efforts to maintain high rank positions. Below we analyse the donor response to large budget increase and decreased for three donors – Spain, the Netherlands, and Canada.

From 2006-2007, Spain experienced a 69% increase in its aid budget, marking the largest proportional increase in donor spending for the decade. Figure 12 shows the difference in the expected frequency of each rank if the increase in aid was distributed proportionally between donors, minus the actual ranks observed after the budget increase. In the Spanish case, we observe some evidence that the budget increase was used to improve Spain's rank in a few key recipients. Spain secured a 1<sup>st</sup> place rank in three more countries than would have been expected under a proportional change. We also observe three additional 2<sup>nd</sup> place rankings, and four additional 4<sup>th</sup> place rankings above an expected proportional change.

Moreover, Spain appears to have used new aid resources to fund countries where it previously had no involvement. In many of these cases, Spain increased its rank by at least 10 places, moving from 20<sup>th</sup> to 8<sup>th</sup> (DRC), 20<sup>th</sup> to 6<sup>th</sup> (Republic of Congo and Lesotho), 20<sup>th</sup> to 5<sup>th</sup> (Guyana) 20<sup>th</sup> to 4<sup>th</sup> (Djibouti), and 20<sup>th</sup> to 2<sup>nd</sup> in the Ex-Yugoslavia. While the large increases in rank to new recipients suggests that Spain could have been vying for influence in Sub-Saharan Africa, which was made a priority region in Spanish aid programming (OECD, 2007), it is unclear whether these changes to rank are driven by strategic behaviour or a more poverty focused aid policy.

Similar results are found following a 70% budget decrease in Spain from 2011-2012 (Figure 13). Indeed, there appears to be some evidence that Spain sought to reduce rank in countries where it already ranked poorly, rather than in recipients where it held a Top 5 ranking. Figure 13 shows that the majority of the additional program cuts appear to have taken place in countries where Spain already maintained a low ranking, as illustrated by the negative scores on the 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, and 18<sup>th</sup> rank place. The positive value of 23 on the 20<sup>th</sup> rank further suggests that Spain cut more programs than would have been expected under a proportional decrease.

The higher than expected number of cut programs could suggest that Spain was closing programs with poor rank in order to sustain programs where it already enjoyed a higher rank position. Indeed, Spain's maintenance of a 3<sup>rd</sup> place rank in three more recipients than expected under a proportional change could provide some evidence of this behaviour. However, if this behaviour was driving allocations, one would expect the chart to show more positive ranks in the Top 5 ranking categories.

Inset figure 12 and 13 about here

The case of the Netherlands provides a more acute example of the expected results from rank conscious donors. Between 2000 and 2001, the Netherlands experienced an aid budget increase of 45.4%, the distribution of which is shown in Figure 14. The changes in appear heavily skewed towards the Top 7 rank places, suggesting that in the face of a budget increase, the Netherlands maximized ranks more than expected under a proportional rank change. In terms of the Top 3 ranks, the Netherlands secured two additional 1<sup>st</sup> place rankings, four additional 2<sup>nd</sup> place rankings, and seven additional 3<sup>rd</sup> place rankings above those it would have secured with a proportional increase in aid across recipients.

At the same time, the number of lower ranks within the Dutch aid portfolio diminished considerably, suggesting that the Netherlands also used new aid resources to open programs in places where they previously were not present. A closer examination of the distribution of rank changes suggests that the Dutch used new aid resources to achieve high ranks countries where they previously were not providing aid. For example, the Netherlands went from 20<sup>th</sup> to 3<sup>rd</sup> in Comoros, Djibouti, and St, Kitts-Nevis, from 20<sup>th</sup> place to 2<sup>nd</sup> in Afghanistan and Anguilla, and 20<sup>th</sup> to 1<sup>st</sup> in Sudan.

