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**CONCENTRATION DIFFICULTIES? AN ANALYSIS OF SWEDISH AID  
PROLIFERATION**

Rune Jansen Hagen



# Concentration difficulties?

## An analysis of Swedish aid proliferation

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*Rapport 2015:03*  
*till*  
*Expertgruppen för biståndsanalys (EBA)*

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# Preface

In order to be effective it is often good to focus and concentrate. This is true also for development assistance. In 2007 Sweden embarked on what in this report is described as a “concentration policy”. It was a political decision by the Government at the time with the aim to reduce the number of countries to which Sweden gave bilateral development assistance– i.e. to reduce the proliferation of Swedish aid. Also it was decided that aid to these countries should be concentrated to fewer sectors – what this report describes as fragmentation.

Fragmentation and proliferation are two aspects of aid quality. Fragmented aid means that there are many different donors doing the same thing in one country, for example a large number of donors all working in the education sector. Proliferation, on the other hand, shows to what extent a donor’s resources are spread between many different countries or focused on a few selected. Many argue that reduced fragmentation and proliferation is an indicator of more effective aid. For example, the Center for Global Development’s Quality of ODA (Official Development Assistance) report ranking is constructed so that it penalizes aid that is fragmented. Another example is the OECD’s recent peer review of Sweden’s development assistance which concludes that Swedish aid is “spread thinly across a wide range of partner countries and sectors”. Less fragmentation and less proliferation is often described as more effective and less costly. In short – better.

In this report Professor Rune Hagen from University of Bergen analyses to what extent the introduction of the new policy has led to reduced fragmentation and proliferation of Swedish aid. His results indicate a limited effect. However, he also shows that it is difficult to measure in a simple way how aid is spread between and within countries. While Sweden has fewer formal cooperation countries today than in 2007, Swedish aid is still provided to a large number of additional countries through NGOs and multilateral organisations. Therefore, the overall result is that Swedish aid still has a high level of dispersion.

With the critique of the OECD and others in mind, the results from Professor Hagen’s analysis seem discouraging. Despite a clear policy shift since eight years, the results are limited. That said, we also know that it is difficult to measure how dispersed aid is by using official statistics. Donor countries report data to the OECD-DAC

differently which has implications for how fragmented and proliferated each donor appears. Thus statistics must be interpreted with caution.

So is it always better to concentrate? Hagen's report suggests ways to decrease the fragmentation and proliferation of Swedish aid. He argues that Sweden should be more selective in its' choice of partner countries and should channel an increasing share of its support via multilateral institutions. Also, in the choice between "cooperation" and "going alone" as a way to concentrate, Hagen recommends going alone. The Paris Agenda for aid effectiveness has lost steam and thus it is unlikely that more concentration can be achieved through coordination with other donors.

Hagen's recommendations are not uncontroversial. There are many examples of small-scale aid interventions that have proven effective and a more selective and concentrated approach would leave less room for such activities. Furthermore Sweden has been a strong backer of the Paris Agenda for Aid Effectiveness and there is broad support for the importance of coordinating aid efforts with others. Against this background we hope and expect that this report will spur a renewed discussion on aid effectiveness.

The author's work has been conducted in dialogue with a reference group chaired by Professor Jakob Svensson, member of the EBA. The analysis and views expressed in the report are the sole responsibility of the author.

Stockholm August 2015



Lars Heikensten

Chair



# Sammanfattning

En av de viktigaste punkterna i Parisdeklarationen är de negativa effekterna av att bistånd ges till för många länder och till för många sektorer, alltså med stor spridning. Sverige har förbundit sig till Parisdeklarationen och därmed arbetet med att minska biståndsspridningen. Vidare så lanserade den tidigare regeringen 2007 en policy för att koncentrera biståndet till färre samarbetsländer.

I den här rapporten går jag tillbaka till argumenten för varför biståndets spridning bör minska och finner att de fortfarande håller. Jag beskriver därefter ett index som kan användas för att mäta spridningen av biståndet. Detta index är särskilt relevant för Sverige eftersom det möjliggör analys av i vilken mån biståndsspridningen är en effekt av att bistånd ges till många länder eller att bistånd ges till många sektorer i ett och samma land. Vidare konstaterar jag, i likhet med tidigare forskning, att det finns begränsat med evidens för att Parisdeklarationen har inneburit en minskning av den genomsnittliga spridningen av bistånd från länder som är medlemmar av OECD's biståndskommitté (OECD-DAC). Detsamma tycks gälla även för Sverige. Om man avgränsar analysen till att endast omfatta större biståndstransaktioner eller utelämnar bistånd som ges via NGO:s tycks regeringens koncentrationspolicy haft viss effekt. Samtidigt tycks spridningen av svenskt bistånd ökat något igen efter 2009.

Minskad spridning kan i princip åstadkommas på två sätt; genom ensidiga åtgärder som den svenska koncentrationspolicyn eller genom gemensamma åtgärder i samarbete med andra givare. Den här rapporten fokuserar främst på de ensidiga åtgärderna. Mer specifikt så diskuterar jag selektivitetsprincipen; alltså att långsiktigt utvecklingsbistånd i första hand ska ges till fattiga länder med relativt sett starka institutioner. Enligt min mening så finns det stöd för ökad selektivitet i såväl teori som empiri. Det finns dock ingen transparent redogörelse för hur bistånd allokeras eller koncentreras, varken i koncentrationspolicyn eller i den biståndspolitiska plattformen. Vidare så visar mina resultat att andelen svenskt bistånd som går till de länder som valdes ut som samarbetsländer 2007 ökade till en början men sedan minskade. Samma gäller för andelen svenskt bistånd som går till låginkomstländer. Evidensen för hur selektiviten påverkats av koncentrationen är mer tvetydiga. Jag argumenterar därför för att selektiviten i val av samarbetsländer utifrån såväl inkomstnivå som utifrån kvaliteten på samarbetslandets institutioner måste tillämpas

mer konsekvent. Detta skulle vara ett sätt att återigen väcka liv i koncentrationspolicyn.

Många menar att Parisdeklarationen har tappat kraft i och med att fler givare har inkluderats. Därmed är det inte sannolikt att särskilt mycket kan uppnås genom ökad samordning med andra (icke-EU) givare. I den sista delen av rapporten argumenterar jag för att detta innebär att Sverige står med två möjliga strategiska vägval för att minska biståndsspridningen. En möjlighet är att ge en ökad andel bistånd via multilaterala organisationer. Det andra är en förnyad ansträngning att minska den bilaterala biståndsspridningen. En kombination av dessa två val framstår för mig som den bästa vägen framåt.

## Summary

One of the major points on the so-called Paris Agenda on aid effectiveness was the negative effects of aid dispersion – the fact there are too many donors funding too many activities in too many recipient countries. Sweden has undertaken to comply with this agenda. In addition, in 2007 it launched an ambitious policy of concentrating its bilateral aid in certain groups of partner countries.

In this report I revisit the arguments for why aid dispersion should be reduced and find them, on balance, to be valid still. I then describe an index that can be used to measure dispersion. It is particularly useful in the Swedish case because it allows for a distinction between the part of the total spread that is due to aid being distributed across recipient countries and the part that is due to funds being distributed across different sectors within those countries. Consistent with other studies, I find little evidence that the Paris Agenda has led to a reduction in the average dispersion of aid from donors belonging to the Development Assistance Committee of the OECD. At first glance, the same seems to apply to Sweden. However, I do find that if one focusses on larger transfers or leave out aid through NGOs the concentration policy apparently has had some effect. Still, it should be a cause for concern that after 2009 dispersion has increased again.

Excessive spread can in principle be reduced in two ways, through unilateral measures like the Swedish concentration policy or through joint action with other donors. Given that the main concern of this report is Swedish aid policy, I focus on the former. More specifically, I discuss the principle of selectivity; that long-term development assistance should primarily be given to poor countries with relatively strong institutions. In my view, selectivity finds support in both theory and empirical work. However, in neither the original documents describing the concentration policy nor the current aid policy framework the principles for allocating Swedish development assistance in general and concentrating it in particular are transparently outlined. Moreover, I find that while both the share of Swedish aid going to the countries selected in 2007 and the share going to low-income countries increased at first, they also decreased after 2009. The evidence regarding Swedish selectivity on governance after the policy change is more mixed. I therefore argue that selectivity on both income and policy/institutions should be more consistently applied as part of an effort to revive the concentration policy.

Many observers argue that the Paris Agenda has lost steam with the inclusion of new donors. Thus, it is unlikely that much can be achieved through coordination with other (non-EU) donors. In the last section of the report, I contend that this leaves Sweden with two main strategies for achieving the goal of reducing the degree of aid dispersion, which should arguably still be on the Swedish agenda. A combination of the two, giving more through multilateral institutions and a renewed effort to decrease bilateral aid dispersion, is likely to be the best way forward.

# Acknowledgments

I would like to express my gratitude to the members of my advisory group, Ulla Andrén, Anna Holmryd, and Jakob Svensson, for their efforts at helping me improve this report through constructive criticism. My contact at the EBA secretariat, Jesper Sundewall, provided valuable administrative support as well as helpful comments on earlier drafts. Useful discussions with Peter Nunnenkamp and Hannes Öhler at an early stage of the project and Katia Michaelowa towards the end are hereby gratefully acknowledged. I presented some of the ideas behind this report at a brown bag seminar at the University of Bergen and would like to thank those participating at this event for a stimulating discussion. Last, but not least, I owe a great debt to Cathrin Fløgstad. Without her efforts the empirical analysis that forms the backbone of this report could not have been accomplished. As is usual, the author retains full responsibility for the contents of this document,

# 1. Introduction

For more than a decade, the international community has been hard at work crafting common goals for development cooperation and principles for attaining them. However, while there seems to have been much agreement at the policy level, studies such as Birdsall and Kharas (2014) conclude that progress in improving the quality of aid has been mixed. At the same time, the aid architecture is also changing due to the entry of new actors outside the traditional Development Assistance Committee (DAC) sphere. This has led some observers to conclude that the so-called Paris Agenda for aid effectiveness is no longer The Agenda:<sup>1</sup>

“There are questions over the extent to which the non-DAC bilateral donors have engaged meaningfully in the agenda given their focus on alternative processes under the auspices of the UN. Meanwhile, the clarity of the Paris principles has been somewhat confused by the movement from aid effectiveness to development effectiveness, a nebulous concept with a variety of meanings. A lack of political weight combined with a lack of technical clarity has left us with an aid/development effectiveness narrative that is at once confused (what is it and to whom does it apply) and deprioritised (few donors now feel pressure to meet specific targets). The great merit of the Paris/Accra agenda, for all its faults, was that recipient countries could use it to pressure donors to align better with the principles – it is questionable whether the Busan/Mexico City agenda is now playing that function.” (Glennie and Sumner 2014)

The starting point of this report is that despite their current international status, many of the principles of the Paris Agenda for aid effectiveness were sound. In particular, the focus on aid dispersion was arguably warranted. The argument in short is that there are too many actors funding too many activities in too many countries. It is widely believed that this leads to excessive transaction costs, i.e., to spending on activities such as planning, monitoring, reporting, and evaluating aid being disproportionate. However, it is also argued that the current

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<sup>1</sup> I will use the term the Paris Agenda for the process aimed at improving aid effectiveness that involved so-called high-level meetings in Rome (2003), Paris (2005), and Accra (2008), where the latter two in particular resulted in documents (the Paris Declaration and the Accra Agenda for Action) stating rather clearly the commitments of the involved parties. At the fourth high level meeting in Busan (2011), the focus was changed to “development effectiveness” as many more actors became involved.

situation creates incentive problems on both sides of the aid relationship. A major question has thus been what can be done to restructure it.

In the Accra Agenda for Action, it is stated that

*“The effectiveness of aid is reduced when there are too many duplicating initiatives, especially at country and sector levels. We will reduce the fragmentation of aid by improving the complementarity of donors’ efforts and the division of labour among donors, including through improved allocation of resources within sectors, within countries, and across countries.” (paragraph 17)*

It is hard to disagree with the statement in the first sentence. The second sentence is not without pitfalls and ambiguities, but the final part contains an important point: one should aim to make the most out of existing aid budgets. A natural understanding of what an “improved allocation of resources within sectors, within countries, and across countries” implies would be that the actual distribution gets closer to the one that minimises poverty, attains the highest possible level of welfare in recipients, or some other normative objective.<sup>2</sup> While transaction costs should of course be taken into account, it could be that some form of aid that is costly in these terms generates such high benefits that it should be utilised.

This ideal should be kept in mind when discussing potential remedies to the problems caused by aid dispersion. There are basically two ways in which a single donor can approach the problem: unilaterally or multilaterally. Sweden’s aid policy in recent years illustrates both. First of all, Sweden has been a party to the international aid effectiveness agenda. Donor coordination at the sector and country level has been at the heart of this process. Both the disappointing lack of implementation of the Paris Agenda and the vagueness of its successor suggest that one should not expect much from continuing along this track. However, there is an alternative channel for joint action: the multilateral institutions. Even though it is not mentioned in the Paris Agenda this process has arguably made relying on these existing mechanisms for cooperation to a greater

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<sup>2</sup> See Collier and Dollar (2001, 2002) for one approach to estimating the distribution of global aid that maximises poverty reduction. They have nothing to say on the costs of aid dispersion, however.

extent a more relevant option for those wishing to combat aid dispersion.

In 2007 Sweden embarked upon an ambitious policy of concentrating its aid in certain groups of recipient countries. This is an example of a unilateral policy to reduce aid dispersion. In principle, such a reform should be easy to implement. In practice, as we shall see, this has not been the case. One reason could be that the principles for allocating Swedish development assistance in general and concentrating it in particular have not been transparently outlined. If the concentration policy is to be reinvigorated, this needs to be done.

My aim is first of all to restate the case for reducing dispersion. To this end, I discuss why excessive spread across projects, thematic sectors, and recipient countries might be a problem in section two of this report. I conclude that the evidence suggests that effectiveness would indeed be improved if development assistance became more concentrated. In section three, I first explain how we might quantify the extent to which donors spread their funds thinly. I then use my measure of choice - the Theil index - to look at the Swedish concentration policy in a comparative perspective. I find some impact in the first few years, but also that the effects faded quickly. In section four I argue that the application of relatively fixed criteria to the allocation of aid, so-called selectivity, should be part of a renewed effort by Sweden to implement the concentration policy. This part of the report also contains new data shedding light on how selective Swedish aid currently is. In the final section, a short discussion of donor cooperation and coordination points the way to my conclusions.



## 2. The Problems Aid Dispersion Causes

### Introduction

In the popular discourse, aid is often portrayed as a gift, i.e., as an unrequited transfer of resources from donors to recipients. However, it is a well-established result in the aid allocation literature that donors do not only have recipient needs or merit in mind.<sup>3</sup> When geopolitical and commercial interests are involved, aid can clearly be seen as a quid pro quo transaction: donors exchange money for favours such as a vote in the UN Security Council or trade concessions. Moreover, even altruists might demand something in return if they do not perceive the partner they are dealing with as having exactly the same goals. Donors have for decades tried to buy reforms of policies and institutions in recipient countries by exchanging funds for the acceptance of certain conditions. As there are no independent institutions that may enforce such “contracts,” donors have expended a great deal of resources in monitoring compliance and recipients in demonstrating it. A minimum requirement on the part of donors has always been that their fiduciary responsibilities are safeguarded. In addition, to justify their budgets and hopefully see them grow, all donor agencies want to be associated with successful activities. Whether these activities are performed by themselves, recipients, or some third party such as an NGO, donors and their partners therefore expend a great deal of resources in planning, monitoring, reporting, and evaluating performance. These costs are often labelled *transaction costs*.

In a seminal contribution, Morss (1984, p.466) linked such costs to increases in the number of donors and aid activities: “The expansion of project lending and the proliferation of donors have imposed heavy burdens on developing nations.” The issue of whether aid is

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<sup>3</sup> See e.g. Alesina and Dollar (2000), Berthelémy (2006), and Hoeffler and Outram (2011). The extents to which self-interests dominate aid allocation differ across donors. In general, recipient needs weigh less heavily on the decisions of bilaterals compared to multilaterals. However, this average masks important heterogeneities, with some large countries such as the US and France being particularly prone to mixing their altruism with selfish interests and some small donors like the Scandinavian countries being close to the multilateral average. It is more controversial whether donors reward recipient “merit,” however defined, and whether they have become more or less inclined to do so.

*fragmented* (within a recipient country, across donors) or *proliferated* (by a donor, across recipients) concerns how a certain sum of aid (total aid to a recipient country or total aid by a donor) is dispersed across entities, which could be projects, thematic sectors, or recipient countries. I will use the general term *aid dispersion* to cover both variants. While the Swedish context makes proliferation the main issue, we need to discuss fragmentation in order to understand why dispersion became one of the most prominent points on the Paris Agenda.

In this section, I therefore firstly describe the concept of transaction costs and how it has been applied to aid. Secondly, I present examples of mechanisms explaining how fragmentation causes problems such as low aid effectiveness and slow economic growth in recipient countries. I end this section by concluding that the fragmentation is indeed a serious problem. The issue of measuring donor proliferation, which arguably should be reduced to lower fragmentation, is postponed until section 3.

