# Donor-Recipient Affinity and Foreign Aid Bypass

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## Abstract

Foreign aid is a popular tool in the projection soft power for most countries. However, states are delegating foreign aid to international organizations (IOs). When donor states find it risky (politically or financially) to give money to the recipient state, they have another option in the form of various IOs. Instead of giving aid directly to a recipient government, donors can give aid to a third party for use on various projects in the recipient state. Foreign aid bypass, as this process is called, is increasingly more common, both in practice and as a topic for scholarship. However, this is not the end of the story. After donor states decide to bypass a recipient state, donors must also make a decision about the channel of foreign aid bypass for each recipient. Some options for bypass include intergovernmental organizations (the United Nations, for example) and nongovernmental organizations (Save the Children for example). This paper represents the first attempt to explain the channel through which bypassed aid is delivered. Using seemingly unrelated regression, I demonstrate that the relationship between the donor and the recipient state changes not only the probability of bypass in the first place, but also the channel of delivery for bypassed aid.

In 2014, the Syrian Civil War was four years old and much of the country, especially the rebel-held territories were completely destroyed. The people of Syria could not access healthcare, food, water, or shelter. Many states attempted to donate foreign aid to assist civilians and the rebuilding efforts. However, much of that aid was not reaching the areas where it was most needed. In response to this crisis, U.S. Secretary of State John Kerry explored ways to avoid President Bashar Al-Assad and deliver aid without his government?s consent (Gordon 2014). To do this, the United States would send foreign aid directly to international or local organizations for them to distribute without the consent or knowledge of the Syrian government. This aid bypass is an increasingly common occurrence in international relations, however is only recent become a topic of academic research. This paper seeks to understand why and to whom donor states delegate bypassed foreign aid.

Various international organizations provide alternative recipients for donor states of foreign aid that wish to avoid the recipient state government. International organizations are defined here as a body arranged by a formal agreement that are active in and contain membership from, at least three countries (UIA 2018). Examples of international organizations include The World Bank, the United Nations, and Oxfam International. As in the Syrian case, donor states that find it costly, financially or politically, to allocate aid directly to a recipient government. Some factors that cause donor states to bypass recipient governments include poor governance, inability to control corruption, and human rights abuses (Dietrich 2013; Dietrich and Murdie 2017; Winters 2010). However, what has been neglected in the academic literature is the type of organization chosen to deliver bypassed aid.

While both are considered international organizations, the World Bank, the United Nations, and Oxfam International are all very different choices for delivering bypassed aid. The most basic distinction is that international organizations like the World Bank and the United nations are intergovernmental organizations (hereafter IGOs), and Oxfam International is a non-governmental organization (hereafter NGOs). I define and NGO as "a legally constituted

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organization created by private persons or organizations without participation or representation of any government" (UIA 2018). Whereas, IGOs are defined as organizations that are "based on a formal instrument of agreement between the governments of nation states," that includes "three or more nation states," and "posess[es] a permanent secretariat performing ongoing tasks" (UIA 2018). The differences go beyond simple definitions. First, the World Bank is an intergovernmental organization (IGO), meaning that the members are state governments. Oxfam, on the other hand, is a non-governmental organization (NGO), meaning the membership consists of individuals, not states (UIA 2018). Second, sources of funding can also be quite difference between the two types of organizations: NGOs generally rely on donations from private individuals while IGOs rely on member state funding (Werker and Ahmend 2008). For example, individual donors provide 95 percent of funding for Medicins Sans Frontiers (MSF.org). Because these differences between IGOs and NGOs, they cannot we all treated as equivalent alternative recipients of foreign aid.

This paper disaggregates international organizations to investigate when and why donor states choose one type of international organization over another (IGOs v. NGOs) to be the alternative recipient of bypassed foreign aid. Pervious literature has largely ignored this second step in the donor state?s decision-making process. First the donor state must decide to give the foreign aid directly to the state or to bypass the state. Second, the donor state must decide to whom those funds go. My research question here is: does the affinity between the donor state and recipient influence this decision? I use principal-agent theory to explain how donor states decide between channels of foreign aid bypass.

In order to empirically test my theory, I created a Bayesian two-stage Selection-Seemingly Unrelated Regression Model, which allowed me to control for the inherent selection bias and compositional structure of the dependent variable. Overall, I find that recipient states with higher affinity are less likely to be bypassed in the first stage. Also, among those that are bypassed, NGOs, which have lower discretion and autonomy than IGOs, receive more bypassed

aid from donor states in countries where the donor and recipient states have higher affinity.

## Donor State Preferences, Delegation, and Foreign Aid

Foreign aid is an essential part of donor states? foreign policies. It is a popular, and effective method to achieve political and economic goals. States use foreign aid to both benefit the recipient state as well as pursue strategic goals (Heinrich 2013). Van der Veen (2011) calls foreign aid the "Swiss army knife" of foreign policy (p.2). It can be designed with many different policy goals in mind. Several include: "security, power/influence, wealth/economic self-interest?reputation, obligation/duty, and Humanitarianism" (van der Veen 2011, p. 10). Foreign aid must be crafted with these policy goals in mind in order to achieve said goals. Why then, do states delegate such an important tool of foreign policy?

International organizations (hereafter IOs) can be powerful influences in foreign aid policy in many ways. First, IOs can be powerful lobbying groups that can attempt to change the composition or delegation of aid funds (Milner and Tingley 2015). IOs also offer expertise and a chance for donor states to combine efforts efficiently. This is especially useful during events such as natural disasters. The UN can be a powerful coordination force by providing additional information and lower transaction costs (Sneider and Tobin 2016). IOs provide many ways to increase the efficiency and effectiveness of aid, but they also prevent donor states from achieving many of their own policy goals. For example, major IGOs like the UN have many members, which makes it difficult for one state to achieve its own policy goals as opposed to the policy goals of other member states (Hawkins et al. 2006). One of these policy goals could be a change in behavior by a recipient state. IOs, especially global organizations, represent the interests of many states, not just one state. They do not use aid as a tool to increase power or further the agenda of a single state. However, sometimes the costs of bilateral foreign aid overwhelm any advantages to giving aid directly to the recipient government. Dealing with recipient governments can be both politically and economically too costly.