The year following the large increase in Dutch aid, the Netherlands experienced a 31% cut in their aid resources (Figure15). Figure 15 shows that the Dutch responded to the decrease by reducing aid primary from countries where it had previously held an average rank of 5<sup>th</sup> -8<sup>th</sup> place, as illustrated by the negative values on rank positions. In most cases, countries where the Netherlands was highly ranked did not experience large changes to aid programs. Indeed, out of 31 cases where the Netherlands held a top 3 ranking, there were only 4 instances of top ranking being reduced below 5<sup>th</sup> place.

Rather, what we see in the case of the Netherlands is that the aid withdrawn from programs where the Netherlands enjoyed a 5<sup>th</sup> to 8<sup>th</sup> place rank, appears to have been reallocated to recipients where the Netherlands held a lower rank. Indeed, the positive values on the 9<sup>th</sup>-14<sup>th</sup> place ranking, coupled with the relatively low score on the 20<sup>th</sup> rank (which shows that the Netherlands closed 10 programs beyond those that would have been closed with a proportional change) could suggest that rather than withdrawing aid completely, the Netherlands prefers to remain active in the countries in which it invests. While the low rank it maintains in these countries does not provide evidence of strategic behaviour, it could suggest that the Dutch are conscious of the challenges arising from aid withdrawal and the importance of aid predictability for the recipient.

Insert Figure 14 and 15 about here

The Canadian case tells a very different story. In 2008, Canada's aid budget was increased by 34% over the previous year. As shown in Figure 16, the distribution of additional aid resources in the Canadian cases suggests that Canada does not appear to be concerned with maximizing rank and is content to maintain a modest presence in recipient countries. Indeed, Figure 16 shows that a proportional change would have resulted in 10 additional top 3 ranks (five 1<sup>st</sup> place ranks, and five 3<sup>rd</sup> place) for Canada over actual allocations. Rather, Canada is seen to disproportionately increase middle ranks, ranking 11<sup>th</sup> ten more times than predicted under a proportional change.

A 25% decrease in Canadian aid from 2008-2009, the year after the budget increase appears to confirm the finding that Canada is not rank conscious. Indeed, Canada appears to have withdrawn additional aid resources from countries regardless of their rank, scoring values



below the expected proportional frequencies consistently across rankings. Moreover, the large positive value on the 20<sup>th</sup> rank (48), suggests that not only did Canada cut aid more from all ranks, but that it either closed programs, or provided only negligible amounts of aid in 48 more cases than expected under a proportional increase. In part, this could be driven by Canada's revised list of aid priority countries produced in 2009, which included several Caribbean states as a single 'region' of focus. As a result, Canada provided only very small amounts of aid to each Caribbean country and may be influenced the high value on the 20<sup>th</sup> rank. Regardless, Canada's near consistent reduction in aid to all rank values above the expected proportional change suggests that its behaviour is not influenced by rank seeking.

Insert Figure 16 and 17 here

## **Conclusions.**

This chapter has attempted to accomplish two tasks. First, it reviews in some detail the literature that examines donor behaviour relative to the actions of other donors. Donor interactions could encompass desires to coordinate and collaborate, as well as impulses to compete. These contradictory behaviours are respectively broadly consistent with the traditional concepts of recipient need and donor interests, respectively. What the existing evidence strongly suggests is that we cannot really fully explain the allocation of development assistance without incorporating donor interactions. While significant progress has been made in this regard, the theories that can provide a more solid foundation for such analysis remain in need of further attention. With a more solid theoretical foundation, further refinement of the associated empirical analysis should be possible.

The second objective of the chapter was to raise the possibility that donors might compete for influence in recipient states by trying to obtain a high rank relative to other donors. Such an approach reflects a “realist: international relations perspective in which states seek to use their available foreign policy instruments to enhance power. Competing over rank is also consistent with the isolated anecdotal references to donor desires to acquire and retain influence. Unfortunately, modelling competition over rank is difficult due to the inherent discontinuities of any mathematical representation of a donor’s optimization problem, and evidence of such competition is obscured by the presence of other plausibly important factors driving aid allocation.