## Aid and transaction costs

As the concept implies, transaction costs denote the resources consumed in making an exchange between two or more parties. Or as Lawson (2009, p. 8) defines it in his discussion of the transaction costs of implementing the Paris Declaration: “the costs which allow an economic transaction to take place but which add nothing to the value of the transaction.” Table 2.1 displays some examples in the context of business transactions and aid activities, respectively. *Ex ante* refers to costs incurred prior to entering into an agreement, where the main problems are selecting an appropriate partner (avoiding adverse selection) and structuring the contract in such a way that opportunistic behavior (moral hazard) is constrained after the agreement goes into effect. *Ex post* thus refers to costs incurred during contract execution, when the most important task is to make sure the conditions agreed upon are fulfilled.

The usefulness of transaction costs as an analytical concept is reflected in its widespread use in the literature. However, this is not due to it being easily operationalised. As Acharya et al. (2006, p. 6) put it: “What are these transactions costs? No one has ever measured them. It is not clear that they are measurable.” They go on to argue

that “these transactions costs usefully can be divided into two categories: (a) direct transactions costs, that essentially take the form of the absorption of the scarce energies and attentions of relatively senior government staff; and (b) indirect transactions costs, that take the form of the dysfunctional bureaucratic and political behaviour that is stimulated by aid proliferation.” Most of the literature focusses on transaction costs in the first, narrow sense. Even though the second category abuses terminology to some extent, I will also discuss it as in some cases these costs are likely to be as important for aid effectiveness as the first type.

Much anecdotal evidence suggests that thirty years after Morss (1984) noted that donor behaviour creates transaction costs for recipients, these problems persist. A representative example is how the World Bank (2008, p. 20) describes the case of Tanzania: “A large share of aid to Tanzania is through more than 700 projects managed by 56 parallel implementation units. Half of all technical assistance provided to the country is not coordinated with the Tanzanian government. Tanzania received 541 donor missions during 2005 of which only 17 percent involved more than one donor.” A telling reflection of the pressure imposed on public servants dealing with donors is the fact that several recipient governments have introduced “quiet periods” during which donors are asked to keep activities involving their local counterparts to a minimum.

**Table 2.1: Ex ante and ex post aid transaction costs: categories and examples**

Type of cost	Examples from the business sector	Examples from the aid industry
Search cost (ex ante)	The costs necessary for potential buyers and sellers to identify the possibility of a mutually beneficial contract being established – essentially the costs of market research.	The costs necessary for recipient governments/ potential donors to identify appropriate partners. The costs for donors of identifying appropriate projects or programmes to fund and for governments of ‘selling’ project concepts to appropriate funders.
Bargaining and decision costs (ex ante)	The costs which need to be incurred in order to define a contract: specifically the cost of negotiating mutually satisfactory terms and conditions.	The costs of negotiating and agreeing financing agreements for projects and other operations. The costs of defining and agreeing policy or outcome conditions for Development Policy Lending or Budget Support.
Policing and enforcement costs (ex post)	The costs which must be incurred in order for a contract to be enforced: the cost of supervising the fulfilment of a contract and of seeking legal redress in the case of nonfulfillment.	The costs to recipient governments of fulfilling requirements for project execution and monitoring using systems other than country systems. The costs to recipient governments of monitoring donor commitments to predictable disbursements and other aspects of mutual accountability. The costs to donors of supervising adherence to project and programme conditions and of undertaking corrective actions where necessary.

Source: Adapted from tables 1 and 2 in Lawson (2009, p. 8 and 10).

Obviously, planning projects, monitoring activities, and evaluating interventions are costly for donors as well. An important notion in the general literature on transaction costs is that actors choose governance structures to economise on such costs. Borrowing this idea, Martens (2005, p. 662, italics in original) comes close to concluding that this is actually what aid agencies do:

*“[A]s long as donors and recipients live in different political constituencies with no overarching political institution to work out a*

*policy compromise between them, aid agencies will fill that gap and act as mediators between donors and recipients, proposing aid delivery instruments that reduce transaction costs and ex-post uncertainties in delivery.”*

How do we reconcile this view with the more widespread perception that donor agencies quite often behave in ways that lead to excessive transaction costs? First of all, the optimal level of such costs is in any case not zero. A project that is better prepared has a higher chance of being a success. Monitoring progress may reveal that it is lacking, allowing adjustments that put projects back on track to be made or misconceived programmes to be terminated before they consume even more resources. Evaluations can provide valuable lessons learned, improving aid effectiveness in the future. Part of the perceived problem thus seems to be that the incidence of direct transaction costs is skewed, with the share falling on recipients being too large. Still, one should not forget that the incidence is likely to have behavioural consequences, especially ex post.

Secondly, we should at best expect agreements to be constrained efficient, i.e., optimal given the current environment. The focus on alignment (with improved recipient systems) and harmonisation (among donors) in the Paris Agenda could be seen as an attempt to make a collective transition to a situation conducive to having a lower level of direct transaction costs. This goal can be viewed as a *collective good* for the parties involved.<sup>4</sup> As such, it is subject to a *free-rider problem*: each actor will be better off by saving its contribution to the common cause, which it can thereby use on something of private value, as by definition it will be able to enjoy the benefits of the efforts of others. However, if all actors calculate in this way, the consequence will be a very low level of provision of the collective good. Moreover, this problem is likely to worsen as the number of actors grows as each of them will only reap a tiny share of the rewards from successful collective action. The results of Knack and Smets (2013) support this line of reasoning. They find that donors tie a smaller share of their aid

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<sup>4</sup> One reason why collective action is necessary to achieve lower transaction costs might be the absence of market pressure for delivering aid in a cost-efficient manner, at least when it comes to the official agencies. On the other hand, one sometimes hears NGOs complain that donors are too obsessed with the level of administrative overheads. For some weak evidence supporting the idea that there is a competitive pressure on US NGOs to have low administrative costs, see Nunnenkamp and Öhler (2012).

when they have larger shares of the “market,” i.e., they behave more narrowly self-interested when competition is fierce.

A related problem is that donors might not take into account the full social cost of their decisions and hence overuse *common pool resources*. Making claims on the time and attention of top-ranking partner officials will allow a donor agency to do such things as improve its project planning, finish its reviews on time, or raise the quality of its evaluations. It will generally not factor in the losses borne by other donors or recipient society as a result, and this leads donors as a group to make excess demands on the limited administrative capacity of recipient governments. A donor might even reduce the government’s ability to perform other tasks in a timely and effective fashion by hiring public sector employees. The problem is likely to be more severe the more donors there are. Knack and Rahman (2007) find empirical support for this idea in the sense that fragmentation is associated with lower bureaucratic quality in recipient countries.

## Aid fragmentation and “dysfunctional” behaviour

Similar arguments can explain why fragmentation might lead to other suboptimal outcomes as well. For example, the fact that partner countries have a limited budget for covering the recurrent costs of donor-initiated projects might lead to overinvestment by donors, i.e., to too many or too large projects (Arimoto and Kono 2009). This might happen under the reasonable assumption that donors tend to ignore the lost output of other actors’ projects that results from their own demands for recurrent expenditure. If the number of donors increases, the problem naturally gets worse as long as they cannot find a way to cooperate. The potential implications for project sustainability should be clear and the mechanism also captures well-known problems reflected in studies finding hospitals without drugs, schools without books, or roads that are not maintained in recipient countries.

One of the most serious kinds of dysfunctional behaviour that fragmentation might cause on the recipient side is arguably corruption and rent-seeking. Acharya et al. (2006) suggest that individual public servants could have a personal pecuniary incentive to promote “their” project or donor, even at the expense of the general interest.

Politicians and high-level officials may find it optimal to focus on the short term gain from attracting more aid at the expense of the harder work of developing their own plans, the rewards of which in any case are uncertain and at best arrive sometime in the future (Hagen 2015b). Both anecdotes of dictators filling bank accounts in tax havens and more systematic studies like Reinikka and Svensson (2004) showing how very large sums are diverted from aid-financed programmes indicate that corrupt behaviour could be a serious obstacle. It might be easier to keep part of the money flow off-budget (and thus beyond public scrutiny) when there is a plethora of suppliers of projects and funds. If collective action problems among donors allow such actions to go unpunished, fragmentation may be partly to blame for the funds wasted. Djankov et al. (2009) do indeed find that fragmentation is associated with greater corruption.

However, econometric studies paint an ambiguous picture of the aid-corruption nexus in general.<sup>5</sup> One reason could be that donors bypass governments in “difficult” environments. Dietrich (2013) documents that Non-Governmental Organisations (NGOs) are more frequently used as an aid channel in poorly governed recipients. Similarly, Clist et al. (2012), investigating the EC and the World Bank, and Nordtveit (2014), looking at DAC-donors, find that the probability of receiving budget support is increasing in both donor-recipient preference alignment and recipient quality of governance.<sup>6</sup> This is in line with Radelet’s (2004) argument that donors should not just vary the volume of aid depending on recipient characteristics, but also the type of assistance given.

While strategic aid might create other problems, in the current context it is noteworthy that this is an example of donors using instruments that are usually not considered transaction cost minimising.<sup>7</sup> It is thus an extension of the point made above, viz. the optimal level of transaction costs is not zero. More precisely, in some

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<sup>5</sup> The literature on aid and conflict – arguably the most dysfunctional form of rent-seeking - is in a similar state. Moreover, I know of no study arguing that aid dispersion matters in that regard. Hagen (2015b) provides a more in-depth discussion of the relationship between aid and rent-seeking activities.

<sup>6</sup> Relatedly, Knack (2013) shows that the degree to which donors use recipient systems is a function of their aid share, the strength of support for aid back home, and the seriousness of corruption in the recipient. Both poor governance and fragmentation discourages alignment.

<sup>7</sup> See Hagen (2006b) and Cordella and Dell’Arricia (2007) for formal analyses demonstrating that it might be optimal for a donor to use project aid to gain influence over outcomes, even though such aid is usually presumed to carry greater transaction costs.

cases better outcomes can be achieved by trading higher direct transaction costs for lower indirect ones. This also suggests that the distribution of transaction costs among the actors is important for what actions are taken to contain them, if any. Bypassing might reduce direct transaction costs for recipients no longer having to comply with safeguards against corruption, whereas donors then apparently prefer the higher costs of planning, implementing, and evaluating projects themselves to the perceived greater risk of corrupt behaviour inherent in more programmatic approaches.<sup>8</sup>

Furthermore, whether a certain level (and incidence) of such costs is justifiable from a normative perspective depends on what the actors are trying to achieve. Bypassing a kleptocrat to alleviate the humanitarian needs of the population is clearly different from bypassing a democratically elected government in order to maximise the funds returning home with your own suppliers of goods and services. More generally, fragmentation is one potential problem caused by inefficient aid allocation, but it is not the only one. Indeed, another frequently mentioned problem is that there are aid darlings and orphans, i.e., that development assistance is too heavily concentrated in some countries at the expense of others. This just underlines that what we really should be interested in is how much bang-for-the-buck aid generates and aid effectiveness does not necessarily imply neither minimising total transaction costs nor the share that falls on recipients.

## Summing up: fragmentation, transaction costs, and aid effectiveness

While the studies mentioned above explain why fragmentation causes low aid effectiveness, they do not explain why aid is fragmented in the first place. When there are multiple collective goods, theory suggests we should expect a near-perfect division of labour determined by relative priorities.<sup>9</sup> That is, donors should fund the countries, sectors, or projects they care more for than other donors, leaving low-priority purposes to those peers that attach greater value to them. As this is

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<sup>8</sup> I am indebted to Anna Holmryd for pointing out that the widespread supposition that the risk of corruption is greater for programme aid than for projects has not been proven empirically.

<sup>9</sup> See e.g. Cornes and Itaya (2010) and Hagen (2006b).



not what we observe, a natural hypothesis is that fragmentation is due to private benefits donors get from their interventions, whether political such as diplomatic influence with partner governments or bureaucratic such as the status that comes from funding activities currently in vogue. Indeed, Kilby (2011) find that the size of aid projects is related to competition for funds within donors, with more agencies implying smaller projects.

As already noted, it is not clear that the transaction costs of aid are measurable.<sup>10</sup> It follows that linking fragmentation and proliferation to such costs is not feasible either. The best we can do is to measure the degree of dispersion. As it is the root cause of the problems described in the case study literature and analysed in various theoretical models, knowledge of the extent to which aid is dispersed across sectors, countries, and time should give us an idea of how severe these problems are. Annen and Kosempel (2009), Djankov et al. (2009), and Kimura et al. (2012) all draw the conclusion that fragmentation is associated with lower economic growth in recipient countries. None of these studies distinguish between the effects of (direct) transaction costs and negative incentive effects (indirect transaction costs), but the results are supportive of a central element of the Paris Agenda: that *reducing aid fragmentation from current high levels will improve aid effectiveness*. Greater concentration by donors is one of the major ways in which lower fragmentation can be achieved. I will now discuss how we can measure proliferation and assess whether DAC-donors in general and Sweden in particular has made progress in reducing it in recent years.

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<sup>10</sup> It is beyond the scope of this report to try to make progress along this dimension. Bigsten and Tengstam (2015) make a laudable effort, but it is not obvious that the statistical category of administrative costs really covers transaction costs for donors. Moreover, they do not even try to measure transaction costs for recipients.

# 3. Aid Proliferation: Sweden in a Comparative Perspective

## Introduction

Given that the background for this study is Swedish aid policy, I confine myself to measuring proliferation. It is important to note that the link between proliferation and fragmentation is not straightforward. If a fresh aid dollar is given to a new partner country, then obviously both proliferation by the donor and fragmentation in the recipient will increase. However, in appendix B I demonstrate that concentration through reallocation need not lead to less fragmentation in all recipients. Intuitively, it might go down in a partner that loses aid and up in one that gains. The converse must then be true too; that it is possible that increased proliferation through reallocation is not unambiguously bad in that some recipient(s) might end up with a lower level of fragmentation. In such cases, the gains and losses for different partners should in principle be weighed against each other to arrive at a conclusion as to whether these changes are beneficial or not. This goes beyond the scope of this study.

The premise of my analysis is that we are currently in a situation where reducing proliferation would be beneficial. Doing so would cut transaction costs for donors and the savings could be used to increase the flow of funds to recipients. Moreover, donors have committed to reducing fragmentation in partner countries. While this could in theory be achieved by reorganising aid delivery within each recipient, in practice it is likely to involve reallocation across countries and concentration in combination with greater selectivity would then most likely improve aid effectiveness.<sup>11</sup> Finally, on top of its commitments under the Paris Agenda Sweden launched an ambitious policy of concentrating its aid in certain partner countries. In the remainder of this section I first explain briefly how proliferation can be measured. I then apply my preferred indicator to the Swedish case. Finally, I check the robustness of the results.

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<sup>11</sup> C.f. Acharya et al. (2006, p. 17): [D]onors [should] reduce the numbers of countries in which each operates, concentrate more on a smaller number of countries, and thus, without changing overall aid levels, change the aid environment in ways likely to reduce [...] transactions costs.

## Measuring aid proliferation

There are many different statistical measures of dispersion. One of the most commonly used indicators of proliferation is the Theil Index.<sup>12</sup> It is originally a measure of inequality. Thus, it is zero when there is perfect equality across the “population.” In the current setting, this means that if Sweden gave the same share of its aid to all sectors in all potential partner countries its index value would be zero. Any deviations from this allocation would make the index positive and it would attain its highest value if Sweden gave all of its aid to one sector in a single country. Thus, it is an index of concentration. Proliferation and concentration are of course two sides of the same coin. If one would like to have a measure of the former, one can normalise the Theil index to be a number between zero and one by dividing it by its highest possible value and subtracting the result from one.

A major benefit of using this specific index is that it is decomposable.<sup>13</sup> Intuitively, aid can be dispersed in several ways. In principle, we could measure proliferation at the level of projects, sectors, or countries. If we only look at the spread across recipient countries, we ignore the possibility that one donor might be funding a large number of small projects while another could be supporting a few major programmes. Even if these two donors have the same pattern of dispersion at the country level they could impose vastly different levels of transaction costs on recipients. Going down to the sub-national level allows us to better capture this. Indeed, over time most recipients have not only attracted more donors; the number of aid activities has gone up and their average size down, as Figure 3.1 below shows.

Unfortunately, the lowest level is not well-defined in aid statistics. In the next subsection, aid proliferation by Sweden and selected other donors is therefore captured by aggregating up to the sector level in recipient countries. This means that we can distinguish between the contributions to a donor’s overall level of proliferation from its distribution of funds across recipients (usually denoted the between

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<sup>12</sup> See Acharya et al. (2006), Aldosoro et al. (2010), and Nunnenkamp et al. (2013). In the latter two studies, only a part of the Theil index is applied. The reason is probably that the authors want to create a measure of proliferation. As I will now explain the Theil index proper can easily be transformed from an indicator of concentration to a proliferation measure. For further discussion on how to measure dispersion, see Appendix B.

