FOREIGN AID DELIVERY, DONOR SELECTIVITY, AND POVERTY:
A POLITICAL ECONOMY OF AID EFFECTIVENESS

A Dissertation in
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by
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Abstract

Under what conditions does aid improve general welfare? This dissertation provides an answer to this important question by examining the causal relationship between donor decision-making and outcomes. While the conventional study of aid effectiveness focuses on what happens to the aid in the recipient country, this study focuses on the role of donor governments. At the heart of the theory is the decision-calculus of donors whose goal is to maximize aid success in the recipient country. Specifically, I focus on donor decisions about how to deliver aid, and how these decisions affect poverty in the recipient country. Donors use different tactics to deliver their bilateral assistance, including government-to-government and non-state development channels (e.g. NGOs, multilaterals, and private contractors). My central argument posits that donor expectations about the likelihood of aid capture in the recipient country induce systematic donor decisions about the selection of aid delivery mechanisms. What informs donor expectations about aid capture is the quality of recipient institutions. Badly governed institutions signal a high probability of aid capture, leading to low levels of donor confidence. In such environments, outcome-oriented donors will take actions to decrease their aid’s sensitivity to aid capture ex ante by insulating the aid from government intervention. They bypass weak and corrupt government structures and channel the aid through alternative channels of development. By integrating the strengths and weaknesses of the recipient country’s governance systems into the design of aid delivery mechanisms, donors are more likely to reduce poverty, as measured by infant health. I illustrate donor decision-making through interview evidence gathered from 22 face-to-face discussions with senior officials from major donor governments (U.S., France, United Kingdom, Germany) and their implementing agencies. I test my argument using quantitative methods. I find that donors sys-
tematically condition delivery mechanisms on the quality of recipient governance, all else equal. I also show that the (endogenous) donor bypass decision reduces infant mortality in poorly governed countries.
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Dedication

Für meine Eltern, in Liebe und Dankbarkeit, und natürlich für Sophia.
Chapter 1

Introduction

Every day about 25,000 people die of hunger or hunger-related causes. In 2006, nearly 10 million children under five died worldwide, at a daily rate of 26,000 deaths (UNICEF 2008). Many of these are malnourished and trapped in severe poverty, lacking the means to feed themselves. The lack of such basic means impedes the world’s poor from acting on economic opportunities, however limited they may be. And thus the poverty trap is perpetuated.

One often cited solution to alleviate poverty across the world is foreign aid. While foreign aid was largely associated with non-developmental foreign policy goals during the Cold War, the 1990s have witnessed increasing support for development among developed countries (Neumayer 2005, Bermeo 2008, Claessens et al 2009). The advent of the millennium has sharpened the focus of foreign aid to address the most imminent aspects of poverty such as hunger, child mortality, disease, and education. By adopting the Millennium Development Goals,¹ donors acknowledged the moral imperative in solving these problems and have continued to express their commitment to solving them within a given time frame. Over the

¹They include goals and targets on maternal and child mortality, income poverty, hunger, disease, inadequate shelter, gender inequality, and environmental degradation.
last decade, donor governments have spent over US $ 100 billion dollars annually on official development assistance (ODA).^2^2

Despite the fact that much money has been given, empirical assessments of the effectiveness of foreign aid offer only muted evidence that any of it achieves its stated goals. While there is some evidence that aid can provide goods and services such as better vaccine coverage and improved water supply at the local level, the lack of theoretical certainty about causal mechanisms and robust empirical evidence of donor success in promoting development at the macrolevel is puzzling if not disconcerting. Some scholars suggest that it improves economic growth, but only under some conditions (Burnside and Dollar 2000, 2004, Islam 2003) or with diminishing rates of return (Hansen and Tarp 2000). Others argue against it (Roodman 2003, Easterly et al 2003). Still others argue that only some types of aid affect economic growth positively, while other types have no effect (Clemens et al 2004). After two decades of research on aid effectiveness, scholars have suggested that credible knowledge accumulation about what makes aid work was simply not possible on the basis of questionable theory and problematic econometric analyses (Roodman 2007). Instead, as proponents of randomized control trials (RCTs) advocate, incremental knowledge accumulation on the basis of local social interventions is a more certain tool for understanding what types of donor interventions can get good outcomes (Duflo 2005).^3^3

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^2^ODA, as defined by the Organisation for Economic Cooperation and Development, includes resource flows to developing countries from donor governments, which include a grant element of at least 25 percent. Military is is not included in ODA.