Generally, donor states also prefer to see foreign aid used as intended. Therefore, the first, and seemingly most important, factor when a donor considers a potential foreign aid recipient is the ability of that government to actually use the funds as meant. Dietrich (2013) found that donor states tend to bypass states with poor governance, opting instead to give the money to various international organizations. The willingness of recipient governments to properly manage aid money is another issue altogether. Winters (2010, 2014) found that donor states will bypass the recipient government in favor of aid targeted at specific projects to prevent aid capture. Some governments have additional problems than aid capture. In some states, foreign aid that is received is only allocated in regions that support the government (Jablonski 2014; Bueno de Mesquita and Smith 2007, Bueno de Mesquita and Smith 2009). In these cases, recipients might be unwilling or unable to implement aid programs as needed, or they are unable to effectively monitor agents in order to prevent aid capture, increases the costs of giving foreign aid directly to recipient governments.

Foreign aid can also be politically, rather than economically costly. For example, donor states do not want to be seen by domestic or international audiences as giving tacit support when human rights organizations "shame and blame" a foreign aid recipient state. When recipient states are shamed for human rights violations, donor states find alternative channels of foreign aid delivery (Dietrich and Murdie 2017). In this case, foreign aid bypass is wielded as a foreign policy tool as much as the aid itself. Bypassing the shamed recipient government allows the donor state to effectively punish human rights violations while continuing to provide for the citizens of the recipient state.

## Does the Specific Channel of Bypass Matter?

When the previous studies were conducted, the authors separated foreign aid given directly to government (what Dietrich (2013) calls "engage") and foreign given to international organizations for use in the recipient state (Dietrich (2013) calls this "bypass"). However, in-

ternational organizations actors are a very diverse group of actors with difference motivations, concerns and resources. There are two decisions in the process of foreign aid bypass: the decision to bypass or engage and the decision of how to bypass or engage. Donors can choose to delegate to any number of organizations that have enormous variation in size, scope, ability, and political affiliations. Broadly speaking we can categorize these organizations into IGOs like the UN and NGOs like Oxfam International and Save the Children. Does the same motivation drive choosing both categories or are each chosen in different circumstances?

As mentioned earlier, there are many benefits to delegating to IGOs in particular. These include lower transaction costs and greater monitoring/enforcement capability (Schneider and Tobin 2016). There are additional benefits to delegating to IGOs that include political similarity. Schneider and Tobin (2016) found that donor states delegate to development IGOs that have similar interests and portfolios. IGOs also have the ability to use issue linkage and conditionality that can bring positive outcomes, such as democratization (Birchler et al. 2016). Governments seek to minimize the costs of delegation and therefore choose organizations that are the most similar, providing assurance that the goals and outcomes are in line with the donors? foreign policy. IGOs also have greater resources, a larger presence, and more authority than NGOs, and therefore more potential to be effective (Banks et al. 2015).

However, delegating to IGOs might not be ideal for donor states. Delegating aid to NGOs offer a different set of advantages. First, sometimes it is politically unpopular for both IGOs and states to get involved in a recipient state, especially in recipient states that have widely publicized human rights abuses (Dietrich and Murdie 2016). NGOs, on the other hand have certain organizational mandates and/or specific projects on the ground. They provide healthcare, education, and food. This makes them an attractive candidate for bypass because they have independence to preserve the humanitarian mission without the political cost (Gulrajani 2017). In a similar logic, Allen and Flynn (2017) find that leftist governments are also more likely to give aid through NGOs rather than through the recipient government, reflecting the

left?s traditional goals of poverty relief and the right?s concern for security. Additionally, IGOs, unlike NGOs, are made up of many states, all with separate preferences and interests. Bush (2016) found that USAID uses US-based NGOs for democracy promotion because US-based NGOs share basic goals and preferences with USAID.

The foreign aid bypass literature is a fairly new one, and the literature thus far has been concerned with the initial conditions for bypassing the recipient state government with foreign aid. However, the decision to bypass is a two-step process. Once the donor state has decision to bypass the state, they must then decide to whom the aid goes. As I have noted, scholars have emphasized the merits of the different international organizations available as alternative aid implementing agencies. However, no empirical studies exist on the choice of bypass channel. This paper seeks to explain one part of how donor states choose the channel of bypassed foreign aid delivery.

# A Theory of Donor State Preference in Bypassed Aid Delivery

For donor states, not all recipients are alike. Some recipient states offer certain strategic or political benefits if a donor can leverage foreign aid correctly to gain from these advantages. For example, the United States treats Israel very differently from Rwanda, especially when it comes to foreign aid. However, that doesn?t mean that sending aid to the recipient government is always the best option. Sometimes, bypass becomes the least costly option for donors? politically or financially. Choosing a bypass agent, on the other hand, can be the most difficult decision. If a donor state must bypass an ally, how does the donor state allocate aid it in such a way to keep the alliance strong while also lowering costs for the donor state itself?