<sup>13</sup> In fact, it belongs to the only class of inequality measures that is perfectly decomposable (Sen 1997, pp. 152-154).

component) and its allocation of aid to different sectors within recipients:

$$\text{Total Theil} = \text{Between Theil} + \text{Within Theil}.$$

For a donor, this should be highly useful information as it would indicate whether a perceived excessive degree of proliferation is due to giving aid to too many recipients or to aid being delivered in excessively small batches. To my knowledge, this is the first time this property of the Theil Index has been applied to aid data. Moreover, this measure is evidently particularly suitable for analysing the effects of the Swedish concentration policy of 2007, as this concerns the between-component only.

## The data

In the aid allocation literature it is common to use commitments as they are assumed to better reflect donors' intentions. Disbursements can vary for a number of reasons, including factors beyond their control, e.g. delays due to pipeline problems on the recipient side. Moreover, to study proliferation it is interesting to go beyond cross-country allocations and look at the spread within recipients. The best database for this purpose is the Creditor Reporting System (CRS) database, available from the DAC-website.<sup>14</sup> This source provides a wealth of information at the level of "transactions." As these entries differ widely in their characteristics, making an analysis at the lowest level less meaningful, I aggregate to the sector level. I also make some minor adjustments to the database. I exclude humanitarian assistance, as it must almost by definition go where emergencies appear, as well as donor administrative costs, expenditures on refugees in donor countries, and unallocated/unspecified aid, for obvious reasons. Years prior to 1998 are dropped because Aldosoro et al. (2010) and Nunnenkamp et al. (2013) suggest underreporting is a significant problem then.<sup>15</sup> I focus on entries where a country is specified as the

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<sup>14</sup> For a brief discussion of the alternatives, see Appendix C.

<sup>15</sup> According to Birchler and Michaelowa (2013), reporting on disbursements of education aid in the CRS database was below 60% before 2002, which is another argument for using

recipient and leave out minor DAC-donors (those with less than 1 percent of the observations after making the other adjustments). In addition, I make various changes to perform a series of robustness tests of the results derived with the main sample.

## Swedish aid: concentration or proliferation?

In the remainder of this section, I use the Theil Index to investigate whether Swedish aid has become more or less concentrated during 1998-2013. I also decompose the index to analyse the extent to which changes in the overall level of concentration have been driven by changes at the country level, which is what the 2007 policy aimed at, and/or changes at the sector level. The same data are shown for Denmark, Norway, the UK, and the DAC-average, allowing for a comparative perspective.<sup>16</sup> As DAC-members are the major bilateral donors, we then gain some insight into the “global” trend as well.<sup>17</sup> Moreover, these countries have been the major drivers of the Paris Agenda on the donor side.

Let us start by taking a quick look at the average DAC-donor. Figure 3.1 shows trends that have been noted elsewhere: over time, the number of projects is going up and average project size is declining rapidly. The latter would of course have been even more noticeable in fixed prices. These developments seem like a recipe for fragmentation and probably reflect increased proliferation. Moreover, they have continued into the era of the Paris Agenda.

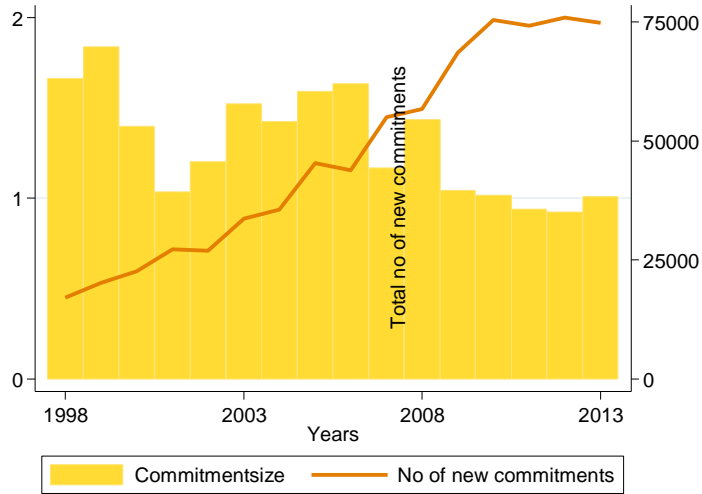
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commitments instead of disbursements. There is no reason to believe that the problem is specific to education, which is also the second largest sector in my sample (Table C2 in appendix C). 2013 is the most recent year for which data is available.

<sup>16</sup> The comparator countries were chosen in consultation with the EBA secretariat.

<sup>17</sup> As is well-known, data for new donors like China are largely missing. Moreover, measuring dispersion for multilateral institutions is not as informative as many of them have mandates limiting their geographic or thematic spread.

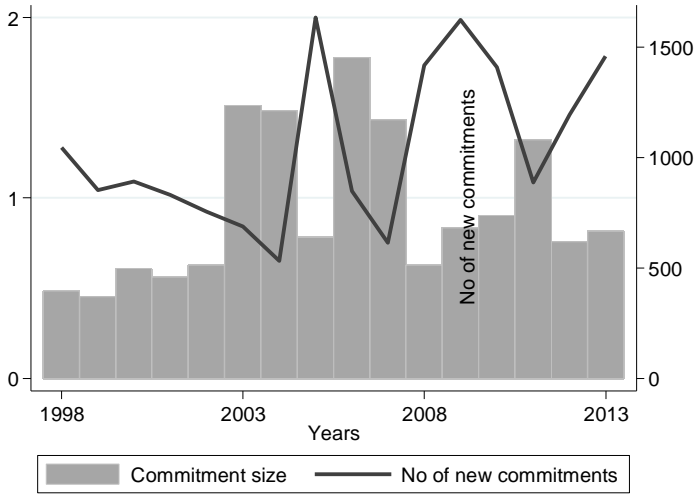
Figure 3.1: New commitments for DAC-donors, 1998-2013



Source: Author's calculations

Figure 3.2 displays the same indicators for Sweden. Making an eyeball adjustment for inflation, Sweden’s average project looks more or less equally-sized at the end of the sample period as it was at the start. However, in between there are some puzzling peaks. These are negatively correlated with the variation in the number of projects. As you would expect in an era of rising aid budgets there is a quite strong positive trend here; the increase from 1998 to 2013 is approximately 50%. Most notably, the number of projects in 2013 was way above the level in 2007. However, one should probably not see this as sign that the concentration policy has failed. It targeted the number and identity of partners, not project or sector spread. Moreover, one might be concerned that these sharp shifts are due to some statistical aberration. This is one reason why robustness checks are in order.

Figure 3.2: New commitments for Sweden, 1998-2013



Source: Author's calculations

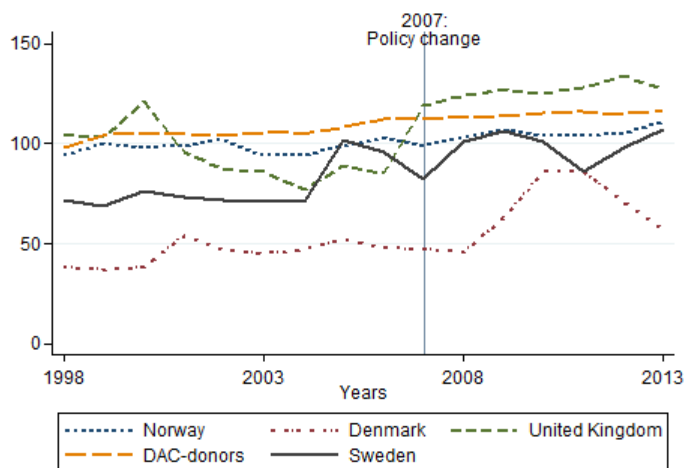
I have also calculated the number of recipients each donor has in every year.<sup>18</sup> Figure 3.3 shows the results for Sweden and the three comparator countries plus the DAC-average.<sup>19</sup> The first interesting observation is there is an upward trend for all donors over the whole period covered here. Furthermore, it is not possible to detect a shift over the last decade when aid effectiveness has been on the global agenda. On average, DAC-donors gave aid to more than 100 recipients in 2003, when the Rome Declaration was issued, and the number was even higher in 2013. When it comes to Sweden, it has had a lower-than-average number of partners throughout the sample period. In this way, it does not appear to be among the worst proliferators. The same can be said of the comparator countries, with the exception of the United Kingdom (UK). However, the line for Sweden breaks up in 2004, bringing the country much closer to the average for the remainder of the sample period, albeit with some quite

<sup>18</sup> This is then the number receiving new commitments from a donor in a given year.

<sup>19</sup> This is a weighted average, i.e., it is the sum of the number of recipients each donor in the sample has each year, weighted by their share of overall aid. The DAC-averages shown below are constructed in a similar way.

large swings. Moreover, in 2013, six years after the concentration policy was adopted, the number of partners was higher than in 2007. Since aid is here measured as new commitments, one cannot attribute the increase to lags in disbursements due to prior commitments. This raises a question mark with respect to the implementation of the concentration policy.

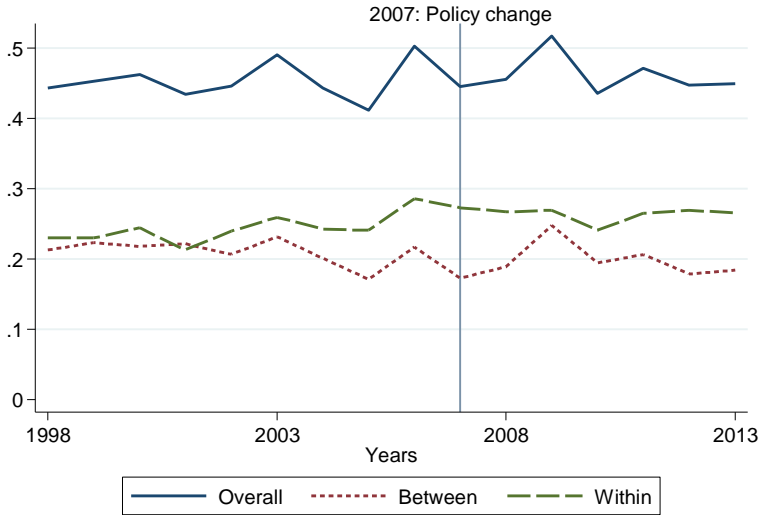
**Figure 3.3: Number of recipients, 1998-2013**



Source: Author's calculations



Figure 3.4: Theil index for Sweden, 1998-2013



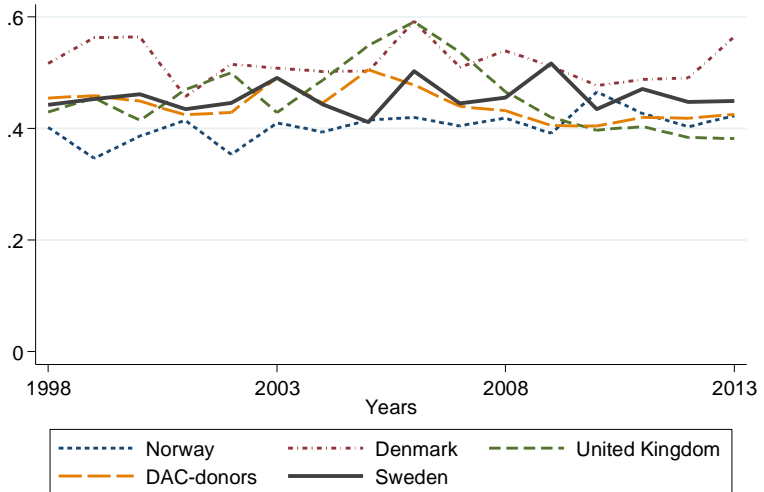
Source: Author's calculations

Recall that the total Theil measure of aid proliferation can be divided into a component that reflects the spread across partner countries and one that is a function of the spread across sectors within them. The number of recipients obviously plays a role in the first component. As I aggregate up to the sector level, the number of projects does not affect the Theil calculated here. However, looking at the spread across sectors within recipients is an indication of whether different donors contribute to fragmentation by engaging “across-the-board” or reduce it by concentrating in a few sectors. This is only an indication of the size of the transaction costs imposed on recipients as it should be noted that the data does not really allow me to investigate the extent to which donors limit the consequences by contributing to multi-donor trust funds, eschewing their own projects for SWAps, etc. Still, it should be a very useful indication, all the more so as this is the first exercise of this kind.

Figure 3.4 displays the normalised Theil index for Sweden over the period covered. Remember that this is a number between zero and one, with the minimum reflecting that aid is evenly spread across partner country sectors and the maximum indicating complete

concentration. There appears to be no trend whether we consider the whole period or just the years following 2007. In other words, the big picture is that there is no change in the degree to which Sweden proliferates its aid. The decomposition reveals some interesting patterns, however. Before 2007, there was a concentration at the sector level (*within*) that was more or less nullified by deconcentration at the country level (*between*). After the concentration policy was adopted this pattern is reversed. This suggests it has had some bite. Still, the effect seems minor and the country spread is still greater than it was at the start of the period. Moreover, it should be a source of concern that the significant improvement in the between-component in 2007-2009 has been followed by an almost equally large deterioration.<sup>20</sup>

**Figure 3.5: Overall Theil index, 1998-2013**



Source: Author's calculations

<sup>20</sup> Somewhat surprisingly, the jump in the number of recipients after 2007 does not show up in the Theil. On the contrary, the between component indicates that there was some concentration across recipients after 2007. As this was not achieved through a reduction in the number of partners, it must be that there was some form of concentration across countries that already were recipients in 2007.

How do these developments compare with what has been happening among Sweden's peers? Figure 3.5 shows that Sweden was quite average in terms of aid proliferation until 2006. Since then, its aid has been more concentrated than the DAC-average. Somewhat disappointingly, this is mostly due to a clear deterioration of the latter since the Paris Declaration was adopted.<sup>21</sup> This confirms the impression from other studies, viz. that this process has left few traces on the ground. Whether this is due to donors not being sincere in their commitments, a broken link between policy choice and implementation, or some other factors would be an interesting research topic. Figures A1 and A2 in Appendix A reveal that most of the decrease in the average level of concentration for DAC-donors is due to the between component. In other words, it is mainly the allocation across recipient countries that is a cause for concern. As already noted, Sweden has actually managed to slightly improve the within component of its Theil Index after aid effectiveness was put on the international agenda and the between component after the concentration policy. Given that the changes are relatively minor in the full data set, it is advisable to try to check how robust they are. This is the task I turn to now.

## Robustness checks

In this subsection, I make three changes to the sample. Firstly, I drop transactions smaller than USD 500 000. Secondly, I delete observations where NGOs were the aid channel. Thirdly, I calculate three-year moving averages for new commitments. These changes and the results they produce will be introduced in turn.

I follow the seminal work of Acharya et al. (2006) in checking robustness by excluding "small" transactions, defined as those where aid does not exceed USD 500 000.<sup>22</sup> This generates a large downward shift in the number of recipients for all entities analysed here (Figure

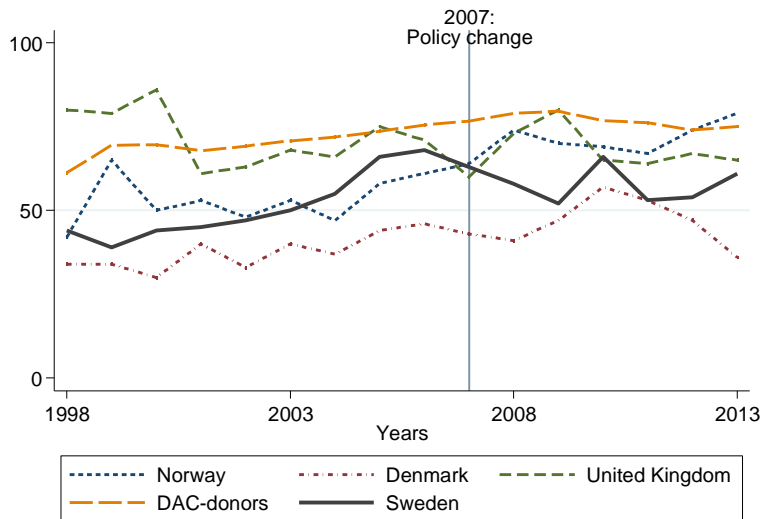
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<sup>21</sup> As may be seen, Denmark stands out as the star performer here, being above the average in all years but one. Still, it has made little or no progress since the Paris Agenda was launched. Norway has generally been the worst proliferator, but a modest improvement in recent years has brought it up to average. The UK has seen a quite significant decrease in its Theil index since 2006, meaning that it proliferates its aid more strongly.

