Targeting Civil War: Intra-state Conflict and the Opportunity-Cost of Foreign Aid

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Abstract

Support for developing countries experiencing civil war comes with unavoidable trade-offs. How do industrialized countries navigate these trade-offs when distributing bilateral Official Development Assistance (ODA) across developing nations? I argue that policymakers make this decision on the basis of national self-interest. When a developing country has minimal material, social, or strategic value to a donor government, aid to a civil war state should be too costly an investment, and so donors should target aid elsewhere. Conversely, among important recipients, the costs of failing to act will be too great to ignore, leading donors to target more aid to civil war states; not less. I find support for this argument using a dyadic panel dataset of DAC country bilateral aid comments. In particular, I find that greater prospective migration (captured by migrant population size), greater bilateral trade, and greater military aid from the US motivate greater allocation of aid to civil war states than to states at peace. I further find that migrant mobilization reduces the amount of aid donors target to a civil war state, suggesting a role for domestic lobbies in shaping donor responses to civil war as well.

Key Words: Foreign Aid, Civil War, Migration, Trade

1 Introduction

Foreign aid has long served as a tool of donor governments for pursuing wide-ranging foreign policy interests. Historically, developing countries have been important to donors for their geostrategic, economic, and cultural significance (Schraeder, Hook, and Taylor 1998). Since the turn of the century, increasing interconnections between developing and industrialized countries also have led donors to value promoting development in recipients when and where underdevelopment poses a threat to donor populations and interests (see Bermeo 2017 and 2018).

That donor governments give aid to developing countries for many reasons is well known. What remains puzzling is that of the between $86.6 billion and $173.37 billion in Official Development Assistance (ODA) and Official Assistance (OA) Development Assistance Committee members committed to developing countries between 2000 and 2017, over a third went to countries experiencing civil war.[1]

On one hand, giving economic assistance to civil war states seems sensible. So-called "development in reverse" (Stojek and Tir 2014), civil wars in developing parts of the world increasingly pose a threat to industrialized countries' interests. Civil wars can stunt (or even reverse) economic, social, and political development and lead to massive outflows of migrants, diminished trade, and can threaten industrialized countries' strategic goals. These problems, among others generated by ongoing conflict, in turn can lead to domestic pressure on policymakers to respond, with international development constituting one among many strategies at their disposal.

However, giving aid in the face of conflict requires contending with dual

[1] In 2018 constant prices. The first figure is for the 2000 fiscal year. The latter is for the 2017 fiscal year. Data come from *OECD.stat*, table DAC1.

challenges: (1) *physical harm* to the aid workers tasked with implementing foreign aid programs and (2) *rebel looting* of aid supplies that may only serve to exacerbate the conflict (Nunn and Qian 2014; Narang and Stanton 2017). These factors can make aid allocation more trouble than its worth, giving donors incentives to cut their losses and target their aid budgets elsewhere.

These conflicting incentives raise a natural question: *How do policymakers balance the incentive to respond to civil war with economic aid against the potential theft of aid supplies and life-threatening risks posed to aid workers?* I argue the answer to this question lies in the relative importance donor governments attach to civil war states. When and where donors deem a recipient important, policymakers will face pressure to respond—to do *something*. This creates an incentive to target *more* foreign aid to civil war states when and where ongoing conflict poses a threat to donor interests, even in the face of the additional costs and risks of giving aid. However, among recipients that have little value to donors, I argue that policymakers have incentives to commit *less* aid to civil war states to avoid unnecessary costs when the prospective benefit to the donor is negligible.

To test these predictions, I rely on three measures that capture the importance of recipients—and thus the prospective threat of ongoing civil war—to wealthy foreign aid donors: (1) the size of the bilateral migrant population from an aid recipient country, (2) the level of bilateral trade between a developing country and an industrialized country, and (3) military aid from the United States to a recipient. The first captures variation in both cultural affinity for recipients and prospective immigration from a recipient to a donor that donor governments may wish to minimize (Bermeo and Leblang 2015). The second captures the material and economic interests of donors. The third is a proxy for the geostrategic importance of recipients to leading industrialized countries. Using a dyadic panel dataset on the

bilateral aid commitments of more than 20 Organization for Economic Co-operation and Development (OECD) countries to more than 130 foreign aid recipients from 1995 to 2008, I estimate the association between ongoing civil war and bilateral foreign aid, interacted with these measures of recipient importance.

Results on the whole are consistent with the view that donors target disproportionately more aid to civil war states that they deem important—and that they cut aid from civil war states they deem unimportant to avoid unnecessary costs. I find that civil war is associated with significantly and substantially more bilateral aid from donors given moderate to high levels of bilateral migrants residing in a donor, moderate to high levels of bilateral trade, and moderate to high levels of US military aid. Further, at low levels of bilateral migrants, bilateral trade, and military aid, civil war coincides with less aid (though this result is only statistically significant in the case of trade and military aid). These findings are robust to controlling for other motives for allocating aid to recipients such as alliances and foreign direct investment (FDI).

To tease out the role of domestic migrant lobbies as drivers of donor interest in targeting aid civil war states, I further subset the data on the basis of whether donors allow immigrant voting rights and dual citizenship. These measures capture the ability and incentive of migrants to mobilize to lobby their host countries on behalf of their civil war stricken homelands (Bermeo and Leblang 2015). On one hand, mobilization may lead to increased aid to civil war states in addition to aid given to minimize migration from migrant sending countries. On the other hand, to the extent that immigrant communities oppose their home country governments and favor the rebels, or are aware of the ways aid can worsen rather than improve conditions in the context of violence, they may in fact lobby against aid to a recipient (Salehyan, Gleditsch, and Cunningham 2011).

Consistent with the latter view, I find that ongoing civil war is associated with receipt of *less* aid from donors when and where migrants have greatest ability to mobilize—a result that holds regardless of migrant population size. This finding, of course, does not confirm that migrants mobilize against giving aid to their homelands when there is a civil war. However, it does underline the need for more research to better understand the role of immigrant lobbies in aid policy.

Taken together, these findings suggest nontrivial implications for recipient economic recovery and development. On one hand, there exist disparities in how donors target aid to civil war states. While recipients deemed important to donors receive disproportionate assistance, those deemed unimportant may experience disproportionate cuts.

On the other hand, these findings may suggest that donors distribute aid to civil war states in a way that runs counter to furthering development goals. Girod (2012) proposes a "non-strategic desperation hypothesis" to explain the effectiveness of foreign aid following civil war. The author claims that aid is only effective in post-conflict recipients that are poor in natural resources and of little strategic import to donors. The argument is that recipient governments only have incentives to implement donors' development objectives when they are desperate for the income supplied in the form of aid. If they garner plenty of rents from natural resources, or if they are sufficiently important to donors, they have no incentive to implement donors' objectives. In fact, in the latter case they may be deincentivized since they know donors will continue to supply them with aid whether or not they meet donors' development targets. Consistent with this view, Girod (2012) finds that after civil wars, aid has a negative effect on recipient development among resource rich, strategically important recipients, but a positive effect on development among resource poor, and strategically unimportant recipients.

While this logic is used in the context of post-conflict recipients, it may extend to ongoing conflicts as well. If this is the case, donor governments' efforts to "do something" in the face of ongoing civil war to protect their interests may, in fact, be counterproductive with respect to economic development. This conjecture is further supported by Bearce and Tirone (2010) who find that foreign aid can foster economic development across recipients more broadly (not only civil war states) *if* donors get little strategic benefit from allocating aid. As with Girod, for Bearce and Tirone aid conditionally is the primary mechanism through which aid has an effect. Donor governments do not suffer disutility by cutting aid when a recipient has little strategic value. This gives recipient governments stronger incentives to meet the development goals set by donors for fear of cuts to aid.

In light of these previous findings, as well as the findings of Nunn and Qian (2014) and Narang and Stanton (2017) that civil war threatens the lives of aid workers and may be looted by rebels, my own analysis portends grim outcomes for civil war states deemed most important by donor governments. The results presented here, of course, are not definitive, so more research on the role of civil war as a determinant of foreign aid allocation is needed. Further, more research is required to assess the consequences of donor interests for civil war outcomes and recipient economic development.

2 Foreign Aid and the Unique Challenge of Civil War

Among the many problems rooted in underdevelopment, violent intra-state conflict has significant international consequences in today's globalized world. As the 2012-2015 Swiss Foreign Policy Strategy highlights,

> In this age of globalisation, countries have become so interdependent

> that a conflict or crisis—even in a faraway land—often has direct consequences for Switzerland: threatening our foreign investments or exports, endangering our nationals living abroad, or destroying natural resources. . . The world economy is vulnerable to threats to the flow of trade, transportation, and energy resources. Moreover, we are subject to the pressure of migration from countries where insecurity, human rights violations, poor social and economic prospects, and degradation of the environment are commonplace (2012, 5).