To determine whether competition over rank is an important aspect of behaviour we examined some basic empirical evidence. None of the tests described here can be considered as confirmatory, as evidence in favour of competition over rank could also be consistent with other behavioural assumptions. The evidence consistent with the hypothesis, was mixed. In some cases there seemed to be reasonable evidence in favour of the idea that some countries (for example Australia and Portugal) do seem to behave in a manner that is often consistent with the objective of preserving a high rank in an important recipient. In other cases (the Netherland, Sweden, Ireland) the evidence suggest an absence of competitive objectives. Finally the evidence is less clear for some donors (such as Canada), with some behaviour being consistent with rank competition, but other instances where it is not.

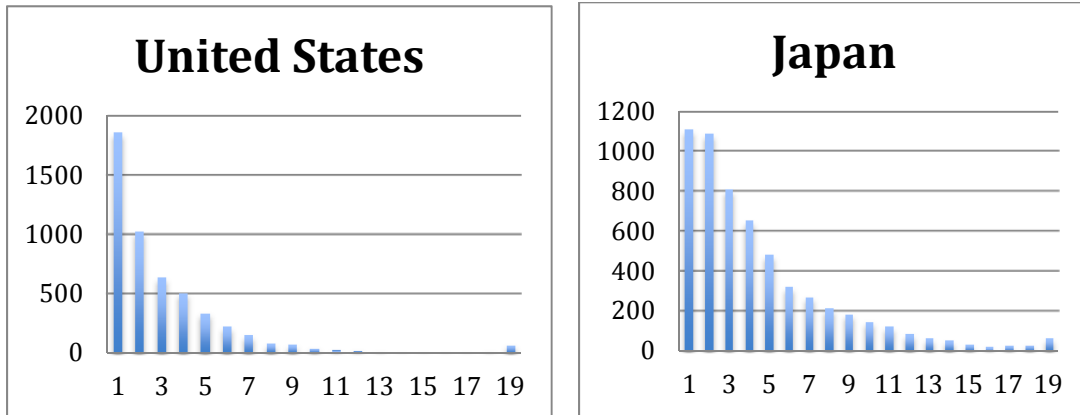
Overall, therefore, competing over rank could affect aid allocation decisions, but probably only for a subset of donors and recipients, and perhaps only for specific periods of time. Such inconsistency is perhaps not to be unexpected in donor behaviour given the shifting of political support and ideological predispositions of different governments.

What makes the question of rank competition of importance for the future is the emergence of new donors with weak affinity to the dominant DAC structure for aid governance. In some cases these new donors may in fact be actively opposed to the hegemony of traditional donors, posing an explicit challenge to their dominance and offering a competing conception of donor-recipient relations. In this case, we may see in the near future a more differentiated set of donors amongst whom competitive pressures become a more dominant factor in their allocation of development assistance.

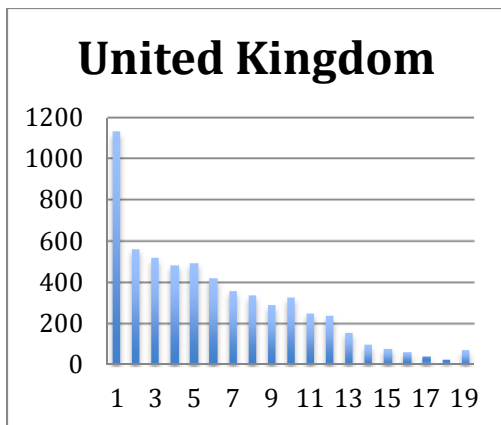
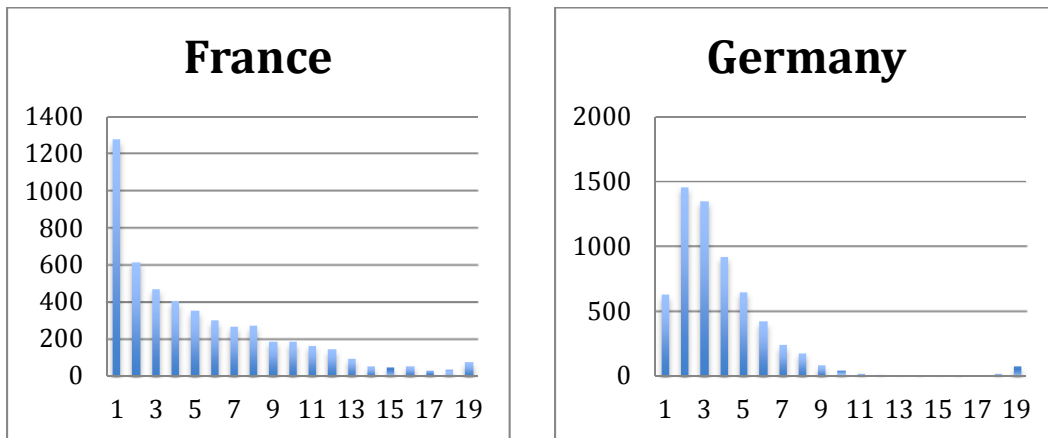
**Table 1: Donor rankings by Total ODA and Activity (CPA)**