## The Original Decision to Delegate Foreign Aid

Foreign aid is often tied to geopolitics. For example, one of the highest recipients of United States foreign aid is Israel (a key ally), while one of the lowest is the Democratic People?s Republic of Korea (considered a "rogue" nation). However, directly giving money to certain regimes can be politically or economically costly to the donor state. Giving aid directly to a state with poor governance can results in aid capture or inefficiency, making aid in countries with poor governance more economically costly. (Dietrich 2013). Aid becomes politically costly when human rights organizations ?shame and blame? a recipient state government (Dietrich and Murdie 2017). When these costs become too much, the donor bypasses the recipient government and gives the aid to non-state actors. But, how costly is "too costly"? Does this figure vary with the recipient?s relationship to the donor? We know from previous research that states want to protect their geostrategic interests with foreign aid (Heinrich 2013). Donors are more reluctant to hurt friendly countries financially than other states. Therefore, the affinity (a measure of similarity of interests) between the donor and recipient state can raise the threshold at which recipients determine direct bilateral aid is too costly. Nielsen (2013) lays out a similar argument about aid sanctions and human rights violations, finding that donor states are less likely punish more friendly recipient states than those for whom they have less affinity. Nielsen (2013) defines aid sanctions as the withholding of aid. It makes sense then, that that a similar decision-making process is followed in the decision to bypass, rather than completely withhold aid. This reluctance of donor states to harm recipient states gives the first hypothesis:

$H_{1.1}$ *Recipient states that have a higher degree of affinity with a donor state are less likely to be bypassed.*

However, this is not the entire story. Affinity between the donor and recipient states can also have a conditional effect. Dietrich (2013) argued that recipient states with poor governance make donor states more likely to bypass. However, Nielson (2013) argues that states are more selective about who they choose to ?punish? with aid sanctions. Here, I combine these two

theories and argue that the effect of governance on foreign aid bypass is conditional on the affinity between the donor and recipient states. Affinity can raise the threshold for the level at which donor states decide the costs associated with poor governance in the recipient state outweighs the benefits of direct state to state aid. Affinity, therefore lessens the impact of governance on the decision to bypass the recipient state government. Thus, giving the second hypothesis:

$H_{1.2}$   *The effect of governance on the likelihood of bypass is conditional on the degree of affinity between the donor and recipient state.*

## The Second Stage: Choosing an Agent of Bypass

After a donor state chooses to bypass, which organization do they choose as an alternative recipient? As with the original choice to bypass the recipient state government, the affinity between the donor and recipient can impact the chosen agent. I use Principal-Agent theory to explain the donor state?s choice of type of international organization chosen for foreign aid bypass.

### Donor Preferences and the Benefits of Foreign Aid under Delegation

I argued earlier, that all recipient states are not treated equally by donor states. Donors states prefer to keep friendly states, well, friendly. One of the benefits of foreign aid can be influencing votes in the UN General Assembly, from which we can extrapolate relative ideal points of countries and "affinity" among them (Voeten et al. 2011). States with higher affinity tend to share preferences, and donor states wan to continue to cultivate this relationship, as it might be useful in the future (Nielson 2013). Aid, as I established earlier, is a multi-faceted tool with many uses, which influence both security and economic self-interest for the donor state (Van der Veen 2011). Because affinity with the recipient can increase the benefits of foreign aid, we need to first understand how those benefits change when aid is bypassed. The particular

choice of agent can impact the change in the benefits of aid.

Any amount of delegation can lower the benefits of aid because the donor state as the principal, cannot be sure that its preferences are being perfectly followed by the chosen agent (either and IGO or an NGO). IGOs and NGOs are both actors in their own right with their own set of preferences and priorities. However, I argue here that NGOs are the agent that minimizes the cost of delegation. To explain this, I use the concept of "discretion," which is defined as: "a grant of authority that specifies the principal?s goals but no the specific actions the agent must take to accomplish those objectives" (Hawkins et al. 2006, p. 8). Discretion is a feature of the original contract between the principal (the donor state) and the agent (the NGO or IGO). IGOs tend to have more discretion in their contracts. This is a product of having a "collective principal" which is a situation when several individuals (donor states, in this paper) comprise a separate body that is together the principal for the agent (the IGO). For example, the UN does not answer to individual states, but rather the collection of all the states. This gives IGOs a great deal of discretion in foreign aid us because it is not the preferences of one donor state that are important, but rather the preferences of all of the donor states. IGOs limit the influence that one donor state has over the aid flows IGOs have their own bureaucracies that make control over the aid money by the donor state itself much more difficult (Lyne, Nielson, and Tierney 2006).

On the other hand, NGOs have contracts with individual states. Even larger organizations such as Oxfam International have separate contracts with each state from which it receives money. This is known as a "multiple principal" scenario, rather than a collective principle (Lyne, Nielson, and Tierney 2006). Under these rules, states have more control over the contract and, therefore, can limit the discretion of the NGO. Limiting the discretion of NGOs will lower the costs of delegation because the donor state can reasonably expect policies closer to the preferences of the donor state itself. This is especially important in recipient states which whom the donor state has higher affinity. Because the benefits of aid are higher in high affinity

states, the discretion of the agent can directly impact how much benefits the donor state.

To keep recipient states that are friendlier on their side, donor states must incorporate recipient preferences into decisions about the channel of foreign aid delivery. The recipient and donor states both want to maintain more control over foreign aid funds. This is why the concept of agent autonomy is also an important factor in a donor state?s choice of agent. Autonomy is defined as "the range of potential independent action available to an agent after the principal has established mechanisms of control" (Hawkins et al. 2006, p.8). Through their better funding and independent bureaucracies, IGOs have a high level of autonomy (Birchler et al. 2016). Such a high level of autonomy can inhibit the donor states? pursuit of their own preferences. In recipient states with higher affinity, donors need their preferences followed in order minimize the costs of delegation, and therefore leaving some benefit of giving aid for the donor state.