Given the myriad problems civil wars can generate for the international community, policymakers in industrialized states have incentives to use tools like foreign aid to mitigate prospective spillovers from conflicts (Bermeo 2017, 2018).

However, recent evidence shows that aid to civil war states does not always support donors' objectives. Food aid, for instance, has been shown to worsen violence due to rebel looting of food supplies (Nunn and Qian 2014), and evidence from Afghanistan shows that insurgents intentionally target aid workers (Narang and Stanton 2017). How do donors balance using development promotion as an antidote to conflict with the the fact that the very presence of conflict makes promoting development costly or even self-defeating?

It is tempting to see this question in "either-or" terms: do donors *either* target more aid to civil war states, *or* do they steer clear? But due to the unique opportunity costs associated with aid allocation to civil war states, donor responses are likely contextual.

Unfortunately, the literature on donor objectives in the face of civil war is limited. A number of studies consider the impact of aid on civil war (for examples see Collier and Hoeffler 2002, 2006; Nielsen et al. 2011; Savun 2012; Crost, Felter, and

Johnston 2014), but few examine civil war as a determinant of foreign aid. Among the studies that do, Kang and Meernik (2004) consider determinants of *post*-conflict economic assistance, but not responses to ongoing conflict. Further, a study by Balla and Reinhardt (2008), while assessing the effect of conflict within, and in a neighboring, state on donor targeting of aid, consider only the period from 1960 to 1997—an era when donor interests may have been predominantly oriented toward containment of communism (prior to 1990) and when the collapse of the Soviet Union led to a reduction in the utility of foreign aid allocation in subsequent years (see Brautigam and Knack 2004). Balla and Reinhardt (2008) are rightly cognizant of the tradeoffs that attend allocation of aid in the face of conflict, and accordingly analyze the the giving patterns of individual donors. However, the authors fail to examine factors that may condition how donors weigh the costs and benefits of aid allocation to civil war states. This leaves the varying significance of civil war as a determinant of aid allocation an open question.

Despite limited empirical research, theory offers some guidance. The fact that donor governments give disproportionate aid to recipients they deem important for non-development (e.g., non-needs based) reasons is well known. Even donor interest in promoting development is driven by non-needs based factors like bilateral trade and immigration—variables that make the benefits of development promotion especially tangible for donor governments (Bermeo 2017, 2018). It makes sense that such factors also will influence how donors respond to ongoing civil war. While donors may eschew giving aid in the face of some civil wars, other conflicts may pose threats too serious to ignore. Policymakers will weigh the costs and benefits of giving aid to civil war states on the basis of *when* and *where* the conflict impends complications for the donor.

To make this logic, and its implications, more explicit, it is useful to consider

the value industrialized countries attribute to giving aid to poor countries in terms of three overarching factors: (1) the technology of aid, (2) recipient need, and (3) donor interest. The first captures how efficiently aid translates into certain foreign policy outputs. The usual suspects for development technology usually are captured by factors like quality of governance, control of corruption, and democratic accountability—and research on donor selectivity and composition of aid flows suggests donors make their aid allocation decisions accordingly (see Winters and Martinez 2015). Such factors influence the rate at which a dollar of aid promotes a desired outcome.

The second class of factors captures the extent of developing country need, like level of poverty or the severity of a natural disaster. These factors play a role in determining how desperate a recipient is for assistance. This can influence donor priorities about where to target aid, and can have an impact on the incentives recipients have to respond to donor demands—either for positive development reform or for non-development policy concessions (Bueno de Mesquita and Smith 2009; Kilby and Dreher 2010).

The third set of factors denote ties between industrialized countries and developing countries that determine how important the latter are to the former. Such factors can increase the likelihood that developing country problems will have social, security, and economic costs for an industrialized country (Bermeo 2017).

Civil war is unique among the many determinants of aid in that it acts both as moderator of aid technology and threat to existing and future levels of foreign policy returns from aid. With respect to technology, civil war may lead to the misuse or destruction of development resources, thereby leading to an overall reduction in how efficiently aid translates into desired outcomes. At the same time, civil war

has the potential to set back economic growth and social and political development, thereby threatening donor interests in maintaining trade or in having politically stable and reliable security partners.

In the face of these cross-cutting consequences, policymakers face a difficult choice: (a) cut aid and re-allocate resources to other countries where they can be put to better use, or (b) increase aid to minimize the damage and lessen the severity of unwanted problems.

As policymakers weigh these options, the third factor, the importance of a developing country, is a critical factor shaping preferences in favor of, or against, targeting more aid to a civil war state. While violent conflict may have adverse consequences, whether these are of much concern to individual industrialized states is determined by bilateral factors that make it more or less likely that the problems generated by civil war also threaten an industrialized country.

For instance, when a recipient experiencing civil war is a negligible importer of donor goods, policymakers will see little to gain from promoting development. This may lead them to place greater emphasis on the anticipated costs and risks associated with giving aid to a civil war state. However, if a recipient consumes billions annually in donor exports, policymakers will have more to loose if they fail to respond. They may place greater weight on the need to maintain trade and reason that aid allocation is worth the risk. In short, if the country is important enough, *something* has to be done.

This logic has a simple, and testable, implication: (1) that donors will target less aid to civil war states relative to states at peace when and where the importance of a recipient for a donor are low, and (2) that donors will target more aid to civil war states relative to states at peace when and where the importance of a recipient

for a donor are high.

The question now of course is, what factors influence the cost-benefit calculus for aid donors? It is to this subject that I turn in the following sub-sections. In particular, I underline three factors (one of which I already alluded to above) that should be especially relevant for policymakers: (1) migration, (2) trade, and (3) military importance.

2.1 Civil War and Migration

Prior work has shown that migrant sending countries are important targets of foreign aid for donors. This pattern in giving is driven, in part, by policymaker efforts to mitigate demand for future immigration (Bermeo and Leblang 2015). Anecdotal evidence of this strategy abounds in the comments of several leaders of industrialized countries. Riffing on his campaign slogan, "Make America Great Again," US President Donald Trump noted in a 2018 address to the UN General Assembly that the best long-term solution to large scale international migration is to "Make [migrants'] countries great again."[2] Former UK Deputy Prime Minister Nick Clegg made similar comments in 2010, urging leaders of fellow industrialized countries to increase their level of foreign aid spending as a means to mitigate problems of poverty and violence to prevent people from "moving across continents and coming to settle in Europe."[3] Japan has also made note of such justifications in its Official Development Assistance Charter.[4]

The threat of prospective migration is more than just rhetorical. Civil war's ability to motivate mass migration is well documented, as is its ability to create

[2] "Full Text: Trump's 2018 UN Speech" supplied by *Politico*.
[3] Quote is from the 2010 article, "Clegg to push aid goal at UN summit," from *Evening Standard*.
[4] As noted in its 2003 charter.

political problems for industrialized states. Consider, for instance, the flight of some one hundred thousand refugees from Sri Lanka's 26 year long civil war to Australia (Betts and Higgins 2017) or the forced displacement of a large segment of the population in Colombia as a result of internal conflict (Ibanez 2008).

Evidence suggests that mass flows of refugees have negative consequences both for destinations and countries of origin. The flight of thousands can exacerbate problems for those that choose stay behind (Ibanez 2008), which may incentivize even more individuals to relocate to either more stable neighboring countries or to developed countries where the promise of a better life seems appealing enough to offset the costs of migration. This, in turn, can generate obvious logistical and political problems for host countries—the Syrian refugee crisis in Europe is a notable example. Policymakers, therefore, have incentives to limit immigration from civil war states and may leverage foreign aid as a tool for mitigating inflows of migrants.

There are reasons, then, to expect that the relationship between civil war and aid should be conditioned by prospective immigration from the civil war state to the donor. Prospective immigration is best captured by historical immigration patterns reflected by the size of the bilateral migrant population from a developing country already living in an industrialized country (Bermeo and Leblang 2015)—that is the sum of first-generation migrants by origin residing in a given destination. Bilateral migrant population size is a good predictor of future migrant flows (Fitzgerald, Leblang, and Teets 2014), and so policymakers may reason that if a civil war occurs in a country that historically has been a major source of immigrants, they can expect a substantial ballooning in immigration from that country as people flee the conflict. Such an uptick was observed in migration from Indonesia to Japan when the former was embroiled in a spate of civil unrest and violence in the late 1990s and early

2000s.[5]

In the face of the tradeoffs of allocating aid to countries experiencing civil war, the size of the bilateral migrant population thus should act as a salient bilateral link that conditions donor responses to civil war. This implies the following hypotheses:

> H_{m1}: *When the size of the bilateral migrant population residing in a donor is small, industrialized countries will give disproportionately less aid to a civil war state*, ceteris paribus.
>
> H_{m2}: *When the size of the bilateral migrant population residing in a donor is large, industrialized countries will give disproportionately more aid to a civil war state*, ceteris paribus.