Donor	Total ODA \$US millions (rank)	Activity (rank)	ODA Activity rank	Average ODA per recipient	Average rank as donor
United States	157783 (1)	1765 (2)	-1	89.4	3.3
Japan	145750 (2)	1868 (1)	1	78.0	3.7
France	47264 (3)	1755 (3)	0	26.9	5.9
Germany	44978 (4)	1684 (4)	0	26.7	4.7
United Kingdom	43146 (5)	1527 (5)	0	28.3	6.8
Australia	24249 (6)	1149 (15)	-9	21.1	8.5
Netherlands	20604 (7)	1288 (13)	-6	16.0	8.1
Norway	17694 (8)	1390 (7)	1	12.7	7.6
Spain	15910 (9)	1334 (8)	1	11.9	8.4
Denmark	15159 (10)	1061 (17)	-7	14.3	9.1
Sweden	14932 (11)	1325 (9)	2	11.3	8.4
Canada	14303 (12)	1397 (6)	6	10.2	7.6
Switzerland	8175 (13)	1301 (11)	2	6.3	9.6
Italy	7277 (14)	1304 (10)	4	5.6	9.9
Belgium	5874 (15)	1089 (16)	-1	5.4	10.9
Ireland	3672 (16)	968 (18)	-2	3.8	12.6
Finland	3463 (17)	1292 (12)	5	2.7	11.8
Portugal	3140 (18)	527 (20)	-2	6.0	12.7
New Zealand	2127 (19)	957 (19)	0	2.2	11.0
Austria	1674 (20)	1154 (14)	6	1.5	13.2

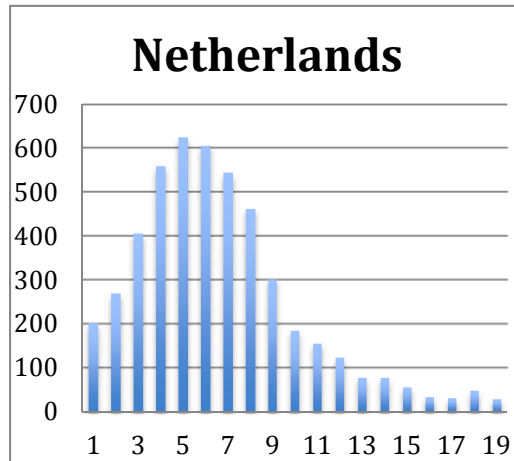
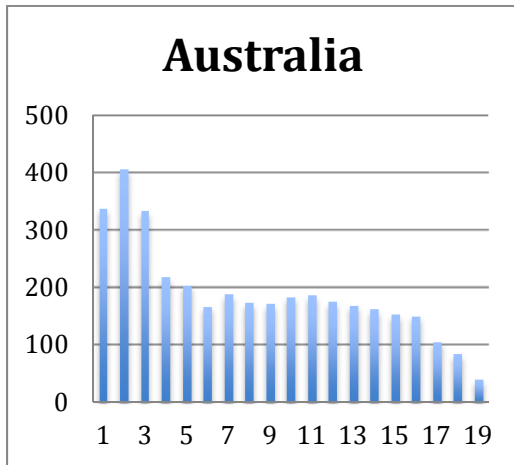
## Figures



