



Bypass or Engage? Explaining Donor Delivery Tactics in Foreign Aid Allocation*

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The conventional wisdom in the literature on aid allocation suggests that donors utilize bilateral aid as a tool to buy influence in the aid-receiving country. Those who conclude that aid is driven by donor self-interest focus on government-to-government aid transfers. However, this approach overlooks important variation in delivery tactics: Bilateral donors frequently provide aid to nonstate actors. This paper argues that donors resort to delivery tactics that increase the likelihood of aid achieving its intended outcome. In poorly governed recipient countries, donors bypass recipient governments and deliver more aid through nonstate actors, all else equal. In recipient countries with higher governance quality, donors engage the government and give more aid through the government-to-government channel. Using OLS and Probit regressions, I find empirical support for this argument. Understanding the determinants of donor delivery tactics has important implications for assessing aid effectiveness.

In 2008, Haiti, a developing country with an abysmal record of governance, received more than 700 million US dollars in bilateral development assistance from OECD donor countries, amounting to roughly 70 dollars of aid per capita. In the same year, Tanzania, whose institutions of intermediate strength bode well for effective aid implementation, received around 2 billion US dollars in bilateral assistance, equivalent to approximately 47 dollars in per capita aid. For recent accounts of aid policy by scholars who champion a donor government whose primary objectives are policy concessions over one that derives utility from aid effectiveness, this outcome is consistent with an empirical regularity: In spite of a high probability of aid waste, donors continue to provide high volumes of per capita aid to countries with poor governance. This regularity, coupled with the assumption that aid directly adds to a government's available resources, has prompted scholars to question donors' development motivations (for example, Alesina and Weder 2002; Neumayer 2003; Bueno de Mesquita and Smith 2009).

However, this image of the concession-driven government changes when one accounts for the mechanism of aid delivery: Over 60% of aid to Haiti bypassed the central government and is channeled through international and local non-governmental organizations, multilateral organizations, and private contractors. In Tanzania, on the other hand, only 15% of the aid to Tanzania is channeled through nonstate actors. The balance was given to the Tanzanian government in a bilateral, state-to-state engagement [Organisation for Economic Cooperation and Development (OECD) 2010]. The central focus of this paper addresses this empirical puzzle: Why do OECD donors choose to bypass state institutions in some devel-

oping countries, but not others? And, under what conditions do they do so?

This study argues that donor decisions about the selection of delivery mechanisms are not random but endogenous to the quality of recipient state institutions. Outcome-oriented donors, whose development strategy seeks to maximize the impact of their aid on recipient development, respond tactically to the quality of governance in the recipient country. Recipient institutions serve as a credible signal for gauging the probability of successful aid implementation. Strong institutions signal greater capacity and willingness of the recipient government to effectively disburse aid, thus encouraging donors to entrust the government with more of the aid. At the same time, bad governance raises the specter of aid misuse and creates an incentive for donors to seek out alternative development partners that allow them to protect a larger share of their aid from capture by the recipient government.

The results of this paper are important for understanding aid policy. At a fundamental level, the analysis of donor delivery decisions enhances our understanding of the complex nature of real-world donor decision making in which mechanisms of aid provision assume a crucial role. As a senior French government official suggested during an interview: "Fifty percent, if not more, of total annual ODA-aid effort, meaning more than half of one hundred billion Euros, is about delivering the aid to the beneficiary in the recipient country. It's about selecting the right interface, the right channels of delivery. And this estimate is a conservative one."¹

Understanding what these delivery tools and tactics are and why donors resort to them has the potential to shed light on donors' development strategies. While the examples from Haiti and Tanzania suggest that donors provide aid through channels other than recipient government, this study uses new OECD project-level data on foreign aid delivery channels to show that donors exhibit tactical

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¹ Author's interview with senior French government official, Ministry of Foreign Affairs, Paris, July 16, 2009.

awareness by systematically conditioning their delivery choices on the likelihood of aid success in the recipient country. Importantly, the analysis of aid delivery decisions not only informs our understanding of aid policy but also carries important implications for the study of aid effectiveness. The conventional framework for assessing development effectiveness focuses on conditions within the recipient country, assuming all aid is equally fungible. By design, however, bypass tactics already incorporate information about the quality of recipient governance in the aid-receiving country, thus shielding valuable resources from waste by corrupt governments and weak state institutions as they enter the aid-receiving country. Conventional aid effectiveness frameworks therefore may underestimate donor ability to enforce development contracts and overestimate the influence of recipient country characteristics on the success of aid.

Previous Literature on Aid Allocation

Numerous studies explore bilateral aid policy by assessing OECD donors' aid commitments. Guided by analytical models and rigorous empirical studies, many studies explain aid levels on the basis of recipient characteristics. The common focus of this research has overwhelmingly been on government-to-government aid transfers, and there are many good reasons for this analytical decision. Historically, foreign aid transfers have been predominantly government-to-government, starting with large-scale U.S. reconstruction efforts under the Marshall Plan (Marshall, Jagers, and Gurr, 2008). More recently, donor rhetoric on capacity-building emphasizes the role of government-to-government aid in helping recipient governments move toward sustainable development (for example, OECD Paris Declaration). However, empirical evidence shows that OECD donors channel significant amounts of bilateral assistance around recipient governments and through nonstate development actors: in 2008, OECD donors committed a total of US \$ 112 billion and delegated over 30% of the aid, approximately US \$ 41 billion, for implementation through nonstate development actors, which included NGOs, multilaterals, public-private partnerships, and private contractors (OECD 2010), only to name the more prominent bypass channels.² These nonstate actors are hired for specific project delivery and remain primarily accountable to the donors. Government-to-government aid, on the other hand, captures flows that directly involve the recipient government, ranging between budget support and technical assistance.³

Many studies of aid policy that assume bilateral aid flows are government-to-government have contributed to the emergence of a conventional wisdom, suggesting that donor allocation behavior is not driven by aid effectiveness concerns. For instance, Alesina and Weder (2002) assess the extent to which donors condition their aid commitments on state institutions in the aid-receiving country based on the understanding that a good institutional environment provides a fertile ground for the effective implementation of aid projects. They show evidence that more corrupt governments receive more aid.

Neumayer (2003), Stone (2006), and Bueno de Mesquita and Smith (2007, 2009) find that recipient governance has limited importance for shaping bilateral aid commitments.

The basso continuo of this literature is that donors are not actively pursuing effective development strategies. Rather, this line of inquiry emphasizes the role of bilateral foreign aid as a primary instrument of state-craft, used to gain influence over recipient governments to advance donor goals. These donor goals can include recipient government stability (for example, Kono and Montinola 2009), counter-terrorism (for example, Bapat 2011; Boutton and Carter 2010), access to natural resources (for example, Kapfer et al 2007), and democratization (for example, Bermeo 2011). According to Bueno de Mesquita and Smith (2009), it would be mere coincidence if bilateral aid would substantially contribute to recipient development:

Recipient and donor leaders seek substantive policies and resource allocations that protect their hold on power. To the extent that such policies and allocations are compatible with good economic or social performance, they will make social-welfare enhancing, "good decisions." Yet, such instances are coincidental. If faced with a contradiction between actions that enhance their own political welfare and actions that advance societal well-being, donor and recipient leaders will select those policies that benefit themselves. (p. 312)

Allocation models a la Bueno de Mesquita and Smith (2009) rest on the supposition that donors derive utility mainly from buying policy concessions in the aid-receiving country and that they seek to maximize this utility by choosing the level of aid support to the recipient government. They assume that each aid dollar is equally fungible and can be spent at the discretion of recipient governments. However, if donor governments used aid solely to obtain policy concessions by recipient governments, the use of bypass tactics is puzzling. By definition, bypass reduces the amount of available funds for striking non-developmental bargains with the recipient government.

The fact that donors use multiple bilateral aid delivery tactics may thus serve as *prima facie* evidence that donors derive more utility from aid success than the conventional wisdom would want us to believe. In fact, donor rhetoric over the last decade emphasizes the focus on poverty reduction as an end in itself, as well as a means to combat security threats in the developing world (Mosse 2005; Renard 2005). The Millennium Development Goals, for instance, not only serve as an explicit road map to reduce poverty. The agenda was also designed to help achieve greater stability in the world by stressing the interlinkage between development and security in the development of poor states (United Nations 2009). Recently, the United States raised development to the status of one of three pillars of national foreign policy, along with defense and diplomacy: the 3Ds (Patrick 2007). In light of the positive externalities of development in the security realm and the normative importance of improving poor peoples' lives, it is important to advance a broad conception of donor development orientation, one in which aid allocation decisions may be motivated by altruism (with development representing the end goal) and/or efficiency concerns (where development is a means to other ends). In either case or both, this study attempts to answer the question of whether donors allocate aid by employing tactics that increase the

² Other bypass channels include universities, research facilities, and international networks.

³ To further illustrate the problem associated with this assumption, I offer a breakdown of US aid by delivery channels across a small sample of US aid recipients in Figure A1 in the Appendix.

likelihood of achieving development outcomes. Do OECD donors systematically condition aid delivery decisions on the quality of recipient institutions?

Radelet (2004) explicitly recognizes the heterogeneity of aid delivery tools in bilateral aid allocation and the importance of donor decisions about how to deliver the aid for reaching the Millennium Development Goals. He advocates that “aid should be delivered to countries with better governance very differently than to countries with poor governance. To date, the move towards greater country selectivity has been conceived primarily as allocating more Official Development Assistance to countries with better policies and stronger institutions. However, the idea that aid is likely to be more effective in well-governed countries should influence more than just the amount of aid that donors provide—it should change the way that donors administer aid” (p.12). Recent empirical work by Bermeo (2009) shows that donor governments employ sector allocation decisions strategically, in response to the quality of governance in the recipient country. Winters (2010a) enriches our insights about the calculus of a development-oriented World Bank by leveraging heterogeneity of lending tools. He shows that the World Bank differentiates systematically among lending tools with a view toward effective aid implementation. Like previous studies, Winters focuses on government-to-government aid flows.

This study analyzes whether OECD donor governments condition decisions to channel funds through nonstate development actors when state institutions present a problem for effective aid delivery. Through bypass tactics, development-oriented donors have a third-party mechanism that goes beyond the conventional government-to-government modality of aid delivery, thus altering the structure of aid provision. My answer to this research question has the potential to shed light on the development calculus of donor governments and carries implications for the study of aid effectiveness.