<sup>22</sup> They argue that "a substantial proportion of all aid events take the form of small grants, notably for travel and education scholarships, or for in-country events financed directly from the donor's embassy. It seems likely that these kinds of activities typically do not generate the kinds of transactions costs with which we are concerned." (pp. 8-9)

3.6). This indicates that the left tail of the distribution of commitments in terms of size is spread thinly across many countries. Besides the level effect, the most notable change for Sweden is that now the number of partners declines after 2007. The more systematic evidence that the Theil gives confirms the impression that the results of the policy change are more easily detectable in this sample. Figure 3.7 illustrates that not only has the overall index improved; this is wholly due to the between component. This suggests that the concentration policy has succeeded in terms of large commitments even as the spatial spread of small transactions has worsened.<sup>23</sup>

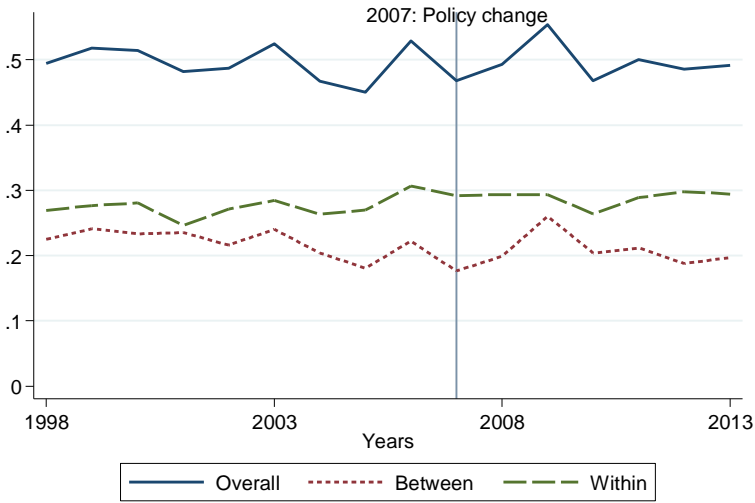
**Figure 3.6: Number of recipients, large commitments**



Source: Author's calculations

<sup>23</sup> It is notable that both at the start and the end of the period considered here large transactions only make up 20% of the total number. If fixed transaction costs constitute a significant share of the total, this indicates that Sweden might also generate considerable cost savings (for recipients and/or itself) by increasing project size. It also suggests that the policy change has not altered the composition of Swedish aid in terms of large and small activities, though the heterogeneity at this level cautions against reading too much into the data.

Figure 3.7: Theil for Sweden, large commitments



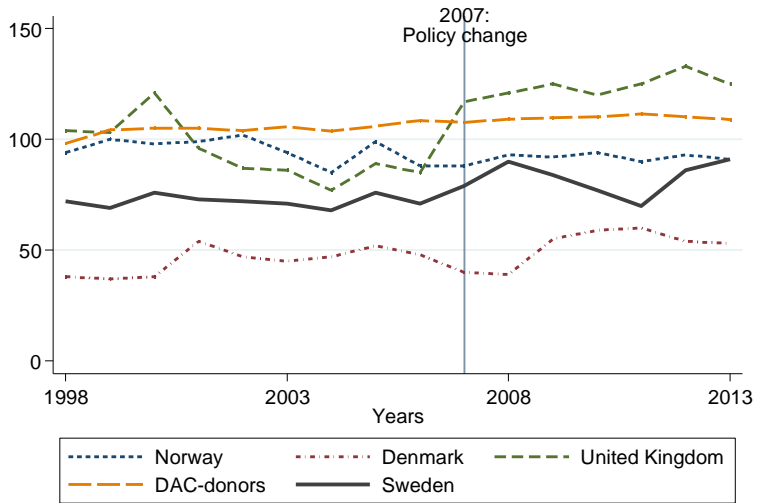
Source: Author's calculations

The second change I make concerns the role of NGOs. There is reason to believe that there are some peculiarities in the way Sweden reports official aid that passes through its own NGOs and that these make it look like it proliferates across partners to a greater extent than other DAC-donors.<sup>24</sup> More specifically, most Swedish aid through the NGO-channel is allocated to umbrella organisations, which are responsible for distributing the funds to their members. To make the DAC-statistics more informative, Sweden still reports where these individual NGOs spend their allotment. This is apparently not standard procedure. While existing studies – including one of Sweden – indicate a great deal of congruence in cross-country allocations of bilateral aid through NGOs and official agencies, it seems reasonable to argue that one should investigate the consequences of this statistical practice.<sup>25</sup>

<sup>24</sup> See *Analys av det svenske biståndets fragmentering* (n.d.).

<sup>25</sup> I discuss these studies in Hagen (2015b). The one on Sweden is Dreher et al. (2010).

**Figure 3.8: Number of recipient countries per donor, excluding NGOs**

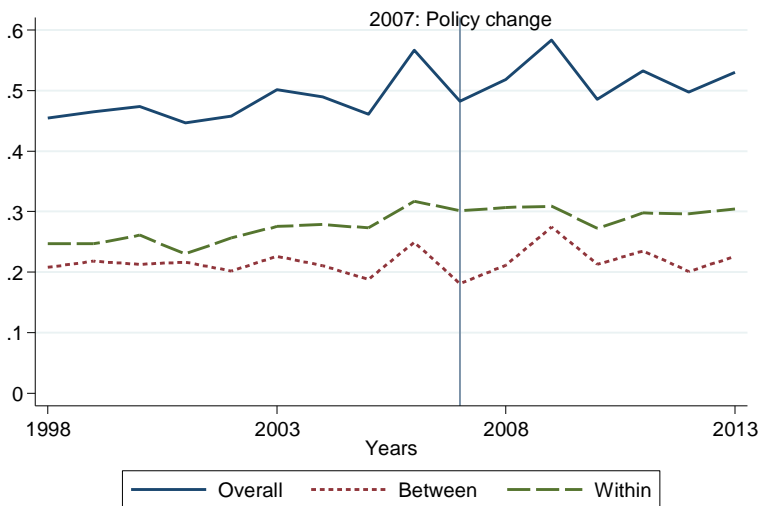


Source: Author's calculations

Figure 3.8 suggests that there might be something to the argument. Leaving out “NGO-projects” makes no difference to the number of recipients for the UK and the DAC-average, but indicates that the anomalous increase for Sweden in 2005-2006 might be due to more detailed reporting on NGOs.<sup>26</sup> However, both Norway (since the early 2000s) and Denmark (since the mid-2000s) look better too and there is still an increase in the number of partners receiving new commitments post-2007. What does the Theil say? Figure 3.9 reveals that the Theil now has a higher value after 2003, implying that aid through NGOs is less concentrated than bilateral aid passing through official channels (compare Figure 3.4). Furthermore, a marked improvement that is wholly due to a reduction in the country-spread (the between component) is now visible after 2007. Hence, it does seem that including NGO-aid masks the effects of the Swedish policy change.

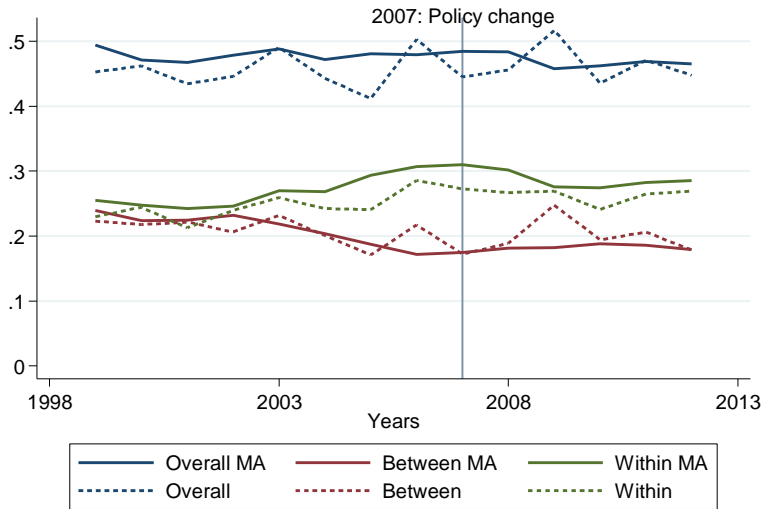
<sup>26</sup> Note that implementing this correction is only feasible after 2001. Moreover, there is only a single relevant observation each for 2002 and 2003 and the number increases every year until it peaks at 42,336 in 2009. Thus, it could also be that part of the increase is due to Sweden being ahead in adding the variable “aid channel” to the database.

Figure 3.9: Theil index for Sweden, excluding NGOs



Source: Author's calculations

Figure 3.10: Theil index for Sweden with and without 3 years moving average



Source: Author's calculations

The final robustness check I make is using moving averages instead of current commitments. The large swings in the number of new commitments for Sweden shown in Figure 3.3 do look somewhat suspicious. Figure A6 in Appendix A illustrates that some, but not all, of these peaks and troughs seem to be due to NGO-aid. It could also be that commitments come in batches to a greater extent than disbursements, for example when a new government with new priorities enters. I use a three-year moving average centred on the median observation, i.e., the first data point is now in 1999 (showing the 1998-2000 average) and the final in 2012 (showing the 2011-2013 average). Figure 3.10 demonstrates that this makes the long-term trends more visible. It also results in post-2007 developments looking less favourable.

## Summary

The analysis here confirms other studies that have found that the Paris agenda apparently has not had much impact on aid dispersion. Sweden seems to be doing somewhat better than the average, at least in the



period following the adoption of the concentration policy. It has also seen some absolute improvement if one focusses on large transactions or leaves out aid through NGOs. In the original proposal (Ministry of Foreign Affairs 2007), Sweden was to have long-term development cooperation with twelve partners, cooperate with twelve countries in (post-)conflict situations, and nine countries in Eastern Europe. According to the latest peer review (OECD 2013) it will have thirty-two partner countries from 2013 on, when a large number of bilateral agreements expired. Thus, it appears to have taken about six years to fully implement the concentration policy in this sense. With eleven agreements not being renewed, one would expect the number of recipients to go down in coming years.

Still, the current aid policy framework (Government Offices 2014) barely mentions concentration. And reductions in the Theil, however measured, since 2009 indicates that one probably should not take future progress for granted. Moreover, the changes in the different Theil indices are only to a limited extent informative about how lower proliferation compared to 2007 has been achieved. It seems fair to say that there is room for further improvement. For example, small transactions still make up 80 percent of the total and apparently have become even more dispersed in recent years. Though a thorough analysis is beyond the scope of this study, in the next section I take a brief look at whether Sweden has become more selective, i.e., whether it now targets relatively well-governed and poorer countries to a greater extent. I also discuss how a donor like Sweden should go about selecting partners if it wants to continue the process of concentration.

## 4. Selectivity in Aid Allocation

### Introduction

As mentioned in the introduction, there are basically two ways in which a donor country like Sweden can contribute to an improved overall allocation of aid. The first possibility is joint action with other donors, which I will briefly discuss in the concluding section. The second is through unilateral measures, of which the concentration policy is an example. In this section, I firstly review principles for aid allocation that may be used to guide such policies, here subsumed under the heading of *selectivity*. Secondly, I discuss the Swedish case in light of these principles.

### The case for selectively allocating aid

Aid selectivity is the principle that more resources should be provided where the impact is expected to be greater, i.e., in poor, but well-governed recipient countries. The first part, selectivity on income, is rather uncontroversial in principle, even if the self-interests of donors keep it from becoming a universal norm in practice. The allocation rules of major donors like IDA and the Millennium Challenge Corporation (MCC) of the US exemplify the second variant, selectivity on governance and/or policies. Such rules have at times been controversial. For instance, the few existing empirical studies showing that this raises growth have been hotly debated.<sup>27</sup> It is also a point of contention in the literature whether donors have become more selective with respect to recipient income/poverty levels and policies/institutions.<sup>28</sup>

Selectivity affects fragmentation: by concentrating its aid in countries fulfilling certain criteria, a donor proliferates less and lowers fragmentation in partners given reduced allocations, but raises it in

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<sup>27</sup> Most notably, Burnside and Dollar (2000). However, Roodman (2007) demonstrates that most empirical studies of aid and growth lack robustness, so this does not prove that policies and institutions do not matter.

<sup>28</sup> Contrast the negative views of Birdsall and Kharas (2014) and Easterly and Williamson (2011) on the one hand and the positive verdict of Dollar and Levin (2006) and Claessens et al. (2009) on the other.

those given more. A natural concern is whether more widespread application of these principles would generate even more donor darlings and orphans (over- and underfunded recipients, respectively).<sup>29</sup> Mirroring the criticism of traditional conditionality, another worry might be that strict rules are too general to fit the circumstances of all recipients. I will argue here that, appropriately applied, this type of selectivity has a solid foundation in both theory and empirics and can address these concerns.

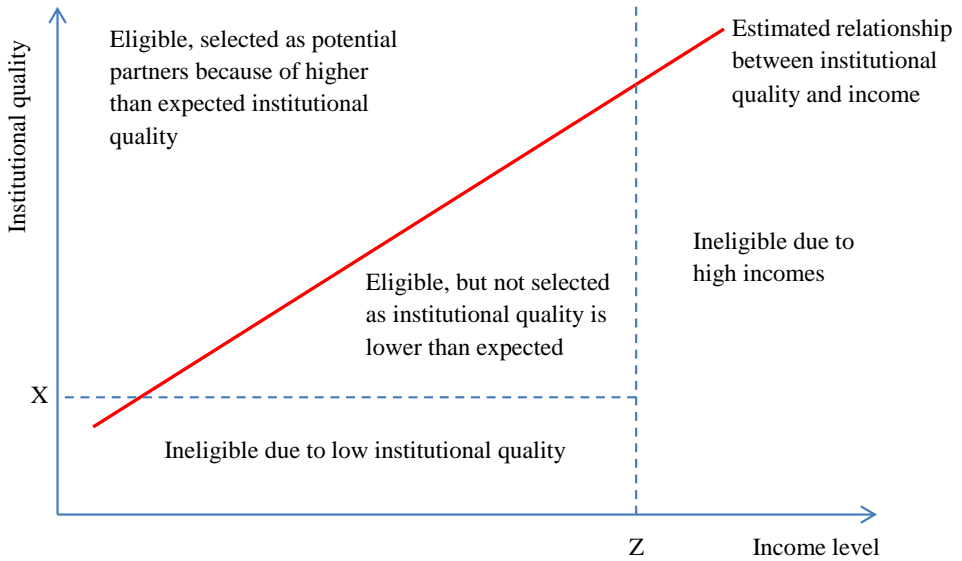
If foreign aid is to foster economic development, it would seem plain that one needs to know something about the factors driving such a process. The most popular answer today is: in the long-run, institutions.<sup>30</sup> It thus seems unavoidable that informed selectivity is to some extent based on institutional indicators. A common critique is that there are no poor, well-governed countries. In an absolute sense, this tends to be true as there is a strong positive correlation between income and the quality of institutions. But this only implies that *one should support those that do better than expected given their income level*, which necessarily has to be so low that they are eligible for aid. Figure 4.1 illustrates this idea.

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<sup>29</sup> Using an approach from finance, Frot and Santiso (2011) find evidence of substantial herding amongst donors (a tendency for them to change their aid allocations in the same direction), albeit less than in financial markets. In a more elaborate study, Davies and Klasen (2013) also find a significant positive effect of other bilateral donors' giving on the allocation of a single donor, but it is small (and declining over time).

<sup>30</sup> The leading proponents of this view, Daron Acemoglu and James Robinson, persuasively argue their case in their recent book *Why Nations Fail* (Acemoglu and Robinson 2012).

Figure 4.1: Income, institutions, and selectivity



Countries with too high incomes (above “Z”) are not eligible. Those with incomes below the cut-off are on the DAC-list of potential recipients. Some of them, whose institutional quality is below “X” can be thought of as fragile or failed states. They are special cases warranting special treatment, which seems to be the rationale behind the country groupings in the Swedish concentration policy. In the remainder of this section, I focus on countries where “long-term” development cooperation as conventionally defined has some potential. My argument is that they can be divided into two groups based on the empirical relationship between income and institutional quality, which is illustrated by the rising line in the figure. Some of these countries do better than expected given their income level and are therefore potential partners; others do worse and are therefore not (at least for the time being).

A more serious objection to selectivity is that while we know that good institutions serve certain functions such as protecting property rights and holding governments accountable well, we still do not know that much about which specific institutional structures should be chosen to achieve these outcomes. Moreover, beyond exceptional events such as revolutions, institutional change is usually slow. Even though aid donors, with their eyes on fiscal years and electoral calendars, could usefully be more patient, going to the other extreme

and working with time-frames of decades is obviously not feasible. Fortunately, the empirical growth literature provides many examples of fast economic progress even in places where you would not expect to find it. In the words of Jones and Olken (2008, p. 582): “The capacity of countries across the income spectrum to produce sustained episodes of high growth suggests that rapid increases in welfare have been within the reach of most economies.”<sup>31</sup>

Economic theory does indeed suggest that economic policies can be powerful instruments for unleashing growth (Easterly 2005). More generally, the so-called theory of the second-best implies that suitable policies are based on intimate knowledge of the local economy.<sup>32</sup> Empirical evidence consistent with this view is readily available. For instance, Hausmann et al. (2005, p. 328) find that “most growth accelerations are not preceded or accompanied by major changes in economic policies, institutional arrangements, political circumstances, or external conditions. [...] It would appear that [they] are caused predominantly by idiosyncratic, and often small-scale, changes.” And Jones and Olken (2005) show that something as peculiar as national leaders have mattered for growth in the second half of the 20<sup>th</sup> century, with one avenue being their impact on policies.<sup>33</sup>

All of this suggests that policies suitably adapted to local conditions can make a difference. If one additionally makes the reasonable assumption that a government is better informed about such circumstances than donors are, the implication is that the latter should support the former if it is thought to be pursuing development. The emphasis on recipient ownership in the Paris Agenda thus seems to be on a sound footing. Yet ownership has several meanings.