Policymaker efforts to minimize prospective immigration, while relevant for understanding donor interests, is not the only documented factor explaining why donors give greater importance to migrant sending countries. Migrant mobilization on behalf of their homelands is also a relevant explanation. Bermeo and Leblang (2015), for instance, find that migrant mobilization leads donors to target greater aid to migrant sending countries than is explained by efforts to minimize future levels of migration alone. Prather (2020), with the help of a survey experiment, finds additional support for the view that migrants support greater aid to their homelands (and even for other aid recipients as well). As the author finds, Latino Americans supported aid programs to Latin America and Africa in near equal proportions among those with the strongest transnational ties.

By extension, it would therefore be unsurprising if bilateral migrant populations pressured their host countries to give more aid to their homelands, especially when there is a civil war. Such an expectation, rather than in contradiction with,

[5]Based on variation in the size of the stock of Indonesia migrants residing in Japan over the course of 1995 to 2008.

complements the minimization of prospective migration hypothesis.

However, there also are reasons to expect mobilization to lead to *reduced* aid to civil war states. While it is plausible that migrants think aid will offer much needed relief for their counterparts and that development will minimize the appeal of violence, this view rests on the assumption that migrants think aid will yield net positive benefits in the context of civil war. But, migrants may disapprove of the recipient government's role in the conflict, and thus they may *oppose*, rather than support, giving aid. Even more, migrants' own lived experience, or that of relatives or others in their social network, may lead to skepticism about the benefits of aid vis-à-vis conflict. Migrants may know all-too-well the negative implications of aid in the context of violence—rebel's ability to loot aid supplies, empowering them to continue fighting (see Dube and Naidu 2015).

Thus, migrant mobilization may either enhance or reverse a targeted response to civil war on the basis of prospective migration. Some evidence from the literature on civil war intervention offers some clues about how to adjudicate among these alternatives. Salehyan, Gleditsch, and Cunningham (2011), for instance, show that rebel organizations with links to transnational diasporas are more likely to receive external support in conflicts. To the extent that rebels draw sympathy from expatriates, groups with links to rebel organizations may pressure their host governments to give less aid to recipient governments—a strategy that may complement pressure to provide military support or troops to intervene. Migrants' opposition to the recipient government would be consistent with the following hypothesis:

H_{m3}: *Migrant mobilization leads to less aid to civil war states*, ceteris paribus.

2.2 Civil War and Trade

In addition to migrant ties between industrialized countries and developing countries, the volume of bilateral trade also denotes a plausible link between states that makes industrialized countries sensitive to the consequences of civil war abroad.

Trade captures salient material (e.g., economic) incentives of donors. Civil war can threaten domestic firms in a donor country by damaging lucrative export markets in the civil war state. Moreover, civil war may stunt the growth of export sectors in the developing country that employ significant shares of the domestic labor force. Existing trade relationships also increase the anticipated benefits that will accrue to the industrialized country from future economic exchange.

The argument that trade motivates intervention more generally in civil wars is certainly not new. As a recent example, Stojek and Tir (2014) argue that "[e]xtant trade ties offer not just the promise, but also material evidence, of the ability to further enhance the volume of trade" upon cessation of hostilities (358). In support of this argument, these authors find that trade with the five permanent veto (P5) members of the UN Security Council is associated with greater UN peacekeeping assistance for the purpose of preventing the recurrence of civil war.

The case of UN peacekeeping assistance to El Salvador at the end of a more than decade long civil war in 1992 demonstrates this logic of material self-interest quite well. In the latter years of the war, total trade between El Salvador and the P5 members of the Security Council totaled 500 million USD. But, in the year immediately subsequent to the conclusion of the war, trade jumped to nearly 1.1 billion USD, and mostly in the form of exports from P5 countries (Stojek and Tir 2014). The material incentives to preserve peace in El Salvador clearly shine through. Compare this with the case of Guinea Bissau, whose 1998-1999 conflict resulted

in the deaths of thousands and the displacement of hundreds of thousands more. In the face of several ceasefires, the UN failed to provide peacekeeping assistance. Though hard to confirm, the relatively meager 26 million USD in trade between Guinea Bissau and the P5 countries may explain, in part, the lack of support (Stojek and Tir 2014).

Trade, therefore, should serve as an important tie between industrialized countries and developing countries that increases the expected benefit of intervention in the face of intra-state conflict. As with migration, in the face of the tradeoffs of allocating aid to countries experiencing civil war, bilateral trade acts as an important bilateral link that raises the material stakes an industrialized country has in an ongoing civil war. Hence:

> H_{t1}: *When the volume of bilateral trade between an industrialized country and a developing country is minimal, the marginal effect of civil war on bilateral aid should be negative*, ceteris paribus.
>
> H_{t2}: *When the volume of bilateral trade between an industrialized country and a developing country is large, the marginal effect of civil war on bilateral aid should be positive*, ceteris paribus.

2.3 Civil War and Strategic Interest

Civil war within militarily important countries poses a potential threat to industrialized states' geostrategic interests—no one wants a "splintered reed" of a security partner.[6] A security maximizing response may manifest itself as increased bilateral aid targeted toward militarily valuable countries when they fall into violent intra-state conflict. Research by Salehyan, Gleditsch, and Cunningham (2011) provides

[6]Of course this is a loose reference to the Biblical Book of Kings, chapter 18, verse 21.

support for this view. The authors find that countries involved in international rivalries are more apt to be targets for external intervention.

To capture the military interests of industrialized countries, I rely on US military aid as a proxy. Unfortunately, only the US publishes its military aid, so such a measure does not exist for other donors. Even so, the benefit of using US military aid is that it is a time varying measure that captures the revealed security priorities of a powerful and influential donor and ally of other major industrialized countries. Despite being a flow from the US to developing countries, Bermeo (2017) shows that greater military aid from the US is highly prognostic of greater economic aid from other industrialized donors. This should come as little surprise given the overlapping military and strategic interests of donor governments (especially members of the DAC). US military aid should capture the security interests of other donors quite well.

Using military aid as a measure of strategic interest, we should expect the following:

> H_{s1}: *When US military aid to a developing country is minimal, the marginal effect of civil war on bilateral aid should be negative*, ceteris paribus.
>
> H_{s2}: *When US military aid to a developing country is high, the marginal effect of civil war on bilateral aid should be positive*, ceteris paribus.

3 Data

The theoretical discussion in the preceding section generated seven testable hypotheses for how industrialized countries should target foreign aid in the face of ongoing civil war in developing countries. To test these hypotheses, I build on a dyadic panel dataset created by Bermeo and Leblang (2015), which contains information on

the bilateral aid commitments of 22 OECD member states to up to 163 foreign aid recipients. This dataset is particularly useful because of its comprehensive coverage of the bilateral aid giving of prominent members of the OECD, and its inclusion of key variables relevant for testing the forgoing hypotheses. Below, I discuss in more detail the outcome variable and the explanatory variables of interest. I also briefly describe and justify the control variables I include in the analysis.

3.1 The Outcome Variable: Yearly Bilateral Aid Commitments

I operationalize the outcome variable as the bilateral foreign aid commitments in 2008 US dollars from a given donor country to a given recipient in a given year. To normalize values, I use the inverse hyperbolic sine transformation—this is a convenient alternative to the more common log-transformation since it is defined at zero (and for negative values) while still allowing results to be interpreted as elasticities. I rely on the sum of ODA (Official Development Assistance) plus OA (Official Aid) commitments, which are written promises of a certain dollar amount donors commit to a given recipient. I use commitments instead of actual disbursements for two reasons. First, historically, reporting on commitments is more reliable than for disbursements. Second, disbursements can sometimes lag years behind actual changes in donor aid policy. Commitments, therefore, are a more reliable and up-to-date measure of donor policy relative to disbursements.

3.2 Explanatory Variables of Interest

Below, I describe each of the explanatory variables of interest. Unless otherwise specified, all are lagged by one year to adjust for possible endogeneity with the outcome variable. Aid commitments are usually made at the beginning of the fiscal

year, and so the level of aid donors commit to giving to recipients often is informed by the events of the previous year.