In contrast to IGOs, NGOs have much less autonomy. This could allow the recipient state and the donor state to better control the flow of the aid money (Dupuy, Ron, and Prakash 2015). Even the choice of particular NGO can allow the donor state to better ensure their preferences Additionally, Bush (2016) found that USAID allocated more funds toward "neutral" NGOs when allocating money to democracy promotion projects for US allies than non-allies. In this scenario, the NGO is more directly an agent of the individual donor state. It is also more dependent on the donor state for funds and access (Bush 2015). Many NGOs receive sizable proportions of their budget from donor states. This fact, combined with the fact that NGOs usually make a contract with one recipient state, means that NGOs in this position have much lower discretion and autonomy as agents of the donor state. If this argument is true, we should expect that donors would allocate bypassed aid through NGOs rather than IGOs in recipient states with which they have a higher degree of affinity.

Due to this, donor choose agents that they are likely to have more control over (those agents with lower discretion and autonomy). Their reliance on funding, access, and lack of

complete independent from the donor state preferences make NGOs the easiest agent to control in the foreign aid process. Therefore, my final hypotheses are:

$H_{2.1}$ *The higher the affinity that a recipient has with a donor, the higher the proportion of aid allocated through NGOs.*

$H_{2.2}$ *The higher the affinity that a recipient has with a donor, the lower the proportion of aid allocated through IGOs.*

# Research Design

For my analysis, I used data on most OECD donor countries plus United Arab Emirates and Kuwait spanning the years 2004-2013. The unit of analysis is dyad-year, with dyads referring to donor-recipient state dyads. The final number of observations is 3910 dyad-years. In the following sections, I describe my variables and model in detail.

## Outcome Variable

For the second set of hypotheses, the outcome variable of interest is the choice of bypassed aid channel. I have operationalized this to be the proportion of aid delivered through a particular channel. The two channels used here are IGOs and NGOs. Each proportion is the amount of aid delivered through that specific channel over the total amount of per donor-recipient-year. These data were found from AidData (Tierney et al. 2011).

Hypothesis 1.1 and 1.2, however are different outcomes. These hypotheses involved the original decision to bypass the recipient state in the first place. Therefore, I have measured bypass as a binary variable where 0 is no bypass and 1 is any amount of bypass.

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## Explanatory Variables of Interest

The key explanatory variable here is the degree to which donors and recipients are friendly or share preferences. I have operationalized this in two ways. The first is the Affinity index created from United Nations General Assembly roll call votes (Bailey, Strezhnev, and Voeten 2017). This is a score that ranges from -1 to 1, with higher values corresponding to more similar interests between the donor and recipient states. As an alternative measure, I also use the Absolute Difference in Ideal Points from the same data (Bailey et al. 2017). The scaled Affinity scores also include votes where one state abstains, which could cause the dyad to appear more alike than they actually are. Therefore, the Absolute Difference in Ideal Points might give more information on the relationship between the donor and recipient states. Both of these variables allow me to measure how closely a donor and recipient potentially work together.

## Controls

Several factors have been shown to impact foreign aid bypass, but they can also influence how states allocate bypassed aid. As mentioned earlier, this is the first attempt to disaggregate bypassed aid into types of organizations therefore, many of my control variables come from previous analyses of foreign aid bypass. Dietrich (2013) finds that quality of governance is a major factor in the decision to bypass the recipient government. Therefore, I use an aggregated Governance Quality variable, created by adding the six indicators from the Worldwide Governance Indicators (Kaufmann et al., 2010). The six components vary between -2.5 and 2.5 where higher scores mean better outcomes. Those components are: Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Political Stability, Rule of Law, and Regulatory Quality. There are added together to get one score, generally capturing the quality of governance in each recipient country-year.

Another possible confounding factor is simply the availability of one channel or the other. To account for this, I use Gygli, Haelg, and Sturm?s (2018) Political Globalization Index score

for each recipient state. There are two components: "Political Globalization, de facto" and "Political Globalization, de jure". I use both measures to control for two different concepts. The de factor measure is and index composed of the number of embassies in a state, the per capita number of personnel contributed to UN Peacekeeping missions, and the number of international NGOs active in the state. This is a useful measure to capture how active the recipient government is in the international community, but also to capture the size of the NGO sector in the recipient state. De jure political globalization, is composed of the number of international organizational memberships, the number if international treaties signed since 1945, and the number of partners in investment treaties. This measure best captures the size of the IGO sector in the recipient state. Each of these variables is normalized to range from one to 100. The higher values are associated with a higher degree of globalization.

It is also possible that recipient states limit the flow of aid of foreign funds through non-governmental agents through repression of civil society. Therefore, I also control for Civil Society Repression, and indicator from the Varieties of Democracy Project (Coppedge et al. 2017). This is an ordinal scale that ranges from zero to four, with lower levels corresponding to more government repression of civil society. This will allow me to control for the possibility that donor states cannot give to NGOs because civil society is repressed or controlled by the recipient state government. From the same set of indicators, I also use the "Civil Society Participatory Environment", which measures the controls the government puts on the participation in civil society. The lower levels of this variable indicate more government control over civil society participation.

I also control for Democracy in the recipient state. While this is somewhat related to the quality of governance, the regime type is an important control for foreign aid bypass on its own. Democracy can signal a certain degree of transparency or accountability (Dietrich 2013). I use the Polity IV ?polity 2? score that ranges from -10 to 10. The higher the number, the more democratic the country in that particular year (Marshall et al., 2017). Another possible

confounding factor is the occurrence of a natural disaster in the recipient state, which can alter both the channel of foreign aid as well as the amount. Natural Disaster is a variable that is operationalized as the number of natural disasters in a recipient each year as recorded by Em-Dat, a dataset of natural disasters each country year (Guha-Sapir, 2018). As with Natural Disasters, the presence of a Civil Conflict might also alter both the amount and the delegation of foreign aid. These data were obtained from the UCDP-PRIO dataset and coded 1 for the presence of an armed intrastate conflict, and 0 otherwise (Gleditsch et al., 2002).

