Broken Promises or No Promises at All?

-A Comparison of DAC and Non-DAC Donors' Consideration of Corruption in Aid Allocation

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Master's Thesis

This thesis completes the following degree:

Master in Economics

University of Bergen, Department of Economics

[June 2021]

UNIVERSITETET I BERGEN

Preface

I would like to thank my supervisor, André Seidel, for countless Zoom-meetings and good advice throughout. In addition, I am grateful for everyone who have made my five years at the University of Bergen an enjoyable experience. I would especially direct my thanks to my fellow students and good friends in whom I have found support through equal stress and pleasant lunch breaks that have extended for too long. In addition, I thank my family and Ulrik for proof-reading, advice and moral support.

Abstract

Foreign aid is more likely to be effective in countries with quality institutions and low levels of corruption. Therefore, the OECD Development Assistance Group (DAC) made it their official goal to be more selective in their aid allocation, based on recipients' needs and institutional quality. On the other hand, aid donors that are not members of DAC have been criticised for not exhibiting the same level of selectivity that DAC donors claim to work towards. Using the statistical programme Stata/SE 16.0, I evaluate whether DAC donors meet their selectivity criteria with regards to corruption, and if donors' self-interest distort aid allocations of DAC and non-DAC donors differently. In a twofold analysis, I apply the empirical strategies of ordinary least squares (OLS) and pseudo poisson maximum likelihood (PPML) in order to determine whether corrupt countries receive more or less foreign aid, and how donors differ in their aid allocation. I find that more foreign aid is allocated to more corrupt countries overall. However, donors allocate their aid highly heterogeneously, even within groups that should follow the same allocation rules. There are donors both within and outside of DAC that gives more aid to more corrupt countries. Most donors are concerned with self-interest to some extent, but with different priorities.

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1.   Introduction

Poverty and inequality is one of the biggest problems the world is dealing with today. In 2017, the global extreme poverty rate was 9.2 percent, which amounts to 689 million people living on less than 1.90 dollars a day. 43.6 percent of the world's population lived on less than 5.50 dollars a day. Global poverty has been decreasing the last 25 years, but due to Covid-19 the poverty rate is expected to increase. Climate change and its consequences is also a big threat for poor countries (The World Bank, 2020a). In addition to influencing the health, education and well-being of individuals, poverty aggravates other global issues such as conflict, terrorism, disease and climate change.

While poverty is a major problem in the world today, there are large differences in poverty between countries. Two thirds of global inequality is the result of differences in average incomes between countries (The World Bank, 2019). In 2016, the top 1 percent of income-receiving adults accounted for 20 percent of the world's total income pre-tax (World Inequality Database, 2016). The average national income per adult was 1000€ in 2019, while it was 55 000€ in Norway (World Inequality Database, 2019).

Foreign aid could be an important tool in trying to reduce global poverty and even out inequalities between countries. However, the literature about foreign aid disagrees about whether it is actually effective. There are three different viewpoints. Early research claim that aid overall has a positive impact on development and economic growth (Dowling Jr & Hiemenz, 1983; Levy, 1988; Papanek, 1973). Others point out that foreign aid could lead to corruption and wasted resources, as well as discourage saving and necessary reform. Therefore, aid could have no or a negative impact on growth (Bauer, 1976; Bräutigam & Knack, 2004). Going off of the reasoning that aid can be destructive, the third viewpoint claims that aid can be effective if there are good policies and institutions in the recipient country (Boone, 1996; Burnside & Dollar, 2000).

The last viewpoint has gained a lot of traction in the aid community, and have lead many donors to reconsider their aid practices. If aid is only effective where quality institutions are present, aid donors should encourage institutional change and give aid to less corrupt countries with good governance (Bräutigam & Knack, 2004). For donors organised through the OECD Development Assistance Group (DAC), this line of thought has led to the Paris Declaration and

the Accra Agenda for Action (Development Assistance Committee (DAC), 2005, 2008). Here the donors commit to a set of principles that should ensure effective aid, through conditions and selective aid allocation (Easterly & Williamson, 2011). Particularly, it is stated that:

"We commit ourselves to taking concrete and effective action to address the remaining challenges, including: (...) Corruption and lack of transparency, which erode public support, impede effective resource mobilisation and allocation and divert resources away from activities that are vital for poverty reduction and sustainable economic development. Where corruption exists, it inhibits donors from relying on partner country systems."(OECD, 2005)

In later years, however, donors that are not members of DAC have become more prominent on the aid scene. These countries are often referred to as "new" donors in the literature, and do not have the same principles of conditionality and selectivity as DAC donors. Many of these countries are previous developing countries, and argue that this gives them experience to better target their aid. However, critics claim that new donors act on the basis of self-interest, and undermine the efforts of DAC-countries to combat corruption and undemocratic regimes (Dreher, 2019).

There has been some research on the aid allocation of both DAC and non-DAC donors, but the results are inconclusive so far. The majority of the literature uses older data, and focuses mainly on DAC donors. In this masters' thesis, I therefore use more recent data for both DAC and non-DAC donors in order to answer the research question:

"Are donors successful in selectively allocating aid based on criteria of need and quality institutions, and are claims that non-DAC donors undermine DAC donors' efforts justified?"

In order to answer this research question, I perform an empirical analysis of corruption on aid allocation, where I control for recipients' need and donors' self-interest which can distort their allocation decision. The rest of the thesis will be structured as follows: Section 2 goes through some definitions and background information about corruption and conditionality. In Section 3 I explain relevant theories of aid allocation, and Section 4 reviews literature on the subject matter. Section 5 describes the data that will be used, and the empirical strategy is accounted for in Section 6. The results of the empirical analysis are reported in Section 7, and then discussed in Section 8. Section 9 concludes the thesis.

2. Background

2.1. Corruption

Corruption is not a clear concept, and many researchers have tried to find the best suitable definition, leading to many different definitions of the term. Transparency International n.d.) defines corruption as "the abuse of entrusted power for private gain. Corruption is a problem that harms society greatly, although its consequences are sometimes difficult to measure. When corruption is present in a society, it can weaken trust and democracy, interfere with economic development, and intensify poverty and inequality.

From an economic viewpoint, corruption can be defined as "A trade in decisions that should not be for sale" (Søreide, 2016). For a corrupt transaction to take place, there needs to be an individual that controls something with value and has discretionary power. Both parties need to weigh the monetary or non-monetary gain from the corrupt act against the risk of punishment and moral costs (Rose-Ackerman, 1975; Søreide, 2016).

Because foreign aid is a large inflow of resources, which some officials in the recipient country is responsible for, it facilitates rent-seeking behaviour and corruption. In addition, corruption can negatively affect the same issues that aid is attempting to alleviate. If aid actually increases corruption, the consequences could be devastating. In conjunction with the anti-corruption campaign in the 1990's, DAC started discussing and developing strategies for reducing corruption in foreign aid. At this point, some research into this relationship had been done, but no conclusive results had been made. The subject gained increased attention in the late 90s and early 2000s, both empirically and in aid policies.

2.2. Conditions of Foreign Aid

Conditionality of foreign aid can be implemented both in the positive sense (reward for good behaviour) or negative sense (threaten to- or actually terminate, suspend or reduce aid flows). Conditions can be implemented on different levels, such as the national level, sectorial level or project level. Conditions regarding democracy and good governance is most often applied to the national level (Selbervik, 1997). While some donors use conditionality of foreign aid actively, others claim not to set conditions at all. In the following section, I will sort donors into groups based on their aid policies. The clearest distinction is that between donors who are members of the OECD DAC, and those who are not. Within these groups, one can differentiate between several sub-groups, as described below.

2.2.1. DAC Donors

Developed countries have been giving aid since colonial times, both bilateral and through multinational organisations. In 1960, the most prominent aid donors organized in what is now known as the OECD Development Assistance Committee (DAC) (OECD, 2006). Today there are 30 DAC members, and these are considered the "traditional donors", working within a specific framework for aid-giving. Donors that are members of DAC follow several principles that are supposed to govern their aid. These principles are summed up in the 2005 Paris Declaration, and the 2008 Accra Agenda for Action. One of the guiding principles in these agreements is that recipients of aid have to commit to "make progress towards building institutions and establishing governance structures that deliver effective governance, public safety, security, and equitable access to basic social services for their citizens" (Development Assistance Committee (DAC), 2005, 2008). More generally, DAC countries provide aid with conditions of human rights protection, promotion of democracy, and reduction of corruption (Apodaca, 2017).

Although DAC countries operate by the same principles, there still appear to be differences in how these countries choose to allocate their aid. For example, Alesina and Weder (2002) found that Scandinavian countries and Australia tend to donate more to less corrupt countries. This illustrates that there might be some differentiation in conditions of aid even among DAC donors. In order to account for such differences, I will use evidence provided in Lundsgaarde (2012) and Neumayer (2003a) to sort DAC donors into two categories: Strong conditions for foreign aid and weaker conditions for foreign aid. Lundsgaarde (2012) points to the welfare state and egalitarian values as possible explanations for why Nordic countries and the Netherlands donate a large proportion of GNI to foreign aid compared to other countries. Neumayer (2003a) claims that Canada, the Netherlands, Norway, Denmark and Sweden put more emphasis on good governance in aid recipients than other DAC countries. In order to simplify the distinction, I will therefore differentiate between Nordic donors and other DAC donors.

2.2.2. Non-DAC Donors

A commonality for most Non-DAC donors is that they provide aid without the conditions of human rights and good governance that DAC countries set (Apodaca, 2017). Although aid from non-DAC countries is commonly referred to as "non-conditional", this is not necessarily the case. Non-DAC countries have their own aid programmes, with their own conditions. These donors are not a unified group, and it therefore makes sense to break them further down into

smaller groups based on the conditions and characteristics of the aid they provide. The categorisation below is based on Apodaca (2017).

i)   Middle East and OPEC countries

Middle Eastern and OPEC countries form a quite homogeneous group of foreign aid donors. In my data, this group consist of Kuwait, Saudi Arabia and the United Arab Emirates. They provide almost exclusively untied aid (Manning, 2006). Previously, these countries have mainly provided aid to Muslim countries, in an attempt to promote Islam and build solidarity between Arab countries. In later years, however, Middle Eastern countries have started to broaden their horizon in terms of aid recipients, especially to countries in Asia and sub-Saharan Africa. Although this group of non-DAC donors do not place conditions of human rights or quality institutions, they try to prevent corruption in their foreign aid projects (Apodaca, 2017).

ii)   EU countries that are not members of DAC

The next category of non-DAC aid donors are the countries that are members of the EU. The countries in my dataset that fits into this group are Estonia, Latvia and Lithuania. These donors are likely to follow the direction of DAC pretty closely (Apodaca, 2017). Because Liechtenstein and Monaco cooperate closely with EU, and to some degree follow their principles for aid giving, I include them in this category even though they are not members of EU (Gouvernement Princier Principauté De Monaco, n.d.; Liechtenstein, n.d.).

iii)   Other Non-DAC countries

The remaining group of non-DAC donors is quite diverse. It includes the South-American country Chile, the Asian countries India, China, Taiwan and Thailand, as well as South Africa. Thailand is showing interest in communicating and cooperating with DAC, and one can therefore expect that they will not stray too far away from DAC standards for aid. India and China are the most prominent of the donors in this group, and have gained the most attention.

China still follows eight principles of foreign aid that was laid out by premier Zhou Enlai in 1964 (Bräutigam, 2011). These entail that donor and recipient should be equal and both should benefit from the relationship. China should also maintain respect for the sovereignty in the recipient country, and therefore there should not be any conditions attached to the aid. This principle is the most relevant to my research question. The aid will be provided through interest-free or low interest loans, and promote self-reliance in the recipient country. The results of Chinese aid should be quick, and Chinese experts are expected to live at the standard of local experts. In addition, Chinese aid emphasises technology transfer, and the recipient country

should use the best-quality equipment of Chinese manufacture. The last principle clearly entails that Chinese aid is tied, although China Eximbank states that "no less than 50% of total procurement shall be made in China" (Bräutigam, 2011). This is another point where China clearly differs from DAC countries, as they strive to provide non-tied aid.

India's foreign aid policy can be summed up in three simple principles (Price, 2005): They give aid for economic and political reasons, and in an attempt to improve relations. India believes that the wrong type of aid can be counter-productive, and that conditional or tied aid can be degrading for the recipient country. This indicates that aid from India is openly reciprocal and has an element of self-interest. However, India differentiates from China by avoiding tied aid.

3. Theories of Aid Allocation

3.1. Motivations of Aid

Although aid donations are often justified publicly as intended to help countries, there are several possible motivations for giving aid. These can be sorted into three categories: altruistic motivations, political motivations and economic motivations.

Perhaps the most obvious altruistic motivation is poverty reduction. However, literature has shown that in order for foreign aid to successfully alleviate poverty, the recipient country needs to have good economic policies and institutions in place (Burnside & Dollar, 2000). Therefore, improving institutions and reducing corruption is also an altruistic motivation for aid donation, both in itself and in order to increase aid effectiveness. The same goes for rewarding good economic policies.

In line with the objective of improving institutions, many aid donors view encouraging democracy as a motivation for aid. While the idea that democratic institutions are more efficient and beneficial for the population is widespread in western countries, supporting democracies can also be viewed as an ideological motivation. This is evidenced by the fact that democracy became a larger focus of Western aid donors after the breakup of the Soviet Union (Perkins et al., 2013). In the same way, donors with other ideological stances, such as socialism, might be more inclined to support recipients with common ideologies . Such motivations are often driven by a genuine belief in their own ideology, as well as a way to form alliances and cooperation.

Another political motivation closely related to this is foreign policy. Donors are shown to be more inclined to give aid to countries that agree with them on matters of international policy (Alesina & Dollar, 2000). This could either be due to a sense of common goals and views, but

could also serve as a way to encourage possible aid recipients to agree with donor countries in such matters. Previous colonists are inclined to donate more aid to their former colonies. Again, this could either be motivated by a sense of common history, a way to compensate for previous wrongdoings, or an attempt to keep their influence over the former colonies. Donors are also known to allocate aid to areas that are of specific interest for them. This is especially true for the United States, which gave large amounts of aid to Israel and Egypt in the 1980s (Perkins et al., 2013).

Donors of foreign aid are also motivated to donate more to smaller countries. From a political stance, this could be due to a wish to influence as many countries as possible. Giving aid to many small countries is therefore more effective. In addition, many donors give aid in order to be viewed as altruistic and benevolent. Therefore, they prefer to give aid to smaller countries, as the aid flows appear larger on a per capita basis, in addition to having a larger effect on countries with smaller populations and economies (Perkins et al., 2013).

When it comes to economic motivations for aid, commercial ties are important for many donors. Giving aid can improve trade relations, and specifically targeted aid can support industries that export to or import from the donor country. Tied aid is perhaps the most obvious form of commercially motivated aid, as it requires recipients to purchase resources from the donor country, such as machinery, equipment and services (Perkins et al., 2013). Although tied aid has been shown to be less effective, it is still in use due to the benefits to the donors. Economic motivations can also be more financial, specifically related to indebted recipients. Donors can feel obliged to provide aid and debt relief to heavily indebted countries in order to prevent them from falling behind. This is called "defensive lending" (Berthélemy, 2006).