3.2.1 Civil War

To measure the instance of civil war in a recipient country, I rely on a binary measure, coded 1 if there is an ongoing civil war in a recipient in a given year and 0 otherwise. This measure is drawn from the UCDP/PRIO Armed Conflict Dataset, which codes a civil war as taking place when at least 25 annual battle deaths occur in a "contested incompatibility" between two parties (at least one party must be the government) where the conflict is over territory and/or government control (Gleditsch et al. 2002).

3.2.2 Migration

Bilateral migration is measured as the inverse hyperbolic sine of the size of the bilateral migrant population from a given recipient residing in a given donor at year $t-1$. This measure originates from Fitzgerald, Leblang, and Teets (2014), who collected data from national statistical offices to generate a measure of bilateral migrant stocks in 22 OECD countries.

3.2.3 Migrant Mobilization

I leverage data on whether migrants' home countries permit dual citizenship and whether host countries grant migrants voting rights as a proxy for migrant mobilization. Presumably, when migrants have the option to retain their citizenship when naturalizing abroad, they have greater motivation to lobby on behalf of their homeland. Further, when migrants have voting rights in their host country, they

have added motivation to mobilize, and greater ability to sway policymakers. Migrant mobilization is therefore coded as a binary variable that takes the value 1 when migrants have both the option of dual citizenship *and* have voting rights in the their host country.[7]

3.2.4 Trade

Yearly bilateral trade between a given donor and a given recipient is operationalized as the inverse hyberbolic sine of the sum of donor exports to, and imports from, a given recipient measured in constant US dollars. This measure is originally drawn from the International Monetary Fund's Direction of Trade Statistics.

3.2.5 Strategic Military Importance

To proxy for the strategic military value of a given recipient country for foreign aid donors, I rely on a measure of the US military aid to a given recipient in a given year. Military aid is in dollars and is transformed with the inverse hyperbolic sine to preserve zero values. This measure originates from the US GreenBook.

3.3 Control Variables

I control for a number of variables, each lagged by one time period (when relevant), that may confound the relationship between the explanatory variables of interest and the outcome variable. Where applied, if a variable is followed by "(ihs)" in parentheses, the inverse hyperbolic sine transformation was applied to said variable.

I first account for various recipient-level characteristics. The first is recipient country GDP per capita (ihs) which I use as a proxy for average income in a given

[7] see Bermeo and Leblang (2015) for more on this measure of mobilization.

recipient in a given year. If donors prioritize poorer countries—countries that also may tend to have a higher likelihood of experiencing political instability (such as civil war)—then we would expect donor giving to civil war states to be partially driven by lower levels of average GDP per capita. Migrants may also have greater incentive to leave their homelands when economic opportunities are lacking.

I also control for recipient country population (ihs) since country population size may be correlated with bilateral aid, migrant outflows, trade flows, and civil war. Donors may consider the needs of larger developing countries as more pertinent. At the same time, larger populations mean more potential migrants. Population size also may affect the political and material incentives and costs of engaging in civil war (see Fearon and Laitin 2003 for a discussion). Countries with larger populations may also make for attractive trade partners as they contain more potential consumers for industrialized country exports.

I further rely on the Freedom House measure of yearly average civil liberties and political rights in a recipient country as a proxy for democracy to control for preferences donors may have for allocating aid to democratic states. Democracies should also be less prone to civil war and further share affinities with donors that make them attractive trade partners and preferred sources of migrants. Though some question the objectivity of the Freedom House measure, for the purpose of this study it is not necessary to have a reliable and valid measure of democracy per se, but a reliable and valid measure of donor country perceptions of democracy. Criticisms about measures such as Freedom House often center on democracy as an explanatory variable of outcomes like economic development (Cheibub, Gandhi, and Vreeland 2010), but an outcome like aid commitments is qualitatively different. While assessing the effect of democracy in the first case requires a valid measure of the concept of democracy, in the second case (where aid commitments are the

outcome) a measure that approximates industrialized country evaluations of the strength of democracy is more apt as evaluations of democracy are more likely to inform targeting of aid than is democracy in and of itself. Freedom House should work perfectly well in the latter scenario.

Finally, I control for the occurrence and severity of a natural disaster in a given recipient in a given year using the number of individuals affected or killed as a result of a natural disaster (ihs). Such events may lead to greater out-migration from the affected country and potentially precipitate unrest, thus leading to greater demand for aid.

I further account for several dyadic factors that condition a donor's preference for particular recipients. To adjust for preferences donors may have to allocate aid to former colonies, as well as the social ties between former colonial powers and their wards that may facilitate greater migration, I include a binary indicator, coded as 1 (0 otherwise), when a recipient country is a former colony of a donor.

Bilateral distance between donors and recipients is likely an additional confounding variable. Donors may prioritize proximate countries, while at the same time migrants may face fewer costs emigrating to closer destinations. Additionally, bilateral distance may correlate with the intensity of bilateral trade between countries, as trade with neighbors is likely more convenient that trade with distant countries. I therefore include the bilateral distance between donors and recipients in kilometers (ihs) as a control variable.

In the event that foreign direct investment (FDI) from donors to recipients confounds the relationship between aid and bilateral trade, I include a measure of net FDI flows from donors to recipients per year. Data on FDI flows comes from the OECD's "International direct investment database." Because net FDI flows may

be either zero or negative, like other measures I apply the ihs transformation to normalize values.

I finally control for formal alliances between donors and recipients using the alliance measure ATOP. Accounting for alliances helps to guard against the potential influence of alliances on military aid and on foreign aid.

In addition to the above controls, I include fixed donor and year intercepts to adjust for unobserved donor specific and temporal factors associated with bilateral aid and the key explanatory variables. Including donor fixed effects further ensures that model estimates reflect within-donor variation in the outcome variable, which is of greatest relevance in testing individual donor decisions about the level of aid to be targeted among different recipients.

4 Methods

Using the data I describe above, I rely on multilevel (or hierarchical) Tobit regression to test hypotheses. Because the outcome variable is left-censored at zero, Tobit is a natural choice. The censored nature of the outcome portends bias in intercept and slope estimates with OLS, but Tobit overcomes this limitation by modeling the outcome as a *latent*, uncensored response variable. This is an appropriate choice if zero values are regarded as "corner solutions," in economic parlance. That is, Tobit is appropriate if the data generating process for zero values is the same as that for positive values. This certainly seems plausible since the choice to allocate any aid to a recipient must also be intimately linked with decisions about the level of aid policymakers decide to commit. The advantage of Tobit is that it allows for joint estimation of the selection of aid recipients and the level of aid given.

A multilevel modeling approach is further appropriate given the dyadic-panel

structure of the data. Classic Tobit imposes restrictive i.i.d. assumptions, which are likely violated by within dyad dependence and between dyad heterogeneity in the observations. This posses a challenge not only to accurate statistical inference, but also to accurate parameter estimates given that identification of model parameters is not independent of the data's variance. To counteract the first problem, robust standard errors clustered by dyad are commonly applied. However, this solution leaves unaddressed potential bias in the parameter estimates themselves. If one takes the data generating process implied by Tobit seriously, within dyad dependence should be explicitly modeled via a multilevel framework. Therefore, since it is a useful check against bias induced by dyadic heterogeneity, I use multilevel Tobit regression with dyadic random effects.

However, an important caveat on this approach, despite the power of multilevel modeling, is that the inclusion of dyadic random effects means that within-donor estimates reflect only *partial* pooling at the level of the donor. That is, estimates may capture both *between* recipient and *within* recipient variation in aid given at the level of the donor. This is an unfortunate trade-off given that the theory applies to between recipient decisions made by individual donors; not to within recipient decisions over time. However, as a robustness check I include in the appendix results from models estimated with data aggregated from 1995 to 2001, and 2002 to 2008. Estimates from these models reflect cross-sectional between-recipient decisions made at the level of the donor (averaged over several years). Major discrepancies in estimates generated by this alternative approach should signal that the panel analysis fails to provide meaningful insight into between recipient decisions made by individual donors.

A further possible complication is that the panel data are unbalanced. As will be summarized in the following section, some dyads only have coverage for

a few years while others have observations for the duration of the time-series. Assuming missingness is random, the primary challenge imbalance poses is loss of efficiency. To check the extent of unbalancedness in the data, I rely on the procedure outlined by Ahrens and Pincus (1981). The analytical dataset after listwise deletion does display some imbalance. Therefore, as a robustness check I perform multiple imputation to deal with missing data and run the main analysis. Major differences between the results produced with the analytical data and the imputed data will signal bias and inefficiency induced by unbalancedness.