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<sup>31</sup> Sadly, most countries except the richest ones have also demonstrated a capacity for rapid decreases in income levels. Due to the strong positive correlation between income and institutional quality, this means that the growth process is more volatile in countries with bad institutions. Nevertheless, these findings clearly demonstrate that in the medium-term even such countries have a potential for improving their situation.

<sup>32</sup> The line of thought emphasising the need for experimentation in order to find out what works fits this mould. Hausmann and Rodrik (2003), Kremer et al. (2001), and Mukand and Rodrik (2005) are prominent examples.

<sup>33</sup> Once one goes beyond policies to consider institution-building the importance of specificity becomes even clearer, c.f. Greif (2006) and North (2005). Authorities might tinker with the formal institutions of a society, but these interact with the informal ones to produce outcomes such as (lack of) growth. This implies that importing formal institutions that have been successful elsewhere is no guarantee of progress, as most likely the informal institutions of the importer differ from those of the exporter. Adaptation to the local environment is thus usually necessary. Berkowitz et al. (2003) have shown that this holds true for legal institutions, for example.

Originally, it was seen as a remedy for the failures of traditional ex post conditionality. Thus, recipient *government* ownership was emphasised. Over time, the interpretation seems to have changed somewhat. From being a pragmatic response to political economy problems of policy implementation, emphasis has shifted to respecting recipient *country* policy-preferences. As a country rarely can be seen as a unified actor, this has put political considerations back into the equation. Then the thorny question of whose agenda donors should support arises.<sup>34</sup> Further difficulties are generated by the fact that partner governments are likely to know a lot more about policy-relevant factors than donors. The mere possibility of being taken advantage of prevents a complete anchoring of donor support in the plans presented to them.

Appropriate selectivity offers a way around these dilemmas. The ideal case version of selectivity is for recipient country governments to develop plans based on their information and priorities and for donors to respond by offering or withholding support based on their goals, rules, and knowledge. This is a division of labour that seeks to avoid excessive meddling by donors and costly but mostly futile attempts at enforcing conditions that partner governments disapprove of. It need not be razor-sharp: the framework obviously does not exclude donor technical support for developing policies, for example, though this should be “on demand” only. And donor support does not have to be either/or as the volume of aid can be varied continuously. But the roles of the actors would become much more distinct than what is the case presently.

Superior information and policy autonomy do not invariably produce optimal policies, whether judged from some overall perspective or by a government’s own objectives. Policymakers can sometimes benefit from tying their hands. A well-known example is leaving monetary policy to an independent central bank to avoid excessive inflation.<sup>35</sup> When delegation is not an option, outsiders might help discipline governments. Thus, selectivity – understood as ex ante conditionality – might play a positive role in helping partner

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<sup>34</sup> The many references to non-governmental recipient country actors in both the Paris Declaration and the Accra Agenda admit as much. More solid evidence is also available. For example, Faye and Niehaus (2012) show that donors give significantly more (less) in election years to more (less) closely politically aligned governments.

<sup>35</sup> The benefits of delegating aid policy have been analysed by Hagen (2006a) and Svensson (2000).

country governments stay the course with respect to implementing the policies they choose.<sup>36</sup> We know that institutions are important for sustaining progress (Rodrik 2005) and with eligible partners necessarily having some deficiencies in this respect, selectivity could be a substitute.

This approach might have two important benefits. Firstly, aid will be a more effective instrument for fighting poverty if it is allocated to countries with sensible policies to a greater extent. This static effect is complemented by a dynamic one: if donors base their support on the merits of partner country governments, aid will provide an incentive for policy improvement over time. Even self-serving elites could be content with getting a smaller share of a larger pie instead of the converse.

Needless to say, selectivity is not a panacea. As I have argued elsewhere, donors might influence the policy choices of recipients even in the absence of explicit conditions (Hagen 2015a). Their calculus could change simply because they anticipate what actions donors will reward. Such behaviour has been extensively documented in case studies of aid relationships:

“In the current period of high-level funding and cordial donor–state relations, it seems that much of the ‘country ownership’ currently extant in Tanzania is to some degree anticipatory. That is, government technicians and planners know very well what kinds of development management discourse appeals to the donors and they evoke these terms and techniques in order to increase their chances of gaining approval and access to aid and credit.” (Harrison *et al.* (2009, p. 294))

The incentive to “sweet-talk” donors is problematic if it leads partners to ignore their own knowledge. Even well-intentioned governments facing well-intentioned donors might choose policies that are not optimal if the consequent inflows are strong enough to outweigh the adverse consequences. Selectivity could thus lead to unwarranted conformity to donor blue-prints. As second problem is that if donors choose identical rules of engagement, selectivity might lead to herding. Donors will then switch to the same countries,

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<sup>36</sup> The following passage in paragraph 16 of the Paris Declaration is consistent with this argument: “Donors commit to [d]raw conditions, whenever possible, from a partner’s national development strategy or its annual review of progress in implementing this strategy.”

creating aid darlings, when moving away from the same countries, creating aid orphans. However, conformity and herding are unlikely to be severe problems simultaneously. The former makes it harder to judge whether policies are optimal, but the net effect on the distribution of aid across partner countries is likely to be minor if most of them have a strong incentive to conform. If donors herd into some countries, leaving others, it must be because the latter judge the lost aid to be a reasonable price to pay for not having to distort their policies to satisfy donor expectations.

Furthermore, both conformity and herding have been frequently mentioned concerns even though most donors have not been particularly selective so far, as the problem of proliferation vividly illustrates. The Bretton Woods institutions have frequently been charged with imposing unreasonable and poorly tailored policies on poor countries. The empirical support for their conditionality being successful is not too convincing.<sup>37</sup> Still, the IMF in particular probably has influenced aid flows. Many bilateral donors do not have the capacity to evaluate the macroeconomic policies of recipients. Instead, they have implicitly delegated that task to the Fund by making being on-track with its programmes a precondition for their own support. This might have contributed to donor herding and to recipients learning to conform to quite specific ideas of what policies should be pursued.<sup>38</sup>

It is thus hard to see that well-founded selectivity will aggravate these problems. In addition, if more donors develop their own allocation rules the global distribution of aid might become less sensitive to the signals of the IMF and other pacesetters. In fact, heterogeneity amongst donors might weaken both problems. Recipients will have less reason to conform if they face diverse incentive schemes and herding becomes less likely if donors are triggered by different rules. These would be positive consequences of

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<sup>37</sup> Dreher (2009) provides a useful survey of this literature.

<sup>38</sup> Even the World Bank has at times relied on its sister institution in this way. For a preliminary analysis of such “gatekeeping” by the Fund, see Hagen (2015c), and for a related inquiry in the context of the IMF’s Policy Support Instrument, Hagen (2012). This is clearly a topic in need of further empirical research. Dreher et al. (2012) argue that the data suggests recipients eligible for the MCC benefit from additional aid from other donors using the MCC screening process as a signal. According to Davies and Klasen (2013), the strongest influence on the allocation of a single donor is the five largest bilateral donors’ pattern of giving. Hence, it is not clear who applies the strongest “peer pressure” on donors.



a healthy competition of ideas among donors.<sup>39</sup> Furthermore, using mainly the natural instrument, budget support, would help reduce fragmentation at the project and sector levels in recipient countries. The average fragmentation of partners at the national level could increase or decrease as funds are moved between them, with those gaining likely to see an increase and those losing being “compensated” by having to deal with one donor less. Proliferation would be reduced by the switch to more general forms of support. As selectivity implies choosing only some partners out of a pool of potential candidates, concentration across countries would be achieved, further reducing proliferation.

## Sweden and selectivity in practice

Selectivity could in principle be applied to all countries on the DAC-list, but there are several reasons why this is not a good idea. First of all, the approach requires a modicum of capacity for policy-formulation and –implementation in recipients, which excludes fragile/failed states. Secondly, to minimise the risk of inducing conformity donors should invest in partner-specific knowledge. For this to be feasible, it seems necessary to concentrate *ex ante* by selecting a sub-set of all potentially eligible countries. That is, if the number of countries on the DAC-list that are not fragile/failed states is  $N$ , a donor should select  $M < N$  of them as candidates and end up supporting  $L \leq M$ . Any of the  $M - L$  countries not winning out “now” might do so in the “future.”<sup>40</sup> To allow time for partner-specific knowledge to be accumulated and reduce the risk that it rapidly becomes obsolete because a current recipient loses out in the competition for funds, selectivity should be a medium-term strategy. A medium-term horizon would have the added benefit of helping selected countries plan too. Every five years, say, one can firstly revise the number  $M$  and the list of eligible countries, then the number  $L$  of actual (or at least major) recipients and their identities.

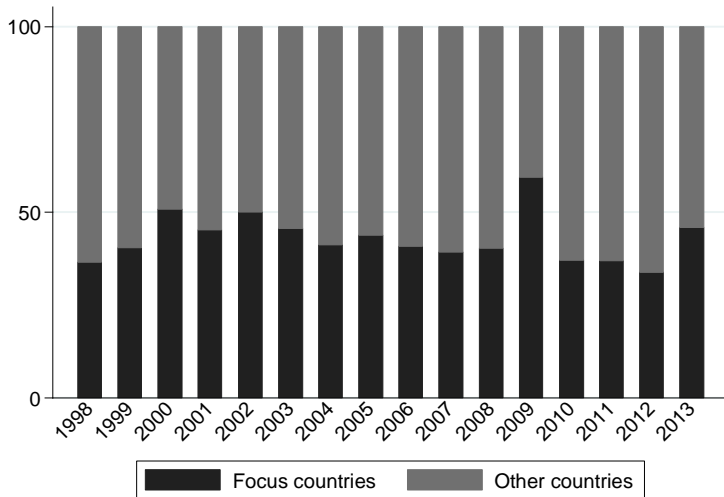
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<sup>39</sup> Another positive could be that rule-based allocation would increase the predictability of aid. See Eifert and Gelb (2006) for a good discussion of how performance-based budget support can be made predictable.

<sup>40</sup> Svensson (2003) demonstrates that a mechanism similar to what is suggested here allows a donor to learn about common shocks hitting potential recipients, but not idiosyncratic shocks. However, if the competition is repeated one would expect donors to be able to learn something about country-specific shocks too (except in the unrealistic case where recipients are able to perfectly coordinate their choices all the time).

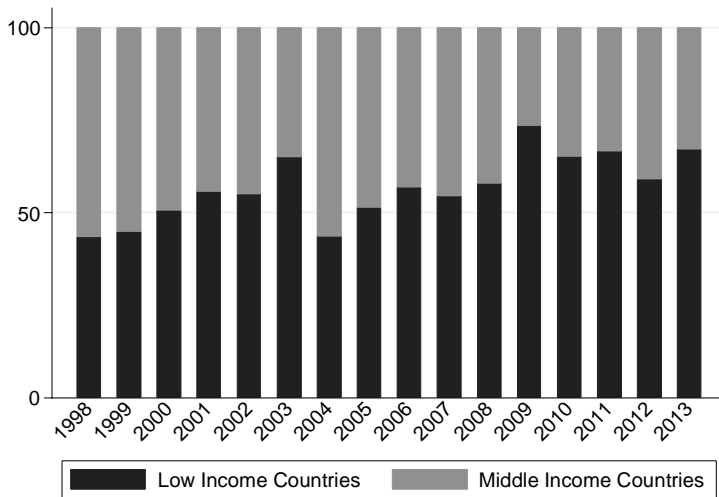
The main challenge in being selective lies in choosing the criteria to apply. It seems advisable to let institutional quality play an important role for at least three reasons. Firstly, proper indicators would reflect the slow nature of institutional change, leading to a graduated response of aid to changes in recipients, whether positive or negative. Secondly, better institutions will most of the time imply better policies. Thirdly, indicators of institutional quality are more easily applicable than policy indicators. For example, it is easier to agree that controlling corruption is a good thing in all recipients than saying exactly how large or small their budget deficits should be. For this reason, it is also plausible that the criteria for selecting potential recipients and actual ones could usefully differ. The *M* countries could be selected mainly based on their better-than-average institutions, while the allocation of funds across them might be based on their current policies, where the call could involve a greater element of discretion based on country-specific knowledge. At this stage one should perhaps also take into account indicators reflecting deficiencies in the overall allocation, e.g. whether aid to a potential recipient is very fragmented and whether or not it is a donor darling or orphan.

Figure 4.2: Share of Swedish aid to focus countries, 1998-2013



Source: Author's calculations

Figure 4.3: Share of Swedish aid to low income countries, 1998-2013



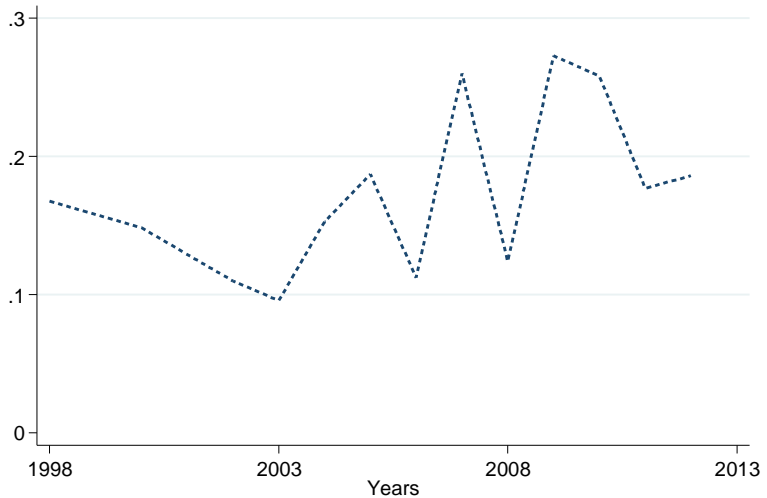
Source: Author's calculations

To some extent, the approach advocated here is quite similar to the country group structure of the Swedish concentration policy.<sup>41</sup> Has the modest reduction in proliferation that we saw in section 3 lead to Swedish aid being allocated more selectively? A first angle on the data is obviously to investigate whether the share of Swedish aid going to the countries chosen as partners for long-term development cooperation has increased.<sup>42</sup> Figure 4.2 displays a pattern that is by now familiar. There is a sizeable improvement in the first couple of years following 2007. After 2009, however, the share allotted to these countries declines again and the period ends with just a minor improvement to show for since the policy change. Figure 4.3 shows that since 2007 the share going to low-income countries, which are emphasised in the current aid policy framework, has increased. Thus, Sweden has become more selective in terms of income levels. However, this indicator also peaked in 2009.

<sup>41</sup> Another similarity is the emphasis on the importance of country-specific knowledge, c.f. sub-section 7.1.4 of the aid policy framework (Swedish aid must be adapted to the country context). (Government Offices 2014).

<sup>42</sup> The original focus countries were Bangladesh, Bolivia, Burkina Faso, Ethiopia, Cambodia, Kenya, Mali, Mozambique, Rwanda, Tanzania, Uganda, and Zambia.

**Figure 4.4: Share of Swedish aid to countries in upper 25 percentil of average WGI-indicator**



Source: Author's calculations

What of selectivity on governance? I use the Worldwide Governance Indicators (WGI) to provide a first check. This is probably the most robust set of such indicators available as the data is based on a host of other well-known measures.<sup>43</sup> They are constructed such that higher values mean better governance. I group the recipients in the CRS-database by their percentile ranking in WGI, then calculate the share of Swedish aid going to the countries in the top 25 percent on each measure.<sup>44</sup> Table A2 in appendix A gives the results, which displays some variance across the individual indicators, suggesting no common trend. The indicators themselves are strongly positively correlated. I have therefore also computed the simple average of them and found the share of Swedish aid allocated to the highest ranking 25 percent. Figure 4.4 provides an indication that Sweden has become more selective on governance in recent years. However, the large year-to-year variation could be a sign that this is mainly coincidental.

<sup>43</sup> The data are available at [www.govindicators.org](http://www.govindicators.org). Kaufmann et al. (2010) describe the sources and methods used. Note that the database starts in 1996, but is biannual until 2002.

<sup>44</sup> There are six in total: Control of corruption, Government effectiveness, Political stability, Regulatory burden, Rule of Law, and Voice and accountability.

The major difference between the approach advocated here and the concentration policy is that the latter seems not to be based on explicit rules. At the time it was introduced, a paper entitled “Guidelines: decisive factors for country focus” was published (Ministry of Foreign Affairs 2007). However, this is a veritable smorgasbord of indicators and while they come in four thematic groups, there is no guidance as to their relative importance in different cases, much less an explicit weighting of them.<sup>45</sup> The current aid policy framework is even less helpful in this regard. This would seem to leave too much discretion to policymakers and, by extension, to special interests, a point that brings us to the political economy of selectivity.