3.2. Samaritan's Dilemma

Assuming that the aid donor is altruistic, it wants to give aid to recipients in need with good institutions and governance, as discussed in Section 3.1. This creates a principal-agent problem, as the donor (agent) wants to encourage an effort to improve institutions in the recipient (principal), but the effort level is not always easily observed, and the recipient could have other incentives. For example, recipient governments often value short-run benefits of corruption over the long-run benefits of quality institutions and effective aid (Knack & Rahman, 2007). In fact, there are several principal-agent relationships in aid, for example between tax-payers and donor government, or between government officials and citizens of the recipient country (Radelet, 2006). However, this thesis focuses on a macroeconomic and bilateral perspective, and the discussion will therefore be concentrated around donor and recipient governments. This

principal-agent problem leads to the Samaritan's dilemma, a game theory of charity where helping reduces the incentives to perform better, first presented by Buchanan (1975). The Samaritan can claim that they will stop the charity if better behaviour is not observed in the other player, but actually stopping donations will give disutility in the form of watching the other player suffer and not being able to help. The Samaritan wants to be altruistic, and the other player can exploit this if he is aware. In order to overcome this problem, the Samaritan must be willing to suffer short term utility reductions in order to achieve the desired result in the future. How the Samaritan then chooses to act is dependent on the elasticity of their intertemporal utility function.

If the recipient trusts the Samaritan's willingness to suffer disutility, this is sufficient to shift its behaviour so that the Samaritan does not actually need to suffer from utility loss. There are several ways for the Samaritan to gain credibility. They can delegate the charity decision to an agent who will not be hesitant to stop charity transactions if desired behaviour is not observed. They can also commit to a rule of charity behaviour in advance, so that the decision is not made on a case-by-case basis. Committing to a rule becomes even more important in the case where there are several poor players, as the other players will change their behaviour if one poor player is given charity in spite of undesired behaviour. In a setting where there are several Samaritans, an executive organisation can impose rules of charity behaviour on the Samaritans, in order to increase their credibility and remove the variability of case-by-case transactions. This also ensures that the Samaritans are competing over charity giving on similar grounds, and that they do not undermine each other's efforts.

Going off of the theory of Samaritan's dilemma, Svensson (2000) suggests that one reason for the poor macroeconomic performance of aid is a moral hazard problem which reduces recipients' incentives to undertake structural reforms of institutions. In his principle agent model, he shows that once the recipient country has chosen their level of reform, donors have incentive to give more aid to recipients in need. Since the recipients are aware of this, they have incentives to commit to lower reform levels in the future in order to receive more aid. Svensson (2000) suggests that this problem can be solved in part by conditionality, but only if the donors can commit to an aid policy before the recipient country chooses their reform level, and stay true to this policy ex ante. If the reform effort is observable, donors can effectively give conditional aid in order to incentivise recipients to reform. When the reform effort is not completely observable, however, the second best alternative entails a compromise between inducing optimal reform incentives, and giving aid to those in most need. This is because donors

must award recipients with quality institutions and good governance with more aid in order to incentivise reform, and these recipients are often not the ones in most need (Easterly & Williamson, 2011; Gibson et al., 2005).

3.3. Trade-Offs in Aid Motivations

As described in the previous section, there exist a trade-off between enforcing conditionality and giving aid to the recipients that need it most. This is an intertemporal choice problem, because short-run benefits of giving aid to the poorest are weighed against long-term benefits of bettering institutions and increasing effectivity of aid (Svensson, 2000). This trade-off will exist even if donors are not purely altruistic, and possibly to a larger degree if not, as their gain from giving aid is larger, making them less willing to stop aid flows. In addition to this conditionality trade-off, there are also trade-offs between altruistic and self-interested motivations of aid. Earlier theories state that recipients' needs and the self-interest of donors are mutually exclusive, so that self-interested donors cannot effectively provide needs-based aid with a positive impact on institutions. More recent theories, however, suggest that both can coexist, but that the existence of one implies a reduction of the other (Clist, 2011). The trade-off between self-interest and recipient's needs can also be viewed as an intertemporal choice problem. Even self-interested donors would benefit from good institutions and development in recipient countries, as this increases benefits for the donor (Manning, 2006).

3.4. Donor Competition

Due to the possible benefits of aid for the donors, it is likely that there exists some degree of competition between donors in the aid market. This was apparent during the cold war, when the United States and Soviet used aid donation as a means to influence countries ideologically. The Soviet Union gave aid to countries with communist ideologies, such as North Korea, Cuba and several countries in Eastern Europe. The United States attempted to support liberal governments in countries with ideological conflicts, such as Vietnam, the Philippines, the Democratic Republic of the Congo (then Zaire), and several Central American countries. Both countries also used aid in order to influence newly independent countries in Africa. France, Germany, the United Kingdom, Taiwan and China have also used aid in a competitive way (Perkins et al., 2013; Radelet, 2006).

Competition between potential donors can create incentive problems. If the recipient country knows that there are several potential donors willing to provide aid, conditionality cannot be achieved by threatening to withdraw aid if the conditions are not met. This is especially a problem if there is large heterogeneity in donors and the conditions they set (Gibson, Andersson

et al. 2005). Recipient countries could prefer to receive aid from donors with fewer conditions (Hernandez, 2017; Woods, 2008).

Because donors cannot effectively threaten to withdraw from a country that does not meet their conditions, they can end up being less selective in their allocation. In addition, if one donor increases their aid to a recipient country, more of the impact of the total aid to this country is credited to this donor. If donors maximise their own aid impact relative to that of other donors', thereby reflecting competition, the Nash equilibrium for each donor entails donating to all possible recipients. (Annen & Moers, 2017). There exists a trade-off between donating to as many countries as possible and selectivity in aid, as these are opposites and cannot be achieved at the same time.

This theory predicts that large donors will fragment their aid between all recipients, because their budget is large enough to do so. Smaller donors, however, have to concentrate their efforts, and therefore give aid to the recipients who receive less than the efficient amount of aid from the large donors. However, if the fixed costs of donating are large enough, it becomes more effective for small donors to coordinate their efforts, splitting the countries that receive too little from the large donors between them. The theory therefore predicts that since smaller donors are not in a position to compete, they focus more on maximising their own aid impact than their impact relative to other donors. This leads to smaller donors coordinating their efforts to improve efficiency, while larger donors continue to donate to many recipients (Annen & Moers, 2017).

Donors who compete in export markets may be more likely to allocate more aid to the recipients of aid from their competitor (Barthel et al., 2014). This is because they compete for economic influence, and risk losing this competition if they are not present in countries that receive aid from the competitor. The economic incentives to win this aid competition can either be directly through tied aid, or indirectly through "goodwill" and creating a relationship that could induce trade benefits. According to this theory, donors that compete in exports will have similar allocation patterns, because their aid decisions influence each other. This logic can also be extended to other fields of competition, for example political competition.

In addition to the principle-agent problems with conditionality when there is competition between donors, several other problems can occur when many donors operate in the same recipient country. In such a situation, each individual donor do not have a large impact on development, and therefore the responsibility of aid success becomes dispersed. This creates a

collective action problem. As explained in Section 3.1, all donors have their own aid motivations, sometimes conflicting with development goals. The more donors are present in a recipient country, the higher incentives to prioritize these motivations over development (Knack & Rahman, 2007).

3.5. Implications of Theory for Aid Allocation and Corruption

The theory of Samaritan's dilemma shows that conditional aid does not work unless the donor credibly states that they will end aid transactions if governance is not improved. If conditional aid does not work, and aid in fact incentivises poor development, one could argue that aid should not be given at all. As mentioned, a way to improve effectiveness of conditionality is to commit to an allocation rule in advance. In order to be credible, the allocation rule needs to be enforced, so the donors must be selective in their aid allocation. DAC donors have committed to allocation rules through the Paris Declaration (2005) and the Accra Agenda for Action (2008), as described in Section 2.2.1. This is also a way for donors to allocate aid according to a rule set by an executive organisation. In addition to increasing the credibility of conditionality, this also ensures that the donors do not undermine each other's efforts by operating with different rules. Based on this, one would expect to see selectivity exhibited in the aid allocation of DAC donors, giving more aid to less corrupt countries. One would also expect that DAC donors allocate aid similarly.

Another option is to allocate the aid decision to an agent, such as the World Bank or the IMF, which will enforce their allocation rule more strictly. This is done to a certain degree, and these institutions are viewed as stricter enforcers of conditionality than bilateral donors (Dreher, 2019; Isaksson & Kotsadam, 2018). Even though it would be more effective if all aid was allocated though such institutions, that is not the case in the aid market. This can probably be accredited partly to donors' self-interest, as they would not gain any benefits of aid delivered through an agent (Ehrenfeld, 2004).

Applying the theory of aid motivations to aid allocation, one would expect that altruistic donors give more aid to recipients with good institutions, both because this is a goal in itself and because it increases effectiveness of aid. As explained in Section 3.2 and 3.3, however, there could be a trade-off between giving aid to the recipients that need it most and those who have exhibited good governance. If this is the case we would expect it to be apparent in aid allocation, so that donors prioritise either the recipient's need or the quality of its institution. The self-interest of donors is also likely to be reflected in allocation (Perkins et al., 2013). Since there is a trade-off between altruistic and self-interest motivations for aid, it is likely that more self-

interested donors do not consider recipients' needs or governance in their allocation. Non-DAC donors have been accused of being too concerned with political and economic self-interest (Naim, 2007; Woods, 2008). If this is true, non-DAC donors are more likely to donate to countries in which they have interests, and thereby overlooking concerns for good governance and poverty reduction. However, this allocation pattern is also to be expected from other self-interested donors.

The theory of competition in aid suggests that competition between heterogenous donors will lead to sub-optimal results. Donors risk being replaced if they demand that their conditions are met. This theory is in line with the common argument against non-DAC aid that aid from these sources undermine conditions set by DAC donors (Dreher et al., 2011; Dreher, 2019). In fact, Hernandez (2017) found that some non-traditional donors undermine World Bank conditionality. Most notably, he found that the World Bank give loans with fewer conditions attached to countries in which China is present, indicating that they cut back on their conditions in order to remain competitive in the loan-giving market. Since DAC have set a goal of increased aid cooperation, it is less likely that conditionality is challenged when there are many potential DAC donors. This is enhanced by the fact that these donors officially operate by many of the same rules. As proof of this difference between DAC and non-DAC donors, Hernandez (2017) found that the presence of DAC donors did not threaten World Bank conditionality. Applied to the aid allocation of DAC and non-DAC donors, this theory could point in several directions. If DAC donors are following their own conditionality regime strictly, they could get pushed out of countries in which incentive problems are strong, leading them to donate to countries with better institutions. On the other hand, DAC donors could be tempted to reduce their conditions in order to remain competitive, and be less selective in their allocation.

If the theory that competition between donors make it effective to give aid to many recipients (Annen & Moers, 2017) holds, aid allocation of DAC donors is likely to be influenced by the growth of non-DAC donors, as these are strong competitors. With increased competition, large donors are likely to react with fragmenting their aid among many recipients, reducing selectivity. Smaller donors, however, would concentrate their aid efforts, making it easier for them to be selective in their allocation. This theory predicts that large DAC donors are less selective in their aid allocation than smaller DAC donors. However, the only thing that separates these groups of donors are their aid budgets. Therefore, selective donors would provide aid to more recipients if they had larger aid budgets.

If competing donors follow similar allocation patterns, as claimed by Barthel et al. (2014), this could impact the aid allocation of both DAC and non-DAC donors. They point out that several non-DAC donors, such as China, are strongly exports oriented, and that they therefore may allocate aid similarly to large DAC donors with exports interests. However, it is also possible for DAC donors to be influenced by non-DAC donors, given the competition they pose. This could be especially likely if recipients prefer to receive unconditional aid (Hernandez, 2017; Woods, 2008), giving non-DAC donors a competitive advantage. This could be the case if recipient governments value short-term benefits of rent-seeking over long-term benefits of quality institutions (Knack & Rahman, 2007).

4. Empirical Literature

4.1. Patterns of Aid Allocation

There is no significant evidence that donors allocate more aid to countries with less corruption, Svensson (1999) finds in preliminary estimations. The basis for this result is aid data from 1980 to 1993. The result is supported by Alesina and Weder (2002), who do not find evidence that less corrupt countries receive more foreign aid or debt relief in the period 1975-1995. This is somewhat surprising, as bilateral and multilateral aid programs often aim to reward quality institutions and efficient governments. Both papers study only DAC donors. These findings suggest that donors do not follow the conditions they set in their aid regimes.

However, the previous findings could be driven either by the time period or which donors are included in the data. When comparing aid allocation in the 1980s and 1990s, Berthélemy and Tichit (2004) find that aid was more dependent on politics and history in the former period, while the focus shifted in the 1990s to care more about economic self-interest. Alesina and Weder (2002) also find some indication that political interests may have lost some importance in the 1990s compared to previous periods. However, Berthélemy (2006) finds a significant reduction in the impact of the trade variable from the 1980s to the 1990s. The reason mentioned is that donors try not to give aid for commercial reasons as they strive to provide less tied aid. There could be other time trends in aid allocation, and it would be interesting to see if allocation follows a similar pattern in more recent years.

Again studying only DAC donors, Berthélemy and Tichit (2004) find that donors reward good economic policies since 1990, and pays attention to democracy when allocating aid. Donors donate more to small, democratic countries, with a high flow of FDI and economic growth. Donors appear to be more concerned with non-monetary dimensions of poverty, such as infant

mortality, than with income. Using a two-stage model to split up the aid decision, (Berthélemy, 2006) finds that selected countries receive more aid if they have high imports from the donor country, if they have geopolitical or colonial ties with the donor country, if they are poor, democratic and not involved in interstate conflicts. A potential recipient has a higher probability of receiving aid if it is poorer, trades more with the donor, is more indebted, more democratic and has a higher population.

Despite these possible time effects in aid allocation, Clist (2011) does not find that policy selectivity is increasing. Rather, he finds that few of the seven largest DAC donors he analyses rewards less corrupt countries, and that this result is mainly static over time. He criticises the method used in Berthélemy and Tichit (2004), claiming their results could be misleading due to collinearity, and that lagged economic growth is a problematic variable for capturing economic policies. Claiming that donors have not exhibited policy selectivity over the last 25 years (1982-2006), Clist (2011) argues that one cannot say with certainty whether selectivity increases aid effectivity. Similarly to this article, Easterly and Williamson (2011) find that DAC donors give aid to more corrupt countries, and that the share of aid to corrupt countries actually increased from 1996 to 2002. They find that this to a large degree is not because donors are selecting more corrupt countries, but rather that they give aid to the same recipients over time, and these have become more corrupt. The poor selectivity in corruption is not explained by donors prioritising recipients' needs (Easterly & Pfutze, 2008). Due to this poor performance of selectivity, Easterly and Williamson (2011) call for DAC donors to follow the allocation rules they have created for themselves.

Trying to explain the ambiguous results in aid literature, Brück and Xu (2012) apply an event study approach to investigate if shocks and changes in the recipient country leads to sudden aid accelerations. They find that positive regime changes, declarations of independence and international conflicts are associated with aid accelerations. When applying the standard method of averaging, however, they find that the results tend to differ from those of the event study, and that they are fragile to changes in averaging periods. This could be explained by interpreting the results as short-term and long-term effects, but Brück and Xu (2012) stand by their argument that averaging masks important volatility effects.