The main analysis centers on three models as specified below, where the first is a "baseline" model with no interaction between civil war and any of the measures of donor interest. The second, third, and fourth models include a two-way interaction between civil war and each of the measures of interest. I estimate interactions in separate models to facilitate easier interpretation of marginal effects. These models

are specified as follows:

$$\begin{aligned}
\text{aid}_{ijt} &= \beta_0 + \beta_1 \text{civil war}_{jt-1} + \beta_2 \text{migration}_{ijt-1} + \beta_3 \text{trade}_{ijt-1} + \beta_4 \text{military aid}_{jt-1} \quad (1)\\
&\quad + \mathbf{X}\boldsymbol{\gamma} + \mathbf{D}\boldsymbol{\delta} + \mathbf{Y}\boldsymbol{\alpha} + \sigma_{ij} + \epsilon_{ijt},\\
\text{aid}_{ijt} &= \eta_0 + \eta_1 \text{civil war}_{jt-1} + \eta_2 \text{migration}_{ijt-1} + \eta_3 \text{trade}_{ijt-1} + \eta_4 \text{military aid}_{jt-1} \quad (2)\\
&\quad + \eta_5 (\text{civil war}_{jt-1} \times \text{migration}_{ijt-1})\\
&\quad + \mathbf{X}\boldsymbol{\gamma} + \mathbf{D}\boldsymbol{\delta} + \mathbf{Y}\boldsymbol{\alpha} + \sigma_{ij} + \varepsilon_{ijt},\\
\text{aid}_{ijt} &= \zeta_0 + \zeta_1 \text{civil war}_{jt-1} + \zeta_2 \text{migration}_{ijt-1} + \zeta_3 \text{trade}_{ijt-1} + \zeta_4 \text{military aid}_{jt-1} \quad (3)\\
&\quad + \zeta_5 (\text{civil war}_{jt-1} \times \text{trade}_{ijt-1})\\
&\quad + \mathbf{X}\boldsymbol{\gamma} + \mathbf{D}\boldsymbol{\delta} + \mathbf{Y}\boldsymbol{\alpha} + \sigma_{ij} + \upsilon_{ijt},\\
\text{aid}_{ijt} &= \varphi_0 + \varphi_1 \text{civil war}_{jt-1} + \varphi_2 \text{migration}_{ijt-1} + \varphi_3 \text{trade}_{ijt-1} + \varphi_4 \text{military aid}_{jt-1} \quad (4)\\
&\quad + \varphi_5 (\text{civil war}_{jt-1} \times \text{military aid}_{jt-1})\\
&\quad + \mathbf{X}\boldsymbol{\gamma} + \mathbf{D}\boldsymbol{\delta} + \mathbf{Y}\boldsymbol{\alpha} + \sigma_{ij} + \upsilon_{ijt},
\end{aligned}$$

where aid_{ijt} denotes bilateral aid commitments (ihs) from industrialized country i to developing country j at year t, $civil\ war_{jt-1}$ is the civil war dummy for developing country j at $t-1$, $migration_{ijt-1}$ is the the size of the bilateral migrant population (ihs) in i from j at $t-1$, $trade_{ijt-1}$ is the level of bilateral trade (ihs) between i and j at $t-1$, and $military\ aid_{jt-1}$ is the amount of military aid (ihs) given to a recipient j by the US in year $t-1$. $\mathbf{X}$ is a matrix of control variables as specified in the previous section. $\mathbf{D}$ is a matrix of donor indicator variables (minus a reference category). $\mathbf{Y}$ is a matrix of year indicators minus a reference category. The term σ_{ij} denotes dyad specific random intercepts. Each model includes an error term assumed to be independently and normally distributed.

To further test the hypothesis that migrant mobilization mutes a targeted

response to civil war on the basis of prospective migration, I estimate equation 2 for two different subsets of the data: when and where migrant mobilization is present, and when and where it is absent.

In the following section I describe results from model estimation.

5 Results

After list-wise deletion of missing values, models were estimated for 3,129 unique dyads for a total of 29,817 dyad-years. The average coverage for a single dyad was 9.3 years, with a range of 1 to 14 years. A civil war is coded as 1 for approximately 17.4 percent of dyad-year observations with 29.5 percent of all dyad pairs being between a donor and a recipient that experiences a civil war for at least one year over the coverage period of the data. 34.4 percent of recipient countries are coded as experiencing a civil war at some point over the data's coverage period, with 100 percent of donors committing aid to a civil war state. Summary statistics for the full data are given in Table 1.

Table 2 summarizes the regression results. For the visually inclined, Figure 1 shows coefficient estimates with 95 percent confidence intervals for parameters of interest in addition to control variables. Results from each of the three main specifications are shown. To save space, estimates for donor and year indicators have been excluded. If confidence intervals intersect with the vertical line at zero, estimates fail to reach statistical significance at the $p = 0.05$ level. Since these are Tobit estimates, they may be interpreted as either the expected change in the *latent* outcome variable (a version of aid commitments unbounded at zero) or the expected change in the outcome weighted by the probability of the outcome being greater than zero. For brevity's sake, from here on I will describe estimates as reflecting

the expected change in the outcome, but note that this is in reference to the latent, not observed outcome. Further, as each of the models includes donor indicators, the estimates reflect within donor variation in aid committed among developing countries. That is, estimates reflect the expected difference in the aid committed by a donor between recipients, all else equal.

I begin by summarizing estimates from the baseline model. Consistent with prior research, estimates for each of the control variables runs in the expected direction and is statistically significant. Worth noting is that the estimate on alliances is statistically significant and negative. At first blush, this estimate seems implausible—why would donor governments give *less* aid to allies, all else equal? However, this finding is consistent with prior work that suggests aid, properly viewed in the context of a broader foreign policy portfolio, may be a substituable policy instrument for alliances (Palmer, Wohlander, and Morgan 2002).

Colonial past has by far the largest estimate. This is consistent with studies that show colonial history is not only a significant determinant of foreign aid giving, but also a substantial one (Alesina and Dollar 2000). Estimates for two of the variables of interest, bilateral trade and bilateral migration, also run in the expected direction. Consistent with Bermeo and Leblang (2015), bilateral migrant stock has a positive association with bilateral aid. Though the magnitude of the estimate from the baseline specification is modest—one percent greater stock of migrants from one recipient relative to another is associated with 0.11 percent greater aid—it is statistically significant at $p < 0.001$. Bilateral trade also has a positive association with aid. Again, however, the magnitude of the association is quite modest. One percent greater bilateral trade with one recipient relative to another is associated with 0.03 percent greater bilateral aid. Though small, the estimate is statistically significant at $p < 0.001$. Finally, consistent with military aid correlating with the

strategic interests of DAC governments, the estimate for military is positive (0.01) and statistically significant at $p < 0.001$.

Turning to the association between bilateral aid and civil war in the baseline model, surprisingly, I find a positive and statistically significant association between the instance of civil war and aid. All else equal, civil war in one recipient is associated with more than 15 percent more bilateral foreign aid from a given donor relative to a recipient not experiencing civil war.[8] This result runs counter to Bermeo (2017) and Bermeo (2018), who fail to find a significant association between civil war and bilateral aid. This discrepancy likely arises due to differences in methods—whereas these studies rely on classic Tobit, I rely on multilevel Tobit to explicitly adjust for within dyad heterogeneity and dependence.

Estimates for the control variables in each of the interaction models are little different from those provided by the baseline specification; though FDI falls just shy of significance in Models 2 and 3. Estimates do differ for the interacted variables of interest, but as these coefficients cannot be interpreted directly it is useful to instead examine marginal effects.

5.1 Migrants

The left panel of Figure 2 shows variation in the marginal association between civil war and bilateral aid conditional on the size of the bilateral migrant population. Consistent with expectations, the greater the number of bilateral migrants from a recipient residing in a donor the more civil war becomes prognostic of greater aid, all else equal. Holding migrant stock at zero, civil war has a null association with bilateral aid. However, at larger levels of bilateral migrant stock one can clearly

[8] Estimate based on the following calculation: $100 \cdot (e^{\beta_{\text{civil war}}} - 1)$.