There are also certain attributes of donors that are possible confounding factors. One such confounding factor is Donor Social Spending as percent of GDP. States that spend more domestically on social welfare tend to be more generous in their foreign aid (Dietrich 2013). The same can be said of the Donor?s GDP Growth. Donors that are doing better financially also tend to be more generous with foreign aid. I also control for EU Membership. Members of the European Union have a much higher probability of channeling aid through and IGO (namely, the EU) because of the close collaboration on foreign policy between the EU governing institutions and the member states. This variable is coded 1 if the donor state is a member of the EU and 0 otherwise. The United Kingdom was still a member of the EU in the time frame of my analysis and is therefore still coded as a 1 for the entire sample.

The relationship between the donor and recipient countries can confound my results in various ways. First, I controlled for Former Colony status with a dummy variable where 1 indicated the recipient was a former colony of the donor and 0 if otherwise. I also control for the Distance between donor and recipient. Not only does distance impact the likelihood of giving aid in the first place, but it can also indicate the level of potential oversight that a donor can have over the aid use in the recipient state. Donors that are closer can observe and monitor aid more effectively than those that are far way. I also logged distance to account for the wildly different scales of the other predictors.

## The Model

There were several modeling considerations I had in testing my hypotheses. The first issue is selection bias (see Cingranelli and Pasquarello 1985). In order to receive aid through an international organization, a recipient state government must first be bypassed. This means that the decision of which international organization is not independent from the original decision to bypass. The second modeling issue is the compositional nature of the outcome variables. I am using the proportion of aid through each channel, rather than the amount of aid.

To properly account for the structure of the process and the data itself, I had to find a model to incorporate both a selection bias correction and a way to deal with compositional data. As a result, I created by own model: a Bayesian Selection-Corrected Seemingly Unrelated Regression (SUR). This model is a combination of Heckman?s (1979) two-stage estimator for selection bias and a SUR model (Zellner 1962). The section below describes how the estimator accounts for both selection bias and compositional data.

### Selection Bias

A common problem in the foreign aid literature is selection bias. The decision to give aid is often related to the decision of how much aid to give. To address this issue, Cingranelli and Pasquarello (1985) suggested the use of the two-step Heckman selection model. This model is that two-step estimator that uses a Probit model in the first stage (the selection stage) to estimate the likelihood of the event occurring. From this step, and Inverse Mills Ratio is calculated and used in the second stage of the model (the outcome stage) to correct for selection

bias (Heckman 1979). The first stage of the model looks appears in the equation below:

$$
\begin{aligned}
Bypass = & \alpha + \beta_1 * Affinity + \beta_2 * GovernanceQuality + \beta_3 * (Governance * Affinity) \\
& + \beta_4 * Colony + \beta_5 * ln(Distance) + \beta_6 * NaturalDisaster + \beta_7 * Democracy \\
& + \beta_8 * CivilConflict + \beta_9 * DonorSocialSpending + \beta_{10} * DonorGDPGrowth \\
& + \beta_{11} * CivilSocietyRepression + \beta_{12} * Globalization \\
& + \beta_{13} * CivilSocietyParticipation + \beta_{14} * RecipientRegion + \epsilon_i
\end{aligned}
$$

**Compositional Data**

My second set of hypothesis involve the choice between agents of foreign aid delivery. Donor states tend to use both NGOs and IGOs in some combination, therefore the dependent variable is the proportion of aid through that channel, which is compositional. The proportion of aid allocation to NGOs is not independent from the amount of aid allocated to IGOs. Because the outcomes are related, the effects of the predictors are also no entirely independent across each equation. If I were to estimate this system as separate OLS models, it would not only be an improper specification, but would also be inefficient (Zellner 1962). To solve this problem, I use a seemingly unrelated regression (SUR) structure for my outcome variable. I also included the Inverse Mills Ratio, calculated in the model?s first stage, as a predictor in the second stage of the model. The model is shown below:

$$
\begin{aligned}
ChannelProportion_{i,j} = & \alpha_j + \beta_{j,1} * Affinity_i + \beta_{j,2} * GovernanceQuality_i + \beta_{j,3} * Colony_i \\
& + \beta_{j,4} * ln(Distance_i) + \beta_{j,5} * NaturalDisaster_i + \beta_{j,6} * Democracy_i \\
& + \beta_{j,7} * EUmembership_i + \beta_{j,8} * DonorSocialSpending_i \\
& + \beta_{j,9} * DonorGDPGrowth_i + \beta_{j,10} * HumanRights_i \\
& + \beta_{j,11} * InverseMillsRatio_i + \epsilon_{i,j}
\end{aligned}
$$

I chose to estimate this model with Bayesian methods with highly uninformative priors for mostly convenience sake. This is a model that does not come in a written package or command in R or Stata. The number of parameters to be estimated also benefit from the Markov Chain Monte Carlo (MCMC) approach, which the approach used by most software devoted to Bayesian methods. The Bayesian approach allowed me to seamlessly incorporate both stages into one model. The full model specification (priors and everything) can be found in the appendix.

# Results

Because I estimated a Bayesian model, the results require a little more explanation than traditional regression results. First, Bayesian results do not yield a single point estimate of a coefficient. Instead, Bayesian analyses result in a posterior distribution that contains the values of that coefficient over some number of iterations (in this case, I ran 150,000 iterations with a burn-in period of 15,000 iterations). The best strategy to reading an effect of an explanatory variable on an outcome variable is to see how much of the posterior distribution is above or below zero. When the bulk of a posterior distribution (95% for example) is above zero, one could interpret that explanatory variable as having a significant positive effect on the outcome variable (Gill 2015). Another strategy for interpreting Bayesian regression results is to use the 95% Credible Interval, which gives the upper and lower bounds for the central 95% of the posterior distribution. This means that, in all of the iterations estimated by the computer, 95% of the results fell into that interval.