4.2. Heterogeneity in Donor Behaviour

When investigating the allocation of donors individually, economists find that there are large differences in donor behaviour. Alesina and Weder (2002) find some variations in how donors allocate aid. Scandinavian countries and Australia tend to give more aid to less corrupt

countries. Supporting this, Clist (2011) finds that Sweden rewards less corrupt recipients in recent years. The United States, on the other hand, gives more aid to more corrupt countries (Alesina & Weder, 2002). Still, the United States gives more to democracies than dictatorships. This is in line with Berthélemy and Tichit (2004), who find that the United States and Australia value democracy significantly more than other donors. France and Belgium donate significantly more to non-democratic countries, this paper finds in some specifications. The U.S. do not seem to allocate aid based on economic performance indicators, caring only about democracy. It is suggested that this could be because they give aid to post conflict countries that are growing more democratic, but with fewer investment opportunities and slower economic growth.

Also finding heterogeneity in donor behaviour, Berthélemy (2006) sorts donors into clusters based on how much they consider trade intensity in their aid allocation. Austria, Denmark, Netherlands, New Zealand, Norway and Switzerland are considered altruistic donors since they care less about trade intensity, while Australia, France and Italy are described as egoistic donors in this regard. Surprisingly, both Austria and New Zealand are found to give more aid to their trading partners, according to Berthélemy and Tichit (2004) using similar data but different estimation strategy. However, he also finds this result for Australia, similarly to Berthélemy (2006). Although Alesina and Weder (2002) use a different variable for trade, they find that the United States, France and the United Kingdom, which are described as moderately egoistic by Berthélemy (2006), give more aid to more economically open countries. This is also the case for Australia, which falls into the egoistic cluster. Alesina and Weder (2002) view this parameter as a sign that donors reward good economic policies, but when comparing the two papers it might seem like this allocation behaviour comes from self-interest motives. It is also possible that the opposite is true, namely that the results in Berthélemy (2006) and Berthélemy and Tichit (2004) simply reflect that these donors reward economically open countries. The way donors are sorted as more or less altruistic based on their trade interest in the former could be problematic, as some donors pursue multiple goals in their aid allocation (Clist, 2011).

Colonial ties are important in the aid allocation of previous colonists. France, the United Kingdom, Portugal and Spain donate significantly more aid to their previous colonies, according to Berthélemy and Tichit (2004). This supports the findings in Alesina and Weder (2002) that more aid is allocated to the former colonies of France, Portugal, Italy and the United Kingdom. Both papers centre their analysis around the 1980s and 1990s, indicating that colonial ties were clearly an important determinant of aid in this period. However, they focus only on aid from previous colonists to their colonies. It is therefore difficult to say if all former colonies

receive more aid because they have poor institutions, or if the observed pattern is actually due to the specific ties between a colonist and their former colony.

There is a coordination problem in foreign aid, Brück and Xu (2012) find when doing an event study on the 10 largest DAC donors separately. The donors seem to operate with different allocation rules, undermining each other's aid efforts. For example, they find a significantly positive spill-over effect of internal conflict for Norway and the U.S., while this effect is significantly negative for Sweden. The effect of economic reforms is positive for Spain but negative for Japan. The results for all donors collectively are often insignificant because the effects for individual donors go in opposite directions. Despite efforts to coordinate, Clist (2011) credits heterogeneity in allocation to different priorities in donors' aid regimes. These results beg the question if there are differences in donors' motivations for giving aid, and if the differences are as prevalent in more recent years.

4.3. Aid Allocation of non-DAC donors

Non-traditional aid has received increased attention in later years. Critics argue that other countries than the DAC members undermine development efforts by providing aid from non-democratic sources, without conditions and without transparency. They point to a problem with these new donors pricing DAC donors and multilateral donors out of the market, so that their efforts of bettering institutions in the receiving country through aid conditions is compromised. In addition, the hardest critics claim that new donors do not have any intention of actually helping the countries that are aided. Rather, they are concerned with their own political, ideological and economic interest. Aid projects from China, Saudi Arabia, Iran and Venezuela are used as examples of these issues (Naim, 2007). A more nuanced view is that non-DAC donors are not intentionally trying to replace DAC donors or overrun conditionality, but rather that they provide alternative financing for countries in need. This increases competition in the aid marked and lowers the bargaining power of DAC donors in respect to recipients. According to this view, emerging donors pose a challenge for standard-setting in the aid community (Woods, 2008).

On the other hand, supporters of non-traditional aid argue that donors that have previously been aid receivers themselves, are more likely to give better targeted aid. They are in possession of knowledge and understanding that can be helpful to the receiving countries, and receiving countries might be more inclined to take advice from donors that have been in the same position previously (Dreher et al., 2011; Woods, 2008).

When comparing the allocation of aid by DAC and non-DAC countries, Dreher et al. (2011) find that new donors pay less attention to where aid is needed and donates more to close neighbours. However, they are not concerned with commercial self-interest, and they show a weaker bias towards poorly governed countries than traditional donors. Still, there is a lot of heterogeneity in the aid allocation of "new" donors, similarly to what has previously been found for traditional donors. Specifically, the United Arab Emirates and Colombia rewards less corrupt countries, while Estonia, Hungary, Lithuania, Latvia, Slovakia, Saudi Arabia and South Africa gives more aid to more corrupt countries. There is also some indication of a trade-off between selectivity of corruption and recipients' needs, as both considerations do not appear at the same time for any of the donors. The period analysed is 2001 to 2008. These results do not entirely support the views of either critics of the new donors or of optimists, but shows that the picture is more complex. It is yet to be seen whether these results apply to a wider selection of new donors, as this study lacks data for India and China.

Arab countries are more likely to give aid to Islamic Arab and Sub-Saharan African countries in need, that agree with them on international politics and do not side with Israel in the Israel-Palestine conflict (Neumayer, 2003b). However, once the recipients are chosen, more aid is not allocated to the countries that need it most. This finding is based on the aid allocation of Arab donors from 1974 to 1997, and is in line with the common view of Arab aid practices (Apodaca, 2017). Even though Arab donors appear to be somewhat altruistic in their consideration of recipients' needs, it is also apparent that they are politically self-interested. Unfortunately, Neumayer (2003b) do not control for corruption in his analysis, and to the best of my knowledge there are no empirical studies of how Arab countries consider corruption in their aid allocation.

Chinese aid fosters local-level corruption, according to a study conducted by Isaksson and Kotsadam (2018). Since many factors may influence corruption at the national level, this paper uses local data in an attempt to avoid omitted variable bias. One could theorise that the increase in corruption in areas that receive foreign aid is simply a result of increased economic activity in the area. However, the researchers found no evidence of this being the case. Nevertheless, they found that aid project financed by the World Bank increased economic growth without influencing corruption. Further developing the literature on Chinese aid and corruption on the local level, Dreher (2019) find that more Chinese aid is allocated to the birth regions of political leaders, indicating that Chinese aid is prone to political capture. Moreover, they find evidence

that this is a result of competition in national elections. As a comparison, they find no indication that aid from The World Bank is allocated more heavily to political leaders' birth regions. Dreher request further research into a wider set of donors in order to determine what rules and procedures on the donor side that prevent resources from being politically captured.

The importance of political interests is larger for India than for traditional donors, Fuchs and Vadlamannati (2013) find when elaborating on the literature on new aid by focusing on India as a donor. In addition, India provides larger amounts of aid to countries they have large exports to. However, India donates more to recipients that score better on the control-of-corruption index. Studying India's aid allocation is interesting, as they are still a lower middle-income country. Why would a country that is struggling with poverty within its own borders spend funds on bilateral aid? The findings of this research suggests that the decision may be partly or fully influenced by self-interest. Fuchs and Vadlamannati (2013) points out that it would be beneficial for further research to compare India to China in regard to the investigated variables. It would indeed also be beneficial to the literature to research other non-traditional aid donors to see if their aid allocation decision is also taken with regards to political and economic interests.

5. Data

5.1. AidData

In order to answer my research question, I combine several data sets. The first data set I am using is AidData's *Core Research Release Version 3.1*, which was released in 2016 (Tierney et al., 2011). This data set shows all known bilateral and multilateral development flows from the donor perspective. Using this data, I will have to assume that the countries accurately reports their aid flows. The data covers the years 1947 to 2013, and includes information from 96 donors. The data set reports all forms of development flows, including Official Development Assistance (ODA), Other Official Flows (OOF), Export Credits, and Equity Investments. The aid commitment is reported in constant 2011 dollar terms.

Development flows from China is not included in this data set. Since China is one of the most prominent new donors, with most controversy surrounding their aid practices, it is important to include this country in the analysis. I will therefore use AidData's *Global Chinese Finance Official Dataset Version 1.0* in addition (Dreher et al., 2021). This data was released in 2017

and covers the years from 2000 to 2014. The dataset includes ODA-like flows, OOF-like flows and "Vague" flows. Since most aid from China is not actually ODA (Bräutigam, 2011), I include all development flows from both datasets in order to increase the sample size. In this dataset the aid commitment is reported in constant 2014 dollar terms. I therefore had to convert the commitment amounts to constant 2011 amounts.

5.2. Corruption Data

As an indicator of corruption I use Transparency International's *Corruption Perceptions Index*. This index ranks countries based on how corrupt business executives and experts perceive the country to be. The indicator consists of answers from thirteen different surveys from reliable institutions. It is also one of the most used indicators of corruption, making it the well suited for comparisons. The data set consist of results from the years 1995 to 2019, and ranges from 1 (very corrupt) to 100 (not corrupt). The methodology used to develop the CPI was changed in 2012, which could challenge comparisons before and after the change (Saisana & Saltelli, 2012).

In addition to CPI-score, I will use another indicators of corruption, namely The World Bank's *Control of Corruption* measure. This indicator measures perceptions of the extent to which public power is exercised for private good, as well as political capture by private interest. The data set covers the years 1996 to 2019, and ranges from -2.5 (very corrupt) to 2.5 (very clean).

5.3. Control Variables

In addition to these main data sets, I also use data from several other sources. As control variables, I will use GDP per capita, as several studies have found that aid is dependent on the recipient country's income (Alesina & Weder, 2002; Tavares, 2003). This is used as a measure of the recipient country's poverty, and therefore their need, as discussed in Section 3. In addition, I will control for population, since aid is found in literature to rely negatively on the recipient's population (Alesina & Weder, 2002) due to the advantages of giving aid to small countries. In addition I will control for colonial history, since former colonies may have poor institutions (Tavares, 2003). On the other hand, donors who are former colonists may give more aid to their colonies since they have a closer relationship (Alesina & Weder, 2002).

The degree of economic openness of the recipient country will also be controlled for. This can be seen as a proxy for good economic policies (Alesina & Weder, 2002; Berthélemy & Tichit, 2004), but it can also be viewed as trade willingness, and therefore reflect donors' economic interests (Berthélemy, 2006).

Democracy is also included as a control variable, as it is another measure of political interest. Some researchers interpret democracy as an altruistic determinant of aid (Easterly & Williamson, 2011) but this view implies that democracy is necessary for growth and development. Previous literature finds that democracy influences aid allocation (Alesina & Weder, 2002), but that in what direction differs between donors (Berthélemy & Tichit, 2004).

I also control for oil rents and mineral rents in my analysis, as self-interested donors might attempt to benefit from this. This line of thought is connected with the theory of a natural resource curse, which shows that extraction of natural resources generate revenues and captures the interest of foreign agents which creates opportunities for rent-seeking behaviour (Leite & Weidmann, 1999).

To measure income, I use the real GDP measure from University of Groningen's *Penn World Table Version 9.1*. This indicator measures the real GDP for 182 countries at constant 2011 prices in US$ and covers the years 1970 to 2017. I will also use the population variable from the same data set.

To measure the openness of the economies, I use Our World In Data's *Trade Openness* indicator, which measures the sum of a country's exports and imports as a share of GDP. This data set covers the years 1970 to 2017.

To measure democracy, I will use two variables from Freedom House's *Global Freedom Scores*, namely *Political rights* and *Civil liberties*. These indicators rate individual freedoms like freedom of expression, the right to vote, and equality before the law. The data set covers 210 countries from 1972 to 2019. The variables ranges from 1 (Free) to 7 (Not Free). I will also use another measure of democracy, namely the World Bank's *Voice and Accountability indicator*. This index ranges from -2.5 (Not Free) to 2.5 (Free), and covers the years 1996 to 2019.

As a measure of colonial history, I will use two variables from the Centre d'Études Prospectives et d'Informations Internationales (CEPII) *GeoDist* data set, namely *Colonizer (long period and subnational participation in governance)* and *Colonizer (short period or low involvement in governance).* These variables indicate whether the country has been a colony and for how long. The data set covers 225 countries.

For measuring rents from natural resources, I will use The World Bank's *Oil Rents (% of GDP)* data. This variable measures the difference between the value of crude oil production at world prices and total costs of production. The data set covers the years 1960 to 2020 for 264

countries. I will also use The World Bank's (2011) *Mineral Rents (% of GDP)* indicator. This data measures the difference between the value of production for a stock of minerals at world prices and their total costs of production. The variable includes rent from extraction of tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate. The dataset has been updated annually from 1970 to 2018.

As a measure of foreign direct investment, I will use The World Bank's *Foreign direct investment, net inflows (BoP, current US\$).* The data set covers the years 1970 to 2019.

Table 1: Description of Data Sources

Variable	Description	Source
Aid per capita	Bilateral aid flows (constant $2011)	AidData, *Core Research Release Version 3.1* and *Global Chinese Finance Official Dataset Version 1.0*
CPI-score	Corruption Perceptions Index, 1 (very corrupt) to 100 (not corrupt)	Transparency International
Control of Corruption	Control of Corruption, -2.5 (very corrupt) to 2.5 (very clean)	The World Bank, Worldwide Governance Indicators (WGI)
Income	Real GDP per capita	Penn World Table Version 9.1 Feenstra et al. (2015)
Population	Population (in millions)	Penn World Table Version 9.1 Feenstra et al. (2015)
Openness	Trade Openness, sum of export and import as share of GDP	Our World In Data
Democracy	Political Rights, 0 (free) to 7 (not free)/ Voice and accountability, -2.5 (not free) to 2.5 (free)	Freedom House/ The World Bank, WGI
Long colony	Recipient has been colonized for a long period with subnational participation in governance	Centre d'Études Prospectives et d'Informations Internationales (CEPII), *GeoDist*
Short Colony	Recipient has been colonized for a short period/ low involvement in governance	Centre d'Études Prospectives et d'Informations Internationales (CEPII), *GeoDist*

5.4. Data cleaning

The data on aid commitment is aggregated over year and donor-recipient pair based on mean commitment amounts. Before aggregation, the data set consisted of about 1 million observation. Aggregating takes that number down to 73 553. There are 27 small countries and island states that do not have Correlates of War codes and will therefore need to be excluded from the

analysis[1]. In addition, observations in which the recipient country is not specified, such as regional aid programs, are dropped. After this, the data set has 66 325 observations. Since we only have CPI-scores starting from 1995, all previous years are dropped. In addition, missing years and years later than 2013 are dropped. This leaves 52 302 observations. Some countries are not evaluated by Transparency International. After dropping countries that do not have CPI-scores there are 50 907 observations. In addition, there are many countries that have missing CPI-scores for some years. When these are dropped, I am left with 38 580 observations. I am also dropping 10 578 observations where the donor is an organisation. After dropping negative and 0 commitment observations, the final dataset consists of 27 844 observations.