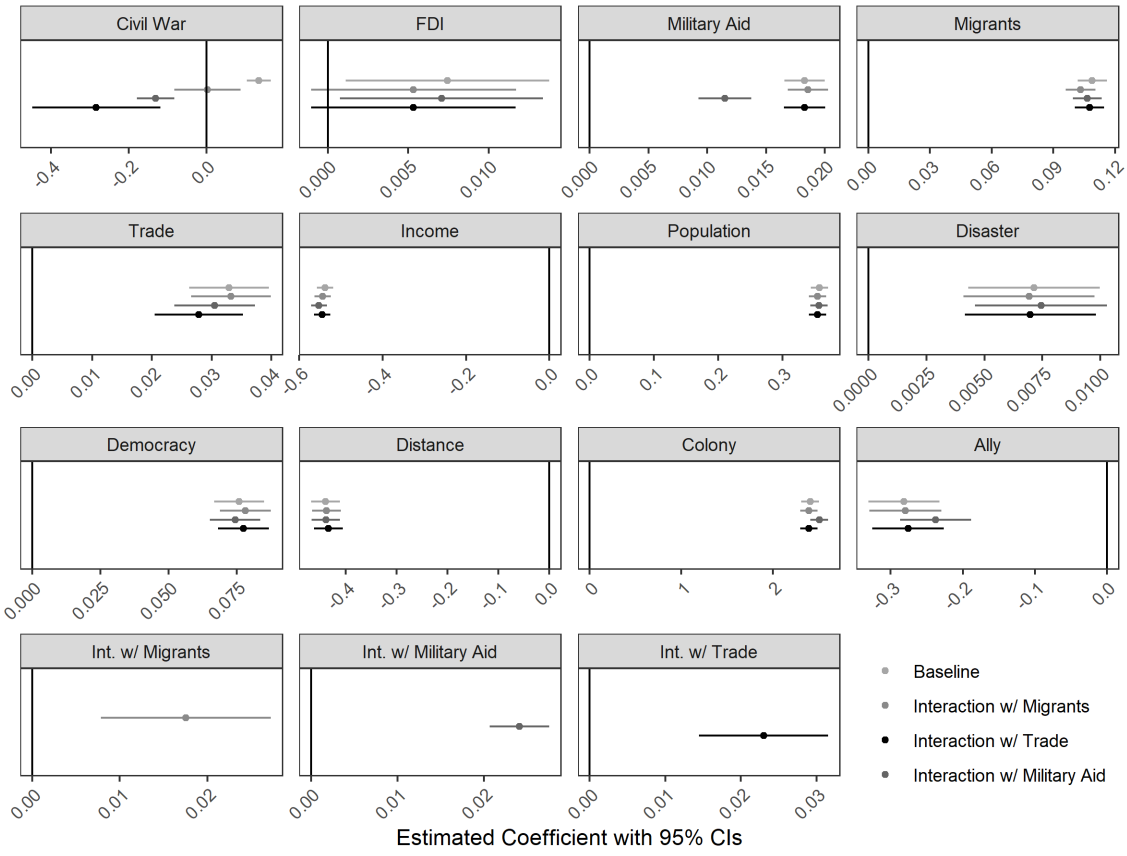

Figure 1: Multilevel Tobit estimates. Donor and year fixed effects not shown.

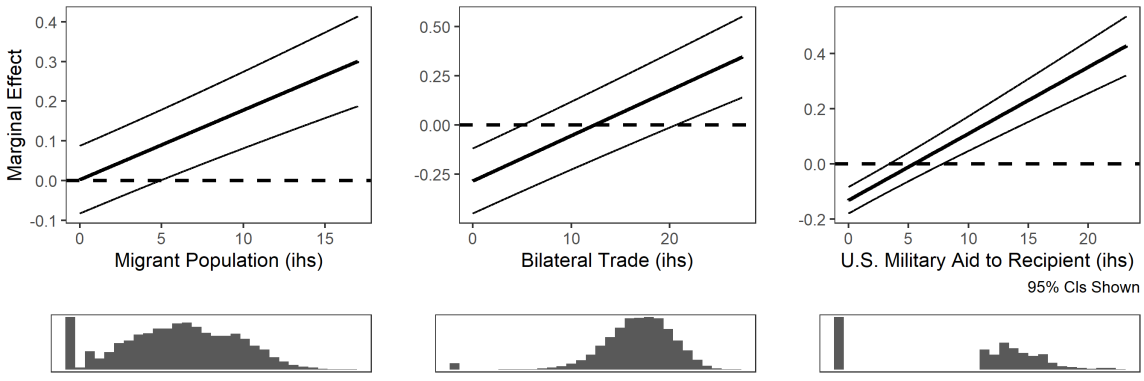

Figure 2: Multilevel Tobit estimates for the marginal association between ongoing civil war and bilateral aid commitments, given variation in donors' bilateral migrant population (left), level of bilateral trade with recipients (middle), and US military aid to recipients (right).

Table 1: Summary Statistics

	N	Mean	SD	Min.	Max.
ODA (ihs)	46,504	1.386	1.779	0.000	9.961
Ally	46,584	0.089	0.284	0.000	1.000
Civil War (PRIO)	46,584	0.161	0.367	0.000	1.000
Civil War (CSP)	39,648	0.669	1.580	0.000	9.000
Colony	46,584	0.037	0.188	0.000	1.000
Democracy	46,416	4.126	1.856	1.000	7.000
Disaster (ihs)	46,584	6.351	5.865	0.000	20.344
Distance (ihs)	46,584	8.956	0.687	4.277	10.081
FDI (ihs)	46,584	0.434	1.951	-13.329	14.195
Income (ihs)	42,560	9.070	1.042	5.726	11.860
Migrant Population (ihs)	30,542	6.449	3.510	0.000	16.981
Migration Policy	29,801	0.886	2.221	-4.000	5.000
Mobilization	35,945	0.127	0.333	0.000	1.000
Population (ihs)	42,926	9.203	2.061	3.545	14.788
Trade (ihs)	45,469	17.390	3.910	0.000	27.392
US Military Aid (ihs)	46,584	10.675	6.869	0.000	23.210

[a] Total N = 46,584, Dyads = 3,586, Donors = 22, Recipients = 163

see a change in how industrialized countries respond to civil war in developing countries. Once the number of bilateral migrants living in a donor approaches 1 million, civil war is associated with over 10 percent greater aid. These findings are consistent with the view that donors target aid to civil war states on the the basis of prospective migration from the recipient country.

5.2 Trade

A similar pattern holds for the interaction of bilateral trade and civil war. The center panel of Figure 2 shows variation in the marginal association between civil war and bilateral aid conditional on bilateral trade (ihs). Estimates suggest that the economic interests of industrialized countries influence their decision to target aid to civil war states. When and where the USD. amount of trade is zero, civil war is associated

Table 2: Multilevel Tobit Estimates

	Model 1	Model 2	Model 3	Model 4
Variables of Interest				
Civil War	$0.14\ (0.02)^{***}$	$0.00\ (0.04)$	$-0.28\ (0.08)^{***}$	$-0.13\ (0.02)^{***}$
Migrants	$0.11\ (0.00)^{***}$	$0.10\ (0.00)^{***}$	$0.11\ (0.00)^{***}$	$0.11\ (0.00)^{***}$
Trade	$0.03\ (0.00)^{***}$	$0.03\ (0.00)^{***}$	$0.03\ (0.00)^{***}$	$0.03\ (0.00)^{***}$
Military Aid	$0.02\ (0.00)^{***}$	$0.02\ (0.00)^{***}$	$0.02\ (0.00)^{***}$	$0.01\ (0.00)^{***}$
Interaction				
with Migrants		$0.02\ (0.00)^{***}$		
with Trade			$0.02\ (0.00)^{***}$	
with Military Aid				$0.02\ (0.00)^{***}$
Controls				
Income	$-0.54\ (0.01)^{***}$	$-0.54\ (0.01)^{***}$	$-0.54\ (0.01)^{***}$	$-0.55\ (0.01)^{***}$
Population	$0.36\ (0.01)^{***}$	$0.35\ (0.01)^{***}$	$0.35\ (0.01)^{***}$	$0.36\ (0.01)^{***}$
Disaster	$0.01\ (0.00)^{***}$	$0.01\ (0.00)^{***}$	$0.01\ (0.00)^{***}$	$0.01\ (0.00)^{***}$
Democracy	$0.08\ (0.00)^{***}$	$0.08\ (0.00)^{***}$	$0.08\ (0.00)^{***}$	$0.07\ (0.00)^{***}$
Distance	$-0.44\ (0.01)^{***}$	$-0.44\ (0.01)^{***}$	$-0.43\ (0.01)^{***}$	$-0.44\ (0.01)^{***}$
Colony	$2.41\ (0.05)^{***}$	$2.39\ (0.05)^{***}$	$2.40\ (0.05)^{***}$	$2.51\ (0.05)^{***}$
Alliance	$-0.28\ (0.03)^{***}$	$-0.28\ (0.03)^{***}$	$-0.28\ (0.03)^{***}$	$-0.24\ (0.03)^{***}$
FDI	$0.01\ (0.00)^{*}$	$0.01\ (0.00)$	$0.01\ (0.00)$	$0.01\ (0.00)^{*}$
Log Likelihood	$-35,250.46$	$-35,247.53$	$-35,243.67$	$-35,209.83$
Num. obs.	$29,817$	$29,817$	$29,817$	$29,817$
Left-censored	$9,201$	$9,201$	$9,201$	$9,201$
Uncensored	$20,616$	$20,616$	$20,616$	$20,616$

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Models were estimated with fixed donor and year intercepts and random dyadic intercepts.

with 22 percent less aid. But, at higher levels of trade, this association changes. When bilateral trade is greater than 240 million USD. the marginal association between civil war and aid is not only positive, but also statistically significant. At this level of trade, donors give more than 13 percent more aid to a civil war state, all else equal.