^3^For instance, the most cost-effective and widely successful strategy of increasing primary school participation in many Sub-Saharan African countries was to link school attendance with inexpensive health interventions. A 2003 World Health report suggests that school-based mass deworming for schistosomiasis and intestinal worms in Kenya reduced absenteeism by one-quarter. Such a reduction was unprecedented and never attained when linking attendance with more conventional educational interventions. Understanding the intricacies of effective aid delivery in the context of local conditions has contributed to reducing the welfare gap between the rich and poor, as measured, for instance, in infant and child mortality, sanitation levels, and educational
My dissertation seeks to understand conditions under which foreign aid can effectively alleviate poverty at the macro-level. I define aid effectiveness in terms of absolute poverty measures, as opposed to economic growth. While economic growth is crucial for sustainable development, it requires a multitude of factors to fall into place. People need to be able to consume, be productive, and invest in the domestic economy. For domestic and international investment to occur, a minimal set of regulatory rules must be in place to generate confidence among potential investors. Yet, in many of the poorest developing countries, the majority of the population lives on less than one dollar a day. In such circumstances, foreign aid can only improve growth if it improves one necessary (yet insufficient) condition, i.e. improve general welfare. Can aid satisfy this necessary condition?

Credible knowledge accumulation on what makes aid effective can only occur if we carefully think about the causal mechanisms at play. The primary shortcoming of conventional analytical frameworks of aid success, largely conducted by development economists, is the failure to explicitly account for the endogenous nature of foreign aid allocation decisions. A focus on donor interests, in turn, represents an important point of entry for political scientists who seek to examine the causal nexus between donor allocation decisions and aid outcomes.

Yet, if we turn to work by political scientists, we observe an apparent lacuna: these studies do not offer insights in how donor allocation decisions affect poverty. Unlike recent critics of the cross-country aid effectiveness literature, however, I claim that macro-level analyses of what works are important. Donor decisions about the overall composition of a donor’s budget are made at the highest levels. These are antecedent to development solutions across numerous localities. Through decisions about aid delivery channels, donor governments employ a mechanism that can improve the success of local development solutions ex ante.

A notable exception here is a recent study by Bearce and Tirone (2010), which establishes a direct nexus between donor motivations and aid success. They show that changes in donors’ strategic (non-developmental) interests from the Cold War to the post-Cold War period affect whether aid improves economic growth.
Instead, we learn about a conventional wisdom suggesting that aid donor motivations are primarily non-developmental, and that donors use aid to buy influence and policy concessions (Neumayer 2003; Berthélemy and Tichit 2004; Dollar and Levin 2006; Stone 2006; Bueno de Mesquita and Smith 2007, 2009). What is more, this literature assumes that all bilateral aid flows are equally fungible and can be used as recipient leaders see fit; an assumption that greatly oversimplifies the nature of bilateral aid flows. In reality donors can work directly with the recipient government, either through technical assistance, investment projects or program support. They can also hire international or local non-governmental organizations to implement programs and projects on the ground. They can also give the aid to multilateral organizations for specific project delivery.\footnote{Bilateral aid channeled through multilateral organizations is outside the scope of what the OECD classifies as multilateral aid. It refers to specific program/project-related support for activities carried out by multilateral organizations. It does not include donors’ core-contributions.} Donors also channel their funds increasingly through private contractors or give them to private-public partnerships. Either of these non-state channels of delivery are directly responsible to donors (OECD CRS Reporting Directives Manual 2008).

My dissertation contributes to the study of aid effectiveness in two important, related ways: At a fundamental analytical level, it brings together what otherwise are two separate research agendas, aid allocation and aid effectiveness. I present a theoretical framework that explicitly links donor interests and aid outcomes by featuring a donor who derives utility from development in the aid-receiving country. More specifically, the dissertation introduces an aid allocation mechanism, aid delivery through non-state development actors (“bypass”), which allows donors to maximize aid success in developing countries where recipient governments are uncooperative, corrupt, and inefficient. The existence of such a mechanism implies that donors can employ allocation tactics that improve the chances of aid reaching
the intended beneficiaries *ex ante*. Understanding why and when donors employ different allocation mechanisms is crucial for answering the question: under what conditions does foreign aid reach its intended beneficiaries?