The Influence of Governance on Aid Delivery

Why do donor governments pursue a development strategy that delegates valuable bilateral aid resources to third-party development actors instead of channeling them through recipient governments? The risk of aid capture, coupled with a donor calculus that derives utility from development, offers a potential answer.⁴

Each year donors give development assistance to developing countries, many of which exhibit unproductive situations in which aid goes to waste through government incentives to pocket the aid for personal gain and/or limited capacity on the part of state institutions to ensure that aid reaches its intended beneficiaries. As analytical and empirical work on donors’ aid implementation record shows, aid transfers between donor and recipient governments are at great risk of aid capture through agency problems and bureaucratic inefficiencies in poorly governed countries (Svensson 2000; Brautigam and Knack 2004; Reinikka and Svensson 2004; Gibson, Andersson, Ostrom and Shivakumar. 2005; Djankov, Montalvo and Reynal-Querol 2008). In these countries,

institutions fail to provide minimal levels of corruption control, rule of law, government effectiveness, and regulatory quality.⁵

In countries with better governance, on the other hand, the threat of aid capture is lower because more effective institutions provide rules and constraints that limit exploitative elite behavior and bolster administrative capacity (for example, North 1990, 1991). Such countries typically have indigenous development capacity, have demonstrated the ability to pursue development by themselves, and have a record of cooperative relationships between government and local nonstate development actors (OECD 2001). Arguably, these governments may have better knowledge than the donor or international implementing agents about what type of outside intervention is needed and how to make the aid implementation of development projects most cost-effective (for example, Svensson 2000; Hefeker and Michaelowa 2005). If governance does not pose a problem, insofar as it limits the possibility of aid capture, then donors do not need to substitute third-party development actors for the recipient government.⁶ In fact, donors have a baseline preference for government-to-government aid as direct relations with the recipient government will strengthen bilateral ties in general, and may carry pay-offs in non-developmental issue areas as well. This preference is reinforced by the understanding, shared by scholars and policymakers alike, that long-term sustainable development, as the ultimate goal of foreign assistance, is only realistic in environments where government capacity is moderate to strong.⁷

When making allocation decisions, donors turn to the quality of governance in recipient countries for credible signals about the extent to which foreign aid is threatened by aid capture. They assess governance quality through publicly available data on governance ratings as well as more detailed field reports provided through local implementation partners.⁸

From this perspective, the central issue in aid allocation is not how much aid donors provide but rather how it can be delivered so that it mitigates institutional failure and ensures efficacy of aid output in places like Haiti, Sudan, or Zimbabwe where need is high, yet existing governance deficiencies pose severe risks to effective aid implementation? In light of the negative effects of aid capture on aid outcomes, scholars and practitioners have suggested that donors reduce the risk of aid capture by pursuing a strategy of country selectivity, that is, targeting countries with higher levels of governance where the probability of aid capture is low. And while country selectivity makes sense on its face, it also implies that the countries that need the aid most get very little. Scholars like Radelet (2004) make this short-coming explicit in their writing. Easterly et al (2003), too, suggest that country selectivity may not be the appropriate path to help the world’s poorest countries develop. But there does not

⁵ Others argue that government-to-government aid can increase corruption in the recipient country and incur long-term costs on the quality of state institutions (Bates 2001; Knack 2001; Remmer 2004; Weinstein 2005).

⁶ The exception here are aid donations to civil society actors in the name of democracy promotion.

⁷ A series of international donor conferences, including Rome (2002), Paris (2005), Accra (2008), and most recently Busan (2011), have helped establish the view that donors should give preference to government-to-government aid over bypass aid.

⁸ Multiple interviews with senior donor officials documented keen awareness and utilization of governance ratings, such as the World Bank’s Governance Matters Project.

⁴ I define aid capture broadly as resulting from the mismanagement of aid in the recipient, either by intentional diversion of aid through corrupt authorities/bureaucrats or the waste of aid due to a lack of absorptive capacity. This definition differs from Svensson (2000) and Winters (2010b) who define aid capture as acts of corruption.

seem to be a general consensus about what other criteria they should use.

Among practitioners, there is a growing consensus on the need to maintain sustained engagement in the worlds' poorest and often most fragile states. A senior British government official makes this point vividly: "It is important to move away from the Washington consensus, which stresses development cooperation with reforming states so that they get even better. The consensus implies that we leave the Sudans and Afghanistans behind because they are too difficult. Somewhere in the last five to ten years there has been a paradigm shift with us donors acknowledging that we cannot leave the tough spots. We need to deal with these countries and still take account of state capacity but the premise must be that it is not there. We need to intervene differently."⁹

This popular demand for more effective aid policy also responds to pessimism generated by scholarly assessments of the effectiveness of a common government-to-government allocation tool: aid conditionality. Numerous analytical and empirical accounts of interactions between donor and recipient governments argue that donors lack the ability to enforce aid contracts credibly, in general, and attached reform conditions, in particular (for example, Mosley 1987; Collier, Guillaumont, Guillaumont and Gunning 1997; Svensson 2000; Stone 2006). A key insight drawn from this literature must be that conventional government-to-government aid contracts may not have sufficient bite to align recipient government incentives in ways that ensure assistance reaches the intended beneficiaries.

By accounting for variation in aid delivery channels, I uncover an important mechanism of aid delivery: bypassing recipient governments. This allows donors to work around the difficulties of enforcing aid contracts in situations where the probability of aid capture is high. In making the argument about endogenous bypass tactics, it is important to distinguish between government-to-government and bypass aid. I define government-to-government aid as any aid activity that involves the recipient government as an implementing partner.¹⁰ In contrast, I categorize aid delivered through nonstate development channels as that which does not directly engage government authorities at all. There are four main categories of nonstate development actors: local/international NGOs, multilateral organizations, public-private partnerships, and "other", which subsumes a host of categories, such as private contracting businesses, research facilities, and international networks.

Local NGOs are important development partners for donors. Their issue-focus and local knowledge about what types of projects are needed make them attractive to donors who seek to deliver services effectively. Not all local NGOs are equally virtuous and capable, however. In poorly governed countries, the quality of service delivery of local NGOs may be compromised by a lack of expertise and organization as well as corruption (see for example Barr, Fafchamps and Owens (2005)). To mitigate potential implementation problems when delivering aid through local NGOs, donors can resort to databases (for example, ForeignAID Ratings LLC) to assess NGO capac-

ity ex-ante. More commonly, however, they channel significant funds through international NGOs such as Oxfam, Doctors Without Borders or Care International, which allow donors to pursue their development objectives abroad. International NGOs have an issue-focus and have better knowledge of local capacities than donor staff in headquarter offices. They should thus be in a better position to partner with trustworthy local NGOs, providing important monitoring functions.

In regions of the world where NGO partners are not represented on the ground, or where aid projects may require economies of development, donors can turn to multilateral organizations for service delivery. Organizations like UNICEF, for instance, have generated many aid success stories around the world. Like international NGOs, many multilaterals are specialized and involved with the local sector. What differentiates them from smaller NGOs is the size of their operations and their capacity to mount emergency response interventions quickly as well as to sustain more long-term service delivery programs. Another important type of nonstate development channel is for-profit contracting. Donor governments often outsource development assistance to the private sector by awarding contracts to private contracting firms. They often complement the implementation of development activities by NGOs and IOs by offering technical expertise and capacity that other implementing agents may lack.¹¹

While there is considerable variety among these bypass channels, they share two main characteristics that justify my decision to subsume them all under the category "bypass." First, they are mostly independent development actors that provide donors with the opportunity to channel their funds through actors other than the recipient government. Second, these entities have an issue-focus, which implies that nonstate development actors generate the majority of their funding through poverty reduction projects, thus making their organizational survival more dependent on their performance in this issue area. Given the multitude of nonstate development actors, donors can potentially punish bad implementation performance by switching to another organization. I thus claim that donors view "bypass" as one step further removed from wholesale misallocation that can occur if aid goes through the government-to-government channel. I thus advance the following hypothesis: When the quality of governance is low, OECD donors bypass recipient governments and channel a greater proportion of their aid through nonstate development actors. In offering my expectation about bypass in poorly governed states, it is important to clarify what I am not arguing. I do not claim that donors expect bypass aid to be completely insulated from aid capture. Rather, aid through bypass actors is *relatively* more shielded from misallocation than would be the case in government-to-government transfers. This argument is based on the understanding that issue-focus and competition generate incentives for bypass actors to,

⁹ Author's interview with a senior British government official, Washington, DC, June 9, 2009.

¹⁰ In some instances, a recipient government receives budgetary support or programmatic aid from a donor government and is fully responsible for the implementation process. In other instances, donor governments directly engage recipient authorities by delivering aid projects or providing them with consulting services.

¹¹ Skeptics might be concerned about the possibility that, in addition to pursuing an efficiency-focused calculus, donor agencies may offer contracts to for-profit agents simply to strengthen domestic business. While separating these two motives would be ideal, in reality it would require intrinsic knowledge and evaluation of the procurement process of every project implemented by a private contractor, which is difficult to do. The category subsuming for-profit contracting accounts for less than 15% of bilateral aid flows. Therefore, the primary development partners for bypass are not-for-profit entities. Table A2 in the Appendix provides a breakdown of bypass aid channeled through the individual bypass categories. I thank one anonymous reviewer for raising this important point and incorporate it in the subsequent empirical tests.

at a minimum, contain corrupt practices, thus reducing the amount of aid threatened by aid capture. Donors thus expect to have a greater likelihood of achieving the desired outcome when working with bypass actors in poorly governed countries than when working through the government-to-government channel.

In advancing the argument that donors condition aid delivery on the probability of aid capture, I presume that, across all recipient countries, donors can choose between two equally viable implementing channels: government-to-government aid and bypass aid. In some aid-receiving countries, however, most notably in failed states, donors might not face a true choice between the two channels because recipient governments may be functionally incompetent, potentially making bypass the only viable aid delivery channel.¹² If this is true, then the validity of my argument applies first-and-foremost to the universe of states with functionally competent governments, although one should expect donors to consider government-to-government aid to capable units within generally incompetent governments. In the latter type of states, we would expect donor allocation to exhibit some bias (which may be quite small) in favor of bypass actors.