## The political economy of selectivity

The principal benefit from applying explicit rules is transparency, which facilitates accountability to all parties involved, including the public and partner governments.<sup>46</sup> Decisions regarding both the selection of prospective recipients and actual aid allocations can be compared to the formal criteria and any deviations scrutinised. It also becomes much easier to debate policy changes when the status quo is known and clear. Using budget support further weakens the information requirements for effective aid as it is not necessary to have detailed knowledge about all sorts of projects and programmes and how they are best supported, an underappreciated advantage of this aid modality. In the first EBA-report, Olofsgård (2014, p. 17) observes that “[f]oreign aid interventions span all areas of public policy; health and education, infrastructure, financial policy, legal reforms, etc. This means that decision makers need to have a very broad capacity to commission, read and judge evaluations across quite different fields, potentially using different methodologies suited for the specific question. A general challenge is also to attribute the effect of Swedish aid in a context where many other donors are involved and resources are fungible.” But this is not a state of nature; it is the result of decisions. Concentration will increase Sweden’s size in partner countries, making it a lot simpler to judge its contribution. Indeed, if it confines itself to using only budget support the relevant statistic

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<sup>45</sup> The four headings are poverty, effectiveness, human rights and democratic governance, and Swedish added value/comparative advantages.

<sup>46</sup> According to the current aid policy framework, openness and transparency are major principles for Swedish aid (Government Offices 2014, p. 43-44)

becomes the marginal effect of public funds there, which is much easier to calculate than Sweden's marginal impact using project or sector aid. Such simplicity is especially important in aid because of the broken feedback-loop that prevents the ultimate beneficiaries (poor people in poor countries) from reporting to the ultimate donors (taxpayers in rich countries).<sup>47</sup>

Conversely, the ambiguities that more or less complete discretion invariably creates make it easier for special interests to wield influence. Kron (2012) argues that the main factor explaining the choice of partners in 2007 was whether NGOs linked to the four governing parties were engaged in a country or not. Shortly after Norway announced a concentration policy with obvious similarities to the Swedish one last autumn, the government caved in to NGOs criticising it for putting Sierra Leone on the list of partners where long-term development cooperation was set to end when it was in the middle of the Ebola-crisis. Such backtracking is easy since the Norwegian government has unfortunately also followed Sweden in not making the criteria for partner choice clear. But the major point of concentrating aid is of course that severe problems are created for recipients when all donors are everywhere. A rule-based allocation policy guards against this kind of mission creep, for which there will almost always be good reasons at any point in time.

The fact that discretion in aid allocation is valuable to both aid agencies and donor country politicians is probably the single most important reason why explicit selectivity is a quite rare phenomenon. The same plausibly applies to using budget support as it limits visibility in the form of projects and programmes with donor labels as well as the possibilities for jumping on topical bandwagons. These considerations also points to the major risk involved in choosing selectivity: that it does not by itself guarantee that the strategy is implemented.<sup>48</sup> If donors are unable to commit to following the rules when disbursement day comes, one would rapidly be back in a situation with excessive proliferation and aid being given despite the selected criteria not being fulfilled. If this in turn tempts them into trying to intervene in the policy process of partners to achieve their objectives, maybe even to the extent of circumventing governments

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<sup>47</sup> The broken feedback-loop was originally noted in Martens et al. (2002).

<sup>48</sup> This is the problem of dynamic consistency, which gives rise to the so-called Samaritan's Dilemma in aid, c.f. Hagen (2006a), Pedersen (1996, 2001), and Svensson (2000).

using NGOs or their own projects, one would basically be back to square one.

The fact that the US, which is well-known for using its aid for purposes of self-interest to a large extent, has managed to establish a rule-based agency like the MCC suggests that being selective is not completely unrealistic when it comes to bilateral aid. That most DAC-donors have untied their aid could also be cited as evidence that loosening the bonds between development assistance and donor self-interest is achievable in practice. But it probably takes something special to cut even deeper into that Gordian knot.

## 5. Beyond the Paris Agenda: Cooperation, Coordination, and Going Alone

The type of joint action to reduce aid dispersion that the Paris agenda focusses on is coordination among donor countries or agencies at the level of specific recipients or sectors. This is supposed to happen on the basis of “comparative advantage.”<sup>49</sup> This is a concept borrowed from trade theory, which predicts that under certain assumptions countries will specialise according to it. The analogy in aid would be that donors should tend to specialise in the sectors (or countries) in which they can contribute at relatively low cost. If this was the only driving force behind donors’ decisions, there would seem to be no need for coordination. As there is a widespread perception that there has been a lack of specialisation, there must be other factors at play. As argued in sub-section 2.4, the most likely suspects are political and bureaucratic incentives for being engaged in donor darlings and fashionable sectors.

Has the Paris process succeeded in changing donors’ calculus? Measuring coordination is unfortunately not much easier than measuring transaction costs. Here I follow Aldosoro et al. (2010) and Nunnenkamp et al. (2013) in using an “overlap” measure borrowed from trade theory. The idea is that if donor aid allocations overlap to a great extent, they are not well coordinated. This presumes that a division of labour amongst donors is the optimal way to coordinate, which is not clear. Concerted action on conditionality is an obvious counterexample. Hence, I refrain from characterising it as a measure of coordination, as these authors do. Instead I just follow their approach to see whether there is much overlap between DAC-donors and to what extent this changes over time.

The overlap index is a number between 0 and 1, with the latter indicating that donors allocate aid in exactly the same way.<sup>50</sup> The trend across the whole period is perhaps not that surprising given the evidence on proliferation that we saw in section 3 (Figure 5.1). DAC-

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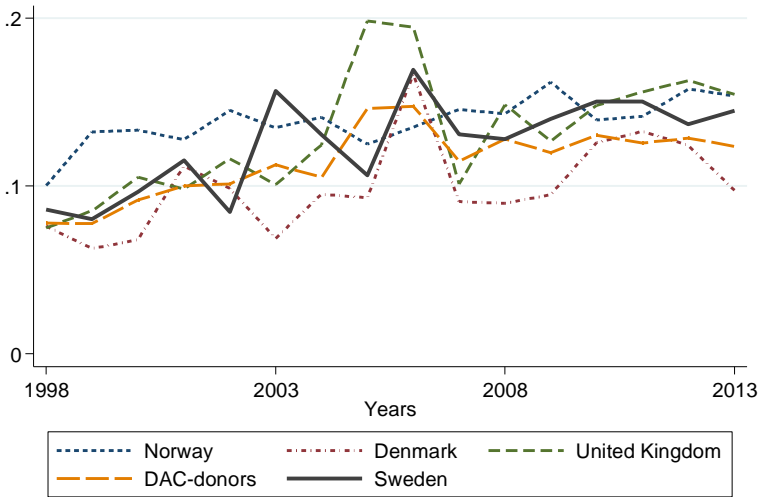
<sup>49</sup> In paragraph 35 of the Paris Declaration, “[d]onors commit to [m]ake full use of their respective comparative advantage at sector or country level by delegating, where appropriate, authority to lead donors for the execution of programmes, activities and tasks.”

<sup>50</sup> The technical details can be found in appendix D.



donors on average as well as Sweden appear to be doing the same things to a greater extent as time goes by. It does, however, look like the trend was broken after the Paris Declaration and maybe even reversed in case of the average. Using only large commitments or leaving out aid through NGOs confirms this picture.<sup>51</sup> It would obviously be advantageous to be able to back up these findings with evidence not captured here, such as whether donors pool more funds in common baskets or use more SWApS. Still, as noted by Nunnenkamp et al. (2013), monitoring and evaluation exercises following the Paris Declaration show quite limited progress in these terms.

**Figure 5.1: Average Bilateral Overlaps, 1998-2013**



Source: Author's calculations

It would also be interesting to have quantitative measures of coordination costs, which should be taken into account in a complete cost-benefit evaluation. Case studies give the impression that they are non-negligible. For example, Leiderer (2013, p. 21) reports that in Zambia, “there is evidence that the SWAp-specific and other

<sup>51</sup> See Figures A10 and A11 in appendix A.

coordination processes [in the health sector] induce substantial workload and absorb significant time resources on both sides of the aid relationship. Given that these activities are in addition to the planning, monitoring and reporting activities of the more traditional forms of aid, overall transaction costs of health aid cannot be expected to have fallen.” With the continuous entry of new donors, some of which would appear to have quite different objectives compared to the traditional ones, there is reason to suspect that these costs might rise in the future.

However, there is a readily-available alternative. Woods (2011, p. 118) argue that “Coordination is important because so little cooperation takes place. Large numbers of donors, each doing their own thing in developing countries, give rise to a need for coordination to ensure that all of these activities take place in harmony.” It is hard to disagree with her. As she points out, donors already have agents – the multilateral institutions - that easily could have been used to reduce aid fragmentation and the need for coordination. While it is true that transaction costs are not bound to go down if one donor leaves a sector or country, transferring its funds to a multilateral, a major shift towards multilateral aid by most donors is almost certain to have such an effect. There will be fewer players, coordination will be easier, and fragmentation will become much less of a problem.<sup>52</sup>

This line of reasoning is parallel to that of Acharaya et al. (2006, p. 15-17) with respect to within-country approaches to dealing with fragmentation such as coordination and SWAs relative to donors simply concentrating their aid in fewer recipients. In fact, the current Swedish aid policy framework acknowledges that it could be an important element of a strategy to reduce both fragmentation and proliferation:

“Through multilateral institutions with great legitimacy and global or regional presence, Sweden can effectively combine its support with other countries’ aid to identify the best shared solutions to help the people who need it most. [...] In this way the burden of coordination for a partner country with limited capacity is reduced and the likelihood of achieving the desired result increased. This ties in well with Sweden’s international undertakings on aid effectiveness and the

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<sup>52</sup> Obviously, not all multilaterals are alike. UN organisations, for example, are notorious for their lack of coordination, even amongst themselves. Thus, multilateral aid requires care in selection too.

need to reduce the number of aid actors in countries that receive aid.” (Government Offices 2014, p. 52)

Figure 5.2: Shares of multilateral aid

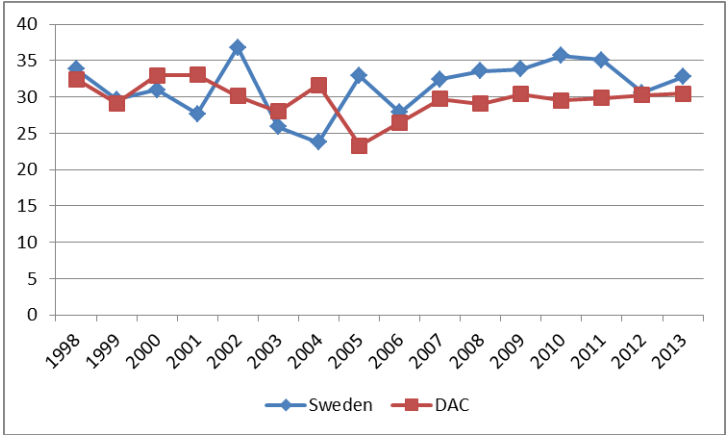


Figure 5.2 shows that after having hovered around the DAC-average prior to the Paris Declaration, Sweden’s multilateral aid share has tended to stay above it afterwards.<sup>53</sup> Yet the gap has narrowed in recent years, mainly due to its own share declining somewhat.

This suggests that there is a two-pronged solution to the problem of Swedish aid proliferation: increased multilateral cooperation and intensified unilateral concentration. This combination is bound to reduce the overall transaction costs of Swedish aid.<sup>54</sup> And while the Paris Agenda might no longer be The Agenda, such a strategy is a feasible option in the new and more complex aid landscape Sweden is now operating in.

<sup>53</sup> Note that this is the share of multilateral aid in total disbursements. It is calculated by the author from data obtained from the DAC website (accessed February 23, 2015) using the standard DAC-classification of so-called multi-bi aid (earmarked funds given to multilateral organisations) as bilateral aid.

<sup>54</sup> In addition, more joint programming and coordination as the EU’s Agenda for Change is implemented will of course contribute to softening Sweden’s footprint in partner countries (c.f. Government Offices 2014, p. 57).

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# Appendices

## Appendix A: Additional Tables and Figures

**Table A1: Detailed data for Sweden**

Year	No of recipients	No of new com.	Avg com. size current USD mill.	Theil, overall Score: 0-1	Theil, between Score: 0-1	Theil, within Score: 0-1	Overlap Score: 0-1
1998	72	1046	0.483	0.443	0.213	0.230	0.086
1999	69	852	0.452	0.453	0.223	0.230	0.080
2000	76	892	0.608	0.462	0.218	0.244	0.097
2001	73	830	0.561	0.434	0.222	0.213	0.115
2002	72	756	0.626	0.446	0.206	0.239	0.085
2003	71	689	1.513	0.49	0.231	0.259	0.157
2004	71	533	1.485	0.443	0.201	0.242	0.131
2005	102	1634	0.781	0.411	0.171	0.241	0.107
2006	96	849	1.779	0.503	0.217	0.286	0.169
2007	82	615	1.433	0.445	0.172	0.273	0.131
2008	101	1418	0.627	0.456	0.189	0.267	0.128
2009	106	1624	0.834	0.517	0.248	0.269	0.140
2010	101	1410	0.903	0.435	0.194	0.241	0.150
2011	86	887	1.321	0.471	0.206	0.265	0.150
2012	98	1194	0.757	0.447	0.178	0.269	0.137
2013	107	1459	0.815	0.449	0.184	0.266	0.145

**Table A2: Share of Swedish aid to recipient countries in upper 25 percentil of WGI-indicators**

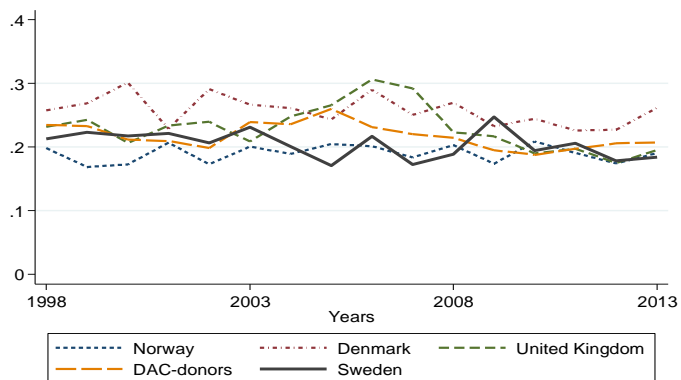
<b>Year</b>	<b>Control of corruption</b>	<b>Government effectiveness</b>	<b>Political stability</b>	<b>Rule of law</b>	<b>Voice and accountability</b>	<b>Regulatory burden</b>
1998	0.191	0.181	0.230	0.217	0.254	0.235
2000	0.090	0.068	0.131	0.168	0.148	0.256
2002	0.096	0.071	0.247	0.107	0.111	0.173
2003	0.099	0.090	0.163	0.131	0.116	0.217
2004	0.164	0.104	0.265	0.124	0.139	0.161
2005	0.159	0.124	0.245	0.228	0.215	0.123
2006	0.207	0.089	0.228	0.097	0.123	0.127
2007	0.265	0.143	0.252	0.149	0.201	0.099
2008	0.188	0.095	0.214	0.085	0.150	0.157
2009	0.095	0.062	0.501	0.105	0.076	0.152
2010	0.193	0.148	0.247	0.168	0.106	0.192
2011	0.140	0.131	0.151	0.163	0.086	0.200
2012	0.151	0.139	0.117	0.161	0.120	0.240

Source: Author's calculations.