Consider two very different situations in aid delivery, depicted in Figure 1.1. In 2008 Haiti received more than 700 million US dollars in bilateral development assistance from OECD donor countries, amounting to roughly 70 dollars in per capita aid. Over sixty percent of the aid was delivered through international/local non-governmental organizations, multilaterals, and private contractors. At the same time, Tanzania received over 2 billion US dollars in bilateral assistance, yielding approximately 47 dollars in per capita assistance. Only 15 percent of the aid was channeled through non-state development actors, the rest was spent in cooperation with the Tanzanian government (OECD Development Database on Aid Activities, CRS 2009).

From the perspective of political scientists who focus on the political use of
aid, bilateral aid provision through non-state development raises an important puzzle. Why would states out-source bilateral development assistance to non-state development actors, if it is a useful instrument for statecraft? (Baldwin 1976; Milner 2006) I suggest that the fact that donors choose multiple aid delivery tactics serves as prima facie evidence that bilateral aid not only serves donor-self interest, as suggested by political scientists, but that donors deliberately maximize aid success in the recipient country. Resolving why OECD donors choose to bypass state institutions in some but not other developing countries, not only provides us with a systematic explanation of aid delivery decisions but it helps us identify conditions under which aid can effectively improve the lives of the impoverished.

My thesis posits that the selection of delivery mechanisms is not random but a selective response to the quality of recipient state institutions. Better-governed aid recipients, like Tanzania, with state institutions of intermediate strength and the ability to demonstrate indigenous capacity to pursue development-oriented policies generate confidence in effective aid implementation amongst outcome-oriented donors. The donor confidence brought about by strong state institutions, encourages donors to pursue more hands-off development policy, resulting in more aid delivered directly through the recipient government. Poorly governed recipients like Haiti, on the other hand, whose state institutions are dysfunctional, fraught with corruption and lacking developmental credibility undermine donor confidence in the effective use of aid. It is in these more fragile recipients that donors will seek out alternative development partners that allow them to forgo weak and corrupt

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7 Prominent non-developmental goals of aid provision include the stabilization of governments in crisis, secure access to natural resources, or support of democratization processes in the recipient.

8 At minimum, heterogeneity in aid delivery challenges a core assumption employed by students of aid allocation, namely, that all bilateral aid is equally fungible and can be spent as recipient leaders see fit (e.g. Stone 2006; Bueno de Mesquita and Smith 2007, 2009).
state institutions and insulate the aid from government intervention. Given the range of non-state development partners, donors choose the most effective alternative channel (or mix thereof) for bypass, thereby reducing the probability of aid misuse by recipient governments and increasing the likelihood of aid success in poorly governed states.

My research represents a departure from previous work on aid effectiveness, which suggests that the success of aid depends on cooperation by the recipient government. Moral hazard, rent-seeking, and adverse selection, as I shall explain later, are all features of the bargaining process between donor and recipient governments over the use of aid and are said to prevent effective aid implementation (Agenor and Aizenman 2010; Aralal 2005; Svensson 2000). In opposition to this view, I show that the donor can overcome obstacles of effective aid implementation by working around the very source of ineffective aid: corrupt and incapable recipient governments. Through “bypass” outcome-oriented donors change the structure of aid in situations where national governments have incentives to divert funds, as opposed to coercing them into compliance. Such a tactic reduces government discretion over funds, by channeling aid through more viable non-state development channels. Understanding why and how donors employ this “bypass” mechanism enhances our insights into a donor decision calculus that derives utility from development.

The discovery of this alternative channel of delivery draws on tools of heuristic inquiry. My personal experience in implementing foreign aid projects in Bosnia provided first-hand exposure to the intricacies of effective aid implementation prior to embarking on the dissertation project. What seemed to be paramount for effective aid delivery in Bosnia at the time, i.e. donor decisions about how to deliver aid, were not discussed in the literature on aid effectiveness. Instead, conventional
models of aid effectiveness focused on how the domestic incentives of recipient
governments shaped the implementation of aid. To further explore the signifi-
cance of donor decision-making for aid success I engaged in field work and asked
civil servants from upper and middle management of donor governments and their
implementing agencies about their preferences and tactics in aid provision. Their
insights confirmed my skepticism about the underlying assumptions of conventional
models of aid effectiveness. They also strengthened my initial theoretical inklings
about the significance of aid delivery decisions for aid success and increased my
confidence in adding a new dimension for analysis to an otherwise mature research
agenda.