After the dataset is created, and some rough cleaning has been done, 5-year averages is taken for all variables except GDP per capita. I am then left with 482 observations that covers 167 recipient countries over 4 time periods. The time periods are 1995-1999, 2000-2004, 2005-2009 and 2010-2013. This is the dataset that is used when estimating the aid allocation of all donors together. In order to estimate regressions for donor groups and individual donors separately, the dataset is instead aggregated over recipients for each donor. I am then left with 482 observations that covers 39 donors over the same 4 time periods.

5.5. Descriptive statistics

In this section I look at trends and tendencies in the data, and compare DAC donors to non-DAC donors in order to achieve an understanding of the relationships that will be analysed in Section 7. In Table 2 I present summary statistics of the relevant variables for DAC and non-DAC donors separately, so they can be compared. Generally, there does not seem to be large differences between the two groups. Even though there are fewer observations for non-DAC donors, they appear to give larger sums, as the mean and median are higher than for DAC donors. The difference in how corrupt countries the two groups give aid to is not as large as one might expect, but DAC donors seem to give aid to somewhat less corrupt countries on average. Both give aid to countries that are on the more corrupt side of the scale, and the standard deviation and variance is high. They also appear to give aid to poorer countries, with higher population. When it comes to democracy both donors seem to give aid to relatively unfree countries. DAC donors give somewhat more aid to more economically open countries on

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[1] The Correlates of War Country codes are used for merging the datasets. The excluded countries are: Anguilla, Aruba, Bermuda, Cayman Islands, Cook Island, Falkland Islands, French Polynesia, Gibraltar, Guadeloupe, Macao, Martinique, Mayotte, Monteserrat, Netherlands Antilles, New Caledonia, Niue, Northern Marianas, Palestinian Administrated Areas, Reunion, Yugoslavia, Soviet Union, St. Helena, St. Pierre & Miquelon, Tokelau, Turks & Caicos, Virgin Islands, Wallis & Futuna

average, and less to countries that have been colonies for a short time than what non-DAC donors do.

Table 2: Summary Statistics

DAC: 0

	Mean	Median	SD	Variance	N	Range	Min	Max
Aid per Capita	36.38	.719	254.558	64799.97	1715	6766.219	0	6766.219
CPI-score	30.71	28	11.926	142.222	1715	92	4	96
GDP per Capita	6849.09	4553.557	6763.775	4.57e+07	1715	71561.84	528.126	72089.97
Population	44.783	14.12	136.338	18588.1	1715	1382.722	.071	1382.793
Political Rights	5.093	5	1.872	3.503	1715	6	2	8
Openness	810.803	828	465.962	217000	1715	1636	2	1638
Long Colony	.91	1	.286	.082	1715	1	0	1
Short Colony	.141	0	.348	.121	1715	1	0	1
DAC: 1								
Aid per Capita	1.934	.149	9.354	87.491	24553	462.54	0	462.54
CPI-score	31.129	29	11.354	128.911	24553	88.6	4	92.6
GDP per Capita	6446.441	4810.72	5434.056	2.95e+07	24553	47680.07	425.895	48105.97
Population	69.25	15.229	212.106	44989.06	24553	1382.722	.071	1382.793
Political Rights	5.003	5	1.852	3.432	24545	7	1	8
Openness	812.379	808	454.002	206000	24553	1638	1	1639
Long Colony	.913	1	.282	.079	24553	1	0	1
Short Colony	.127	0	.332	.111	24553	1	0	1

Since non-DAC donors give aid to fewer countries or in fewer time periods, but larger amounts, I want to see how large share of total aid that is provided by non-DAC donors. This is important for the analysis as non-DAC donors are becoming larger aid suppliers (Manning, 2006) and therefore the way they allocate aid becomes increasingly important to the aid community and recipients of aid. Figure 1 below shows each donor group's share of the total aid provided. Even though DAC donors provide the largest share, non-DAC donors provide a large enough share of total aid to be a significant group of donors in the aid market. This means that the way they chose to allocate their aid matters. Nordic donors and other non-DAC donors such as China and India account for similar shares of total aid, indicating that the way these donors allocate their aid is of similar importance.

Figure 1: Donor Groups' Share of Total Aid
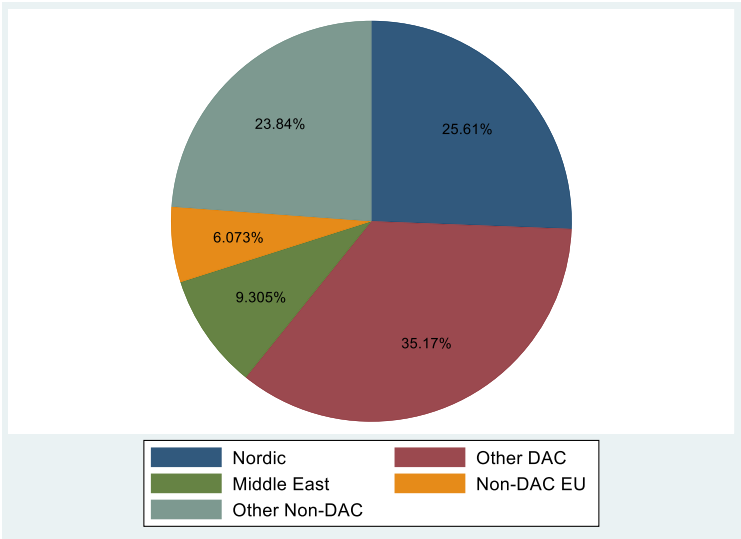
Non-DAC donors only accounted for a small share of total aid delivered in the 90s, according to Manning (2006). This becomes apparent in Figure 2, which shows the development of DAC and non-DAC aid flows over time. While the amount of total aid was smaller in the 90s, non-DAC donors barely gave aid before the 2000s. Since then, aid from non-DAC donors has become more prevalent. However, this is not necessarily just a recent development, as non-DAC aid accounted for a larger share of total aid before the 90s (Manning, 2006).

Figure 2: Aid from DAC and Non-DAC Donors 1995-2013
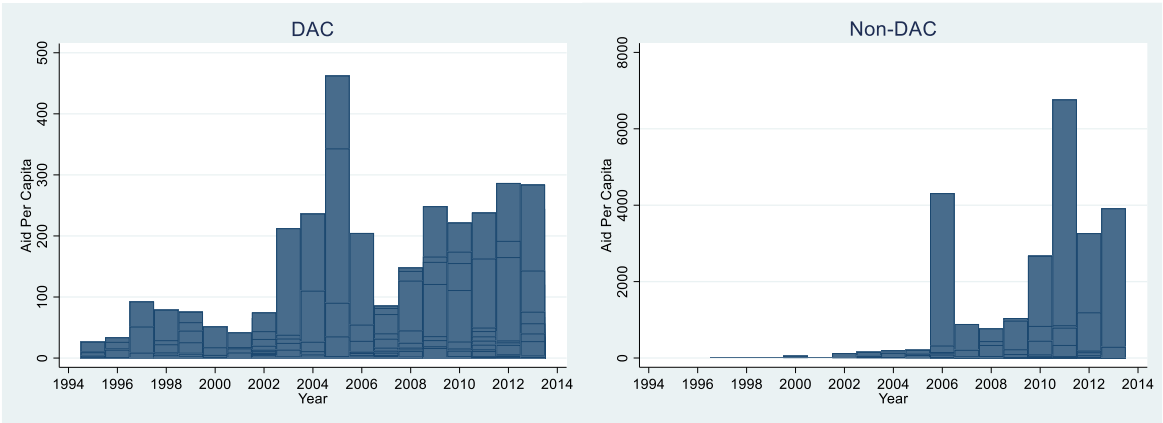
Figure 3 depicts scatterplots of the correlation between aid per capita and CPI-score for DAC and non-DAC donors. This gives a first impression of the relationship between these variables, without saying anything about causality or significance. Based on these figures, there does not appear to be a clear-cut relationship between aid allocation and corruption. The correlation coefficient for DAC donors is -0.07, while it is -0.18 for non-DAC donors. This means that the

relationship is weakly negative, but close to zero. It is somewhat more negative for non-DAC donors.

Figure 3: Correlation Between Aid and Corruption for DAC and Non-DAC Donors
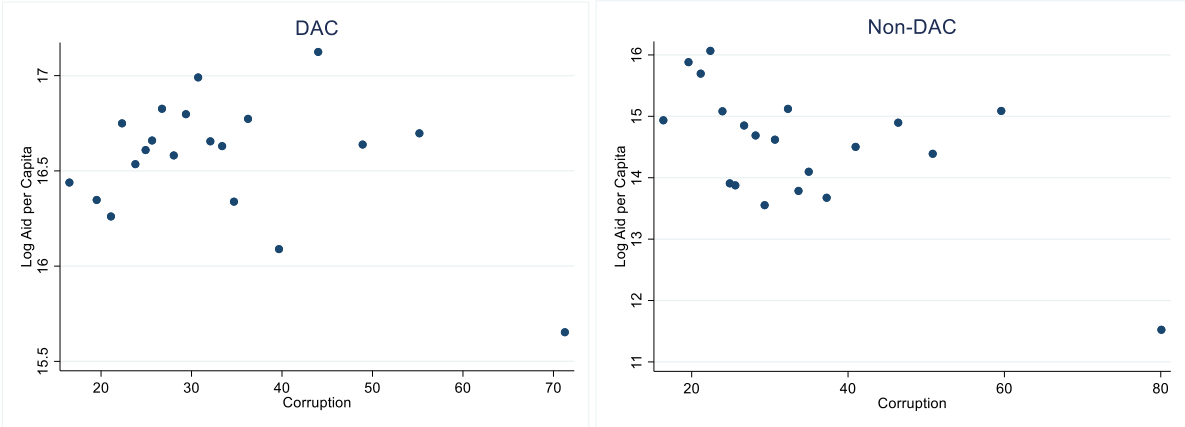
6. Estimation Strategy

For my analyses, I use a similar methodology as what is described in Alesina and Weder (2002). I split the analyses in two parts as my research question is twofold. First, I will estimate the aid allocation for all donors separately, and then I will split them up into groups and individual donors in order to see if there are differences in allocation.

6.1. Part 1: All donors

Firstly, I will do ordinary least squares (OLS) regressions with five-year averages on repeated cross-sectional data in order to investigate if donors give more or less foreign aid to recipient countries where corruption is an issue. OLS is an econometric method in which the sum of the squared error terms are minimised, so that the estimated regression line is as close as possible to the observed data (Stock & Watson, 2012). Doing the analyses with five years averages for all the variables will increase the balance of the panel data. This will also make it more likely to pick up a result, as corruption often varies slowly over time.

For this part of the analyses, I control for other factors that can determine the allocation of aid per capita. These include income per capita, population, openness of the economy, political rights and if the recipient country has been a colony for a long or short time period. In addition, I include a dummy for Israel due to the political interests in this country leading to increased aid flows. Alesina and Weder (2002) also included a dummy for Egypt, but since the political landscape has changed since they did their analysis, I will not do this[2]. Aid per capita, GDP per

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[2] Including a dummy for Egypt does not change the results, and it is not a significant determinant of aid allocation.

capita and total population are reported as logarithms, making the regression model a log-linear model. This simplifies interpretation, as the coefficients can be interpreted as percentages. Taking the logarithm also reduces the size of the variables, making them more comprehendible and reducing the problem with large outliers. In addition, this will ensure that the variables are normally distributed. Doing the analysis with logarithms also makes more sense as we expect a non-linear relationship. I do not have access to data on UN votes, so the "Friend of United States" and "Friend of Japan" variables from Alesina and Weder (2002) are not included.

All variables are measured as averages, except for real GDP per capita. This variable is measured at the start of each period, since the decision of aid allocation is being made in advance based on the recipient countries' needs. Using initial GDP can alleviate the reverse causality issue that arises because the corruption level might influence the country's income, which in turn influences the aid decision.

The main regression will estimate the time period 1995-2009, in order to avoid potential errors due to the changes in CPI-score in 2012 (Saisana & Saltelli, 2012). Dummies for each sub-period are included in order to control for time period effects. The regression equation will therefore be:

6.1) $\text{Log}(y)_{it} = \boldsymbol{\beta' X_{it}} + \text{time dummies}_t + \varepsilon_{it}$

where y_{it} is the dependent variable Aid per capita and $\mathbf{X_{it}}$ is a vector that consist of the independent variable corruption, as well as control variables for the log of initial GDP per capita, the log of population, trade openness, political rights, colonial history and a dummy for Israel.

In order for the ordinary least squares estimator to be appropriate, there are three assumptions that should be met. The first one is that the explanatory variable is determined independently from the error term, $E(u_i \mid X_i) = 0$. The second assumption is that the dependent and independent variables, (Y_i, X_i), $i = 1, \ldots, n$ are independently and identically distributed (i.i.d). The last assumption is that large outliers are unlikely (Stock & Watson, 2012).

There are two issues that arise in this analysis that may lead to the first assumption being broken. The first is simultaneous causality, which is a common issue in aid literature. While donors claim they attempt to give more aid to less corrupt countries, it could also be the case that aid increases corruption, since aid is an inflow of resources that corrupt individuals can take advantage of. It is also possible that the analysis suffer from omitted variable bias. I attempt to

avoid this by controlling for several factors that could influence the level of corruption and follow common practice in aid literature on what variables to include. These potential issues are discussed more thoroughly in Section 7.4.

6.2. Part 2: Donor Groups

In an attempt to shed some light on my research question, I will categorise the countries in my analysis based off of what kind of conditions they set for the recipient countries of their aid. I do this by splitting the sample into two large groups: DAC donors and non-DAC donors. I also make five subgroups, based on the classification in Section 3.2. These are Nordic donors, other DAC-donors, Middle Eastern donors, non-DAC EU donors and other non-DAC donors. Again, the regressions are done on 5-year averages.

Firstly, the regressions are estimated with OLS. The regression equation will therefore be almost the same as in the regression with all donors, except that it is estimated for each donor group separately. The dummy variable for Israel is dropped as it is mostly relevant for the U.S. In addition, the variables for colonial history are dropped since they are only relevant for one donor group: other DAC donors.

Aid per capita is a limited dependent variable which cannot take negative values. If a donor does not have any aid transactions to a specific recipient in a certain period, the observation is reported as zero. This potentially causes a selection bias, since we only observe the aid allocation of the countries that do give aid. The problem can be formalized with a continuous latent variable that determines the decision to give aid. This latent variable can be thought of as the utility function of giving aid. We cannot observe the donors for which the utility of giving aid is too small. This leads to a selection problem if the decision to give aid is dependent on unobserved factors that also determine the amount of aid given.