## Affinity and Channel of Foreign Aid

Table 1 below shows the results from the model estimated with the Affinity Score. In the Selection Stage (the first model in Table 1), the outcome variable is a binary measure of bypass. Affinity and Governance have a negative and statistically significant effect on the likelihood of

Bypass. As the affinity between the donor and recipient sate increases, the likelihood of aid being delivered through international organizations decreases. As the quality of governance in the recipient state increases, the likelihood of aid being channeled through international organizations decreases. The interaction between the two (quality of governance and affinity) is a negative, but insignificant. Former colony is also statistically significant, but positive, meaning that former colonies of donor states are more likely to receive aid through international organizations. Donor Social spending is also positive and statistically significant, meaning that an increases in social spending (as percent of GDP) by donor states leads to a higher likelihood of donors delivering aid through international organizations. The other control variables fail to reach statistical significance, therefore we cannot conclude that the effects of those variables are are different from zero.

The last two models in Table 1 are the results of the seemingly unrelated regression model that controlled for the potential selection bias in the outcome variable. In the second set of results, the outcome variable is the proportion of aid delivered through NGOs. Here, Governance is negative and significant, meaning that higher quality of governance in the recipient state leads to a smaller proportion of aid begin delivered through NGOs. Distance, on the other hand is positive and statistically significant, meaning as the log of distance increases, the proportion of aid being delivered through NGOs increases as well. The number of natural disasters also has a positive and significant relationship with the proportion of aid delivered through NGOs: More natural disasters leads to an increase in the proportion of aid channeled through NGOs. On the other hand, Donor Social spending has a negative and statistically significant effect on the proportion of aid channeled through NGOs: As donor social spending increases, the proportion of aid channeled through NGOs decreases. Both Donor GDP Growth and Donor EU membership have positive and statistically significant effects on the proportion of aid channeled through NGOs: EU members have a higher proportion of aid channeled through NGOs and an increase in donor GDP growth leads to an increase in the proportion of aid channeled through

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NGOs. The effects from all other controls in the model were indiscernible from zero.

In the last model in Table 1, the outcome variable is the proportion of aid channeled through IGOs. In this model, the effect of affinity is statistically insignificant. However, several of the control variables behave in the expected ways. Governance has a statistically negative effect, meaning that higher quality of governance in the recipient state leads to a smaller proportion of aid begin delivered through IGOs. Former colony also has a negative and significant effect: Former colonies receive a lower proportion of aid through IGOs. The effect of distance and the Polity score are both positive and significant. As the log of distance between the donor and recipient increases, a higher proportion of aid is channeled through IGOs. More democratic recipient states also receive a higher proportion of aid through IGOs. Natural disasters and Donor Social spending have a negative and statistically significant effect on the proportion of aid channeled through IGOs. As the number of natural disasters in a recipient state increases, the proportion of aid channeled through IGOs decreases. As the donor social spending (as percent of GDP) increases, the proportion of aid channelled through IGOs. As expected, Donor state EU membership has a significantly positive effect on the proportion of aid channeled through IGOs: EU donor states deliver a higher proportion of aid through IGOs than non-EU donor states. Lastly, the Civil Society Participation Index score has a negative and significant effect on the proportion of aid channeled through IGOs: the more widespread volunteer involvement in the civil society of the recipient state, the lower the proportion of aid channeled through IGOs. All other controls are statistically indistinguishable from zero.

## Ideal Point Difference and Foreign Aid Channel

The Absolute Ideal Point Difference model gives many of the same results as the Affinity Model. These results are presented in Table 2. As before, the firsts model is the selection stage, with the model of the original decision to bypass. The center model is the model of the proportion of aid through NGOs, while the last is the proportion of aid through IGOs. The most

Table 1: Donor-Recipient Affinity and Channel of Foreign Aid

*Dependent Variable:*

| | Bypass | | NGO Aid Proportion | | IGO Aid Proportion | |
|---|---|---|---|---|---|---|
| | Posterior Mean | 95% Credible Interval | Posterior Mean | 95% Credible Interval | Posterior Mean | 95% Credible Interval |
| Affinity | -0.901 | [-1.205, -0.800] | 0.036 | [-0.036, 0.109] | 0.031 | [-0.052, 0.113] |
| Governance | -0.036 | [-0.065, -0.008] | -0.007 | [-0.012, -0.001] | -0.033 | [-0.039, -0.026] |
| Affinity*Governance | -0.015 | [-0.065, 0.036] | | | | |
| Former Colony | 0.647 | [0.326, 0.983] | -0.050 | [-0.111, 0.010] | -0.070 | [-0.137, -0.003] |
| Distance | -0.089 | [-0.179, 0.007] | 0.038 | [0.019, 0.058] | 0.033 | [0.012, 0.055] |
| Natural Disaster | 0.007 | [-0.001, 0.016] | 0.002 | [0.001, 0.004] | -0.003 | [-0.005, -0.001] |
| Polity | 0.010 | [-0.005, 0.026] | 0.001 | [-0.003, 0.004] | 0.007 | [0.003, 0.011] |
| Civil Conflict | -0.015 | [-0.316, 0.293] | | | | |
| Donor Social Spending | 0.016 | [0.006, 0.026] | -0.006 | [-0.009, -0.003] | -0.013 | [-0.016, -0.009] |
| Donor GDP Growth | 0.004 | [-0.002, 0.022] | 0.008 | [0.004, 0.011] | 0.002 | [-0.002, 0.007] |
| Donor EU Membership | | | 0.042 | [0.018, 0.066] | 0.068 | [0.041, 0.096] |
| Civil Society Repression | 0.016 | [-0.049, 0.086] | -0.007 | [-0.013, 0.007] | -0.005 | [-0.022, 0.011] |
| Civil Society Participation | | | 0.020 | [0.001, 0.039] | -0.031 | [-0.052, -0.010] |
| De Facto Globalization | -0.002 | [-0.005, 0.002] | -0.001 | [-0.001, 0.000] | -0.001 | [-0.002, 0.000] |
| Sub-Saharan Africa | 0.168 | [-0.019, 0.351] | | | | |
| Latin America | 0.168 | [-0.066, 0.402] | | | | |
| Asia | 0.133 | [-0.054, 0.319] | | | | |
| Middle East | -0.246 | [-0.500, 0.009] | | | | |
| Intercept | 1.282 | [0.344, 2.206] | -0.148 | [-0.365, 0.065] | 0.189 | [-0.050, 0.430] |
| InverseMillsRatio | | | 0.216 | [0.012, 0.420] | | |
| Deviance | 3846.18 | [3836.78, 3859.70] | | | | |
| DIC | | | 2266.3 | | | |