I test my argument using quantitative methods, including parametric and non-
parametric modes of inference. I find that donors systematically condition delivery
mechanisms on the quality of recipient governance, \textit{ceteris paribus}. I uncover sub-
stantial variation in bypass behavior among donors, which suggest that even some
of the major donors like the United States, which aid policy scholars portray as
largely non-developmental in their aid allocation, are perhaps more development-
oriented than we thought. In this dissertation I also show that the (endogenous)
donor bypass decision increases the effectiveness of aid in poorly governed coun-
tries using matching techniques. Matching allows me to address the limitations
of inference using observational data. By approximating the conditions of a con-
ditionally randomized experiment, I am able to reduce bias when assessing the
effects of donor decisions on aid effectiveness.

The remainder of the dissertation proceeds according to the following outline.
Chapter 2 provides a discussion of dominant analytical frameworks in research
on foreign aid effectiveness and uses tools of heuristic inquiry to inform theory-
building. Chapter 3 is the theoretical chapter. Chapters 4 and 5 contain quanti-
tative analyses of the theoretical argument. Chapter 6 summarizes the theoretical and empirical contributions of this research and discusses its policy implications.

Chapter Two, “Donor Decision-Making and Aid Effectiveness: A Heuristic Investigation” presents a review of the aid effectiveness literature and offers a closer inspection of the analytical frameworks employed by conventional approaches. It highlights problems associated with underlying assumptions of the characteristics of foreign aid flows. In particular, I stress the endogenous nature of donor allocation decisions and their causal link to aid outcomes. I explore my intuition about the importance of aid delivery decisions in a series of face-to-face interviews with donor officials involved in the strategic planning of aid operations from the United States, France, United Kingdom, and Germany. These qualitative insights lay the groundwork for my modeling decisions by integrating aid delivery decisions as crucial aspects of donor decision-making.

Chapter Three, “A Theory About Donor Selectivity in Aid Delivery and Aid Outcomes” presents the theoretical framework of the dissertation. It situates my theory among existing theories of aid provision, which assume that donor channel aid exclusively through recipient governments. The central argument states that donors who face a range of recipient countries, turn to a recipient country’s governance performance as a credible signal indicating whether the aid is likely to reach its intended beneficiaries. Under conditions of poor governance, donors have incentives to bypass corrupt and ineffective recipient governments, channeling their funds through non-state development actors that perform relatively better in implementing aid activities. This selective decision has implications for aid effectiveness: if donors are able to bypass the primary cause of aid diversion, then they heighten the chances for aid success. My argument thus draws two causal arrows: one that explains aid allocation as endogenous to recipient institutions and
a second arrow that connects the endogenous aid delivery decision to aid success.

Chapter Four, “Empirical Analysis I: Engage or Bypass? The Effect of Recipient Institutions on Aid Delivery Decisions,” provides empirical tests for the first causal arrow from recipient governance to aid delivery decisions. The empirical analysis begins with a detailed description of how I operationalize the dependent variable, “bypass,” in both a continuous and binary fashion. Using OLS and Probit regression analyses, I find strong statistical support for my core allocation hypothesis that donors condition their decisions about aid delivery on the quality of recipient institutions. Specifically, I find that donors are more likely to channel more funds through non-state development actors in poorly governed states.

Chapter Five, “Empirical Analysis II: Does Selectivity in Aid Delivery Help the Poor?,” then proceeds to test the second causal arrow of my argument: the effect of donor delivery decisions on poverty, as measured in infant mortality rates. Building on findings in Chapter 4, it begins by discussing the difficult endeavor of causal inference using observational data which contains selection effects. The findings of Chapter 4 underscore the endogenous nature of aid delivery decisions, stressing that outcome-oriented donors are careful about choosing the right delivery mechanism. Without correction, these selection effects may bias statistical results toward the conclusion that bypass aid is effective in poorly governed countries, when in reality the estimates are simply resulting from the fact that countries with high infant mortality are more likely to receive bypass aid. To explicitly account for the selection effects, identified in Chapter Four, I employ statistical matching techniques, which rely on the potential outcomes framework developed by the literature on estimating causal effect and program evaluation (Rubin 1973, Little and Rubin 2000, Rosenbaum 2002). I find support for my conditional hypothesis: bypassing recipient governments is effective at reducing infant mortality but only
in recipients that are poorly governed.