One way to avoid the potential selection bias is to use a Tobit model. Here all negative values of the utility function are reported as zero, so that the observations are left-censored at zero. Estimation of the Tobit model is done through maximum likelihood. This estimation approach has previously been applied in literature (Dreher et al., 2011). However, more recent literature shows that Pseudo Poisson Maximum Likelihood is more suitable than OLS and Tobit when there is heteroskedasticity and many zeroes in the data (Silva & Tenreyro, 2006, 2011). This model is commonly used with count data because it deals with non-negative data with mange zeroes, but the model can also be applied to different forms of data. The model assumes a Poisson distribution, and results in consistent and asymptotically efficient estimators if this

distribution is correct. However, the Poisson distribution assumes that the conditional mean of the distribution is equal to the variance, $V(y_{it} \mid x_{it}) = \exp(x'_{it} \beta)$. This is called equidispersion and does not always hold. A way around equidispersion is Poisson Pseudo Maximum Likelihood, which computes robust standard errors. Therefore, this is the method I apply in Section 7.2. The regression equation is:

6.2) $E(y_i \mid x_i) = \exp(x_i' \beta)$

where y_i is the dependant variable log of Aid per Capita, and x_i contains the independent variable corruption, control variables, a constant and period dummies.

6.3. How the Analysis Differs from Previous Literature

Even though my analysis is similar to that of Alesina and Weder (2002), it still differs on several points. First of all, their analysis ranges from 1975 to 1995. My analysis will range between the years 1995 to 2013. Since my analysis will be conducted on newer data, we will be able to see if there are any changes in trends. For example, one could theorise that foreign aid is less connected to corruption in later years, as countries have become more active in anti-corruption strategies. On the other hand, it is possible that aid allocation to corrupt countries has increased as new donors stand for a larger proportion of total aid in the world.

In addition, my analysis will provide a broader view of aid and corruption by including more countries. From what I can gather from Alesina and Dollar (2000) and Alesina and Weder (2002), the data set used in these articles covers 21 countries. All of these countries are members of DAC. While some articles are devoted to studying the aid allocation of non-DAC donors, many of these only studies one country (Dreher, 2019; Fuchs & Vadlamannati, 2013; Isaksson & Kotsadam, 2018). The allocation of 16 non-DAC donors is analysed and compared to 3 DAC donors in Dreher et al. (2011), but prominent donors such as China and India are not included. In addition, their analysis focuses on only one time period (2001-2008), leaving out the possibility of time effects. My analysis cover 39 countries. 14 of these are not part of DAC and considered new donors, such as Chile, Saudi Arabia, India, the United Arab Emirates and China. In addition to increasing the sample size, this will give valuable insight into the differences between DAC and non-DAC aid.

Another way my analysis differs from previous literature is that I use an estimation approach that has not previously been applied to aid literature, to the best of my knowledge. Differentiating empirical approaches has been pointed out as one of the reasons why there are ambiguous results in aid literature. By applying a better estimation approach (Silva & Tenreyro,

2006), and comparing the results to previously applied methods, I hope to reduce the problem with differentiating approaches and results.

7. Results

7.1. Aid allocation for All Donors

Using OLS on repeated cross-sectional data as described in Section 7.2.1, I estimate the aid allocation of all donors together. I do so for the period 1995-2009 because the CPI-index went through some changes in 2012 (Saisana & Saltelli, 2012), possibly altering results[3].

Table 3: Aid Allocation of All Donors

	(1) No Controls	(2) With Controls	(3) Control of Corruption	(4) Voice and Accountability	(5) FDI	(6) Oil and Mineral	(7) FE
CPI-score	-0.051***	-0.045***		-0.051***	-0.041***	-0.043***	0.015
	(0.010)	(0.011)		(0.009)	(0.009)	(0.011)	(0.022)
Log Income		-0.206	-0.234*	-0.184	-0.051	-0.256*	0.339
		(0.129)	(0.129)	(0.131)	(0.149)	(0.142)	(0.524)
Log Population		-0.623***	-0.643***	-0.655***	-0.477***	-0.623***	3.425*
		(0.072)	(0.066)	(0.065)	(0.082)	(0.072)	(1.970)
Openness		0.003	0.005	0.005		0.002	-0.018*
		(0.003)	(0.003)	(0.003)		(0.003)	(0.010)
Political Rights		0.125**	0.027		0.138**	0.098*	0.045
		(0.059)	(0.062)		(0.061)	(0.057)	(0.155)
Long Colony		0.535	0.410	0.484*	0.816**	0.476	12.937**
		(0.412)	(0.294)	(0.291)	(0.323)	(0.416)	(6.109)
Short Colony		-0.332	-0.144	-0.186	-0.524*	-0.321	-3.541***
		(0.302)	(0.256)	(0.255)	(0.268)	(0.315)	(1.306)
Israel		-1.309	-1.580*	-1.366	-1.497	-1.246	
		(1.597)	(0.934)	(0.942)	(0.956)	(1.570)	
Control of Corruption			-1.175***				
			(0.181)				
Voice and Accountability				-0.323**			
				(0.155)			
FDI					-0.000		
					(0.000)		
Oil						0.014	
						(0.011)	
Mineral						0.071***	
						(0.022)	
Constant	16.084***	18.312***	17.001***	18.766***	16.405***	18.786***	-3.373
	(0.394)	(1.313)	(1.207)	(1.111)	(1.408)	(1.412)	(9.662)
Obs.	325	323	298	299	248	316	323
R-squared	0.189	0.455	0.511	0.513	0.439	0.460	0.841
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: The table reports ordinary least squares estimates of the impact of CPI-score on the log of aid per capita in 5-year periods from 1995-2009. Column (1) displays the relationship without controls, and column (2) displays the regression with controls. In column (3) corruption is instead measured with Control of Corruption. In Column (4), Political Rights is replaced with Voice and Accountability to measure democracy. Column (5) replaces the variable for trade openness with foreign direct investment. In Column (6), oil and mineral rents are added as additional

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[3] See Table 13 in Appendix A for an analysis of different time periods.

controls to those in Column (2). Column (7) displays is the same specification as Column (2), except that recipient fixed effects are accounted for. All specifications are estimated with dummies for each time period. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Firstly, I estimate without any controls in order to take advantage of the whole sample size. The results are shown in Column (1) of Table 3. The results show a significantly negative effect of CPI-score on aid allocation. This shows that more corrupt countries receive more aid. These results are different than what Alesina and Weder (2002) find. The negative effect could be because we have non-DAC countries in our dataset, as will be tested for in Section 7.2.

In addition to corruption, aid allocation is likely to be determined by the recipient's needs, country size, democracy, colonial history[4], and geopolitical areas of interest. Therefore, I add controls for GDP per capita, population, trade openness, political rights, Israel, and long and short colony in Column (2). Doing so decreases the sample with two observations but increases the model's explanatory power from 0.189 to 0.455. With the inclusion of control variables , I still find that more corrupt countries receive more aid. A 1-point increase in CPI-score is associated with a 4,5% decrease in aid per capita. This is a sizeable effect, but not compared to the small country bias, in which countries with 1% larger population receives 62% less aid. This is consistent with previously found small country biases (Alesina & Weder, 2002; Berthélemy, 2006; Dreher et al., 2011). The effect of GDP on aid allocation is surprising, as it is not significant. This indicates that donors do not consider recipients' needs. Previous literature has found that foreign aid is decreasing in income (Alesina & Weder, 2002; Berthélemy & Tichit, 2004; Berthélemy, 2006). Economic openness is not considered, but more aid is allocated to less democratic countries, significant at 5%. Neither variable for colonial history are significant, and Israel is not treated differently. This suggest that the level of democracy is the only political factor that matters for aggregated aid allocation.

In order to verify my results, I perform various robustness checks. A possible issue with my analysis is that it depends on factors that are difficult to measure, such as corruption, economic and political interest in a country. CPI is a perception-based indicator, which can lead to several issues discussed in Section 7.4. Political Rights is scored based on considerations of researchers and advisors and could therefore suffer from human error. Therefore, I test for measurement errors, by substituting the explanatory variable and controls with other variables that measure

[4] Colonial history is split up into countries that have been a colony for a long time and countries that have been a colony for a short time, as colonial ties are likely to be stronger the longer the colonial time lasted. I find that splitting the variable like this increases the explanatory power of the model from when there is just one indicator of colonial history.

the same effects. In Column (3) of Table 3 I estimate the regression in Column (2) but use Control of Corruption as the explanatory variable[5]. In Column (4), trade openness is replaced by Foreign Direct Investments as a measure of economic interest, and in Column (5) Voice and Accountability is used to measure democracy. The results of these estimations still show that more corrupt countries receive more aid in all periods. This indicates that there is no measurement error related to the chosen variables.

There is also a possibility of omitted variable bias. When it comes to aid allocation, there are many factors that could influence the decision, and one cannot always control for everything. I follow common practice in aid literature to control for factors of altruism and merit, as well as economic and political self-interest (Alesina & Weder, 2002; Dreher et al., 2011). Still, it is possible that excluded variables influence aid allocation, and excluding this variable leads to over- or underestimation of corruption (Verbeek, 2008). It has been suggested that access to natural resources is a motivation for aid allocation (Naim, 2007; Woods, 2008). I therefore include variables for oil and mineral rents as a robustness check to see if these could be omitted variables. The results from this estimation is shown in Column (6). The results from this test shows that the effect of corruption on aid allocation is not affected by the inclusion of these controls. Rents from extraction of minerals and oil is therefore not omitted variables. Mineral rents increase the amount of aid received.

Another possible issue with the analysis is that there could be other characteristics of the recipient country that is correlated with corruption and drives the results. In order to control for this, I attempt the analysis with recipient fixed effects. The results are shown in Column (7). With this specification, the results change drastically. Now corruption is no longer a significant determinant of aid allocation. More populated countries receive more aid, significant at the 10% level. This is the exact opposite of what one would expect and contradicts all literature. This could mean that there are some factors related to the recipient countries that captures the effect we found in corruption. These factors could be highly correlated with corruption, and this could explain the results. Another explanation is that the variables we are interested in moves so slowly that they are almost fixed. Therefore, holding effects fixed for each country removes the variation in corruption, and possibly the other variables as well. If this is the case, it reduces the likelihood that recipient fixed effects is an issue with my analysis.

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[5] Although Control of Corruption is also a perception-based indicator, more confidence can be attributed to the results if several perception based indicators give the same results.

7.2. Aid Allocation of Donor Groups

Using OLS and Pseudo Poisson Maximum likelihood estimations as described in Section 7.2.2, I estimate the aid allocation of DAC and non-DAC donors separately. As in Section 7 I have done so for the years 1995-2009, with the same controls. However, I have excluded the dummy for Israel, as it is only relevant for the U.S. and therefore does not make sense to include for non-DAC donors. The results are shown in Table 4 below[6].

Table 4: Aid Allocation of DAC and non-DAC Donors

	OLS		PPML	
	(1)	(2)	(3)	(4)
	DAC	non-DAC	DAC	non-DAC
CPI-score	-.01	-.021	-.001	-.002
	(.008)	(.02)	(.001)	(.002)
Log Income	-.456***	-.348	-.027***	-.028
	(.105)	(.3)	(.006)	(.022)
Log Population	-.421***	-.638***	-.026***	-.048***
	(.054)	(.157)	(.004)	(.012)
Openness	-.001	.009	0	.001
	(.002)	(.007)	(0)	(0)
Democracy	-.045	.526***	-.002	.038***
	(.047)	(.132)	(.003)	(.01)
Long Colony	.417	1.02	.03	.081
	(.273)	(.675)	(.02)	(.069)
Short Colony	-.087	-1.458***	-.004	-.109**
	(.212)	(.542)	(.015)	(.045)
Constant	21.545***	15.758***	3.103***	2.792***
	(.939)	(2.595)	(.056)	(.19)
Observations	295	232	292	230
R-squared/ Pseudo R²	.284	.295	.28	.287

Note: The table reports estimates of the impact of CPI-score on the log of aid per capita in 5-year periods from 1995 to 2009. Column (1) and (2) are estimated with ordinary least squares. Column (3) and (4) are estimated with PPML. Column (1) and (3) display results for DAC donors, while column (2) and (4) display results for non-DAC donors. The dummy for Israel is not included as it is not relevant for all donors. Standard errors are in parentheses (Robust for PPML) *** p<.01, ** p<.05, * p<.1

The inference of all variables is the same for both specifications and show that neither DAC nor non-DAC donors consider corruption in their aid allocation. DAC donors appear to consider recipients' needs in their aid decision, while non-DAC donors do not. Less populated countries receive more aid, consistent with literature (Alesina & Weder, 2002; Berthélemy & Tichit, 2004; Berthélemy, 2006). I find that non-DAC donors give more aid to less democratic countries. Countries that have been colonies for a short time period receives less aid from non-DAC donors. The results are not in line with the conditions DAC donors set, and the theory that DAC donors behave more altruistic, except that they do allocate based on recipients' needs.

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[6] All results in this section are robust to the same tests as in Section 7.1. The results of these robustness checks can be found in Appendix B.

The criticism against non-DAC donors seems to be unfounded when it comes to corruption, but not when it comes to income and democracy.

For the sake of simplicity, I will only focus on one estimation strategy in the next parts of the analysis[7]. The results of the OLS and PPML estimations are similar, and they fit common perceptions and theories of aid allocation, adding confidence to these results. Due to the censored nature of the data, the OLS estimation could be biased. This is evident when comparing the results from OLS and PPML estimations, as OLS overestimates the effects. When dealing with data with many zeros, PPML has been shown to outperform OLS and Tobit estimations (Silva & Tenreyro, 2006, 2011). Therefore, I will use this estimation approach for the rest of the analysis.

As neither donor group explain the effect of corruption on aid allocation observed for all donors collectively in Table 3, I suspect that the results could be driven by some specific countries. Previous literature has found that Nordic donors behave more altruistically than other DAC donors, allocating more aid to less corrupt recipients (Alesina & Weder, 2002; Neumayer, 2003a). This could reflect differences in underlying motivations for giving aid. Similarly, differences in aid regimes among non-DAC donors have been pointed out (Apodaca 2017). Therefore, the next part of the analysis will investigate if there are differences in aid allocation within the DAC and non-DAC groups. I will use the donor categorisation based on conditionality described in Section 3.2. The results for these estimations are shown in Table 5.

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[7] Results for OLS and Tobit estimations can be found in Appendix C. The OLS results are similar to the results of PPML, but the Tobit results differ when estimating allocation of donor groups. For these estimations, over half of the observations are left-censored due to zeros in the dataset. This, in conjunction with Tobit estimations being less appropriate, could explain the differences in results.