Separating recipient countries by degree of (in)competence is not easy to do, however, since donor definitions of this concept vary. For example, while the term “failed states” is used by the majority of donor governments, the definitions of the concept vary, ranging between simple governance-related criteria, extended third-party interventions, and multidimensional indexes subsuming different areas of government performance. To identify some degree of conceptual consistency across donors, I conducted a thorough web-search of donor policy reports on failed states across four major donors (the United States, United Kingdom, France, and Germany). Among the various existing definitions and measures of state failure, a broad definition of state failure was most common. The “Foreign Policy Failed States Index” (FSI) was among the most popular measures to capture fragile statehood. The FSI ranks countries across a range of dimensions, including demographic pressures, complex humanitarian crises, human flight, group grievances, economic growth, uneven development, state legitimacy, public services, human rights, rule of law, security sector, external intervention, and factionalized elites. I will rely on this measure in the subsequent empirical tests.

Research Design, Data, and Measures

I explain donor decisions to bypass recipient governments across 22 OECD donor countries. The universe of recipient countries includes ODA eligible countries as defined by the OECD (including low-, lower middle-, and upper middle-income countries). I test my argument at two levels of analysis. First, given the diversity of donors in my sample, the main unit of analysis is the donor–recipient dyad year. Second, I test my argument at the monadic recipient-year level, taking into account my conjectures about average bypass behavior. My temporal domain ranges from 2005 to 2009.

The Dependent Variable: Donor Bypass

My empirical analysis asks: Does recipient governance explain donor decisions to bypass government institu-

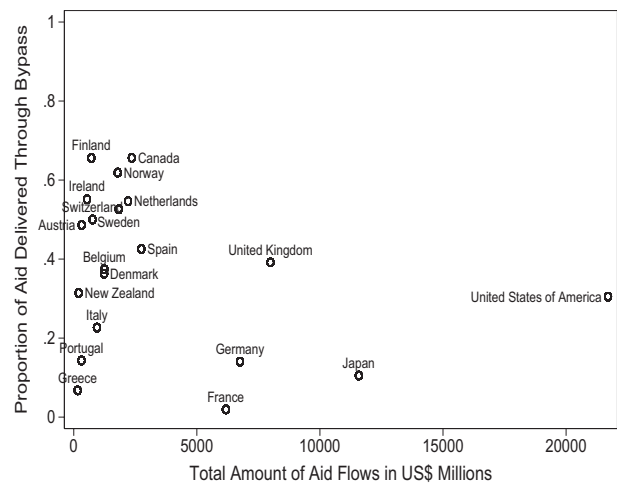


FIGURE 1. Proportion of Bypass Aid by OECD Donors, 2009

tions? The outcome of interest therefore are donor decisions to bypass government institutions. To construct a measure of bypass, I use new data drawn from the OECD CRS aid activity database. The OECD began collecting (donor reported) information on the “channel of delivery” in 2004, when it became an optional reporting item on the new CRS++ reporting scheme. Information on the channel of delivery conveys how foreign aid is delivered: It records the amount of bilateral aid flows channeled through five channel categories. These include government-to-government aid as well as aid delivered to non-governmental organizations, multilaterals, public–private partnerships, and other development actors.

I operationalize the decision to bypass in two different ways: My main measure of bypass is continuous and captures the proportion of aid delivered through nonstate development actors. When donors allocate funds to a particular country, what proportion of the assistance goes to nonstate actors? Figure 1 presents the proportion of nonstate aid each donor country allocates (y-axis) across the full volume of aid flows in 2009. Among OECD donors, Finland channels the greatest proportion of aid through bypass actors, nearly 70%, followed by Norway and Ireland. Italy pursues bypass tactics with nearly half of its bilateral funds, soon followed by the United States, which outsources more than 30% of its bilateral funds. At the left side on the bypass axis are Greece and France, which send less than 10% of their aid through bypass channels.¹³

To ensure the robustness of my estimations, I construct an alternative binary bypass measure, with “1” indicating that donors deliver aid exclusively through nonstate development partners. This may be any combination of international/local NGOs, multilateral institutions, or public–private partnerships, but it excludes government-to-government aid. Zero, on the other hand, implies that donors engage the recipient government directly, either in the context of mixed strategies (which allows for a combination of state-to-state and nonstate aid) or exclu-

¹³ Since reporting on the recently (2004) introduced data item “delivery channel” is optional, available data are affected by underreporting (OECD CRS Reporting Directives Manual 2008). The level of underreporting varies across time and donor. Germany, for instance, exhaustively reports all its aid activities across channels of delivery since adopting the C++ format in 2005. The United States reports across channels since 2004, but its reporting on the channel of delivery category nears completion only in 2007. Canada, on the other hand, only provides complete channel information in 2008.

¹² I thank one anonymous reviewer for raising this point.

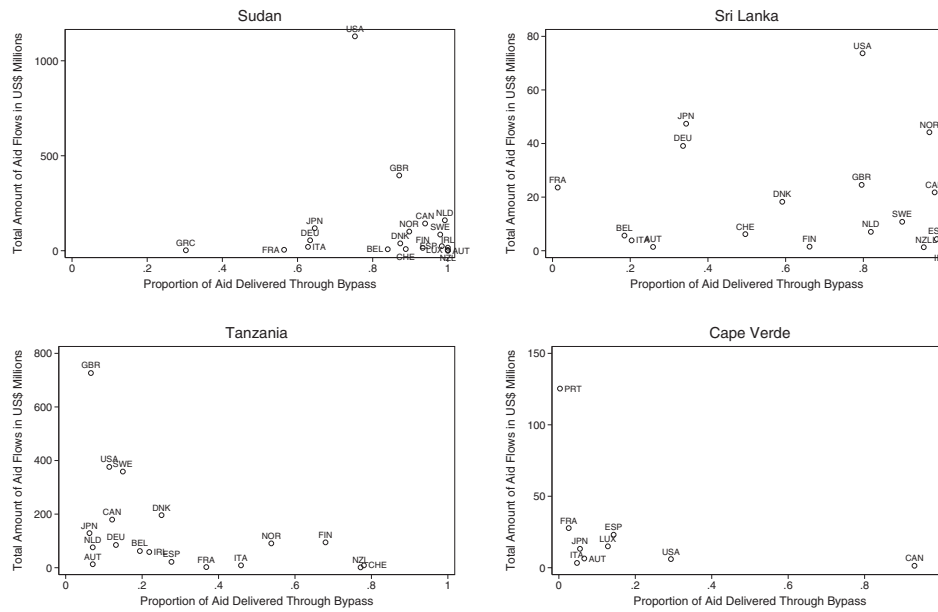


FIGURE 2. OECD Donor Bypass Behavior, 2009

sive cooperation with the recipient government. The simple coding of my binary outcome, bypass yes/no, considerably reduces the potential for bias due to reporting problems. Since my bypass measure is coded as “1” only when donors give 100% of their aid through bypass the expected bias in reporting is unlikely to be the cause of either false positives or false negatives, since the expected bias in reporting would be to not have information that the aid was going through nonstate channels. I limit the fraction of missing data per recipient-dyad to be less than 20%.

The Explanatory Variable: Quality of Governance

At the heart of donor decisions about aid delivery are assessments about the likelihood of aid reaching the intended outcome in the recipient country. If state institutions are of poor quality, donors expect a higher probability of aid capture and consequently increase the proportion of aid that bypasses governments. The main variable of interest therefore is *Governance Quality*. To capture the quality of governance, I draw on data from the Governance Matters project (Kaufman, Kraay and Mastruzzi 2009).¹⁴ I select this particular source of governance measures because author interviews with donor officials suggest that donor governments consult this publicly available governance source in their assessments, with a particular focus on economic institutions such as corruption control, government effectiveness, regulatory quality, and rule of law.

Drawing from six available indicators, I construct two different governance measures: *Governance, All Inst* is a measure at the highest level of aggregation, aggregating all six governance dimensions. *Governance, Ec. Inst* is a measure that captures a state’s economic institutions by including corruption control, government effectiveness,

regulatory quality, and rule of law as indicators.¹⁵ The values of both governance measures range between 0 to 5, with higher values representing a higher quality of governance. To illustrate recent donor aid delivery decisions in various situations of governance quality, I plot donor development cooperation four aid-receiving countries in 2009, where individual donors contributed at least 2 million US dollars in development assistance. Figure 2 shows the bypass behavior of all active OECD donors in Sudan (an abysmally governed, “failed” state) in 2009, Sri Lanka (a poorly governed state with a functionally competent government), Tanzania (a better-governed state), and Cape Verde (a well-governed state) across the full range of possible bypass behavior (as captured along the x -axis). In the case of Sudan, which has a governance score of 0.86, all donor governments, with the exception of Greece, bypass the Sudanese government with more than 50% of their bilateral assistance. In the case of Sri Lanka, which has a governance score of 1.90, a clear majority of donors bypass with more than 50% of their bilateral assistance, and some donors bypassing with a somewhat lower bypass proportion. Tanzania, scores a 2.3 on the scale and, as expected, the majority of donors, with the exception of Norway, Finland, and Switzerland, channel less than half of their aid through bypass channels. In Cape Verde, which scores 2.98 on the governance scale, donors channel only a very small proportion through bypass actors.

Controls

As the previous literature on aid policy maintains, various other factors shape donor decisions about the allocation of aid resources, including other recipient characteristics and non-developmental donor goals. I include them as controls to provide a fully specified model. All time-varying right-hand side variables are lagged one year. I begin with the confounding effects of *Democracy* based on the understanding that some donors may conceive of democratic institutions as political constraints that limit the ability of recipient governments and bureaucratic officials to capture aid flows. *Democracy* is measured using the

¹⁴ The project offers data for six governance dimensions: voice and accountability, regulatory quality, government effectiveness, rule of law, corruption control, and political stability and violence.