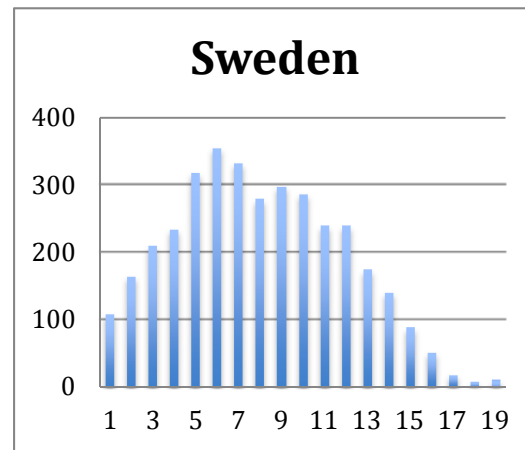
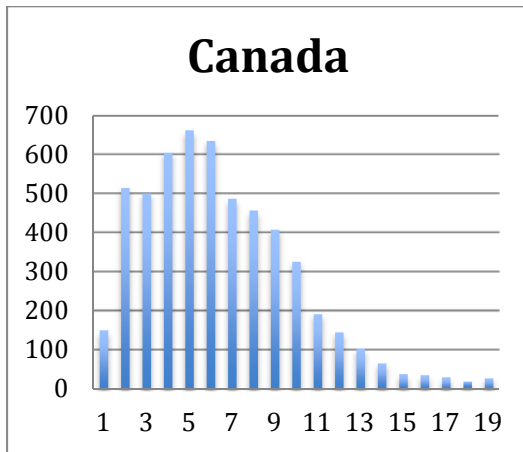
Figures 1 and 2: the largest donors (The United States and Japan)



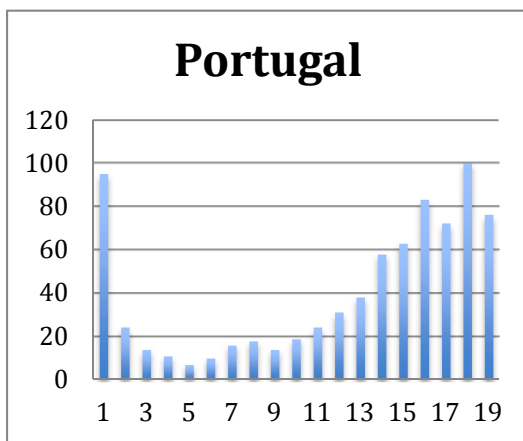
Figures 3,4 and 5: The other three top donors (Germany, France, the United Kingdom)



Figures 6 and 7: The top middle-ranked donors (Australia and the Netherlands)

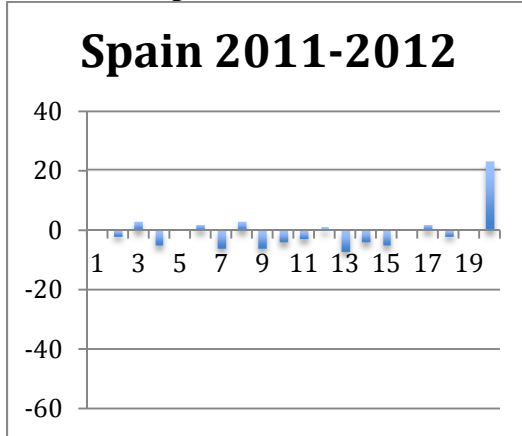
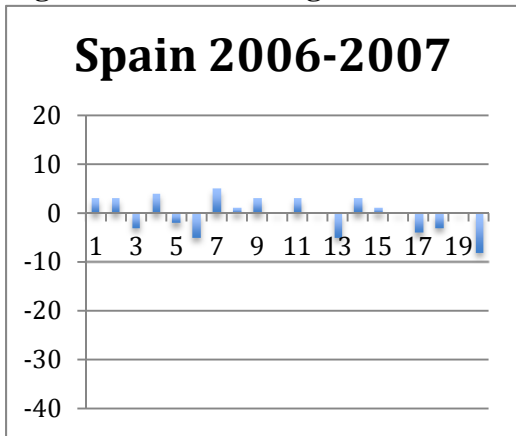