**Table A3: Average bilateral overlap for Sweden, 1998-2013**

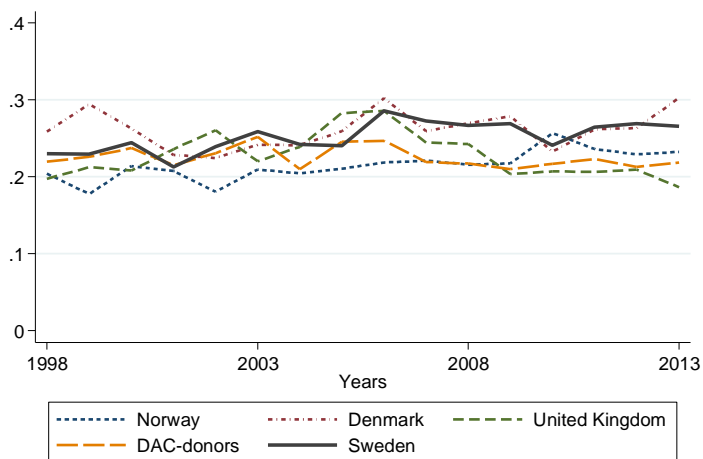
Donor	Overlap
Korea	0.016
Japan	0.052
France	0.068
Australia	0.071
Austria	0.086
Spain	0.105
Italy	0.107
Belgium	0.115
Germany	0.128
Denmark	0.142
USA	0.144
Canada	0.144
Switzerland	0.145
United Kingdom	0.150
Ireland	0.164
Finland	0.172
Netherlands	0.206
Norway	0.241

**Figure A1: Between-component of Theil index, 1998-2013**



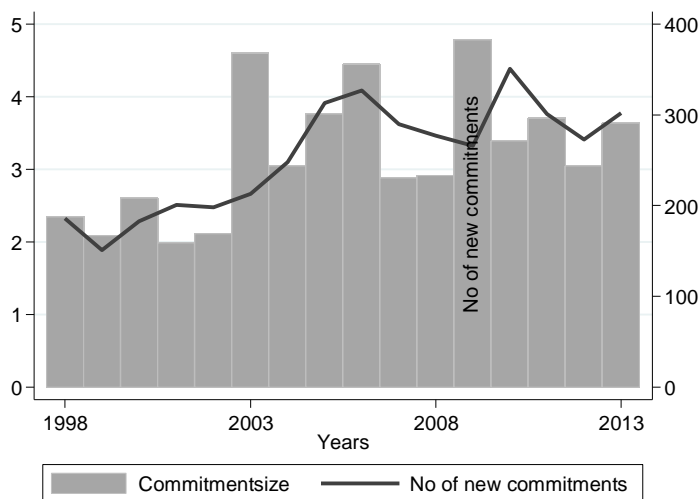
Source: Author's calculations

Figure A2: Within-component of Theil index, 1998-2013



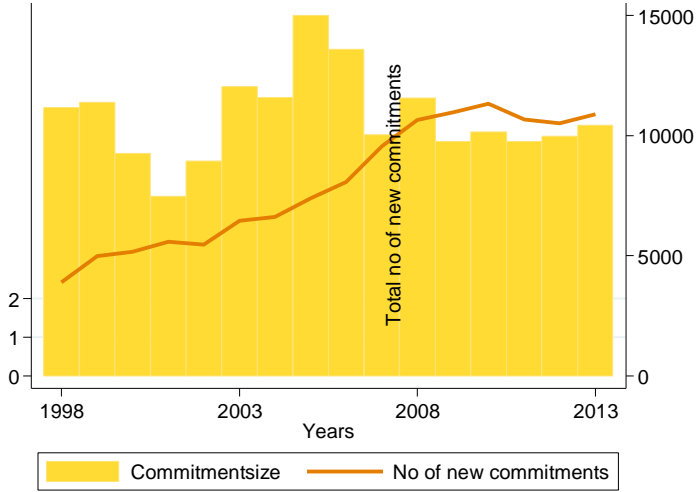
Source: Author's calculations

Figure A3: Projects for Sweden, 1998-2013, commitments over 500 000 USD



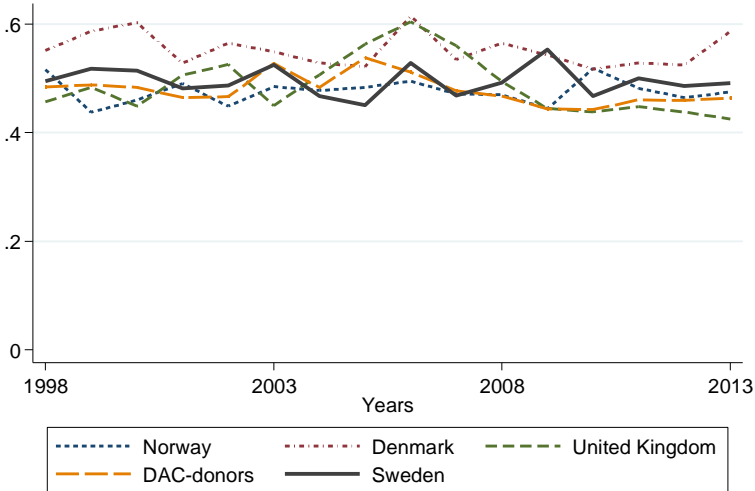
Source: Author's calculations

**Figure A4: Projects for DAC-donors, 1998-2013, commitments over 500 000 USD**



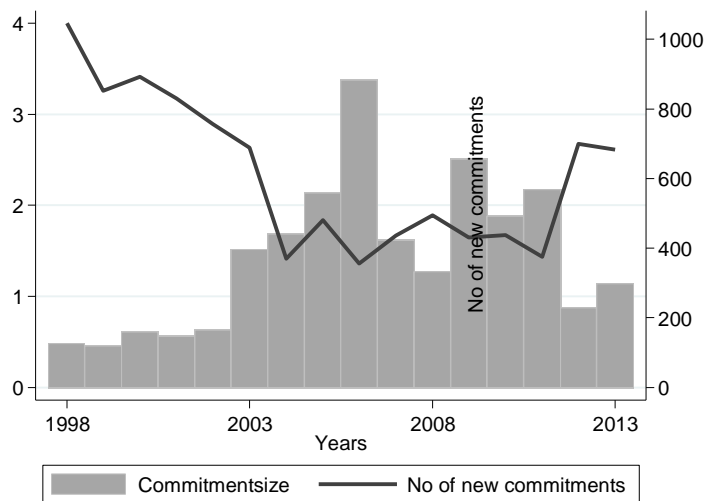
Source: Author's calculations

**Figure A5: Theil index, 1998-2013, commitments over 500 000 USD**



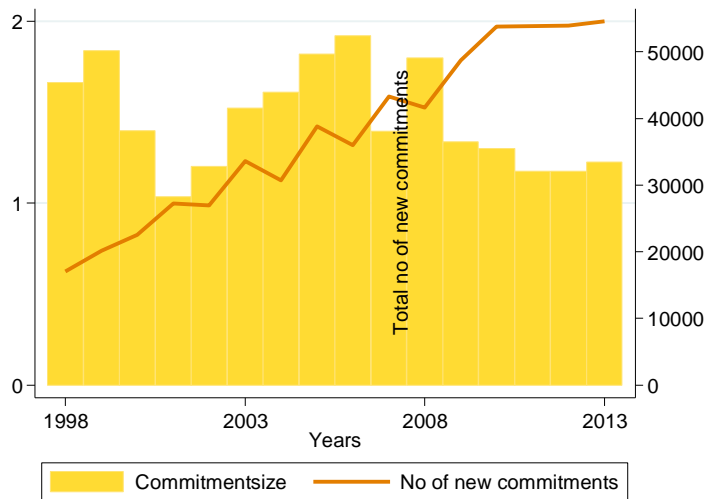
Source: Author's calculations

Figure A6: Commitments for Sweden, 1998-2013, NGO-transactions excluded



Source: Author's calculations

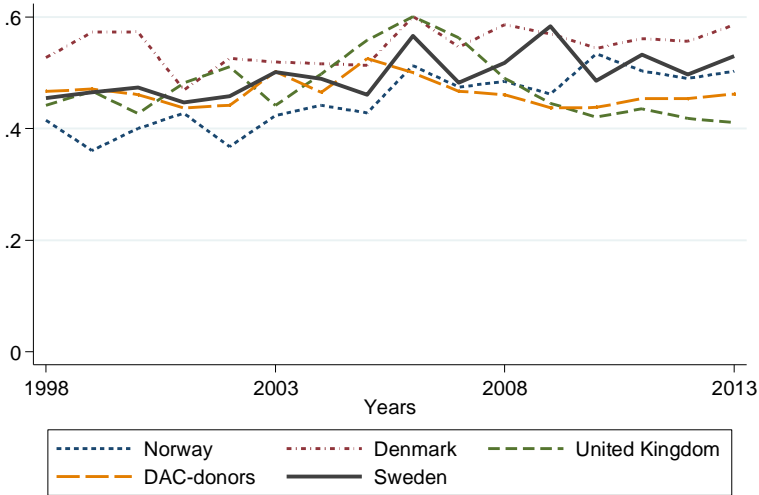
Figure A7: Commitments for DAC-donors, 1998-2013, NGO-transactions excluded



Source: Author's calculations

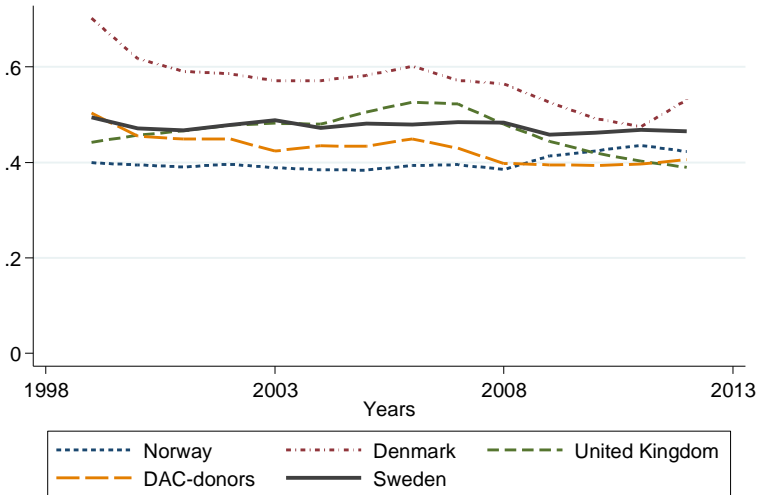


Figure A8: Theil index overall, 1998-2013, NGO-transactions excluded



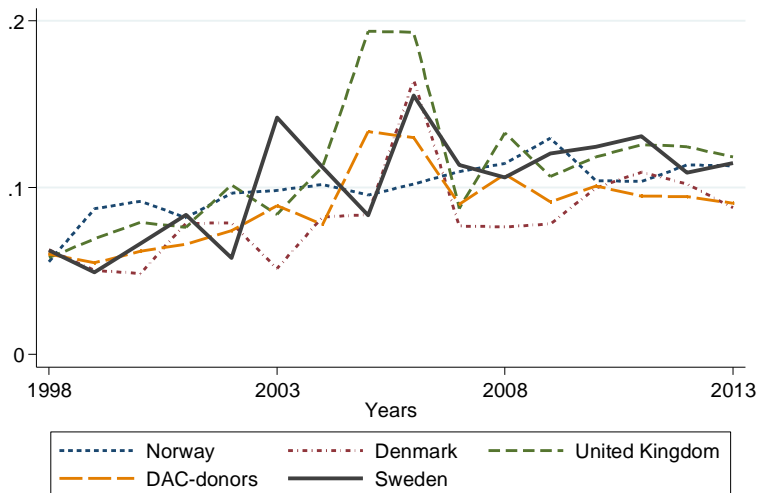
Source: Author's calculations

Figure A9: Theil index with 3 years moving average, 1998-2013



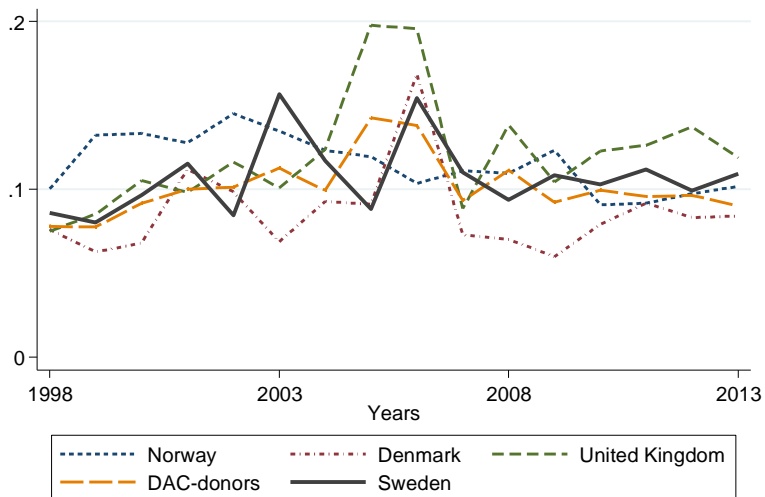
Source: Author's calculations

Figure A10: Overlap, commitments over 500 000 USD



Source: Author's calculations

Figure A11: Overlap, excluding NGO-transactions



Source: Author's calculations

## Appendix B: Measures of Aid Dispersion

### *The Theil index as a measure of aid proliferation*

The issue of whether aid is fragmented (within a recipient country, across donors) or proliferated (by a donor, across recipients) concerns how a certain sum of aid (total aid to a recipient country or total aid by a donor) is dispersed across entities, which could be projects, thematic sectors, or recipient countries. There are many different measures of dispersion that could be used. Some of the ones actually applied to aid are fairly ad-hoc and/or only capture part of the phenomenon. This can be said of the number of donors as a measure of fragmentation, for example. One reason for this state of affairs is probably that we do not know the relationship between dispersion and transaction costs. This in turn makes it possible for different people to have different opinions about which indicator of dispersion is a better proxy for the transaction costs of aid.

I will argue that given our current knowledge, we need to accept that we cannot quantify transaction costs. However, we can measure aid dispersion, as there are available statistical measures of dispersion with well-known properties. One such measure is the Theil Index, which is probably the most frequently used indicator of aid proliferation. It is applied in one form or another by Acharya et al. (2006), Aldosoro et al. (2010), and Nunnenkamp et al. (2013). As this is the form of aid dispersion with which I am concerned and it has a very useful useful property, I will confine my discussion to the Theil Index in the following.

The formula for the Theil is

$$T_{dt} = \ln R - \sum_{r=1}^R \alpha_{art} \ln \left( \frac{1}{\alpha_{art}} \right)$$

Here,  $\alpha_{art}$  is the share of donor  $d$ 's total aid allocated to recipient  $r$  at time  $t$ .

The Theil is often used to measure income inequality (see e.g. Sen 1997). In the current context, this might be confusing at first sight as inequality here is good since it means that aid is concentrated. Thus,

$T_{dt}$  is a measure of how concentrated donor  $d$ 's aid at time  $t$  is, not of proliferation. To see this, it is useful to rewrite the formula slightly:

$$T_{dt} = \ln R + \sum_{r=1}^R \alpha_{drt} \ln \alpha_{drt} = \sum_{r=1}^R \alpha_{drt} \ln R \alpha_{drt} = \sum_{r=1}^R \alpha_{drt} \ln \left( \frac{\alpha_{drt}}{1/R} \right)$$

Intuitively, aid is maximally dispersed when all recipients have the same share, i.e., when  $\alpha_{drt} = 1/R$ . We then have  $T_{dt} = 0$ . Thus, the last formula nicely brings out that the Theil can be interpreted as a measure of the extent to which aid shares (the  $\alpha_{drt}$ s) differ from the “population” shares ( $1/R$ , since all recipient countries count the same). When aid shares equal the population shares ( $\alpha_{drt} = 1/R$  for all  $r$ ), there is no inequality, and hence  $T_{dt}$  is zero.

This result holds regardless of the number of recipients  $R$ . Dreher and Michaelowa (2010) use this as an argument against applying the Theil as a measure of fragmentation, because “[a]id fragmentation is driven by both the number of donors and their relative size.”<sup>55</sup> By extension, one could perhaps argue that proliferation is driven both by the number of recipients and the way a donor distributes its aid among those actually receiving a transfer. However,  $T_{dt}$  will change with  $R$  as long as recipients do not always have identical shares, and the probability that this is the case no matter how many partners a donor has is obviously zero in the real world. Hence, for practical purposes this is not a concern.

A potentially more worrisome problem with using the Theil as a measure of aid proliferation is that it will also be zero if  $R$  is the actual number of recipients and  $R = 1$ . If there is only one recipient, the Theil Index for donor  $d$  would then show maximum dispersion even

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<sup>55</sup> Dreher and Michaelowa (2010) go on to suggest that one should not use inequality measures like the Theil to capture fragmentation, but instead one or more indicators of “market” concentration such as the Herfindahl-Hirschman Index. The Herfindahl-Hirschman Index is probably the most commonly used measure of fragmentation in the academic literature. However, it is only a theoretically relevant measure of market power in markets with Cournot competition. In addition, Dreher and Michaelowa (2010) find that it is overly sensitive to an increase in the number of donors at low levels. For this reason, they prefer measures that capture the cumulative shares of the 3-5 largest donors. However, these are not only ad-hoc, but also insensitive to the number of donors as long as the cumulative share of the largest ones stays constant. Hence, their argument that concentration measures are preferable to the Theil is not that compelling in the end.

though this is the case where its aid is maximally concentrated. The reason is obviously that inequality is a meaningless concept for a “group” of one person. In contrast, it is certainly meaningful to say that aid proliferation by donor  $d$  is minimised if it only has a single partner. However, there is a simple and intuitive way around this “double zero” problem.

As noted without discussion by Acharya et al. (2006),  $R$  can be the number of *potential* aid recipients. Then, unless all potential partners are given aid shares of  $1/R$  each,  $T_{dt} > 0$ . In other words, the “double zero problem” vanishes. If donor  $d$  only allocates aid to a single recipient,  $T_{dt} = \ln R$ . This is actually a more meaningful way of measuring aid dispersion, as it assigns a value of zero to donor  $d$  if and only if it transfers resources to every eligible country – for example, all countries on the DAC-list - and gives all of these the same share (and thus amount). As long as one remembers to rank donors in inverse order – with the greatest proliferators having the smallest index values – the Theil is thus a good measure of aid proliferation. Alternatively, one can say that the Theil is a measure of concentration, which is what I will do. A measure of proliferation can then be obtained by first normalising the Theil through division by  $\ln R$  to get a number between zero and one and then subtract the normalised index from one.<sup>56</sup>

One of the really useful properties of the Theil index is that it is additively decomposable. That is, the overall index can be decomposed into inequality across groups and inequality within groups.<sup>57</sup> For present purposes, this means that we can distinguish between the contributions to a donor’s overall level of proliferation from its distribution of funds across recipients and its allocation of resources to different sectors (and/or projects) within recipients. For a donor, this could be highly useful information as it would indicate whether a perceived excessive degree of proliferation is due to giving aid to too many recipients or to aid being delivered in excessively “small” batches.