¹⁵ I exclude political institutions, political stability and violence because I include variables for democracy, civil conflict, and terrorism, in my multivariate tests.

combined score of the Freedom House (2009) civil liberty and political rights indicators. To make the scale of the measure more intuitive, I invert *Democracy* so that “1” represents the lowest level of democracy, while “7” stands for the highest level of democracy.¹⁶ I control for *Natural Disasters* based on the understanding that a greater number of natural disasters in the aid recipient, as recorded by the EM-DAT database, may prompt donors to provide a larger share of the pie to nonstate development actors that are specialized in post-disaster reconstruction efforts. Following a similar logic, low-scale *Civil Conflict*, as recorded by Gleditsch, Wallenstein, Eriksson, Sollenberg and Strand (2002) PRIO database, may create grievances that provide incentives for donors to favor more outcome-orientated aid delivery about ensuring that aid reaches the affected, thus increasing donor propensity to bypass. I include *Distance* to account for the geographical proximity between donor and the aid-receiving countries. As distance between donors and aid-receiving countries grows, government-to-government relations between donor and recipient governments are expected to weaken, thus increasing donor propensity to channel aid through nonstate development actors. The distance data are drawn from Bennett and Stam (2000) Eugene software and are logged.

Following previous studies, I also include confounders that capture donor non-developmental objectives. *Former Colony* status, as recorded by the CIA World Factbook, allows me to account for long-lasting diplomatic ties between the donor and the aid-receiving governments that may bias aid delivery in favor of government-to-government aid. *Trade Intensity*, measured as the logged sum of imports and exports between the recipient and the OECD countries by the IMF-DOT (2009) database, is a straightforward indicator of donor efforts to strengthen economic ties with the recipient government. To control for security-related donor goals, I include *Security Council*, which is a binary variable indicating whether the aid recipient is a rotating member on the UN Security Council. As research by Kuziemko and Werker (2009) finds, donor governments use aid to buy votes from rotating members of the UN Security Council. I also include *Terrorism*, which captures the number of terrorist attacks in the aid-receiving country as recorded by the Global Terrorism Database.¹⁷ I use this measure based on the understanding that donors have incentives to assist recipient governments in their fight of terrorism (for example, Bapat 2011; Button and Carter 2011).

To account for the confounding influence of donor ideology and economic conditions on the propensity to bypass, I include *Donor Welfare*, measured as social spending over GDP by the OECD’s Social Expenditures Database, based on the understanding that greater donor commitment to domestic redistribution may translate into more generous aid giving (for example, Therien and Noel 2000), yet may fail to generate pressure on governments to ensure the aid gets delivered effectively. Finally, I control for *Donor Growth*, recorded by the Penn World Tables, based on the understanding that as a donor’s growth performance improves, the pressure on govern-

ments to maximize aid success lightens, thus reducing the donor propensity to bypass recipient governments.

Further, I include a time trend variable to ensure that the observed relationship between the quality of governance and bypass is not a function of the two variables exhibiting a trend in either direction over time. To deal with structural factors that could systematically affect donor decisions to bypass recipient governments, I add a set of donor fixed effects. I also include a set of regional fixed effects.¹⁸

Analysis and Results

Before I proceed to the analysis of the data, it is important to provide a brief discussion of the statistical implications of using a proportional outcome measure, which requires compositional data analysis.¹⁹ For any donor–recipient dyad, the aid channel share is positive and the sum of the aid channels shares must be 100%. Consider the aid share A_i in donor–recipient dyad i for channel j . The compositional nature of the variable is expressed by the constraints that the fraction of the aid share that government-to-government or nonstate channels might receive is doubly bounded, falling between 0 and 1,

$$A_{i,j} \in [0, 1] \quad \forall i, j, \quad (1)$$

with $A_{i,j}$ denoting the fraction of the aid in donor–recipient dyad i ($i = 1, \dots, N$) for delivery channel j ($j = 1, J$). Government-to-government aid and nonstate aid in a given donor–recipient dyad sums to unity,

$$\sum_{j=1}^J A_{ij} = 1 \quad \forall i, j, \quad (2)$$

where J is the total number of delivery channels, which equal 2 (government-to-government and nonstate aid) in my case.

Following Aitchison (1986), I create a $(J-1)$ log aid ratio, which compares the nonstate aid to government-to-government aid:

$$Y_{i1} = \ln(A_{i1}/A_{i2}) = \ln(A_{i1}/(1 - A_{i1})) \quad (3)$$

The advantage of log-transforming proportional outcomes is that the outcome is unconstrained, allowing for a straightforward estimation through OLS. The coefficient of the log-transformed nonstate share variable then describes how the log ratio of nonstate aid changes with respect to government-to-government aid. After modeling, the estimates are transformed back into their original scale of interest:

$$A_{i1} = (1 + e^{-Y_{i1}})^{-1}. \quad (4)$$

and Y is log-transformed following the steps (1) through (4) above.

I now estimate my model using OLS regressions with robust standard errors clustered on the recipient country. In order to investigate possible bias from serial correlation, I apply the Wooldridge test for panel data (Wooldridge 2002:282–283). The insignificance of the test-statistic ($p = 0.33$) indicates that I cannot reject the null hypothesis of “no first-order autocorrelation” and conclude that my findings are not biased by temporal correlation of the

¹⁶ I also run the models using the Polity2 measure of democracy. The findings are qualitatively similar. I opt for Freedom House because of greater country-year coverage.

¹⁷ I use several different specifications of the terrorism variable with very similar results. The terrorist measure included in subsequent models captures the number of terrorist attacks against US targets.

¹⁸ The regional categories are Sub-Saharan Africa, Latin America, Middle East, and Asia. The omitted regional category is Central and Eastern Europe.

¹⁹ Honaker and Linzer (2006) provide an excellent discussion about this type of data. I subsequently draw on their notation style.

TABLE 1. Explaining Bypass to Aid-Receiving Countries, 2005–2009

	<i>Model 1</i> OLS	<i>Model 2</i> OLS	<i>Model 3</i> OLS	<i>Model 4</i> Probit	<i>Model 5</i> OLS MI
Governance Quality, All Inst.	-1.873 (0.23)**				
Governance Quality, Ec. Inst.		-1.569 (0.20)**	-1.670 (0.30)**	-0.127 (0.04)**	-1.703 (0.18)**
Freedom House		-0.110+ (0.07)	-0.093 (0.09)	-0.063 (0.02)**	-0.032 (0.07)
Civil Conflict		0.427 (0.11)**	0.474 (0.15)**	0.001 (0.03)	0.478 (0.10)**
Natural Disaster	0.050 (0.09)	0.063 (0.06)	0.069 (0.09)	-0.111 (0.01)**	0.083 (0.06)
Distance	0.554 (0.19)**	0.502 (0.14)**	0.548 (0.17)**	0.333 (0.04)**	0.759 (0.15)**
Former Colony	0.319 (0.30)	0.288 (0.18)	0.424 (0.29)	0.077+ (0.04)	0.188 (0.182)
Trade Intensity	-0.189 (0.07)**	-0.188 (0.05)**	-0.169 (0.08)*	-0.027 (0.01)*	-0.171 (0.49)**
Security Council	-0.559 (0.40)	-0.519 (0.36)	-0.308 (0.33)	-0.072 (0.09)	-0.399 (0.32)
Terrorism		-0.001 (0.00)	-0.001 (0.00)*	-0.000 (0.00)	-0.001 (0.00)
Donor Welfare	-0.958 (0.10)**	-0.958 (0.10)**	-0.952 (0.09)**	-0.065 (0.02)**	-0.958 (0.08)**
Donor Growth	-0.530 (0.06)**	-0.531 (0.08)**	-0.637 (0.05)**	-0.059 (0.02)**	-0.332 (0.07)
Year	-0.041 (0.10)	-0.041 (0.11)	-0.376 (0.09)**	-0.091 (0.02)**	-0.087 (0.06)
Africa	0.469 (0.35)	0.479 (0.34)	-0.154 (0.35)	0.081 (0.07)	0.14 (0.33)
Latin America	0.447 (0.42)	0.519 (0.39)	-0.183 (0.37)	0.124 (0.08)	0.061 (0.35)
Asia Pacific	-0.551 (0.37)	-0.667+ (0.37)	-1.262 (0.35)**	-0.202 (0.08)*	-0.428 (0.33)
Middle East	-0.729 (0.62)	-0.573 (0.46)	-1.161 (0.57)*	0.064 (0.10)	0.244 (0.38)
Constant	101.043 (197.75)	101.221 (228.60)	772.798 (174.27)**	180.155 (41.96)**	192.08 (124.18)
R ²	0.332	0.331	0.330		
χ ²				2058.028	
N	6728	6728	8142	8142	7425

+ $p < .10$, * $p < .05$, ** $p < .01$

Donor dummies and time trend included, but not reported.

errors. The following equation delineates my statistical model.

$$Bypass_{it} = \beta_0 + \beta_1 QG + \beta_2 Z + \epsilon_{it}, \quad (5)$$

where *Bypass* is the continuous log-transformed (OLS) variable (see equations 1 through 3), *i* represents country and *t* represents year, β_0 is the intercept, β_1 and β_2 represent the vectors of coefficients to be estimated, *QG* denotes the quality of recipient governance, *Z* denotes the vector of control variables described in section 4.3.2., and ϵ_{it} is the error term of the equation.

In Table 1, I present the central findings of the model. The first column presents OLS results for a base model (Model 1) estimating the proportion of aid delivered through nonstate development actors, which includes the *Governance, All Inst.* measure and draws on data that are completely reported across delivery channels. The second column offers OLS results for the fully specified model (Model 2), which focuses on the effect of economic institutions on donor delivery decisions as captured by the *Governance, Ec. Inst.* measure, controlling for *Democracy*, *Civil Conflict*, *Terrorism*, and all other confounding covariates. In the third column, I present the same model specification as in Model 2 but this time on a sample that includes donor–recipient observations for which at least 80% of all transactions are accounted for by delivery channel. The fourth column offers Probit results for my

binary bypass measure (Model 4), modeling the probability of donor decisions to deliver all aid exclusively through bypass channels.²⁰ Finally, the fifth column presents the results where the data of the continuous dependent variable were augmented through multiple augmentation techniques by building on work by Frisina, Herron, Honaker and Lewis (2008) and following Amelia II imputation principles for the imputation (King, Honaker, Joseph and Scheve 2001).²¹

Across all models, the coefficients for the governance measures clearly stand out. The coefficients are negative and highly significant when holding constant the effects of confounding covariates. This result holds across differences in model specifications, bypass measures, and degrees of missingness, thus providing robust empirical evidence for my thesis: To the extent that governance is a problem for aid success, donors will delegate development cooperation to nonstate development actors.²² The other predictors of bypass that are most consistent in their statistical impact on bypass across different model specifications influence the outcome variable in the predicted direction: *Civil Conflict* and *Distance* increase donor decisions to bypass across the majority of models, while *Trade Intensity*, *Donor Welfare*, and *Donor Growth* reduce the amount of aid delegated to nonstate development actors. The remaining controls *Democracy*, *Natural Disasters*, and *Security Council* behave in the predicted direction, but their statistical significance fluctuates across the models.