Chapter Six, “Conclusion” summarizes the main theoretical and empirical contributions made by this research and discusses its policy implications. Theoretically, this project advances our understanding of aid effectiveness by directing attention to the donor decision-making process. Aid allocation decisions, I argue, reflect donor interests: when donors seek to maximize aid success in the recipient country they will seek out mechanisms that allow them to reach their goals. I show that the existence of an uncooperative and incapable recipient government does not necessarily mean that donors have no ability to reach the aid’s intended beneficiaries. My argument introduces non-state delivery channels as viable alternatives to and constraints on the national government’s ability to divert aid flows for unintended purposes. It shows a way in which donors can facilitate the proper implementation of aid programs *ex ante*. As a glance at donor assistance portfolios suggests, donors use different tactics to deliver their bilateral assistance. These tactics include the conventional government-to-government channel as well as non-state delivery channels (e.g. NGOs, multilaterals, and private contractors). What is more, my dissertation, quite naturally, merges research agendas of economists and political scientists. I suggest that economists’ research on aid effectiveness could benefit from a closer investigation of the donor decision-making process, its selective nature and its implications on aid outcomes.

The empirical investigations demonstrate the importance of a theory of aid provision for understanding the conditions under which aid can effectively improve general welfare in the developing world. Infant mortality is a necessary (albeit not sufficient) condition for reducing aid dependence in the long-run. If aid fails to satisfy the necessary condition, then the prospects of decreasing aid dependence in the long-run become even more distant.
My research also has important policy implications. In terms of aid policy, accounting for heterogeneity in aid delivery mechanisms actually makes short-term development success “easier” than conventionally portrayed. In fact, my research depicts donors as paramount actors in the quest for effective aid implementation. Donors have their bilateral means for increasing aid effectiveness, which are more insulated from threats of failed aid contract enforcement by recipient governments. There is still room for further improvement among donors, however, as aid delivery decisions vary considerably.

More broadly, while bypassing local state structures may offer immediate relief for the poor, the tactic also represents a double-edged sword. It might hamper or even undermine long-term efforts to build-up a state capable of managing its own development. Underlying this donor dilemma are differences in the nature of short-term 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 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.

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9In March 2010, the United States government announced a shift in their aid policy in Haiti, only short after a fatal earthquake hit the country. To improve the prospect of sustainable development, the U.S. government announced a move away from government bypass and towards 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.
2.1 Introduction

Under what conditions does aid help to promote general welfare and development in developing countries? Over the years, this question has generated an extensive body of research. Typically, scholars study characteristics of the aid-receiving country in search for conditioning factors that increase the likelihood of aid success. More recently, scholars have begun to dissect the characteristics of aid flows to be able to test more narrow causal claims about the impact of sectoral aid on public sector outcomes. Yet one senses very little progress in the accumulation of knowledge. As Rajan and Subrahimian (2005) critically note: “The literature has sometimes followed a cycle in which one paper finds a result, and is followed by another paper with a twist, either overturning or qualifying the previous result,
followed by another, and so on. This has had some undesirable effects on policy with advocates selectively using results to bolster their preferred view on aid.” (p. 5) Aside from the troubling existence of pre-existing biases about what aid should accomplish, the fragility of findings and their sensitivity to statistical specifications might also stem from an incomplete account of the causal processes that link foreign aid provision and aid outcomes.

Although establishing causality in aid effectiveness necessarily remains a difficult endeavor, I claim that conventional analytical frameworks, which place the burden of aid effectiveness squarely on the shoulder of recipient governments or other country characteristics are incomplete. Specifically, I argue that donor allocation decisions are at the heart of aid effectiveness. It matters what donors want to achieve with the aid. It matters if donors choose aid delivery mechanisms that enhance the likelihood of aid success before the aid reaches the recipient country.