Table 5: Aid Allocation of Donor Groups

	(1) Nordic	(2) Other DAC	(3) Middle-East	(4) Non-DAC EU	(5) Other Non-DAC
CPI-score	0	-.001	.003**	.003***	-.001
	(.001)	(.001)	(.001)	(.001)	(.002)
Log Income	-.103***	-.024***	.063***	.002	-.024
	(.013)	(.006)	(.02)	(.022)	(.022)
Log Population	-.027***	-.025***	-.04***	-.111***	-.045***
	(.007)	(.003)	(.009)	(.013)	(.013)
Openness	.001**	0	0	0	.001
	(0)	(0)	(0)	(0)	(0)
Democracy	-.011*	-.002	-.004	.027***	.019*
	(.006)	(.003)	(.01)	(.009)	(.01)
Long Colony	.026	.031	.053	-.022	.027
	(.041)	(.02)	(.04)	(.033)	(.088)
Short Colony	.026	-.005	-.02	.042	-.068
	(.031)	(.015)	(.047)	(.033)	(.048)
Constant	3.464***	3.072***	2.098***	2.083***	2.874***
	(.102)	(.056)	(.152)	(.188)	(.194)
Observations	260	292	57	119	195
R-squared	.298	.27	.537	.543	.156

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Nordic donors, column (2) displays results for other DAC donors, column (3) displays results for Middle East and OPEC donors, column (4) displays results for non-DAC donors that are members of EU, and column (5) displays results for other non-DAC donors. Robust standard errors are in parentheses *** $p<.01$, ** $p<.05$, * $p<.1$

Here I surprisingly find that Middle Eastern and non-DAC EU donors give more aid to less corrupt countries, while the other donor groups do not consider corruption in their aid allocation. Based on this, the criticism towards non-DAC donors appears unwarranted. The results also contradict the empirical finding that Nordic donors give more aid to less corrupt countries. Lower income countries receive more aid from both DAC groups, while Middle Eastern donors give more to higher income countries. Population is significantly negative for all specifications, as expected. Nordic donors reward good economic policies and democracy, the latter significant at 10%. Non-DAC EU and other non-DAC countries gives more aid to less democratic recipients, partly confirming the criticism towards these donors. The other donor groups to not consider democracy when allocating aid. Neither donor group takes colonial history into consideration in their aid allocation. Splitting the donor groups this way does not explain the finding that more corrupt countries receive more aid in Table 3.

7.2.1. Do Donors Allocate Heterogeneously?
Since splitting the donors up in groups based on similarity does not explain the results in Table 3, I suspect that donors allocate heterogeneously even within these groups. In order to investigate donor heterogeneity, I estimate the allocation of individual donors within the donor groups. Firstly, I estimate the aid allocation of Nordic donors. The results are shown in Table 6.

	(1) Norway	(2) Denmark	(3) Sweden	(4) Finland	(5) Iceland
CPI-score	-.001	.002	-.001	.001	.023***
	(.001)	(.002)	(.001)	(.001)	(.006)
Log Income	-.095***	-.102***	-.094***	-.082***	-.348***
	(.015)	(.023)	(.019)	(.015)	(.022)
Log Population	-.04***	-.05***	-.059***	-.045***	-.247***
	(.007)	(.011)	(.01)	(.008)	(.065)
Openness	0	0	.001	0	.012***
	(0)	(0)	(0)	(0)	(.002)
Democracy	-.01	-.016**	-.015**	.003	.357***
	(.007)	(.008)	(.007)	(.008)	(.052)
Long Colony	.026	.003	.01	-.033	.76***
	(.043)	(.06)	(.038)	(.038)	(.058)
Short Colony	.089***	-.078	.067*	.034	.339***
	(.03)	(.062)	(.035)	(.033)	(.066)
Constant	3.369***	3.442***	3.414***	3.104***	2.044***
	(.124)	(.184)	(.15)	(.135)	(.696)
Observations	249	156	224	220	13
R-squared	.289	.273	.295	.202	.908

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Norway, column (2) displays results for Denmark, column (3) displays results for Sweden, column (4) displays results for Finland, and column (5) displays results for Iceland. Robust standard errors are in parentheses *** $p<.01$, ** $p<.05$, * $p<.1$

When estimating the results for individual Nordic donors, it becomes apparent that they behave similarly. None of the Nordic donors consider corruption when allocating aid except Iceland. However, there are only 11 observations of aid from Iceland in the data, so the results for Iceland may be biased. I therefore overlook the results for Iceland's aid allocation. All Nordic donors give more aid to poorer and smaller countries. Denmark and Sweden give more aid to more democratic countries, and Sweden gives less aid to countries that have been colonies for a short time (at 10% significance).

Next, I estimate the aid allocation of other DAC donors. As there are so many donors in this group, only the effect of corruption on aid allocation is shown in Table 7 below. Most of these donors do not consider corruption when giving aid. Greece, Spain and the U.S. give more aid to more corrupt countries. The result for the U.S. is in line with Alesina and Weder (2002). Portugal is the only DAC donor that rewards less corrupt countries.

Table 7: Aid Allocation of Other DAC Donors

	(1) Australia	(2) Austria	(3) Belgium	(4) Canada	(5) France
CPI-score	0	.001	0	.001	.001
	(.002)	(.002)	(.001)	(.001)	(.001)
Observations	164	247	237	258	274
Pseudo R²	.179	.101	.263	.229	.212
	(6) Germany	(7) Greece	(8) Ireland	(9) Italy	(10) Japan
CPI-score	0	-.004*	0	-.002	.001
	(.001)	(.002)	(.002)	(.001)	(.001)
Observations	269	181	162	245	213
Pseudo R²	.077	.329	.307	.215	.185
	(11) Korea	(12) Luxembourg	(13) Netherlands	(14) New Zealand	(15) Portugal
CPI-score	0	.004	-.001	0	.007**
	(.002)	(.003)	(.001)	(.002)	(.003)
Observations	115	152	238	136	129
Pseudo R²	.016	.357	.271	.363	.338
	(16) Slovak Republic	(17) Spain	(18) Switzerland	(19) UK	(20) U.S.
CPI-score	-.004	-.003**	-.001	.001	-.003***
	(.002)	(.001)	(.001)	(.001)	(.001)
Observations	22	250	227	244	283
Pseudo R²	.884	.12	.283	.256	.184

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Controls are not shown. Robust standard errors are in parentheses
*** $p<.01$, ** $p<.05$, * $p<.1$

Since there are only four donors who consider corruption in their allocation, I want to see what leads them to allocate the way they do. Therefore, I report the full results for these donors in Table 8 below. Among the donors that give more aid to more corrupt countries, the U.S. is the only one that gives more aid to poor recipients. Greece gives more aid to higher income countries, while Spain does not consider income. Both Spain and the U.S. rewards democracies, while Greece does the opposite. Both Spain and the U.S give more to countries with a long colonial history, while Greece gives more to countries that have been colonies for a short time period. Portugal, on the other hand, manages to reward less corrupt countries and still take recipient's needs into consideration. This suggests that the trade-off between rewarding good institutions and giving aid to the poorest is possible to overcome. Portugal does not consider democracy in their allocation and gives more aid to countries that has been colonies for a short amount of time.

Table 8: Aid Allocation of Other DAC Donors of Interest

	(1) Greece	(2) Portugal	(3) Spain	(4) U.S.
CPI-score	-.004*	.007**	-.003**	-.003***
	(.002)	(.003)	(.001)	(.001)
Log Income	.053**	-.128**	.01	-.027***
	(.024)	(.051)	(.017)	(.01)
Log Population	-.085***	-.132***	-.035***	-.014**
	(.013)	(.025)	(.01)	(.006)
Openness	-.001	.001	-.001	0
	(.001)	(.001)	(0)	(0)
Democracy	.031***	.003	-.018**	-.014***
	(.012)	(.022)	(.009)	(.005)
Long Colony	.055	.074	.098*	.062**
	(.061)	(.114)	(.058)	(.031)
Short Colony	.123***	.155**	-.042	-.02
	(.045)	(.072)	(.045)	(.025)
Constant	1.942***	3.117***	2.63***	3.008***
	(.186)	(.393)	(.161)	(.087)
Observations	181	129	250	283
R-squared	.329	.338	.12	.184

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Greece, column (2) displays results for Portugal, column (3) displays results for Spain, and column (4) displays results for the U.S. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

In Table 9 the results of the estimation of Middle Eastern and OPEC donors are shown. Kuwait rewards less corrupt countries, while Saudi Arabia and the United Arab Emirates do not consider corruption when allocating aid. Kuwait and the UAE give more aid to higher income countries. None of these donors consider democracy, and the UAE gives more aid to former colonies. There are few observations for these donors, so the results could be biased.

Table 9: Aid Allocation of OPEC and Middle Eastern Donors

	(1) Kuwait	(2) Saudi Arabia	(3) UAE
CPI-score	.007**	-.001	.001
	(.003)	(.001)	(.003)
Log Income	.09**	.024*	.098***
	(.045)	(.015)	(.035)
Log Population	-.022	-.059***	-.025**
	(.021)	(.008)	(.012)
Openness	-.001	0	0
	(.001)	(0)	(.001)
Democracy	-.008	.006	-.002
	(.022)	(.006)	(.012)
Long Colony	-.108	.025	.22***
	(.104)	(.035)	(.062)
Short Colony	-.061	-.019	.176*
	(.068)	(.021)	(.102)
Constant	1.902***	2.472***	1.65***
	(.218)	(.094)	(.32)
Observations	24	38	24
R-squared	.443	.767	.602

Estimations of aid allocation of donors that are members of the EU but not DAC are reported in Table 10. Openness and democracy are dropped for Latvia, due to collinearity. This is likely because there are only 4 observations for Latvia. The dummy for long colonial history is dropped for Estonia. Latvia, Lithuania, Liechtenstein and Monaco all reward less corrupt countries, but do not manage to combine this with recipients' needs. Estonia is the only donor that gives more aid to poorer recipients, but they do not consider corruption. Latvia and Lithuania give more aid to higher income countries. Lithuania rewards good economic policies, while Monaco does the opposite at 10% significance. Lithuania also gives more aid to more democratic countries, while the opposite is true for Liechtenstein. Lithuania gives more aid to former colonies, while Monaco only gives more aid to long-term colonies. Liechtenstein on the other hand gives more aid to short-term colonies and less to countries with a long colonial history. Estonia gives less aid to former short-term colonies at 10% level of significance. All donors except Liechtenstein have few aid observations, and the results could therefore be biased.

Table 10: Aid Allocation of Non-DAC EU Donors

	(1) Estonia	(2) Latvia	(3) Lithuania	(4) Liechtenstein	(5) Monaco
CPI-score	.024	.038***	.025***	.003**	.007**
	(.017)	(0)	(0)	(.001)	(.003)
Log Income	-.201***	.076***	.53***	.005	.031
	(.072)	(0)	(.003)	(.02)	(.041)
Log Population	-.05	-.045***	-.168***	-.119***	-.158***
	(.077)	(0)	(.001)	(.012)	(.031)
Openness	.002		.005***	0	-.003*
	(.001)		(0)	(.001)	(.002)
Democracy	.053		-.047***	.026***	.021
	(.05)		(.001)	(.009)	(.019)
Long Colony			.031***	-.078**	.236***
			(.001)	(.032)	(.088)
Short Colony	-.155*		.048***	.079**	-.09
	(.084)		(.002)	(.035)	(.085)
Constant	2.668***	.28***	-3.101***	2.066***	1.92***
	(.558)	(0)	(.03)	(.166)	(.284)
Observations	10	4	9	102	28
Pseudo R²	.846	.044	1	.622	.628

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Estonia, column (2) displays results for Latvia, column (3) displays results for Lithuania, column (4) displays results for Liechtenstein, and column (5) displays results for Monaco. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

The aid allocation of other non-DAC donors is reported in Table 11. In line with claims of critics (Naim, 2007), China gives more aid to more corrupt countries, significantly at 10%. This is also true for Thailand, while Chile gives more aid to less corrupt countries at the 10% level. Taiwan is the only donor in this group that considers recipients' needs, and only does so at 10% level of significance. Also at the 10% level, China rewards good economic policies. Both Chile and South Africa gives more aid to less democratic countries, but the rest of the donors do not consider democracy in their aid allocation. Chile and India gives less aid to countries with a long colonial history, while countries that has only been a colony for a short amount of time receives more aid from Chile, India and Taiwan.

Table 11: Aid Allocation of Other Non-DAC Donors

	(1) Chile	(2) India	(3) China	(4) Taiwan	(5) Thailand	(6) South Africa
CPI-score	.008*	0	-.002*	.012	-.019**	.002
	(.004)	(.004)	(.001)	(.007)	(.008)	(.009)
Log Income	-.035	-.013	.011	-.327*	.033	-.086
	(.06)	(.044)	(.018)	(.197)	(.055)	(.064)
Log Population	-.098***	-.076***	-.032***	-.049	-.198***	-.105***
	(.036)	(.017)	(.01)	(.038)	(.041)	(.04)
Openness	.001	-.001	.001*	.003	.001	.001
	(.001)	(.001)	(0)	(.003)	(.001)	(.001)
Democracy	.095*	.011	.001	-.002	.038	.057**
	(.051)	(.015)	(.008)	(.131)	(.044)	(.027)
Long Colony	-.23*	-.173**	.055		.112	
	(.12)	(.068)	(.084)		(.131)	
Short Colony	.13*	.137**	-.062	.197**	-.053	
	(.069)	(.066)	(.041)	(.098)	(.114)	
Constant	2.027***	2.942***	2.679***	4.679**	2.428***	2.902***
	(.605)	(.308)	(.16)	(2.078)	(.25)	(.4)
Observations	34	54	165	17	21	15
R-squared	.423	.371	.174	.33	.786	.727

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Chile, column (2) displays results for India, column (3) displays results for China, column (4) displays results for Taiwan, column (5) displays results for Thailand, and column (6) displays results for South Africa. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

7.2.2. Do Allocation Patterns Change Over Time?

Due to constant changes in the aid market and political climate, and the fact that these changes can take time to show results (Charron, 2011; Easterly & Williamson, 2011) it is possible that aid allocation patterns change over time, and that these changes are not observable at once. In fact, previous empirical studies have found different results for different time periods (Alesina & Weder, 2002; Berthélemy & Tichit, 2004). Therefore, I estimate the PPML estimations from Table 4 for different time periods separately in Table 12, in order to identify possible differences in aid allocation over time. This shows that in 1995-1999, DAC donors gave more aid to more

corrupt countries while non-DAC donors rewarded less corrupt countries. This is the opposite of expected based on aforementioned theory and literature. However, there are very few observations for non-DAC donors in this period, as these donors only accounted for a small portion of total aid in the 90s (Manning, 2006). Therefore, the result non-DAC donors may not be accurate for this period. It is possible that DAC donors gave more aid to more corrupt countries in the 90s because several new donors were included in the organisation in this period, and that the structural changes in the aid community during this period took a long time to be implemented and give observable results. In the other time periods, neither DAC nor non-DAC donors consider corruption in their aid allocation. This reflects that DAC donors have improved, and that criticism towards non-DAC donors is unwarranted. Rather, it appears that there is large heterogeneity in donors' allocation, as shown in Section 7.2.1, so that criticism should be directed to specific self-interested donors.