Figure 3 highlights the substantive significance of recipient governance, as estimated in Model 2 of Table 1 for donor bypass decisions using statistical simulation

²⁰ I provide descriptive statistics of the variables used in Models 2 and 4 in Table A1 in the Appendix.

²¹ I approach missing data imputation from a counterfactual perspective. I ask: What would the aid shares look like for any donor–recipient dyad had the donor allocated 100% of the aid across the channels? To answer this question, I reallocate unreported aid flows between government-to-government and nonstate aid. The extent to which the aid shares of both types increase or decrease is a function of the imputation model, which imputes values for the dependent variable at the level of the log-transformed nonstate aid share. The imputation procedure assumes non-missingness for right-hand side variables, which yields a slightly smaller dyadic sample of 7,425 observations instead of 8,142. The program written for the imputation in R is available from the author upon request.

²² In light of considerable variation in bypass behavior across donors, as shown in Figure 1, critics might argue that high bypass propensity may largely be explained by structural biases in donor countries, leaving little variation to be explained by my argument. To address this concern heads-on, in addition to model specifications that include donor fixed effects, I run separate multivariate regressions for all donor countries. With the exception of France, Portugal, Austria, and Greece, the large majority of OECD donors condition the proportion of bypass behavior on recipient governance at conventional levels of significance. I thank the one anonymous reviewer for raising this issue.

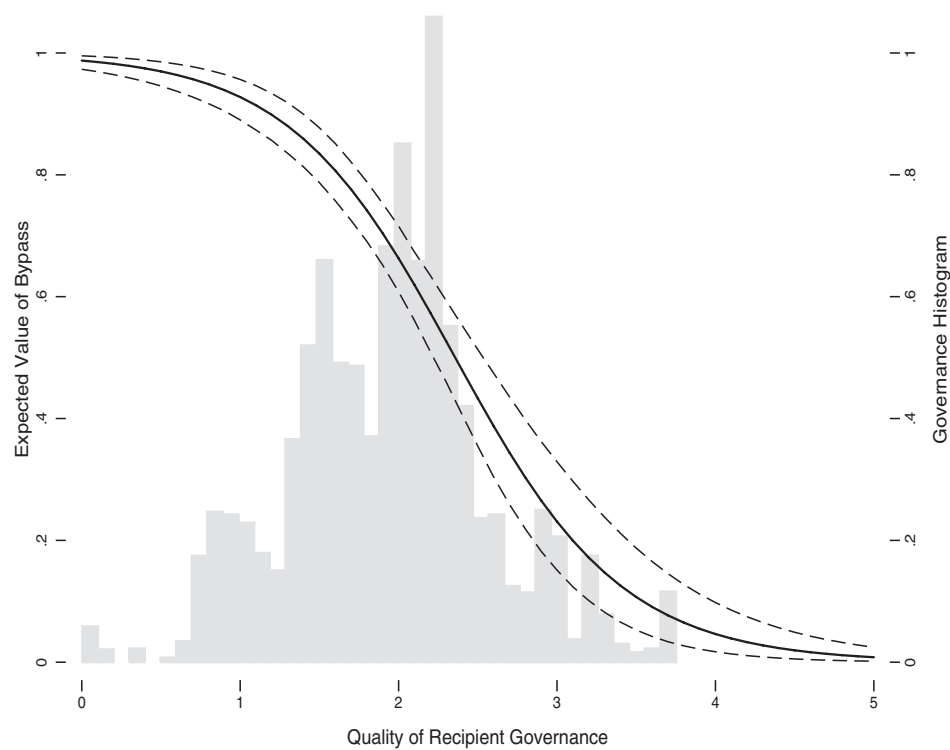


FIGURE 3. Expected Values of Bypass Across Quality of Governance

techniques. The figure graphs the expected value of bypass (on left y-axis) across the entire range of governance, surrounded by 90% confidence intervals. Figure 3 also features a histogram of *Governance, Ec. Inst.* (on right y-axis). At low levels of governance (around 1)—as observed in 2009 in Sudan, Chad, or Haiti—the model predicts donors to bypass with more than 90% of their aid. At the mean level of governance (around 2.5)—as in El Salvador or Bolivia—the expected value of bypass is lower at approximately 0.45%. Finally, at a governance quality level of 3.5—as observed in Chile and Micronesia in 2009—donors are expected to provide an even smaller proportion of their aid flows through nonstate development actors, with less than 20% delegated aid.

In Table 2, I present the results for the governance coefficients (with standard errors) from additional analyses that exclude functionally incompetent states.²³ In light of the possibility that bypass may represent the only viable option for donors in functionally incompetent states, the most stringent empirical test of my bypass thesis is conducted on an exclusive sample of functionally competent states. To avoid arbitrariness I use a series of cutoff points that define the samples. Specifically, the first column presents the results for the broad governance indicator that emerge from a re-estimation of Model 1 (Table 1) on a sample that excludes the “top 10” failed states. The second column offers the results for the economic governance measure from a re-estimation of Model 2 (Table 1) on a sample that, again, excludes the “top 10” failed states. Rows 2–4 use the same two model specifications, but the findings result from samples that exclude the “top 15,” “top 20,” and even “top 25” failed states, respectively. Across all specifications, the main result is

TABLE 2. Governance Coefficients and SEs, Various Cutoff Points for Government Competence

Sample	<i>Governance, All Inst.</i>	<i>Governance, Ec. Inst.</i>	N
	<i>Table 1, Model 1</i>	<i>Table 1, Model 2</i>	
w/o “top 10” failed states	-1.664 (0.26)**	-1.418 (0.32)**	6093
w/o “top 15” failed states	-1.466 (0.25)**	-1.226 (0.31)**	5794
w/o “top 20” failed states	-1.402 (0.26)**	-1.199 (0.32)**	5537
w/o “top 15” failed states	-1.423 (0.26)**	-1.261 (0.33)**	5266

+ $p < .10$, * $p < .05$, ** $p < .01$.

robust (and not limited to the full sample of countries): Donors condition bypass on the probability of aid capture in functionally competent states.²⁴

To ensure the robustness of my findings, which demonstrated the statistical and substantive significance of recipient governance on donor propensity to use bypass tactics, I perform a series of additional estimations. Since most economic and political data are strongly related to their recent histories, readers might be concerned about my decision to use time-series cross-section analysis. I therefore re-estimate the main models using pure cross-sectional analysis that tests for the (i) proportion of bypass in the dyad from 2005–2009 as well as (ii) the count of bypass tactics in the dyad over the same period. Again, the results are very robust: The coefficient of governance quality continues to be significant at the highest level of statistical significance across different model

²³ Appendix Table A2 lists the FSI ranking of the “top 20” failed states in 2009.

²⁴ These results are reproduced for all other model specifications offered in Table 1.

TABLE 3. Explaining the Prevalence of Bypass Aid in Aid-Receiving Countries, 2006–2009

	<i>Model 6</i> <i>OLS</i>	<i>Model 7</i> <i>OLS</i>	<i>Model 8</i> <i>OLS</i> <i>Comp. Gov't</i>	<i>Model 9</i> <i>Poisson</i>
Governance, All Inst.	-1.059 (0.16)**			
Governance, Ec. Inst.		-1.078 (0.20)**	-0.943 (0.21)**	-0.330 (0.10)**
Freedom House		0.016 (0.07)	0.044 (0.08)	-0.056 (0.03)
Civil Conflict		0.269 (0.19)	0.284 (0.17)	0.046 (0.05)
Natural Disaster	0.119+ (0.06)	0.117+ (0.07)	0.109+ (0.06)	0.021 (0.03)
Former Colony	-0.278 (0.17)	-0.287+ (0.17)	-0.400 (0.17)*	0.135 (0.10)
Trade Intensity	-0.130 (0.05)**	-0.101+ (0.05)	-0.067 (0.05)	-0.003 (0.02)
Security Council	-0.161 (0.32)	-0.181 (0.32)	-0.197 (0.32)	-0.136 (0.16)
Terrorism		-0.002 (0.00)*	-0.005+ (0.00)	-0.000 (0.00)
Year	0.059 (0.08)	0.056 (0.08)	0.057 (0.08)	0.264 (0.05)**
Africa	-0.371 (0.28)	-0.382 (0.28)	-0.410 (0.30)	0.383 (0.12)**
Latin America	-0.414 (0.34)	-0.457 (0.35)	-0.524 (0.36)	0.382 (0.15)*
Asia Pacific	-0.261 (0.25)	-0.318 (0.26)	-0.176 (0.26)	-0.058 (0.14)
Middle East	-1.169 (0.41)**	-0.989 (0.42)*	-1.337 (0.39)**	-0.057 (0.23)
Constant	-116.369 (153.36)	-109.793 (155.09)	-111.929 (160.33)	-529.790 (91.56)**
R^2	0.27	0.27	0.23	
χ^2				188.471
N	527	527	487	527

+ $p < .10$, * $p < .05$, ** $p < .01$.