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notable difference is the key independent variable itself. As a quick reminder, this variable is about the difference between states, so higher values indicate two states is increasingly difference ideal points. The interpretation of this variable is the opposite of that for the Affinity variable. In the first model we can see that the absolute ideal point is statistically significant and positive, meaning that higher the ideal point difference between the donor and recipient state, the more likely that recipient is to be bypassed. Interestingly enough, the quality of governance variable is no longer statistically difference fro zero. Other controls behave much the same way as the affinity model.

The absolute ideal point difference also has a negative and statistically significant effect on the proportion of aid delivered through NGOs. As the ideal point difference between the donor and recipient states increases, the proportion of aid allocated to NGOs decreases. This means that the closer the two states, the higher the proportion of aid delivered through NGOs. The absolute ideal point difference between the recipient and donor states has not statistically significant relationship with the proportion of aid delivered through IGOs.

## Analysis and Conclusion

The results presented here are only the first statistical analysis to look at the specific channel of bypassed aid. There is much that has yet to be discovered, but we can draw several conclusions from this analysis. First, the relationship between the donor and the recipient matters. I have found support for Hypothesis 1.1 in both models: the affinity between the donor and recipient states does decreases the likelihood of bypass. In the second stage, affinity still matters. When evaluating the second set of hypotheses, the first model does not give a definitive result. However, the model with the absolution ideal point difference does. We cans that that the absolute ideal point difference model does show that in donor-recipient dyads with closer ideal points, donors allocate a larger proportion of aid to NGOs. There was not

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Table 2: Donor-Recipient Ideal Point Differences and Channel of Foreign Aid

*Dependent Variable:*

| | Bypass | | NGO Aid Proportion | | IGO Aid Proportion | |
|---|---|---|---|---|---|---|
| | Posterior Mean | 95% Credible Interval | Posterior Mean | 95% Credible Interval | Posterior Mean | 95% Credible Interval |
| Ideal Point Difference | 0.164 | [0.046, 0.285] | -0.031 | [-0.053, -0.008] | -0.014 | [-0.040, 0.011] |
| Governance | -0.021 | [-0.066, 0.023] | -0.010 | [-0.016, -0.005] | -0.030 | [-0.037, -0.024] |
| Ideal Point Difference*Governance | -0.008 | [-0.030, 0.014] | | | | |
| Former Colony | 0.678 | [0.359, 1.017] | -0.029 | [-0.090, 0.032] | -0.099 | [-0.168, -0.031] |
| Distance | -0.029 | [-0.123, 0.072] | 0.045 | [0.026, 0.065] | 0.027 | [0.005, 0.049] |
| Natural Disaster | 0.008 | [-0.001, 0.017] | 0.002 | [0.001, 0.004] | -0.004 | [-0.006, -0.002] |
| Polity | 0.012 | [-0.004, 0.029] | 0.000 | [-0.003, 0.004] | 0.007 | [0.003, 0.010] |
| Civil Conflict | -0.072 | [-0.374, 0.241] | | | | |
| Donor Social Spending | 0.0123 | [0.003, 0.022] | -0.006 | [-0.009, -0.003] | -0.013 | [-0.016, -0.010] |
| Donor GDP Growth | -0.001 | [-0.019, 0.017] | 0.008 | [0.004, 0.012] | 0.003 | [-0.002, 0.007] |
| Donor EU Membership | | | 0.045 | [0.021, 0.069] | 0.068 | [0.041, 0.095] |
| Civil Society Repression | 0.027 | [-0.043, 0.098] | -0.003 | [-0.018, 0.012] | -0.007 | [-0.024, 0.010] |
| Civil Society Participation | -0.034 | [-0.129, 0.060] | 0.011 | [-0.008, 0.030] | -0.031 | [-0.052, -0.010] |
| De Facto Globalization | -0.001 | [-0.005, 0.003] | 0.000 | [-0.001, 0.001] | -0.001 | [-0.001, 0.000] |
| Sub-Saharan Africa | 0.290 | [0.093, 0.485] | | | | |
| Latin America | 0.215 | [-0.020, 0.449] | | | | |
| Asia | 0.228 | [0.033, 0.419] | | | | |
| Middle East | -0.207 | [-0.463, 0.049] | | | | |
| Intercept | 0.161 | [-0.767, 1.036] | -0.193 | [-0.443, 0.055] | 0.348 | [0.071, 0.627] |
| InverseMillsRatio | | | 0.274 | [0.081, 0.467] | -0.244 | [-0.461, -0.029] |
| Deviance | 3896.61 | [3886.82, 3910.41] | 2226.07 | [2212.43, 2243.47] | 2226.07 | [2212.43, 2243.47] |
| DIC | | | | 2257.6 | | 2257.6 |

statistical relationship between absolute ideal point difference the the proportion of aid through IGOs. So there is some support for Hypothesis 2.1, but Hypothesis 2.2 is remains unsupported.