5.3 Military Aid

The right panel of Figure 2 shows how the marginal association between civil war and aid varies given the level of military aid given to a recipient. Civil war states that receive zero military aid from the US receive roughly 11 percent less aid from DAC donors than an otherwise similar recipient at peace. Conversely, when a developing country receives approximately 1.6 million in military aid, donors target almost 25 percent greater aid if said recipient experiences a civil war relative to a similar recipient at peace. This is consistent with DAC governments prioritizing aid to civil war states given the latter groups strategic importance.

5.4 Migrant Mobilization

In addition to migrant population capturing prospective immigration from a developing country, it may also capture migrant mobilization in support of aid to their homelands. By parsing the dataset by whether migrants residing in a donor have the opportunity and interest in mobilizing we can assess how migrant lobbying may influence donor giving to civil war states.

Table 3 shows results for four different models. The specification for those in columns 1 and 2 is identical to that used to test the interaction between migrant population and civil (see Table 2, Model 2). However, the model in column 2 was

Table 3: Multilevel Tobit Estimates

	Interaction		No Interaction	
	No Mobilization	Mobilization	No Mobilization	Mobilization
Civil War	-0.10 (0.08)	-0.51 $(0.28)^{\dagger}$	0.02 (0.03)	-0.26 $(0.10)^{**}$
Migrants	0.19 $(0.01)^{***}$	0.24 $(0.02)^{***}$	0.19 $(0.01)^{***}$	0.24 $(0.02)^{***}$
Interaction	0.01 (0.01)	0.03 (0.03)		
Log Likelihood	$-32,259.56$	$-4,339.60$	$-32,261.01$	$-4,340.05$
Num. obs.	$21,854$	$3,867$	$2,1854$	$3,867$
Left-censored	$6,290$	$1,944$	$6,290$	$1,944$
Uncensored	$15,564$	$1,923$	$15,564$	$1,923$

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{\dagger}p < 0.1$. Models were estimated with fixed donor and year intercepts and random dyadic intercepts.

estimated only for dyads where (1) migrants have voting rights in the donor country and (2) they can retain dual citizenship. Column 1 was estimated for all dyads where conditions 1 *and* 2 do not hold. Interestingly, the interaction term in both models, while remaining positive, falls short of statistical significance. If we drop the interaction term from the model, as done for the models shown in the right pair of columns, the main estimates for civil war and for migrant population vary substantially. For non-mobilization dyads, civil war has a positive but insignificant association with aid from donors. Conversely, for mobilization dyads, civil has a significant ($p < 0.01$) negative association with aid from donors. Further, while the estimate for migrants is positive and significant in both models, the estimate is much attenuated for non-mobilization dyads and quite substantial for dyads where migrants have greater ability and interest to mobilize.

These results do not necessarily negate the main findings for migrants and civil war, but they do highlight some important heterogeneity in donor responses to civil wars. While migrant mobilization appears to magnify donor responsiveness to bilateral migrant population size, it leads to reduced support for recipients experiencing civil war. This finding seems in line with research showing that rebels

Table 4: Interaction Terms for Civil War

Donor	Migrants	Military Aid	Trade
Australia	0.035 (0.022)	0.021 (0.009) *	-0.062 (0.021) **
Austria	0.027 (0.039)	0.017 (0.008) *	0.002 (0.032)
Belgium	-0.06 (0.026) *	0 (0.007)	-0.115 (0.051) *
Canada	0.086 (0.032) **	0.036 (0.006) ***	0.116 (0.017) ***
Denmark	0.166 (0.057) **	0.042 (0.019) *	-0.069 (0.052)
Finland	-0.004 (0.025)	0.018 (0.005) ***	0.027 (0.021)
France	-0.113 (0.049) *	0.001 (0.012)	0.037 (0.051)
Germany	0.099 (0.021) ***	0.013 (0.005) **	0.047 (0.028) .
Italy	-0.037 (0.033)	0.035 (0.008) ***	0.195 (0.031) ***
Japan	0.051 (0.062)	-0.001 (0.023)	0.03 (0.089)
Luxembourg	-0.308 (0.091) ***	-0.065 (0.025) **	-0.245 (0.073) **
Netherlands	-0.117 (0.024) ***	-0.006 (0.008)	0.023 (0.04)
New Zealand	-0.05 (0.026) .	0 (0.005)	-0.04 (0.012) **
Norway	-0.029 (0.016) .	0.014 (0.006) *	-0.003 (0.011)
Portugal	-0.124 (0.079)	0.044 (0.041)	-0.248 (0.12) *
Spain	0.056 (0.031) .	0.018 (0.009) *	0.076 (0.036) *
Sweden	-0.15 (0.026) ***	0.022 (0.009) *	-0.007 (0.026)
Switzerland	0.014 (0.031)	0.013 (0.008) .	0.02 (0.021)
UK	-0.449 (0.113) ***	0.01 (0.022)	0.127 (0.119)
US	-0.095 (0.035) **	0.059 (0.006) ***	0.096 (0.022) ***

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.
Results from Tobit models estimated by Donor.

may benefit from transnational lobbies (Salehyan, Gleditsch, and Cunningham 2011)—migrants may not support the recipient regime when there is a conflict and thus pressure their host country to cut foreign aid that may benefit the recipient government.

5.5 Variation by Donor

Results up to this point are consistent with expectations. However, not all donors may be equal in their determinations about the costs of giving aid to civil war states. To determine whether differences exist among donor strategies I estimate 60

Table 5: Summary of Interaction Terms

Interaction with...	Rank Correlation	Expected Sign
Migrants	0.19	8
Trade	0.73	12
Military Aid	.	15

multilevel Tobit models with random recipient intercepts. A third are specified like equation 2, a third like equation 3, and a third like equation 4. The key difference in specification was that models did not include donor fixed effects. Further, because of identification issues, year fixed effects were replaced with a quadratic time trend.

A summary of so many models is beyond the scope of this paper, but it is sufficient to say that variation in donor strategy is apparent in the results. The interaction term for civil war and migration runs in the expected direction for only 8 of the 20 donors included in donor-level analysis. For trade, the interaction term runs in the expected direction for 12 donors. The most consistent pattern is observed for military aid—the interaction term runs in the expected direction for 15 donors.

Simple bivariate correlations show that the sign on the interaction of civil war with migration and with trade is positively correlated with the size of the overall migrant population residing in a donor. The correlation is $\rho = 0.19$ and $\rho = 0.73$ respectively. It seems, therefore, that the industrialized countries most attractive to migrants and with the most to gain in terms of trade are most apt to target aid to civil war states on the basis of these factors.

The models estimated for several donors have interaction terms that are significant and *negative*, contrary to the hypothesized direction. Do these donors have different priorities? Do they recognize the potential costs of giving aid to civil war states leading them to cut aid to recipients that are important? These questions are impossible to answer here but merit future attention.

5.6 Robustness Checks

I check the robustness of the primary results by conducting two additional versions of the analysis. First, because multilevel Tobit estimates reflect partial pooling at the dyad level it is difficult to assess the extent to which results are driven by within versus between dyad variation. I therefore collapsed the dataset into two cross-sectional datasets—one for 1995-2001 and the other for 2002-2008. For each donor-recipient pair, I took the average of time-varying covariates and of the response for a given period. I then estimated Tobit models for each averaged cross-section. Model specification for the cross-sectional analysis was the same as for the main analysis save that year fixed effects and dyad random effects were dropped. Results are shown in Table A.1 in the appendix. No major changes in the direction of the coefficients of interest are observed; however, some heterogeneity between periods does appear to be present. While the interactions between civil war and each of the measures of donor interest are insignificant for 1995-2001, they are significant for 2002-2008. This suggests the main results may be driven primarily by the way donor governments have targeted aid since 2002 and may betray a shift in donor strategy consistent with other analyses that consider changes in how donors target aid before and after the onset of the War on Terror (Bermeo 2017).