Donor dummies and time trend included, but not reported.

specifications, different measures of the outcome variable (continuous and count), and samples that exclude functionally incompetent states (across the full range of cutoff points offered in Table 2).²⁵ To account for the possibility that entities of one particular type of bypass actor, namely for-profit development contractors, are chosen on the basis of commercial motives rather than efficiency concerns, I re-estimate Models 1 and 2 in Table 1 with a dependent variable that excludes the category of bypass aid that subsumes for-profit contracting firms. The results remain robust to this specification.²⁶

Since my argument suggests that, on average, donors are outcome-oriented, readers will request a test of my hypothesis at the recipient-year level of analysis. Monadic tests of donor bypass behavior should further strengthen confidence in the robustness of my results. This new estimation sample incorporates 131 recipient countries. At the recipient-year level, my continuous bypass variable measures the proportion of total aid received through bypass by a recipient in a given year. Following the coding logic of the alternative binary bypass measure, I construct a second dependent variable that counts the number of times OECD donor countries pursue an exclusive bypass strategy in a recipient in a given year.²⁷ Table 3 presents the results. Using OLS to estimate the proportion of bypass, I show that the quality of governance continues to be a crucial factor that drives donor decision making. While the first column (Model 6) captures the results from the broad governance measure (as specified in the dyadic analyses), the second column (Model 7) focuses on the effect of economic institutions on bypass, controlling for important confounders. The third column re-analyzes Model 7 on a sample that excludes the “top 10” failed states.²⁸ The results are consistent: The proportion of bypass (out of total aid flows)

increases as the quality of governance decreases. The last column (Model 9) presents the findings from a Poisson regression to estimate the bypass count model, using the independent variable specification of Model 7. As expected, I find that recipient countries are more likely to experience a greater number of donor bypass tactics as governance quality decreases. To the extent that aid capture is a problem for effective aid implementation in the aid-receiving country, donors systematically condition aid on the quality of a recipient’s economic institutions.

Finally, readers might be concerned about selection effects, since the group of countries for which donors choose to bypass government institutions is not randomly selected but a function of earlier self-selection. To model the interdependence between these two decisions, I employ a Heckman sample selection model (Heckman 1979). My empirical model of the aid recipient selection stage includes *Governance Quality* as well as the set of confounders used in estimations of bypass behavior based on the understanding that these covariates all affect donor decisions whether to give aid in the first place. However, the selection stage also includes an instrumental variable that allows the estimator to identify both stages uniquely. In the present case, the identification question asks: What factor influences donor decisions to give aid but is unrelated to their decision to bypass? I exploit donor wealth, as measured in GDP, as an instrument that satisfies the exclusion restriction theoretically. My logic is that the size of donor economies affects donor decisions to provide funds but is not causally related to donor decisions to bypass recipient governments.²⁹ Controlling for prior

²⁹ One potential criticism of this particular instrument might be that the largest economies are more embedded in the global economy, with a motivation to strengthen their global economic positions. Such dynamics might systematically bias aid delivery in favor of government-to-government aid. Obvious candidate donors for which the exclusion restriction might be violated are the United States, Japan, United Kingdom, Germany, and France. However, my model specifications already control for donors’ economic motives through the *Trade Intensity* variable. To further address this issue, I estimated two separate selection models for which I present the results in Table A6 of the Appendix. Model 9A is estimated on the basis of the full sample, while Model 9B excludes the five major economies from the analysis.

²⁵ The results are presented in Table A3 in the Appendix.

²⁶ The results are presented in Table A4 in the Appendix.

²⁷ I offer descriptive statistics of the variables in Table A5 in the Appendix.

²⁸ This result is robust to different cutoff points for functional competence.

selection effects, the quality of governance remains a robust predictor of bypass: As the quality of governance decreases, donors increase the proportion of bypass aid.

Implications and Conclusion

My empirical findings are congruent with my account of donor decision making. OECD donors allocate aid with an eye toward effective aid implementation: They are more likely to bypass governments in countries where the risk of aid capture is high and government-mediated aid is likely to fail due to poor state institutions. This argument contributes to the literature by showing that donors have allocation tactics other than government-to-government aid to pursue their goals, and the empirical evidence demonstrates that donors, on average, employ bypass tactics to increase the prospect of aid success in the aid-receiving country.

While the empirical evidence presented above enhances our insights into a donor decision calculus that derives utility from development, this research also carries implications for the study of aid effectiveness. The conventional aid effectiveness framework focuses on what happens to the aid in the recipient country, making aid success dependent on governance and cooperation by the recipient government. If, however, donors systematically resort to aid delivery tools that increase the likelihood of the aid reaching the intended beneficiaries, then research may overestimate the influence of recipient country characteristics on the success of aid, and consequently underestimate donor ability to enforce development contract. Naturally, the question becomes whether the donor calculus indeed pays off for the poor: Does delegating bilateral assistance to nonstate development actors really help donors overcome the implementation hurdles inherent in government-to-government transactions? Does donor selectivity in aid delivery help the poor? Recent work by Bearce and Tirone (2010) stresses the importance of donor motivations for the study of aid effectiveness by showing that aid, when primarily allocated for non-developmental purposes (as during the Cold War), is largely ineffective at promoting economic growth. As donors become more development-oriented (as in post-Cold War), they are more effective at enforcing the aid contract in the aid-receiving country. This study offers an important stepping stone for expanding this important line of inquiry by explaining the selection mechanism with regard to aid delivery tactics.

While this research was initially motivated by thinking about donor decision making from a development perspective, the practice of distinguishing among channels of delivery also has implications for studying other first- or even second-order effects of foreign aid. For instance, donor countries may use development assistance in general or democracy aid in particular as a tool for democracy promotion abroad. By distinguishing among channels of aid delivery, scholars are able to hone in on mechanisms by which donors attempt to push for democratic development. Donors can use democracy aid to support important governance activities or, alternatively, directly support civil society or opposition groups. Both mechanisms are designed to foster democratic development, yet they do so in fundamentally different ways: While the former strengthens the position of the incumbent government and favors government-led democratic development, the latter contributes to leveling the playing field between incumbent governments and opposition

groups and allows for bottom-up pressure to occur (Dietrich and Wright 2012). Similarly, the debate around the effectiveness of foreign aid as a counterterrorism tool could also benefit from accounting for donor selection effects regarding mechanisms of aid delivery. For instance, foreign aid is said to reduce terrorism indirectly by promoting development abroad. The effectiveness of this mechanism, as has been suggested by this study, may largely depend on donor selectivity with regard to channels of delivery. That is, donors may not be able to facilitate development through the government-to-government channel in poorly governed states, thus rendering this mechanism an ineffective indirect counterterrorism tool in some types of states (Savun and Hays 2011). More generally, these examples show that disaggregating foreign aid by delivery channels and thus explicitly integrating mechanisms of aid delivery opens up new research possibilities for testing theories of aid policy and effectiveness.

Another interesting avenue for future research is to account for existing variation in bypass behavior among donor countries, as shown in Figure 1. This paper has established that, on average, a recipient characteristic, that is, the quality of governance, affects donor bypass decisions, controlling for differences across donor countries. The next step would be to identify a causal relationship between domestic factors and aid delivery decisions. For instance, questions that arise include: How are preferences for bypass decisions aggregated domestically across OECD donors? What may be structural factors that shape these preferences? To answer these questions, one may draw on existing knowledge generated by a burgeoning literature that examines the domestic determinants of foreign aid allocation, with a focus on ideology and partisanship (for example, Therien and Noel 2000, Tingley 2010). To capture structural factors, it may be useful to explore variation in domestic attitudes on different agents of public service provision (government versus non-governmental entities) or general trust in government and non-governmental entities across donors. Publics in donor countries that rank high on the bypass list, for example, Netherlands and Norway, also exhibit more positive attitudes toward non-governmental organizations than publics in countries on the low end of the list, for example, Japan (Gallup, 2005). This certainly is an area ripe for further inquiry.

Finally, from a policy perspective, bypassing state structures may offer immediate relief for the poor but bypass is also a double-edged sword. It might hamper or even undermine long-term efforts to build up a state capable of managing its own development.³⁰ Underlying this donor dilemma are differences in the nature of short- and long-term development assistance. Donors often fund countries where there is need for short-term relief and development. The question of “how many lives can be saved right now” might get answers that are difficult to reconcile with strategies related to long-term development. Should development assistance focus on providing antiviral drugs to people infected with HIV/AIDS, or

³⁰ In 2010, the United States government announced a shift in their aid policy in Haiti. To improve the prospect of sustainable development, the US government announced a move away from government bypass and toward state-to-state assistance. As Cheryl Mills, Clinton’s chief of staff suggests: “We are now completely focused on how to build the capacity of the Haitian government effectively, to improve Haiti’s long-term developmental prospects. That is something everyone has recognized as being one of the failures of aid in the past.” Quote in “In U.S. plan for Haiti, Rebuilding Government is Key.” *The Washington Post*, March 31, 2010.

should they invest in setting up health-care systems in a sustainable way? Donors often offer a combination of short- and long-term approaches in countries where capacity-building is possible. If it is not, then bypassing government might be the only option.