Figures 8 and 9: Two middle ranked donors (Canada and Sweden)

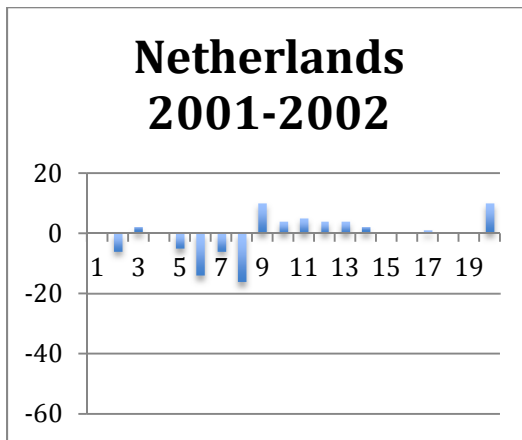
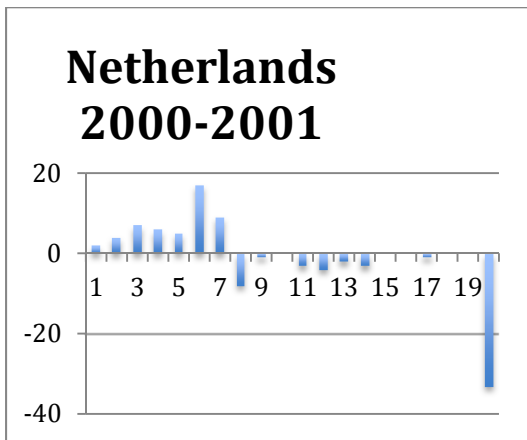


Figures 10 and 11: Two smaller donors (Portugal and Finland)

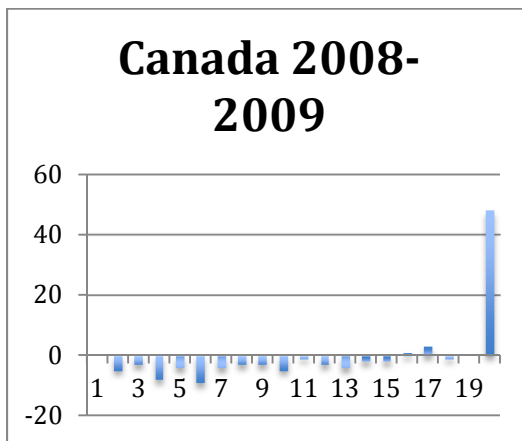
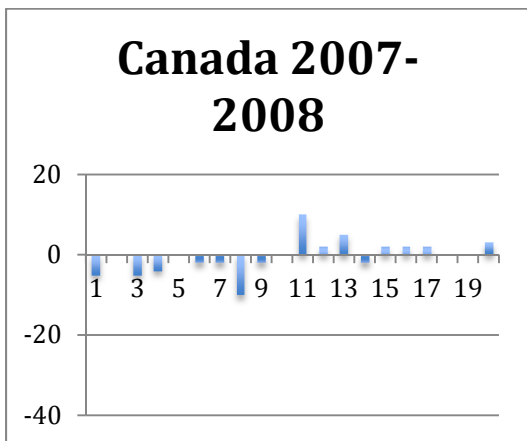
**Figure 12 and 13: Large Increase and Decreases in Spanish Aid**



**Figure 14 and 15: Large Increase and Decreases in Dutch Aid**



**Figure 16 and 17: Large Increase and Decreases in Canada Aid**



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