The main point of this research was to show that NGOs and IGOs are very different choices in aid delivery. Using my models, we can see that there are several key differences in the results. For example. In both models, the Natural Disasters variable was significant and had opposite signs for NGO and IGO proportions: more natural disasters are associated with a high proportion of aid delivered through NGOs and a lower proportion of aid delivered through IGOs. The Civil Society Participation Index is also statistically significant and has opposite signs for NGOs and IGOs in the affinity model: we see that as voluntary (non-government sponsored/coerced) participate in civil society increases, the proportion of aid to NGOs also increases , while the proportion to IGOs decreases. Other variables, such as the absolute ideal point difference only have significant effects on either NGOs or IGOs. The Polity score and former colony status are such examples.

Overall, I find that not all IOs are equivalent bypass channels. Each are chosen for different reasons. They cannot be treated the same. I have established here a principle-agent theory of aid delegation based on the relationships between the donor state and the recipient state, but this is just scratching the surface. We have much to learn about the foreign aid bypass process. This is a new, exciting area for international relations scholarship and my contribution shows that the motivations and influences for donors choosing different bypass channels can be quite different, even opposite for each channel. Throwing all IOs into one category can lead to false conclusions about donor motivations.

While false conclusions can happen by not acknowledging the differences between the differences between channels of aid, I also introduce a methodological innovation to also keep false conclusions from happening. In this paper, I develop a Bayesian Selection-Corrected Seemingly Unrelated Regression model. This model controls for possible selection effects as well as the potential effects of using compositional data. The model choice in this case matters

deeply. I also estimated a frequentist version of an SUR model without the selection correction and found that we would have drawn incorrect conclusions from several variables in the model. While more consideration is needed for the differences among international organizations, we also need to be sure we have the correct methodological tools with which to approach the problem. In this paper, I have presented one alternative choice.

This research asks if bypass is just bypass or if the channel of aid matters. I have found evidence that there are circumstances where donors make the strategic decision to deliver aid through one type of international organization. This issue requires much more research. My paper is the first attempt. Moving forward, I would like to add more types of international organizations such as regional IGOs (e.g. the European Union), and International v. National NGOs. The scope or membership of the organization can have consequences for its behavior as an agent of the donor state. There are also reasons to believe that the type of aid or the motivations for bypassing in the first place.

This paper not only presents more research ideas for the same research question, but also raises several more research questions. The distribution and channel of aid can also have consequences for the efficacy and consequence of the aid itself. Many international agreements (including foreign aid) include "linkage issues". For example, an international agreement for development aid might include a provision for environmental protections or human rights improvements. When aid flows through third parties, those provisions do not exist. This paper seeks to increase our understanding of the aid delivery process, which can then open the door to research on the consequences of aid delivery through international organizations.

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# Appendix A: The Model Specification

## Selection Stage

$$
\begin{aligned}
Bypass = & \alpha + \beta_1 * Affinity + \beta_2 * GovernanceQuality + \beta_3 * (Governance * Affinity) \\
& + \beta_4 * Colony + \beta_5 * ln(Distance) + \beta_6 * NaturalDisaster + \beta_7 * Democracy \\
& + \beta_8 * CivilConflict + \beta_9 * DonorSocialSpending + \beta_{10} * DonorGDPGrowth \\
& + \beta_{11} * CivilSocietyRepression + \beta_{12} * Globalization \\
& + \beta_{13} * CivilSocietyParticipation + \beta_{14} * RecipientRegion + \epsilon_i
\end{aligned}
$$

$$ where: $$

$$
\begin{aligned}
Bypass & \sim Bern(p_i) \\
\alpha & \sim \mathcal{N}(0, 10) \\
\beta_h & \sim \mathcal{N}(0, 10)
\end{aligned}
$$

## Outcome Stage:

$$
\begin{aligned}
Channel\hat{P}roportion_{i,j} = & \alpha_j + \beta_{j,1} * Affinity_i + \beta_{j,2} * GovernanceQuality_i + \beta_{j,3} * Colony_i + \\
& \beta_{j,4} * log(Distance_i) + \beta_{j,5} * NaturalDisaster_i + \beta_{j,6} * Democracy_i + \\
& \beta_{j,7} * EUmembership_i + \beta_{j,8} * DonorSocialSpending_i \\
& + \beta_{j,9} * DonorGDPGrowth_i + \beta_{j,10} * CivilSocietyRepression_i \\
& + \beta_{j,11} * Globalization + \beta{j,12} * CivilSocietyParticipation \\
& \beta_{j,13} * InverseMillsRatio_i + \epsilon_{i,j}
\end{aligned}
$$

$$ where: $$

$$
\begin{aligned}
ChannelProportion_{i,j} & \sim MVN(\mu_j, \sigma^{-1}) \\
\alpha & \sim \mathcal{N}(0, 10) \\
\beta_h & \sim \mathcal{N}(0, 10) \\
\sigma & \sim Wishart \left( \begin{bmatrix} 0.1 & 0.0 \\ 0.0 & 0.1 \end{bmatrix}, 2.0 \right)
\end{aligned}
$$

# Appendix B: Convergence Diagnostics

- A visual inspection of the traceplots from the models showed no evidence of non-convergence. The actual graphs were omitted for length.

- I also used a Geweke diagnostic that did not provide any evidence of non-convergence.

- The Heidelberger Welch test also revealed no evidence of non-convergence.