References

- ALESINA, ALBERTO and BEATRICE WEDER. (2002) Do Corrupt Governments Receive Less Foreign Aid? *American Economic Review* 92 (4):1126–1137.
- BATES, ROBERT H. (2001) *Markets and States in Tropical Africa*. Berkeley: University of California Press.
- BAPAT, NAVIN. (2011) Transnational Terrorism U.S. Military Aid, and the Incentive to Misrepresent. *Journal of Peace Research* 48(3):303–318.
- BARR, ABIGAIL, MARCEL FAFCHAMPS, AND TRUDY OWENS. (2005) The Governance of Non-governmental Organizations in Uganda. *World Development* 33(4): 657–679.
- BEARCE, DAVID H., AND DANIEL C. TIRONE. (2010) Foreign Aid Effectiveness and the Strategic Goals of Donor Governments. *Journal of Politics* 72(3): 837–851.
- BENNETT, SCOTT D., AND ALLAN STAM. (2000) EUGene: A Conceptual Manual. *International Interactions* 26:179–204.
- BERMEO, SARAH. (2011) Foreign Aid and Regime Change: A Role for Donor Intent. *World Development* 39(11): 2021–2031.
- BERMEO, SARAH. (2009) Donors and Development: Sector Allocation in Foreign Aid. Unpublished Manuscript. New Haven, CT: Yale University.
- BOUTTON, ANDREW, AND DAVID CARTER. (2010) *Carrots and Counterterrorism: Security Motivations for U.S. Foreign Aid*. Washington, DC: Paper presented at the annual meeting of the American Political Science Association.
- BRAUTIGAM, DEBORAH, AND STEPHEN KNACK. (2004) Foreign Aid, Institutions and Governance in Sub-Saharan Africa. *Economic Development and Cultural Change* 52(2): 255–286.
- BUENO DE MESQUITA, BRUCE, AND ALASTAIR SMITH. (2007) Foreign Aid and Policy Concessions. *Journal of Conflict Resolution* 51(2): 251–284.
- BUENO DE MESQUITA, BRUCE, AND ALASTAIR SMITH. (2009) A Political Economy of Foreign Aid. *International Organization* 63(2): 309–340.
- BUTTON, ANDREW, AND DAVID CARTER. (2010). Carrots and Counterterrorism: Security Motivations for U.S. Foreign Aid. Washington, DC: Paper Presented at the Annual Meeting of the American Political Science Association. September 2–5.
- COLLIER, PAUL, PATRICK GUILLAUMONT, SYLVIANE GUILLAUMONT, AND JAN WILLEM GUNNING. (1997) Redesigning Conditionality. *World Development* 25(9): 1399–1407.
- DIETRICH, SIMONE, AND JOSEPH WRIGHT. (2012) *Foreign Aid Delivery and Democratic Consolidation in Africa*. Berlin, Germany: Paper presented at European Political Science Association Annual Conference.
- DJANKOV, SIMEON, JOSE MONTALVO, AND MARTA REYNAL-QUEROL. (2008) The Curse of Aid. *Journal of Economic Growth* 13:169–194.
- EASTERLY, WILLIAM, ROSS LEVINE, AND DAVID ROODMAN. (2003). *New Data, New Doubts: Revisiting Aid, Policies, and Growth*. Washington DC: Center for Global Development Working Paper Number 26.
- FRISINA, LAURIN, MICHAEL C. HERRON, JAMES HONAKER, AND JEFFREY B. LEWIS. (2008) Ballot Formats, Touchscreens, and Undervotes: A Study of the 2006 Midterm Elections in Florida. *Election Law Journal* 7(1): 25–47.
- GALLUP INTERNATIONAL ASSOCIATION. (2005). *Voice of the People*. Zurich, Switzerland: Gallup International Association. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 2007-07-16. doi:10.3886/ICPSR04636.v1
- GIBSON, CLARK C., KRISTER ANDERSSON, ELINOR OSTROM, AND SUJAI SHIVAKUMAR. (2005) The Samaritan's Dilemma: The Political Economy of Development Aid. New York: Oxford University Press.
- GLEDITSCH, NILS PETTER, PETER WALLENSTEEN, MIKAEL ERIKSSON, MARGARETA SOLLENBERG, AND HAVARD STRAND. (2002) Armed Conflict 1946–2001: A New Dataset. *Journal of Peace Research* 39(5): 615–637.
- HECKMAN, JAMES. (1979) Sample Selection Bias as a Specification Error. *Econometrica* 43(1):153–161.
- HEFEKER, CARSTEN, AND KATHARINA MICHAELOWA. (2005) Can Process Conditionality Enhance Aid Effectiveness? The Role of Bureaucratic Interests and Public Pressure. *Public Choice* 122:15975.
- HONAKER, JAMES, AND DREW LINZER. (2006) *Analysis of Voteshares Across Party Systems*. Chicago: Paper presented at annual meeting of Midwest Political Science Association.
- International Monetary Fund (IMF). (2009) *Direction of Trade Statistics*. Available at <http://www2.imfstatistics.org/DOT/>. (Accessed December 1, 2010.)
- KAPFER, STEVE, RICH NIELSEN, AND DANIEL NIELSON. (2007). *If You Build It, Will They Come? Foreign Aid's Effects on Foreign Direct Investment*. Chicago, IL: Presented at the Annual Meeting of the Midwest Political Science Association, 12–15.
- KAUFMAN, DANIEL, AART KRAAY, AND MASSIMO MASTRUZZI. (2009). *Governance Matters VI*. Available at <http://info.worldbank.org/governance/wgi/index.asp>. Accessed January 9, 2010.
- KING, GARY, JAMES HONAKER, ANNE JOSEPH, AND KENNETH SCHEVE. (2001) Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation. *American Political Science Review* 95: 49–69.
- KNACK, STEPHEN. (2001). Aid Dependence and the Quality of Governance. *Southern Economic Journal* 68(2):483–495.
- KONO, DANIEL Y., AND GABRIELLA R. MONTINOLA. (2009) Does Foreign Aid Support Autocrats, Democrats, or Both? *Journal of Politics* 71(2):704–718.
- KUZIEMKO, HYANA, AND ERIC WERKER. (2009) How Much Is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations. *Journal of Political Economy* 114(5):905–930.
- MARSHALL, MONTY G., KEITH JAGGERS, AND TED GURR. (2008) *Polity IV Project: Political Regime Characteristics and Transitions, 1800–2008*. Available at <http://www.systemicpeace.org/polity/polity4.htm> (Accessed December 3, 2009.)
- MILNER, HELEN, AND DUSTIN TINGLEY. (2010) The Political Economy of U.S. Foreign Aid: American Legislators and the Domestic Politics of Aid. *Economics and Politics* 22 (2): 200–232.
- MOSLEY, PAUL. (1987) *Conditionality as Bargaining Process: Structural adjustment lending 1980–86*. Princeton: Princeton University Press.
- MOSSE, DAVID. (2005) Global Governance and the Ethnography of International Aid. In: *The Aid Effect. Giving and Governing in International Development*, edited by David Mosse, and David Lewis. London: Pluto Press, 1–36.
- NEUMAYER, ERIC. (2003) *The Pattern of Aid Giving: The Impact of Good Governance on Development Assistance*. New York: Routledge.
- Organisation for Economic Cooperation and Development (OECD). (2001) *Policies to Enhance Sustainable Development*. Paris: OECD Publications.
- ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD). (2008) *Reporting Directives for the Creditor Reporting System*. Available at <http://www.oecd.org/dac/aidstatistics/1948102.pdf> (Accessed February 10, 2009).
- Organisation for Economic Cooperation and Development (OECD). (2010) *Development Database on Aid Activities: CRS*. Available at <http://stats.oecd.org>. (Accessed on January 14, 2010).
- PATRICK, STEWART. (2007) Failed States' and Global Security: Empirical Questions and Policy Dilemmas. *International Studies Review* 9(4): 644–662.
- RADELET, STEVEN. (2004) *Aid Effectiveness and the Millennium Development Goals*. Working Paper 39. Washington, DC: Center for Global Development.
- REINIKKA, RITVA, AND JAKOB SVENSSON. (2004) Local Capture: Evidence from a Central Government Transfer Program in Uganda. *Quarterly Journal of Economics*, 119 (2): 679–705.
- REMMER, KAREN L. (2004) Does Foreign Aid Promote the Expansion of Government? *American Journal of Political Science* 48(1): 77–92.
- RENARD, ROBRECHT. (2005) *The Cracks in the New Aid Paradigm*. Paper presented at EADI Conference, Bonn, Germany.
- SAVUN, BURCU, AND JUDE HAYS. (2011) *Foreign Aid as a Counterterrorism Tool: Aid Delivery Channels, State Capacity, and NGOs*. Seattle: Paper presented at the American Political Science Association Annual Convention.
- STONE, RANDALL W. (2006) *Buying Influence: The Political Economy of International Aid*. San Diego, CA: Paper presented at the 2006 International Studies Association Annual Convention. March 22–26.
- SVENSSON, JAKOB. (2000) Foreign Aid and Rent-Seeking. *Journal of International Economics* 51(2):437–461.
- THERIEN, JEAN-PHILIPPE AND ALAIN NOEL. (2000) Political Parties and Foreign Aid. *American Political Science Review* 94(1): 151–162.
- TINGLEY, DUSTIN H. (2010). Donors and Domestic Politics: Political Influences on Foreign Aid Effort. *The Quarterly Review of Economics and Finance* 50(1):40–49.
- United Nations. (2009). *Millennium Development Goal Website*. Available at <http://un.org/millenniumgoals> (Accessed January 6, 2012.)
- WEINSTEIN, JEREMY M. (2005) *Autonomous Recovery and International Intervention in Comparative Perspective*. Working Paper 57. Washington, DC: Global Center for Development.

WINTERS, MATTHEW. (2010a) Choosing to Target: What Types of Countries Get Different Types of World Bank Projects. *World Politics* 62(3): 422–458.

WINTERS, MATTHEW. (2010b) *Targeted Aid and Capture in World Bank Projects*. Washington, DC: Presented at the Annual Meeting of the American Political Science Association. September 2–5.

WOOLDRIDGE, JEFFREY. (2002) *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.

Appendix

Figure A1: US Aid Flows by Channel of Delivery, 2009

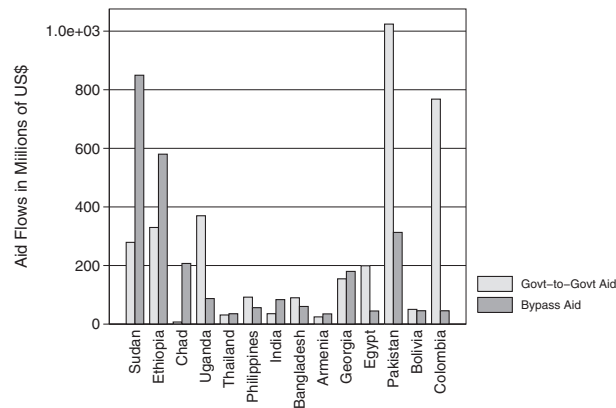


Figure A2: Proportion of Bypass Aid Delivered through Individual Bypass Channels

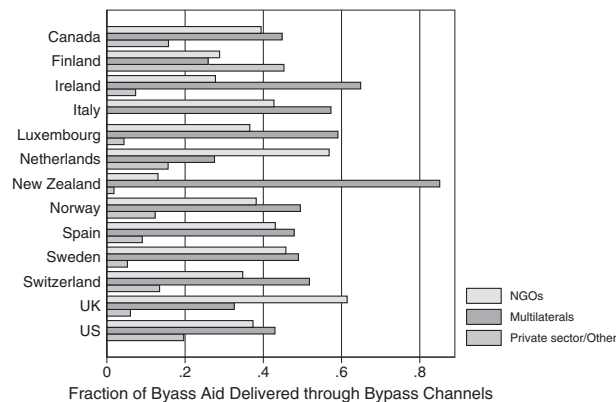


TABLE A1. Descriptive Statistics of Estimation Sample (Table 1 Model 3(OLS) and 4(Probit)