Another concern is that missingness on a number of covariates produces imbalance in the panel dataset. Indeed, two measures of imbalance suggested by Ahrens and Pincus (1981) confirm the presence of unbalancedness.[9] To deal with this I conduct multiple imputation of missing data via Random Forests in conjunction with predictive mean matching to improve performance (Steckhoven and Bühlmann

[9]The two measures of interest are γ and ν. The closer each is to 1, the greater the balance. Values closer to 0 indicate greater levels of imbalance. For the analytical dataset (the data used to estimate Tobit models after list-wise deletion) $\gamma = 0.43$ and $\nu = 0.79$.

2012).[10] Panel Tobit estimates for the imputed data are shown in Table A.2. The results remain mostly unchanged apart from (1) greater precision in the estimates, (2) a now significant and negative coefficient on the main term for civil war when interacted with migrants, and (3) an interaction between civil war and trade that is slightly attenuated in both significance and magnitude. Overall, this suggests bias and inefficiency induced due to unbalancedness in the analytical data is modest.

6 Conclusion

The promotion of peace and economic prosperity in developing countries is pivotal to the furtherance of donor governments' broader material, social, and strategic priorities. This study helps clarify how these interests shape donor government responses to civil war in developing countries.

The analysis underlines systematic disparities in how donors target aid to civil war states. The size of the bilateral migrant population, the volume of bilateral trade, and the amount of US military aid given to recipients help to shape how donor governments respond to civil wars in developing countries. While recipients deemed important on the basis of these factors receive disproportionate assistance, those deemed unimportant appear to experience disproportionate cuts.

Critically, these findings suggest that donor governments in general distribute aid to civil war states in a way that may run counter to furthering development goals. Girod (2012), for example, finds that aid is only effective in post-conflict recipients that are poor in natural resources and of little strategic import to donors. The author accounts for this via the "non-strategic desperation hypothesis" which states that recipient governments only have incentives to implement donors' development

[10] I use the missRanger R package.

objectives when they are desperate for the income supplied in the form of aid and a donor can make a credible threat to withhold aid if a recipient fails to implement desired reforms. If recipient governments garner plenty of rents from natural resources, or if donors deem them so important that they suffer disutility by cutting aid, recipients have no incentive to implement donors' objectives. Consistent with this view, Girod (2012) finds that after civil wars aid has a negative effect on recipient development among resource rich, strategically important recipients, but a positive effect on development among resource poor and strategically unimportant recipients.

While this logic is used in the context of post-conflict recipients, it may extend to ongoing conflicts as well. If this is the case, donor governments' efforts to "do something" in the face of ongoing civil war to protect their interests may, in fact, be counterproductive with respect to economic development. This conjecture is further supported by Bearce and Tirone (2010) who find that foreign aid can foster economic development across recipients more broadly (not only civil war states) *if* donors get little strategic benefit from allocating aid. As with Girod, for Bearce and Tirone aid conditionally is the primary mechanism through which aid has an effect. Donor governments do not suffer disutility by cutting aid when a recipient has little strategic value. This gives recipient governments stronger incentives to meet the development goals set by donors for fear of losing the additional source of revenue.

In light of these previous findings, as well as the findings of Nunn and Qian (2014) and Narang and Stanton (2017) that civil war threatens the lives of aid workers and may be looted by rebels, the analysis presented here portends grim outcomes for civil war states deemed most important by donor governments. These findings, of course, are not definitive, so more research on the role of civil war as a determinant of foreign aid allocation is needed. Further, more research is required

to assess the consequences of donor interests for civil war outcomes and recipient economic development.

Importantly, the analysis reveals that migrant mobilization may play a role in shaping donor responses to civil war and may even help to improve prospects for conditionally. Among dyads where migrants have opportunity and motive to lobby their host governments, donors give less aid to civil war states relative to those at peace, all else equal. Perhaps, then, mobilization facilitates a more appropriate donor response civil wars. However, more research is needed to confirm this finding and understand its implications for conflict in recipients.

7 Appendix

Table A.1 shows cross-sectional estimates for data averaged for 1995-2001 and for 2002-2008. Table A.2 shows multilevel Tobit estimates using the imputed panel data.

Table A.1: Cross-sectional Tobit Estimates

	1995-2001			2002-2008		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	4.984***	4.955***	4.903***	6.357***	6.390***	6.594***
	(0.534)	(0.545)	(0.540)	(0.528)	(0.536)	(0.539)
Civil War	−0.591***	−0.847+	−0.331*	−0.845***	−1.424**	−0.986***
	(0.177)	(0.467)	(0.150)	(0.211)	(0.455)	(0.230)
Migrants	0.117***	0.129***	0.130***	0.197***	0.210***	0.209***
	(0.013)	(0.012)	(0.012)	(0.014)	(0.013)	(0.013)
Trade	0.084***	0.077***	0.081***	0.008	0.001	0.008
	(0.014)	(0.015)	(0.014)	(0.014)	(0.014)	(0.014)
Military Aid	0.040***	0.040***	0.038***	0.014**	0.014**	0.008
	(0.005)	(0.005)	(0.006)	(0.004)	(0.005)	(0.005)
Income	−0.558***	−0.555***	−0.555***	−0.572***	−0.576***	−0.591***
	(0.034)	(0.035)	(0.035)	(0.032)	(0.032)	(0.033)
Population	0.054*	0.054*	0.053+	0.066**	0.061*	0.055*
	(0.027)	(0.027)	(0.027)	(0.025)	(0.025)	(0.025)
Disaster	0.076***	0.076***	0.077***	0.078***	0.079***	0.080***
	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)
Democracy	−0.027	−0.028	−0.026	−0.014	−0.017	−0.017
	(0.019)	(0.019)	(0.019)	(0.016)	(0.016)	(0.016)
Distance	−0.321***	−0.315***	−0.316***	−0.379***	−0.369***	−0.377***
	(0.047)	(0.047)	(0.047)	(0.046)	(0.046)	(0.046)
Colony	1.826***	1.816***	1.820***	1.586***	1.581***	1.571***
	(0.158)	(0.158)	(0.158)	(0.154)	(0.154)	(0.154)
Alliance	−0.262***	−0.263***	−0.261***	−0.152*	−0.149+	−0.141+
	(0.079)	(0.079)	(0.079)	(0.077)	(0.077)	(0.077)
FDI	0.004	0.004	0.003	0.041**	0.041**	0.042**
	(0.020)	(0.020)	(0.020)	(0.016)	(0.016)	(0.016)
Int. w/ Migrants	0.059**			0.093***		
	(0.021)			(0.024)		
Int. w/ Trade		0.037			0.069**	
		(0.025)			(0.023)	
Int. w/ Military Aid			0.015			0.062***
			(0.011)			(0.015)
Num.Obs.	2510	2510	2510	2925	2925	2925
AIC	6830.1	6835.4	6835.8	8055.8	8061.7	8053.5
BIC	7039.9	7045.2	7045.6	8271.1	8277.0	8268.8
Log.Lik.	-3379.050	-3381.718	-3381.891	-3991.895	-3994.849	-3990.761

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.2: Tobit Estimates with Imputed Data

	Model 1	Model 2	Model 3
Constant	4.453***	4.412***	4.481***
	(0.164)	(0.165)	(0.164)
Civil War	−0.332***	−0.310**	−0.232***
	(0.055)	(0.106)	(0.036)
Migrants	0.219***	0.225***	0.225***
	(0.004)	(0.004)	(0.004)
Trade	0.028***	0.026***	0.028***
	(0.003)	(0.003)	(0.003)
Military Aid	0.019***	0.019***	0.015***
	(0.001)	(0.001)	(0.001)
Income	−0.673***	−0.671***	−0.677***
	(0.010)	(0.010)	(0.010)
Population	0.221***	0.220***	0.219***
	(0.007)	(0.007)	(0.007)
Disaster	0.027***	0.027***	0.027***
	(0.002)	(0.002)	(0.002)
Democracy	0.075***	0.075***	0.076***
	(0.005)	(0.005)	(0.005)
Distance	−0.368***	−0.364***	−0.365***
	(0.014)	(0.014)	(0.014)
Colony	1.666***	1.664***	1.662***
	(0.041)	(0.041)	(0.041)
Alliance	−0.230***	−0.230***	−0.225***
	(0.027)	(0.027)	(0.027)
FDI	0.015***	0.016***	0.016***
	(0.004)	(0.004)	(0.004)
Int. w/ Migrants	0.037***		
	(0.007)		
Int. w/ Trade		0.014*	
		(0.006)	
Int. w/ Military Aid			0.016***
			(0.003)
Num.Obs.	46,584	46,584	46,584
AIC	130,234.7	130,259.4	130,230.1
Log.Lik.	−65,068.356	−65,080.703	−65,066.052

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

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