Table 12: Aid Allocation of DAC and non-DAC Donors Over Time

	1995-1999		2000-2004		2005-2009		2010-2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DAC	non-DAC	DAC	non-DAC	DAC	non-DAC	DAC	non-DAC
CPI-score	-0.001**	0.022***	-0.000	-0.004	0.000	-0.003	0.000	0.000
	(0.001)	(0.007)	(0.001)	(0.003)	(0.001)	(0.002)	(0.001)	(0.002)
Log Income	0.011	-0.508***	-0.040***	-0.006	-0.035***	-0.026	-0.035***	0.010
	(0.014)	(0.185)	(0.010)	(0.037)	(0.007)	(0.022)	(0.007)	(0.018)
Log Population	-0.043***	-0.030	-0.027***	-0.048**	-0.018***	-0.042***	-0.015***	-0.040***
	(0.007)	(0.065)	(0.009)	(0.024)	(0.003)	(0.011)	(0.003)	(0.008)
Openness	-0.001***	0.005*	-0.000	0.001	0.000**	0.000	0.000**	-0.000
	(0.000)	(0.003)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)
Democracy	0.008*	0.010	-0.006	0.046***	-0.003	0.021**	-0.003	0.011
	(0.005)	(0.065)	(0.007)	(0.016)	(0.003)	(0.011)	(0.004)	(0.010)
Long Colony	0.010	0.291**	0.052	0.000	0.024	0.059	0.022	0.094
	(0.043)	(0.126)	(0.035)	(0.109)	(0.021)	(0.082)	(0.019)	(0.084)
Short Colony	-0.112***	0.171	0.019	-0.089	0.033*	-0.142**	0.036**	-0.096
	(0.034)	(0.142)	(0.025)	(0.066)	(0.017)	(0.064)	(0.015)	(0.066)
Constant	2.888***	5.324***	3.179***	2.608***	3.106***	2.991***	3.096***	2.679***
	(0.126)	(1.402)	(0.117)	(0.350)	(0.054)	(0.181)	(0.058)	(0.132)
Obs.	71	17	101	87	120	126	117	120
R-squared	0.460	0.683	0.257	0.256	0.452	0.311	0.426	0.181

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) and (2) display the period 1995-1999, column (3) and (4) display the period 2000-2004, and column (5) and (6) display the period 2005-2009. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1 *** *p<.01, ** p<.05, * p<.1*

7.3. Summary of Results

When estimating the collective aid allocation of all donors, I find that corrupt countries receive more aid. The recipient's needs are not taken into account, and neither is trade openness. Undemocratic countries receive more aid. The results are not changed in robustness checks. The exception is when including recipient fixed effects. In this specification the results change

drastically from the baseline specification, and corruption no longer matters in aid decisions. This could be because the corruption variable moves so slowly that it in essence is a fixed effect.

Estimating aid allocation of DAC and non-DAC donors using OLS and PPML, I find that neither consider corruption in their aid allocation, indifferently of the estimation method. DAC donors appear to care most about recipients' needs, not taking anything other than this and country size into consideration. Non-DAC donors, on the other hand, gives more aid to less democratic countries that have been colonies for a short time and has a small population. When further separating the donors into groups, I find that Middle Eastern donors and EU donors that are not members of DAC reward recipients with less corruption. However, they do not give more aid to the recipients in most need, (in fact Middle Eastern donors do the opposite) and non-DAC EU donors give more aid to less democratic recipients. Both categories of DAC donors take recipients' needs into consideration, but only Nordic donors reward democracy. Nordic donors also reward good economic policies. Neither DAC nor other non-DAC donors consider corruption in their allocation. The latter does not consider recipients' needs either, and gives more aid to less democratic countries.

It becomes clear that any one donor group does not drive the tendency of more corrupt countries to receive more aid. When estimating the aid allocation of each donor country individually, we see that donors allocate aid heterogeneously. Most donors do not consider corruption in their allocation, regardless of what group they are in or the conditions they set. EU donors that are not members of DAC are most successful in rewarding less corrupt countries collectively as a group. Chile, Kuwait and Portugal also seem to donate more to countries that perform well on the Corruption Perceptions Index. On the other hand, Greece, Spain, the U.S., China and Thailand allocate more to more corrupt countries. There are large differences among these donors in what other variables they consider when giving aid. This finding shows that there are donors within both DAC and non-DAC groups that go against the conditions of multilateral organisations and DAC.

When investigating if the patterns of aid allocation have changed over time, I find that DAC donors gave more aid to more corrupt countries in the 90s. This is somewhat surprising as the problem of poor institutions and aid gained a lot of attention in this period, and the DAC organisation started to work towards greater selectivity in allocation. However, it is possible that these changes take time to implement, and that the observed effect is simply a delayed one.

7.4. Sources of Error

A problem that all aid literature faces is the issue of simultaneous causality. The observed effects of corruption on aid allocation could actually reflect the effect of aid on corruption. The literature is mixed on the effects of aid on corruption, with some researchers finding that aid increases corruption (Alesina & Weder, 2002) and worsens institutions (Knack, 2001), while others find that aid decreases corruption (Tavares, 2003). Even though this could be an issue, corruption is a persistent problem so it is possible that aid allocation will not change corruption much when looking at the aggregated picture. It is unlikely that countries donate more aid to countries with a high degree of corruption in order to reduce corruption in this country. According to Alesina and Weder (2002), this makes the problem with reverse causality less serious for corruption. In addition, my dependant variable is aid commitment and not disbursement, so the investigated variable is the donors' decisions and not the actual aid that could increase corruption.

Another issue specific to corruption literature is that corruption is difficult to measure. First of all, it is a crime in many countries, so it is hard to determine the extent of the problem and there are likely dark figures. In addition, corruption is hard to measure in numbers as its consequences are larger than the amount of money that changes hand. Because of these measurement issues, there are several ways to measure corruption, but none of them can be completely relied on to show the true extent of corruption. A common way to measure corruption is perception-based indicators. This is a way to rate the extent of corruption in certain areas/countries based on survey questions of how corruption is perceived. The survey could be answered by professionals or ordinary citizens, based on their experiences. Although these indicators are a good way to get a "on location" view of corruption, they can also suffer from biases. Naturally, indicators that are based on people's impressions rather than facts are not always correct. However, they have been showed to be highly correlated with more objective measures of corruption. There could also be consistency issues when analysing this type of indicators over time because the sources used are not necessarily the same for all years. Still, perception based indicators are more appropriate to measure corruption at the aggregated level than objective indicators (Hamilton & Hammer, 2018).

Since corruption is more likely to be a problem in lower income countries, these variables are expected to be closely related. Similarly, corruption is likely to be correlated with oil and mineral rents, because of the resource curse. In addition, corruption is more often a problem in autocratic countries than democracies, because autocrats have more discretionary power.

Because there are several variables that are expected to be correlated, there could be a problem with multicollinearity. Therefore, the correlation coefficients of all the included control variables are reported in Table 18 in the Appendix. This shows that while the variables are correlated as expected, it is not to a large enough degree for it to pose a problem for the analysis.

Another possible source of error is omitted variable bias, as with most empirical studies. I attempt to tackle one possible omitted variable in the robustness checks in Section 7.1 and Appendix B, but it is possible that there could be other omitted variables. Still, as I have followed common practice in aid literature on which controls to include, I am confident that omitted variable bias is not a bigger problem in this thesis than in other aid literature.

A potential source of error that is more specific to this thesis is related to the chosen estimation method. Even though Pseudo Poisson Maximum Likelihood is proven to be the best estimation method when dealing with censored data (Silva & Tenreyro, 2006, 2011), there are some potential issues with this estimation method. As discussed in Section 6.2, I used Pseudo Poisson Maximum Likelihood in order to overcome the issue of equidispersion in the regular Poisson model[8], thereby avoiding a common problem with this model. In addition to possible estimation problems with the Pseudo Poisson Maximum Likelihood, it could also be that this approach is not the best suited for the analysis. However, I use several different estimation models and get similar results, strengthening my confidence in these results.

Some donors have been included as DAC donors in more recent years. In order to keep the analysis consistent, the classification of DAC and non-DAC donors is based on the status in 2021. This means that some donors that I have classified as DAC donors have not have this status for the whole period assessed. These are Greece, Korea, Iceland, the Czech Republic and the Slovak Republic. Still, it is commonplace for donors to be observers and participants of DAC before joining, and certain criteria needs to be met (OECD). Therefore, donors that had the intention of joining DAC would likely follow their practices. In addition, my findings show that there is not a clear divide between DAC and non-DAC donors. Therefore, I do not think this classification distorts my results notably.

Taking the average of aid does not take into consideration the volatile nature of aid transfers, according to Brück and Xu (2012). If this is the case, it could affect my results, as well at other findings in the aid literature. Still, as using 5-year averages is the standard approach in aid

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[8] It can be seen from Table 2 that the data is overdispersed, since the variance is larger than the mean.

literature, and because of the empirical reasoning behind this, I find this to be the most appropriate estimation approach.

Another estimation approach that has emerged in aid literature is to estimate the aid decision as a two-step model (Berthélemy, 2006). This method suggest that the explanatory variables have a different impact on the probability of being selected as a recipient, and on how much aid selected recipients receive. This is not taken into consideration in my analysis. Therefore, it could be the case that corruption influences the decision on who to give aid to and how much to give differently. It is hard to tell how corruption influences the two steps in the allocation decision, however, as neither Berthélemy and Tichit (2004) nor Berthélemy (2006) include corruption as an explanatory variable.

8. Discussion

The results of all donors collectively made it apparent that donors do not consider recipients' needs, and that they actually give more aid to more corrupt countries. This finding contradicts acknowledged literature based on older data (Alesina & Weder, 2002; Svensson, 1999) but is in line with more recent findings (Clist, 2011; Easterly & Pfutze, 2008; Easterly & Williamson, 2011). The theory of Samaritan's dilemma predicts a trade-off between income sensitivity and conditionality (Svensson, 2000), but these results show that donors do not perform well in either of these regards. If foreign aid does not accomplish any of its goals, what is then the purpose? From the donors' perspective, aid seems to be motivated by self-interest. Population size, democratic level, colonial history and political interest appear to be determinants of aid, reflecting the motivations of donor countries. These determinants of aid are much in line with previous literature (Alesina & Weder, 2002; Barthel et al., 2014; Clist, 2011). Based on these findings, there clearly seems to be a trade-off between altruistic aid allocation to recipients in need with good governance, and aid allocation based on self-interested motivations.

Contradictory to other literature (Dreher et al., 2011), I find that neither DAC nor non-DAC donors shows consider corruption in aid allocation, but that there are large differences in how they allocate based on other parameters. DAC donors give more aid to recipients in need, in line with Dreher et al. (2011). The way they allocate aid therefore points in the direction of a trade-off between conditionality and income selectivity. They do not consider any other indicators of self-interest than population size, suggesting that these donors are relatively altruistic in their allocation, but struggle with the Samaritan's dilemma. Non-DAC donors, on the other hand, appear to be driven by political motivations, giving more aid to less democratic

countries that are more similar to them in form of government. This result suggest that non-DAC donors are more driven by self-interest than DAC donors.

Another possible explanation for why DAC donors are not selective in their allocation, as they claim to be, is that competition from non-DAC donors threaten their conditionality. If this was the case, DAC and non-DAC donors would compete to give aid to the same countries, leading to similar aid allocation between these donor groups (Barthel et al., 2014). However, this is not what the results show. Even though neither group consider corruption in their allocation, they behave quite differently with regards to other considerations. Therefore, it does not seem like they give aid to the same countries due to competition. Could it still be that DAC donors are less selective and look though their fingers on their own conditionality rules in order to reach out to more countries and be competitive in the aid market? When considering aid allocation patterns over time, this does not seem to be the case. In the 90s when the competition with non-DAC donors over aid was low, DAC donors actually gave more aid to more corrupt countries, and did not consider recipients' needs. This indicates that the behaviour of DAC donors do not seem to be negatively affected by that of non-DAC donors.

When investigating the allocation of donors individually, it becomes apparent that the separation between DAC and non-DAC donors is not as clear cut as anticipated. Donors allocate aid quite heterogeneously, even within more specific groups of donors that would be expected to behave similarly. This heterogeneity has been found in previous literature as well (Alesina & Weder, 2002; Berthélemy, 2006; Brück & Xu, 2012; Dreher et al., 2011), but is surprising for DAC donors as organised donors should behave similarly (Svensson, 2000). This is yet another sign that not all DAC donors follow the allocation rules they have set for themselves. Non-DAC donors are just as heterogenous in their allocation, making it clear that they should not all be tarred with the same brush. The criticism towards non-DAC donors is not fully confirmed or rejected, in accordance with (Dreher et al., 2011). Within the group of non-DAC donors, there are donors who reward good institutions and that undermines them, as well as not considering them in their allocation. This is also the case for DAC donors. For instance, the U.S. and China do not behave so differently with regards to allocating more aid to more corrupt countries.

Different donors seem to give aid on different grounds, independently of the aid regimes they claim to adhere to. Differences in aid allocation appears to be explainable by differences in aid motivations. Nordic donors are very sensitive to the needs of recipients, at the expense of not being selective in corruption. Some of them also value democracy. Donors that are members of

EU but not DAC appear to have chosen differently in this trade-off, choosing to reward less corrupt countries but not giving aid to those in most need. It is possible that these countries want to prove themselves to DAC by being selective based on corruption, because they are observers and want to gain membership (OECD, 2019). However, this result completely contradicts the result of Dreher et al. (2011), who find that these donors give more aid to more corrupt recipients in need. It is possible that my results for this specific donor group are biased due to few observations. Regardless, there is evidence of a trade-off between recipients' needs and rewarding less corrupt countries. Portugal is the only donor in my findings that manages to balance these considerations. Their aid allocation does not appear to be driven by political or economic self-interest to a large extent. It is therefore possible that truly altruistic donors have an advantage in overcoming this trade-off, because they are not affected by other priorities. Among the donors that give more aid to more corrupt countries, the U.S and Spain seem to be concerned with political interests in the form of democracy and colonial history, while China appears to have economic interests. The result for the United States is similar to that in Alesina and Weder (2002). Based on these findings, it appears that the self-interests of donors hinders considerations of good institutions and need. It is possible that both these priorities could be catered to if donors are not self-interested, but this is hard to say as the majority of donors do not seem to be purely altruistic based on my estimations.

The difference in my results compared to those of Alesina and Weder (2002) seems to be largely explainable by donor heterogeneity and the inclusion of non-DAC donors in the data. However, this does not explain why I do not find that Nordic donors reward less corrupt countries. Since the largest difference between my analysis and that of Alesina and Weder (2002) is the time period assessed, it appears that the aid allocation of Nordic donors have changed to become less selective. This fits well with Easterly and Williamson (2011), who find that donors give aid to the same countries over time, and that these countries have become more corrupt. They actually find that Nordic donors perform poorly on the selectivity criteria in 1996-2002, although this is partly explained by them including democracy as an indicator of selectivity. It is also possible that different donors are affected differently by competition with new donors, so that DAC donors collectively do not change their behaviour, while for example Nordic donors lowers their selectivity in order to remain competitive. Since larger donors are more affected by competition than smaller donors (Annen & Moers, 2017), the recline in selectivity of Nordic donors could be because aid from these donors has increased since the study of Alesina and

Weder (2002)[9]. Spain also appear to have worsened in their corruption selectivity, going from insignificantly negative in Alesina and Weder (2002) to significant in my results.

If most donors are self-interested and do not follow their own allocation rules, why do they bother to set them? One possibility is of course that they are truly trying to improve, but that change is complicated and takes time. Another option is that DAC donors are concerned for their own reputation, and therefore uses conditionality as a form of window dressing in order to justify their selfish aid regimes. It could also be that there is a free-riding problem in conditionality. When there are many donors, conditionality becomes a public good. The donor community collectively would benefit from selective allocation, but each donor benefit more from selfish allocation (Bourguignon & Platteau, 2015). Therefore, it is possible that DAC donors set these allocation rules in the hopes that other donors will follow them, while they themselves are free-riders on the rise in institutional quality this leads to. It is hard to say for certain what leads donors to set allocation rules they do not follow, and it is not in the scope of this master's thesis. However, further research should be devoted to this area.