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<sup>56</sup> A desire to have a measure of proliferation is probably why Aldosoro et al. (2010) and Nunnenkamp et al. (2013) use only  $-\Sigma \alpha \ln \alpha$ , i.e., the second part of the Theil, which is an equality measure. However, calling this the Theil Index is not only factually wrong but also highly confusing.

<sup>57</sup> In fact, it belongs to the only class of inequality measures that allow perfect decomposability in this sense. Decomposing the Gini, for example, generates a residual. This residual reflects the degree to which the distributions overlap, which is not interesting information in the aid context. For further discussion, see Sen (1997, pp. 152-154).

In the current context, the decomposition is performed by dividing the overall Theil index for a donor into *the between component*, which is the formula just displayed, and *the within component*, which measures the dispersion of this donor's aid within each recipient. The latter term is then in essence a weighted average of Theil indices for each recipient, with the weights being their shares in the donor's total aid. Let us consider the case where aid can be allocated across a maximum of  $S$  sectors in each recipient. We then have

$$\begin{aligned} T_{dt} &= T_{dt}^{Between} + T_{dt}^{Within} = \sum_{r=1}^R \alpha_{drt} \ln \left( \frac{\alpha_{drt}}{1/R} \right) + \sum_{r=1}^R \alpha_{drt} \left[ \sum_{s=1}^S \sigma_{drst} \ln \left( \frac{\sigma_{drst}}{1/S} \right) \right] \\ &= \sum_{r=1}^R \sum_{s=1}^S \alpha_{drst} \ln RS \alpha_{drst} = \ln RS + \sum_{r=1}^R \sum_{s=1}^S \alpha_{drst} \ln \alpha_{drst} \end{aligned}$$

As above,  $\alpha_{drt}$  is the share of aid to recipient  $r$  in donor  $d$ 's aid portfolio at time  $t$ , whereas  $\alpha_{drst}$  is the corresponding share of aid to sector  $s$  in recipient  $r$  and  $\sigma_{drst}$  the share of sector  $s$  in the aid recipient  $r$  receives from donor  $d$  at this point in time. To get from the first line to the second, it is useful to note that  $\sigma_{drst} = \alpha_{drst} / \alpha_{drt}$  and that  $\sum_s \sigma_{drst} = 1$ .

We see that it is very intuitive that  $S$  should be the potential number of sectors to which aid is allocated (e.g., according to the sector classification used in DAC statistics), not the actual number, as a donor can choose which sectors it would like to fund in each recipient. Thus, the fact that a donor is giving aid to the education sector in Rwanda but not in Tanzania should not influence the way the proliferation measure is constructed by having recipient-specific (and most likely, time-varying) numbers  $S_{Rwanda}$  and  $S_{Tanzania}$ . Instead, the donor should be seen as less of a proliferator for not giving aid to the education sector in Tanzania too.

I would like to reiterate that the Theil is just a measure of aid dispersion, and knowledge of contextual factors (like the aid modalities used) is required to fully evaluate whether a donor's portfolio is problematic or a recipient could benefit from donor coordination. In this report, I will proceed on the presumption that the repeated concerns over excessive aid proliferation in the Paris agenda reflect a real problem and that it would therefore be beneficial

to reduce it. A slightly different though related argument for doing so is that donors have committed to changing the current situation in this specific direction. Whether they have in fact done so is therefore of independent interest. Graphing developments in the Theil over time, as I do in section 3 of the main text, then provides an easy way of checking visually whether progress (a rise in the index) has been made. Nevertheless, it is worth bearing in mind that the relationship between proliferation and fragmentation is not necessarily monotonic. The remainder of this appendix provides some examples illustrating this point.

*Numerical examples of the effects of less proliferation on fragmentation*

In the following examples, there are two donors, two recipients, and two sectors. Each donor has a unit of aid each. We start from a situation where neither donor is particularly specialised, providing rather similar levels of aid to both sectors in both partners. Table B1 sums these distributions up in numbers. Recall that normalised Theil indices vary between unity and zero for both donors and recipients. We see that the index numbers are quite low, reflecting the quite equal distributions of aid across recipients and sectors. The symmetry between donor 1 and recipient 2 and donor 2 and recipient 1, respectively, just follows from the chosen numbers for sectoral aid shares.

**Table B1: An example of non-specialised donors**

	Recipient 1, sector 1	Recipient 1, Sector 2	Recipient 2, sector 1	Recipient 2, sector 2	Theil (donors)
Donor 1	0.4	0.2	0.3	0.1	0.077
Donor 2	0.2	0.2	0.2	0.4	0.039
Theil (recipients)		0.039		0.077	

Suppose now that donor 1 starts to specialise, for example by focusing its aid to sector 1 in both recipients. Donor 2 retains the distribution from the previous example, so its Theil index of proliferation stays the same. However, the index values for the three other actors change. More specifically, they all increase. Hence, we can say that donor 1 proliferates less whereas aid is less fragmented in both recipients.

Technically, the reason why the Theil of donor 1 increases is that the reallocation is from “poor” to “rich” sectors within each recipient. This will increase “inequality,” i.e., increase concentration.

**Table B2: A donor specialises by sector**

	Recipient 1, sector 1	Recipient 1, Sector 2	Recipient 2, sector 1	Recipient 2, sector 2	Theil (donors)
Donor 1	0.6	0.0	0.4	0.0	0.515
Donor 2	0.2	0.2	0.2	0.4	0.039
Theil (recipients)		0.315		0.239	

Suppose that donor 1 specialised in country 1 instead. Table B3 displays such a case. It demonstrates that compared to the original distribution, donor 1 has indeed concentrated its aid (its Theil index goes up from 0.077 to 0.559). Moreover, the Theils for both recipients go up. That is, aid fragmentation has gone down in both. As is easily seen from the numbers in the table, the sectoral distribution within each of them has clearly become more unequal.

**Table B3: A donor specialises by recipient**

	Recipient 1, sector 1	Recipient 1, Sector 2	Recipient 2, sector 1	Recipient 2, sector 2	Theil (donors)
Donor 1	0.7	0.3	0.0	0.0	0.559
Donor 2	0.2	0.2	0.2	0.4	0.039
Theil (recipients)		0.111		0.541	

Still, it is easy to construct an example where concentration by a donor leads to greater fragmentation in one or more partner countries. The next table shows what happens if donor 1 moves 40% of its aid into the sector that was allocated the lowest share at the outset (sector 2 in recipient 2), with the bulk of the funds coming from the sector that had the largest share (sector 1 in recipient 1). In this case there is a reallocation from the recipient that originally received the highest share of donor 1’s aid to the one that got the lowest. The change



roughly doubles donor 1's Theil index, implying a large increase in concentration.

**Table B4: An example of donor concentration leading to fragmentation**

	Recipient 1, sector 1	Recipient 1, Sector 2	Recipient 2, sector 1	Recipient 2, sector 2	Theil (donors)
Donor 1	0.1	0.1	0.3	0.5	0.157
Donor 2	0.2	0.2	0.2	0.4	0.039
Theil (recipients)		0.041		0.038	

The other major effect of this reallocation is that fragmentation in recipient 2 increases a lot (the Theil index goes down by about 50 percent). It also leads to less fragmentation in recipient 2, which now gets less aid, but this is a minute effect that is highly unlikely to compensate for the fact that this country has lost 40 percent of its aid receipts. Whether the 40 percent rise in total aid for recipient 2 compensates for the large increase in fragmentation is more of an open question. The general point is that for recipients the benefits (losses) from more (less) aid must be balanced against the higher (lower) transaction costs and an overall assessment must factor in any changes in the donor's transaction costs as well. Moreover, I have demonstrated that less proliferation by a donor could lead to more fragmentation for some recipients. Hence, aid concentration on the part of donors is not unambiguously good.

It is obviously possible to find simultaneous changes in aid allocations by donors 1 and 2 that result in both increased concentration by both donors and in both recipients. For example, if donor 1 gives its unit of aid to sector 1 in recipient 1 and donor 2 all of its aid to sector 2 in recipient 2, all the Theil indices will equal the theoretical maximum possible of 1. Moreover, as already mentioned, donors have committed to improve the division of labour amongst themselves. Therefore, it is also interesting to study whether this has in fact happened. In appendix D, I discuss one quantitative measure that has been used in the literature to assess the division of labour among donors. Those results are given in section 5 of the main text.

## Appendix C: Brief notes on aid data

The most comprehensive source of aid data is DAC. While there is valuable work going on outside DAC to improve and extend the data this institution provides, these efforts are still not sufficiently progressed to be an alternative for my purposes.<sup>58</sup> This does imply that the analysis will be confined to the members of the DAC on the donor side, but this is not a major limitation as they have been and remain the major donors in terms of volumes. I later drop the smallest donors, i.e., those with less than 1% of the observations after making the adjustments described in the following (c.f. Table C1).

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<sup>58</sup> The main initiative is *aiddata*, available at [aiddata.org](http://aiddata.org). Their main source is the CRS database of DAC, but they seek to improve it by geocoding the data and increasing precision in the sectoral coding as well as to extend it by including other donors such as China through e.g. webscraping. However, at least until the new release that is expected this year, the CRS remains a comparable alternative (Michael Tierney, personal communication). As it is the original source of detailed aid data, I prefer to use it for the purposes of the present report.

**Table C1: Donor countries included and excluded from the sample**

<b>Included</b>	<b>Excluded (less than 1% of total observations)</b>
Australia	Czech Republic
Austria	Greece
Belgium	Iceland
Canada	Luxembourg
Denmark	New Zealand
Finland	Portugal
France	Slovenia
Germany	United Arab Emirates
Ireland	
Italy	
Japan	
Korea	
Netherlands	
Norway	
Spain	
Sweden	
Switzerland	
United Kingdom	
United States	

Since I want the data to be as detailed as possible to capture as much of the dispersion of aid as is feasible, I use the CRS database. The basic unit here is a “transaction” (an “activity” or “project”). These vary widely in their characteristics. I therefore aggregate up to the sector level using the standard classification in the DAC statistics. I then exclude humanitarian assistance, as it must almost by definition go where emergencies appear (and so dispersion is not a relevant concern), as well as donor administrative costs, expenditures on refugees in donor countries, and unallocated/unspecified aid, for obvious reasons. See Tables C2 and C3 for information on sectors included and excluded, respectively.

**Table C2: Sectors in the sample**

<b>DAC5 code</b>	<b>Sector</b>	<b>Number of observations</b>
110	Education	128,293
120	Health	59,920
130	Population policies/programmes and reproductive health	28,622
140	Water and sanitation	29,905
150	Government and civil society	145,768
160	Other social infrastructure and services	64,085
210	Transport and storage	11,929
220	Communications	14,949
230	Energy generation and supply	13,218
240	Banking and financial services	9,472
250	Business and other services	12,009
310	Agriculture, forestry, fishing	64,632
320	Industry, mineral resources and mining, construction	23,302
330	Trade policy and regulations and trade-related adjustment, Tourism	11,727
410	General environmental protection	31,025
430	Other multisector	77,124
510	General budget support	1,739
520	Developmental food aid/Food security assistance	20,235
530	Other commodity assistance	436
600	Action relating to debt	4,566
<b>Total</b>		<b>752,956</b>

**Table C3: Sectors excluded from the sample:**

<b>DAC5 code</b>	<b>Sector</b>	<b>No of observations</b>
720	VIII.1. Emergency Response	85,727
730	VIII.2. Reconstruction Relief & Rehabilitation	7,931
740	VIII.3. Disaster Prevention & Preparedness	5,070
910	Administrative Costs of Donors	12,297
930	Refugees in Donor Countries	5,654
998	IX. Unallocated / Unspecified	121,954

In the CRS database, both commitments and disbursements of aid are recorded. I choose to utilise the former, for two reasons. First of all, in the aid allocation literature it is common to use commitments as they are assumed to better reflect donors' intentions. Disbursements can vary for a number of reasons, including factors beyond donors' control such as delays due to pipeline problems on the recipient side. Secondly, earlier analyses by Aldosoro et al. (2010) and Nunnenkamp et al. (2013) suggest underreporting of commitments is a significant problem in this database prior to 1998. However, according to Birchler and Michaelowa (2013) reporting on disbursements of education aid in the CRS database was below 60% before 2002. There is no reason to believe that the problem is specific to education, which is also the second largest sector in my sample (c.f. Table A1). Thus, minimizing problems of underreporting requires me to drop the earliest entries in this database. Another argument for using commitments instead of disbursements is then that this maximizes the data that can be used in the analysis. As the latest available data are for 2013, my sample period thus becomes 1998-2013.

In future work, it could be interesting to check Theil indices based on commitments with those based on disbursements for the more limited period in which the CRS database provides sufficient information on the latter. Other DAC-statistics have until recently not provided disaggregated data. However, now the data on Country Programmable Aid (CPA), which comes close to the dataset used here, has been extended to the sector level. The CPA reflects the amount of aid that is subjected to multi-year planning at country/regional level, and is defined through exclusions, by subtracting from total gross ODA aid that is "unpredictable by nature (humanitarian aid and debt relief); entails no cross-border flows (administrative costs, imputed student costs, promotion of development awareness, and research and refugees in donor countries); does not form part of co-operation agreements between governments (food aid and aid from local governments); is not country programmable by the donor (core funding of NGOs)." It is noteworthy, though, that the sector CPA series is based on the CRS and is only available from 2004. This suggests that it would at best be a quick way of obtaining roughly the same data as directly using sectorial disbursements in CRS would give you.

## Appendix D: the overlap measure

A donor can change the extent to which it proliferates its aid unilaterally. It might be difficult to do so overnight and it might not be a good idea to rush through changes that could disrupt activities in recipient countries, but in principle the issue of where its aid is offered remains a donor's prerogative to resolve. However, as shown in Appendix B, unilateral actions that concentrate a donor's aid portfolio on certain sectors or partners may not reduce fragmentation in recipient countries. Moreover, donors have committed to reducing fragmentation by cooperative approaches. For example, in the Accra Agenda for action it is stated that it should be done "by improving the complementarity of donors' efforts and the division of labour among donors, including through improved allocation of resources within sectors, within countries, and across countries." In this appendix, I discuss an "overlap" measure used by Aldosoro et al. (2010) and Nunnenkamp et al. (2013) to study whether donors have lived up to their commitments to better coordinate their aid.

Aldosoro et al. (2010) and Nunnenkamp et al. (2013) borrow their measure from the trade literature. In trade, it is used to measure the extent to which export patterns of countries are the same. As aid can be thought of as an export of capital, the extension seems quite straightforward. Using the CRS data, such a measure can be built by aggregating up from the sector level. Let  $\alpha_{drst}$  be the share of aid to sector  $s$  in recipient  $r$  in donor  $d$ 's total aid at time  $t$ . The degree to which the allocations of donors  $e$  and  $f$  overlap in recipient  $r$  at time  $t$  is then

$$O_{rt}^{e,f} = \sum_{s=1}^S \text{Min}\{\alpha_{erst}, \alpha_{frst}\}$$

This is a number between zero and one. It is zero if no sector in  $r$  receives allocations from both  $e$  and  $f$ . If  $r$  is the only partner to which  $e$  and  $f$  give aid and they allocate identical shares to every sector, the overlap measure would be equal to one.

The overall overlap of the aid allocations of donors  $e$  and  $f$  at time  $t$  is simply the sum of these recipient-specific measures:

$$O_t^{e,f} = \sum_{r=1}^R O_{rt}^{e,f}$$

This is obviously a bilateral measure for  $e$  and  $f$  ranging between zero and one. Hence, each donor has  $D-1$  such numbers describing the extent to which their aid allocation overlaps that of other donors. Aldosoro et al. (2010) and Nunnenkamp et al. (2013) label one minus this measure “the degree of coordination” between  $e$  and  $f$ . This would be correct if coordination always implied specialisation by sector or recipient. This need not be the case. Coordination could mean coordinating on doing the same, i.e., uniform conditionalities. The data does not allow me to capture coordination in the form of joint programming, trust funds, etc. However, there are “sectors” in the CRS database such as budget support and debt relief that demonstrate that greater (explicit or implicit) coordination might mean more overlap of aid allocations (at least in some countries and some sectors). Hence, once again our applied measures are unable to perfectly capture the theoretical ideal (here of joint donor actions to reduce transaction costs and improve aid effectiveness, or the lack thereof). It is therefore better to simply survey the evolution of the degree of overlap without attaching labels such as more or less donor coordination to the results.

Finally, note that the donor-specific overlap measures displayed in the Figure 5.1 of the main text are the averages of the bilateral measures. For example, for Sweden they are they are

$$O_t^{Sweden} = \frac{1}{D-1} \sum_{d \neq Sweden} O_t^{Sweden,d}$$

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