Variable	Observations	Mean	Std. Deviation	Minimum	Maximum
Log(Bypass Share)	8142	0.96	7.61	-18.61	19.53
Bypass Count	8142	0.20	0.40	0	1
Governance, Ec. Inst.	8142	1.93	0.62	0.04	3.86
Democracy	8142	-4.02	1.68	-7	-1
Civil Conflict	8142	0.23	0.67	0	6
Log(Natural Disaster)	8142	0.77	1.57	-2.30	4.62
Log(Distance)	8142	8.24	0.62	5.11	9.35
Former Colony	8142	0.65	0.47	0	1
Log(Trade Intensity)	8142	8.40	2.06	2.45	14.52
Security Council	8142	0.05	0.22	0	1
Terrorism	8142	16.61	77.75	0	1041
Donor Welfare	8142	22.66	4.14	15.75	30.35
Donor Growth	8142	2.15	1.50	-0.87	9.97

Table A2. ‘Top 20’ Failed States Index, 2009, The Fund For Peace

<i>FSI Ranking</i>	<i>Country</i>
1	Somalia
2	Zimbabwe
3	Sudan
4	Chad
5	Congo, Dem. Rep.
6	Iraq
7	Afghanistan
8	Central African Rep.
9	Guinea
10	Pakistan
11	Cote d’Ivoire
12	Haiti
13	Myanmar
14	Kenya
15	Nigeria
16	Ethiopia
17	North Korea
18	Yemen
19	Bangladesh
20	Timor-Leste

TABLE A3. Cross-Sectional Analysis of Donor Bypass, 2005–2009

	<i>Model 6A</i> <i>OLS</i>	<i>Model 6B</i> <i>OLS</i>	<i>Model 6C</i> <i>OLS</i> <i>Comp. Gov’t †</i>	<i>Model 6D</i> <i>Poisson</i>	<i>Model 6E</i> <i>Poisson</i> <i>Comp. Gov’t †</i>
Governance Quality, All Inst.	-1.258 (0.25)**				
Governance, Ec. Inst.		-1.077 (0.33)**	-0.933 (0.33)**	-0.321 (0.10)**	-0.285 (0.10)**
Freedom House		-0.080 (0.11)	-0.050 (0.11)	-0.042 (0.04)	-0.045 (0.04)
Civil Conflict		0.230+ (0.14)	0.254 (0.16)	0.005 (0.05)	-0.007 (0.05)
Natural Disaster	0.265 (0.12)*	0.291 (0.13)*	0.236+ (0.13)	-0.137 (0.04)**	-0.153 (0.04)**
Distance	0.512 (0.22)*	0.475 (0.23)*	0.503 (0.23)*	0.450 (0.09)**	0.473 (0.09)**
Former Colony	0.133 (0.29)	0.134 (0.29)	0.021 (0.30)	0.146 (0.09)	0.106 (0.09)
Trade Intensity	-0.257 (0.08)**	-0.240 (0.09)**	-0.182 (0.08)*	-0.002 (0.02)	0.016 (0.02)
Security Council	-0.158 (0.17)	-0.207 (0.19)	-0.205 (0.18)	-0.050 (0.08)	-0.048 (0.08)
Terrorism		-0.001 (0.00)**	-0.001 (0.00)	-0.000 (0.00)*	-0.000 (0.00)
Donor Welfare	-1.442 (0.11)**	-1.444 (0.11)**	-1.452 (0.12)**	-0.076 (0.06)	-0.070 (0.06)
Donor Growth	-0.873 (0.35)*	-0.870 (0.35)*	-0.973 (0.37)*	0.535 (0.13)**	0.466 (0.13)**
Constant	28.472 (3.11)**	27.972 (3.36)**	27.470 (3.42)**	-3.954 (1.45)**	-4.325 (1.45)**
R^2	0.397	0.397	0.379		
χ^2				966.498	877.152
N	2278.000	2278.000	2072.000	2278.000	2072.000

+ $p < .10$, * $p < .05$, ** $p < .01$

Donor dummies included, but not reported

†Sample excludes the ‘top 10’ failed states. The results remain robust across all other cutoff points (top 15, top 20, top 25).

TABLE A4. Explaining Bypass to NGOs/IOs in Aid-Receiving Countries, 2005–2009

	<i>Model 6A</i>	<i>Model 6B</i> <i>Comp. Gov’t †</i>	<i>Model 6C</i>	<i>Model 6D</i> <i>Comp. Gov’t †</i>
Governance, All Inst	-1.897 (0.23)**	-1.681 (0.26)**		
Governance, Ec. Inst			-1.578 (0.29)**	-1.438 (0.30)**
Freedom House			-0.115 (0.10)	-0.055 (0.10)
Civil Conflict			0.442 (0.14)**	0.353 (0.16)*
Natural Disaster	0.025 (0.08)	0.008 (0.09)	0.036 (0.09)	0.007 (0.09)
Distance	0.860 (0.20)**	0.844 (0.20)**	0.825 (0.20)**	0.813 (0.20)**
Former Colony	0.247 (0.30)	0.130 (0.31)	0.207 (0.30)	0.084 (0.31)
Trade Intensity	-0.184 (0.07)*	-0.148 (0.07)*	-0.185 (0.08)*	-0.141+ (0.07)
Security Council	-0.600 (0.41)	-0.581 (0.40)	-0.553 (0.41)	-0.526 (0.39)
Terrorism			-0.001 (0.00)	0.000 (0.00)
Donor Welfare	-0.906 (0.10)**	-0.867 (0.11)**	-0.906 (0.10)**	-0.866 (0.11)**
Donor Growth	-0.512 (0.06)**	-0.562 (0.06)**	-0.514 (0.06)**	-0.564 (0.06)**
Year	-0.068 (0.10)	-0.097 (0.10)	-0.072 (0.10)	-0.105 (0.10)
Africa	0.351 (0.35)	0.182 (0.37)	0.359 (0.36)	0.177 (0.37)
Latin America	0.191 (0.42)	0.017 (0.43)	0.257 (0.41)	0.036 (0.41)
Asia Pacific	-0.743+ (0.38)	-0.728+ (0.39)	-0.877 (0.36)*	-0.820 (0.37)*

Table A4. (Continued)

	Model 6A	Model 6B Comp. Gov't †	Model 6C	Model 6D Comp. Gov't †
Middle East	-0.667 (0.62)	-0.644 (0.72)	-0.511 (0.63)	-0.470 (0.74)
Constant	152.336 (195.40)	209.674 (205.99)	159.269 (199.42)	224.987 (208.25)
R ²	0.334	0.315	0.333	0.314
N	6728	6093	6728	6093

+ $p < .10$, * $p < .05$, ** $p < .01$

Donor dummies and time trend included, but not reported

†Sample excludes the "top 10" failed states. The results remain robust across all other cutoff points (top 15, top 20, top 25).

TABLE A5. Descriptive Statistics of Estimation Sample (Table 2-Models 7 and 9)

Variable	Observations	Mean	Std. Deviation	Minimum	Maximum
Log(Bypass Share)	527	-1.12	1.68	-8.22	3.50
Bypass Count	527	2.54	1.88	0	10
Governance, Ec. Inst.	527	1.99	.65	.04	3.86
Democracy	527	-3.85	1.76	-7	-1
Civil Conflict	527	.18	.60	0	6
Log(Natural Disaster)	527	.47	1.67	-2.30	4.62
Former colony	527	.64	.47	0	1
Log(Trade Intensity)	527	8.17	2.10	2.95	14.52
Security Council	527	.04	.20	0	1
Terrorism	527	13.56	71.43	0	1041

TABLE A6. Sample Selection Model for Donor Propensity to Bypass, 2005–2009

	Model 9A OLS Full sample	Model 9B OLS w/o 5 major economies
Outcome stage		
Governance, Ec. Inst.	-1.509 (0.21)**	-1.266 (0.26)**
Freedom House	-0.116+ (0.07)	-0.156+ (0.08)
Civil Conflict	0.415 (0.12)**	0.447 (0.14)**
Natural Disaster	0.039 (0.07)	-0.147 (0.10)
Distance	0.536 (0.15)**	0.807 (0.20)**
Former Colony	0.272 (0.17)	0.395+ (0.21)
Trade Intensity	-0.191 (0.05)**	-0.248 (0.06)**
Security Council	-0.539 (0.35)	-0.607 (0.43)
Terrorism	-0.001 (0.00)	-0.001 (0.00)
Donor Welfare	-0.963 (0.09)**	-1.082 (0.10)**
Donor Growth	-0.525 (0.08)**	-0.363 (0.10)**
Year	-0.046 (0.11)	-0.314 (0.14)*
Africa	0.475 (0.32)	0.373 (0.38)
Latin America	0.508 (0.38)	0.644 (0.46)
Asia Pacific	-0.671+ (0.36)	-0.720+ (0.43)
Middle East	-0.543 (0.44)	0.060 (0.53)
Constant	110.031 (226.76)	649.212 (281.40)*
Selection stage		
Governance, Ec. Inst.	-0.625 (0.03)**	-0.584 (0.03)**
Freedom House	0.064 (0.01)**	0.068 (0.01)**
Civil Conflict	0.285 (0.04)**	0.309 (0.05)**
Natural Disaster	0.233 (0.01)**	0.255 (0.01)**
Distance	-0.380 (0.03)**	-0.469 (0.03)**
Former Colony	0.215 (0.03)**	0.177 (0.04)**
Trade Intensity	0.026 (0.01)**	0.035 (0.01)**
Security Council	0.203 (0.08)**	0.137+ (0.08)
Terrorism	0.001 (0.00)**	0.001 (0.00)**
Donor Welfare	0.063 (0.01)**	0.115 (0.02)**
Donor Growth	-0.068 (0.01)**	0.009 (0.02)
Year	0.053 (0.01)**	0.082 (0.02)**
Africa	0.070 (0.06)	0.143 (0.07)*
Latin America	0.135 (0.06)*	0.236 (0.02)**
Asia Pacific	0.085 (0.07)	0.188 (0.07)**
Middle East	-0.301 (0.08)**	-0.290 (0.09)**
Constant	-102.860 (39.60)**	-161.648 (44.37)**
ρ (est.)	-0.033 (0.05)	-0.075 (0.07)
LR test of indep.	0.41	1.21
p	(0.52)	(0.27)
Wald χ^2 (whole model)	3292.65	2195.09
p	(0.001)	(0.001)
N (Uncensored N)	10411 (6728)	8334 (5003)

+ $p < .10$, * $p < .05$, ** $p < .01$

Donor and region dummies, and year trend variable included, but not reported.