The incentive problem when there are many donors can be solved with aid coordination, according to Gibson et al. (2005). They claim that when OECD ratified the Anti-Corruption Convention in 1999, they changed the rules of the aid game by excluding the scenario of a corrupt recipient playing two donors against each other. However, not all aid donors are members of OECD. This creates the possibility of recipient countries playing DAC donors against non-DAC donors, possibly forcing DAC donors to give aid without conditions.

Aid may be more effective when it is donated by a single or dominant donor, Knack and Rahman (2007) claim. They credit some of the success of the Marshall Plan to this fact. In order to increase responsibility for aid results in donors, they suggest appointing a lead donor, who will be incentivised to work towards development goals because their reputation as a donor depends on the development results in the recipient country. However, this could increase incentive problems as donors then would compete to be the lead donor, putting them in a weak position in negotiations. Another option is for donors to specialise within different sectors in the recipient country. That way, one donor would be responsible for aid results in the health sector, while another would have to prove their aid is beneficial for infrastructure. A possible issue with this solution is that donors could face accusations of neglecting sectors or recipients in need by focusing their aid in this way.

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[9] See Figure 4 in Appendix D for the evolution of aid from Nordic donors from 1995-2013.

The solution with the least distorting effects may be that recipient countries take charge of their own development process and attempt to limit the problem with competitive aid practices (Knack & Rahman, 2007). This could be done by allowing fewer donors in the recipient country, or refusing some of the aid. This would only effectively reduce incentive problems if the recipient country can contractually commit to the donors so that they cannot be easily replaced. This solution might be difficult to achieve in reality, as incentive problems in the recipient country often prevents such policies from being implemented. The long-run costs of poor institutions and ineffective aid is often outweighed by the short-run benefits of corruption for political leaders. This is both a collective good problem and an intertemporal problem. |

9. Conclusion

The purpose of this thesis is to examine whether corruption and recipients' needs are considered in aid allocation, and if the extent to which it is differs between donors who set clear conditions for their aid and donors who do not. The analysis is split in two parts because the research question is twofold. In the first part, an OLS estimation is applied to all donors. I find that corrupt donors receive more aid, and that recipients' needs are not taken into account. Instead, donors appear to be self-interested, motivated by political interests and reputational factors. In part two of the analysis, OLS and PPML estimation models are all applied to DAC and non-DAC donors separately, in order to identify differences and similarities. The results show that neither consider corruption in their allocation, but DAC donors consider recipients' needs, while non-DAC donors are more concerned with political self-interest. However, I find large heterogeneity in aid allocation within these groups, and even within previously assumed similar sub-groups. Most donors do not consider corruption in their allocation, notable exceptions being the DAC donor the U.S. and the non-DAC donor China, who both give more aid to more corrupt countries. My results do not fully reject or confirm the criticism towards non-DAC donors, but shows that they should not be tarred with the same brush.

The heterogenous allocation appears to be explainable by differences in donors' motivations. Some donors are sensitive to the needs of recipients. I find here indications of a trade-off between selectivity in corruption and income, as only one donor is successful in catering to both priorities. Other donors are more concerned with political and economic interest, and this appears to not be compatible with rewarding less corrupt countries. I do not find evidence that competition leads donors to allocate similarly, and therefore it does not seem like non-DAC

donors undermine the efforts of DAC donors. Moreover, there does not appear to be much conditionality and selectivity to be undermined.

A few questions rises from the findings in this thesis. Previous literature has shown that donors appear to be rigid over time in what countries they give aid to, and that this could explain why previously selective donors are not as selective anymore (Easterly & Williamson, 2011). Further research should therefore be directed towards donors' sensitivity to institutional changes over time. While this thesis attempts to explain why donors do not practice selectivity even though they claim to do so, it does not explain why they set rules for themselves that they do not follow. This is also a question for future research to examine.

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Appendix A: Time Effects for All Donors

Table 13: Aid Allocation for All Donors: Different Time Periods

	(1) 1995-1999	(2) 2000-2004	(3) 2005-2009	(4) 2010-2013
Log Income	0.540**	-0.559**	-0.159	0.218
	(0.228)	(0.264)	(0.179)	(0.150)
Log Population	-0.591***	-0.664***	-0.635***	-0.543***
	(0.087)	(0.135)	(0.087)	(0.088)
Openness	-0.003	0.005	0.002	0.000
	(0.003)	(0.006)	(0.005)	(0.004)
Democracy	-0.020	0.132	0.148*	0.039
	(0.074)	(0.110)	(0.085)	(0.084)
Long Colony	0.268	0.326	0.745*	0.303
	(0.712)	(0.572)	(0.436)	(0.482)
Short Colony	-1.704***	0.026	-0.226	-0.334
	(0.487)	(0.470)	(0.360)	(0.389)
Israel	1.417**	-1.919	-3.752**	
	(0.709)	(1.936)	(1.555)	
CPI-score	-0.033**	-0.045**	-0.056***	-0.010
	(0.016)	(0.018)	(0.012)	(0.013)
Egypt		1.255	0.115	0.232
		(1.891)	(1.525)	(1.449)
Constant	12.749***	20.157***	17.455***	14.173***
	(2.025)	(2.255)	(1.579)	(1.435)
Obs.	74	113	136	125
R-squared	0.424	0.462	0.573	0.342
Time dummies	no	no	no	no

Note: The table reports ordinary least squares estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays the years 1995-1999, column (2) displays the years 2000-2004, column (3) displays the years 2005-2009, and column (4) displays the years 2010-2013. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Appendix B: Robustness Checks for Donor Groups

Table 14: Aid Allocation for DAC and Non-DAC Donors: Full Time Period

	OLS		PPML	
	(1)	(2)	(3)	(4)
	DAC	non-DAC	DAC	non-DAC
CPI-score	-0.007	-0.014	-0.000	-0.001
	(0.006)	(0.017)	(0.000)	(0.001)
Log Income	-0.476***	-0.052	-0.029***	-0.006
	(0.077)	(0.223)	(0.004)	(0.015)
Log Population	-0.376***	-0.696***	-0.023***	-0.048***
	(0.042)	(0.124)	(0.003)	(0.008)
Openness	0.001	0.003	0.000	0.000
	(0.002)	(0.006)	(0.000)	(0.000)
Democracy	-0.045	0.490***	-0.002	0.034***
	(0.038)	(0.109)	(0.003)	(0.007)
Long Colony	0.393*	1.455**	0.027*	0.111**
	(0.217)	(0.575)	(0.016)	(0.056)
Short Colony	0.085	-1.711***	0.006	-0.120***
	(0.170)	(0.466)	(0.012)	(0.038)
Constant	21.452***	13.999***	3.098***	2.642***
	(0.710)	(1.985)	(0.043)	(0.133)
Obs.	412	352	409	350
R-squared	0.294	0.245	0.290	0.241

Note: The table reports estimates of the impact of CPI-score on the log of aid per capita in 5-year periods from 1995 to 2013. Column (1) and (2) are estimated with ordinary least squares. Column (3) and (4) are estimated with pseudo piosson maximum likelihood. Column (1) and (3) display results for DAC donors, while column (2) and (4) display results for non-DAC donors. The dummy for Israel is not included as it is not relevant for all donors. Standard errors are in parentheses (Robust for PPML) *** p<.01, ** p<.05, * p<.1

Table 15: Robustness Check of Measurement Error for Donor Groups

	Control of Corruption		Voice and Accountability		FDI		Oil and Mineral	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DAC	non-DAC	DAC	Non-DAC	DAC	non-DAC	DAC	non-DAC
Control of Corruption	0.001	-0.005						
	(0.010)	(0.035)						
Log Income	-0.034***	-0.040*	-0.031***	-0.025	-0.031***	-0.024	-0.028***	-0.037
	(0.006)	(0.021)	(0.006)	(0.022)	(0.008)	(0.025)	(0.007)	(0.024)
Log Population	-0.023***	-0.048***	-0.024***	-0.050***	-0.028***	-0.039***	-0.025***	-0.048***
	(0.004)	(0.012)	(0.003)	(0.011)	(0.004)	(0.015)	(0.004)	(0.012)
Openness	0.000	0.001	0.000	0.001			-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)			(0.000)	(0.001)
Political Rights	-0.002	0.040***			-0.004	0.048***	-0.002	0.033***
	(0.004)	(0.011)			(0.004)	(0.010)	(0.004)	(0.009)
Long Colony	0.029	0.093	0.026	0.083	0.030	0.144*	0.027	0.069
	(0.020)	(0.070)	(0.021)	(0.068)	(0.023)	(0.074)	(0.020)	(0.069)
Short Colony	-0.008	-0.105**	-0.009	-0.110**	-0.017	-0.141***	-0.007	-0.102**
	(0.016)	(0.046)	(0.016)	(0.046)	(0.017)	(0.047)	(0.015)	(0.048)
CPI-score			-0.001	-0.000	-0.001	-0.002	-0.001	-0.001
			(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)
Voice and Accountability			0.015	-0.108***				
			(0.011)	(0.025)				

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FDI					0.000	0.000*		
					(0.000)	(0.000)		
Oil							-0.000	0.002*
							(0.001)	(0.001)
Mineral							0.002**	0.014***
							(0.001)	(0.004)
Constant	3.115***	2.807***	3.118***	2.834***	3.145***	2.693***	3.108***	2.855***
	(0.061)	(0.200)	(0.058)	(0.185)	(0.076)	(0.223)	(0.066)	(0.201)
Obs.	270	222	271	222	221	181	285	224
R-squared	0.276	0.277	0.282	0.290	0.257	0.338	0.281	0.316

Note: The table reports pseudo poisson maximum likelihood estimates of the impact of Corruption on the log of aid per capita in 5-year periods. Column (1) and (2) displays the results where Control of Corruption is the independent variable for DAC and non-DAC donors respectively. Column (3) and (4) displays results where Voice and Accountability measures democracy, and in column (5) and (6) FDI measures economic openness. In column (7) and (8) rents from oil and minerals are added as controls. Robust standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Appendix C: Results from Other Estimation Approaches

Table 16: Aid Allocation of Donor groups (OLS)

	(1) Nordic	(2) Other DAC	(3) Middle East	(4) non-DAC EU	(5) Other non-DAC
CPI-score	0.001	-0.011	0.037	0.025**	-0.017
	(0.013)	(0.008)	(0.027)	(0.011)	(0.025)
Log Income	-1.355***	-0.403***	0.845**	0.037	-0.302
	(0.160)	(0.105)	(0.316)	(0.154)	(0.312)
Log Population	-0.362***	-0.414***	-0.553***	-0.816***	-0.627***
	(0.086)	(0.054)	(0.162)	(0.099)	(0.164)
Openness	0.008*	-0.000	-0.004	0.003	0.008
	(0.004)	(0.002)	(0.008)	(0.004)	(0.007)
Democracy	-0.144*	-0.043	-0.066	0.203***	0.264*
	(0.074)	(0.047)	(0.140)	(0.076)	(0.141)
Long Colony	0.208	0.434	0.537	-0.121	0.383
	(0.438)	(0.273)	(0.782)	(0.317)	(0.857)
Short Colony	0.295	-0.094	-0.241	0.264	-0.992
	(0.336)	(0.212)	(0.661)	(0.259)	(0.638)
Constant	25.047***	21.009***	6.951***	7.710***	17.104***
	(1.427)	(0.937)	(2.412)	(1.379)	(2.757)
Obs.	263	295	58	120	197
R-squared	0.320	0.274	0.532	0.577	0.158

Note: The table reports ordinary least squares estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Column (1) displays results for Nordic donors, column (2) displays results for other DAC donors, column (3) displays results for Middle East and OPEC donors, column (4) displays results for non-DAC donors that are members of EU, and column (5) displays results for other non-DAC donors. Standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Table 17: Aid Allocation of DAC and non-DAC Donors (Tobit)

PANEL A

	(1) DAC	(2) Non-DAC
CPI-score	-.003	-.011
	(.002)	(.007)
Log Income	-.113***	.054
	(.037)	(.119)
Log Population	-.966***	-.79***
	(.023)	(.074)
Openness	0	.001
	(.001)	(.002)
Democracy	.021	.058
	(.015)	(.05)
Long Colony	-.018	.506
	(.112)	(.415)
Short Colony	.067	-.086
	(.058)	(.203)
Constant	3.938***	1.084
	(.318)	(1.063)
Observations	320	320
R-squared	.892	.337

PANEL B

	(1)	(2)	(3)	(4)	(5)

	Nordic	Other DAC	Middle East	Non-DAC EU	Other Non-DAC
CPI-score	-0.020***	-0.003	0.001	-0.017	-0.018**
	(0.006)	(0.002)	(0.026)	(0.012)	(0.008)
Log Income	-0.141	-0.112***	-0.395	0.292	0.042
	(0.091)	(0.037)	(0.420)	(0.208)	(0.132)
Log Population	-0.730***	-0.966***	-1.329***	-0.400***	-0.800***
	(0.060)	(0.023)	(0.320)	(0.111)	(0.084)
Openness	-0.001	0.000	0.001	0.007*	0.003
	(0.002)	(0.001)	(0.008)	(0.004)	(0.003)
Democracy	-0.068*	0.021	0.574***	0.033	0.060
	(0.039)	(0.015)	(0.219)	(0.085)	(0.056)
Long Colony	-0.063	-0.017	-0.098	5.269	0.786
	(0.278)	(0.112)	(1.318)	(431.725)	(0.548)
Short Colony	0.053	0.067	-0.576	0.491	-0.141
	(0.153)	(0.058)	(0.874)	(0.309)	(0.232)
Constant	4.349***	3.928***	1.051	-7.831	0.908
	(0.806)	(0.318)	(3.561)	(431.730)	(1.211)
Obs.	320	320	320	320	320
Pseudo R^2	0.409	0.893	0.261	0.233	0.316

Note: The table reports ordinary least squares estimates of the impact of CPI-score on the log of aid per capita in 5-year periods. Panel A displays results for DAC donors in column (1) and non-DAC donors in column (2). Panel B displays results for Nordic donors in column (1), other DAC donors in column (2), Middle East and OPEC donors in column (3), non-DAC donors that are members of EU in column (4) and other non-DAC donors in column (5). Standard errors are in parentheses *** p<.01, ** p<.05, * p<.1

Appendix D: Additional Tests and Descriptives

Table 18: Matrix of Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CPI-score	1.000											
(2) Control of Corruption	0.148	1.000										
(3) Income	0.450	0.089	1.000									
(4) Population	-0.001	-0.159	-0.036	1.000								
(5) Openness	0.068	0.006	0.020	-0.060	1.000							
(6) FDI	0.009	-0.017	-0.050	-0.036	-0.050	1.000						
(7) Political Rights	-0.483	0.098	-0.178	0.054	-0.064	-0.038	1.000					
(8) Voice and Accountability	0.370	0.157	0.310	0.124	0.033	-0.028	-0.241	1.000				
(9) Long Colony	-0.044	0.080	-0.136	-0.275	0.089	0.006	-0.139	0.021	1.000			
(10) Short Colony	0.080	0.107	0.140	-0.085	0.064	-0.028	-0.045	0.123	-0.189	1.000		
(11) Mineral	0.091	0.006	-0.028	-0.048	0.093	0.001	-0.080	0.084	0.106	-0.135	1.000	
(12) Oil	-0.239	0.147	0.238	-0.043	0.063	-0.117	0.354	0.017	-0.005	0.084	-0.109	1.000

Figure 4: Aid from Nordic Donors 1995-2013

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