My focus on donor decisions about how to deliver aid draws on insights gained through heuristic inquiry. I draw from subjective experience in implementing foreign aid projects and interview evidence from conversations with donor officials involved in the allocation decision-making process. These insights have bolstered my skepticism of existing aid effectiveness models. They directly inform theory-building and my empirical modeling strategy in subsequent chapters.

This dissertation chapter is divided into four sections. Section 2.2 describes two prominent analytical frameworks employed in the study of aid effectiveness and raises questions about their ability to adequately capture the causal processes that link aid flows, as they leave the donor government, with aid outcomes in the aid-receiving country. Section 2.3 provides personal insights gained while delivering aid projects in Bosnia as well as illustrative evidence gathered from interviews with donor government officials suggesting that aid delivery decisions are at the
heart of donor efforts to maximize effectiveness. The interviews, in particular, provided an understanding of the complexities of the decision-making process, including donor expectations and calculus, as well as offered insights on the actors involved in the aid allocation and implementation stages. In-depth conversations with officials allowed me to assess how previous decision models corresponded to “reality.” What is more, the interviews informed my theory-building efforts, as demonstrated in the theory chapter, where I introduce a third party (i.e. a non-state development actor) into aid agreements. The existence of a third actor as an implementation mechanism derives its motivation from existing aid commitment problems between donors and recipient governments in the aid implementation phase, which are particularly severe, arguably, in countries with fragile and corrupt institutions. Finally, Section 2.4 concludes by generating expectations based on my qualitative investigations which inform my argument as presented in Chapter Three.

2.2 Conventional Approaches to Explaining Aid Effectiveness

Theoretical work on aid effectiveness, as discussed in neo-institutional economic theory, has highlighted the difficulties that arise for donors when trying to constrain the behavior of aid-receiving governments (Agenor and Aizenman 2010, Aralal 2005, Gibson et al 2005, Ostrom et al 2001; Dollar and Svensson 2000, Kanbur 2000). Donations of donor countries are viewed as subject to moral hazard and adverse selection problems.¹

¹At the heart of these problems are information asymmetries between donor and recipient governments. If donors had have full information about the state of the poor and the government’s
More generally, scholars have identified rent-seeking as representing a fundamental problem in effective aid implementation. Corrupt officials divert aid for their own purposes rather than invest them in poverty alleviation (Boone 1996, Easterly 2002). Recipient incentives to divert some, if not most, aid funds away from donor goals of poverty alleviation are commonly argued to be stronger in badly governed countries, where institutions lack the capacity to act as constraints on errant governments and/or are unable to properly absorb the aid.\(^2\)

Effective aid implementation is further undermined by what scholars have called the “Samaritan dilemma” (Kanbur 2000, Gibson et al 2005). While donors, at the outset, may have the best intentions of making aid conditional on good behavior, government failure to meet these conditions does not necessarily result in aid conditions being enforced and aid budgets being cut or eliminated by donors. Instead, donors now have incentives to continue aid provision in light of other goals such as, for instance, humanitarian relief. Thus, conditionality remains unenforced.

Such an incentive structure results in an overall bargaining advantage of recipient governments, posing a seemingly insurmountable obstacle for outcome-oriented donors. How can donors ensure that aid is used for its intended purposes? A prominent solution to avoid these accountability problems altogether is embodied in the giving principle of the U.S. Millennium Challenge Account, i.e. country selectivity.

\(^2\)As recent evidence by Dietrich (2010) suggests, however, corruption does not uniformly affect aid effectiveness. Recipient governments are selective about what donor goals to implement or forgo across different aid sectors.
Through this aid agency, the United States exclusively funds countries whose corruption levels are “acceptable” and which have demonstrated willingness to pursue political and economic reforms. Good past performance along these two dimensions generates confidence among aid decision-makers that development funds will not be wasted.\(^3\) Importantly, however, the principle of country selectivity generates an obvious dilemma for donors committed to reducing the gap between the rich and the poor: it implies that donors leave the poorest countries behind, while supporting the ones that have already demonstrated indigenous development capacity.

Empirical scholarship interested in uncovering conditions under which aid can effectively improve the lives of the poor have focused primarily on attributes within recipient countries. Scholars of this tradition have identified a variety of recipient characteristics that separate those countries in which aid has a positive effect on growth and human development from those where it does not, including measures of macroeconomic policies (Burnside and Dollar 2000), governance quality (Burnside and Dollar 2004), politics (Kosack 2003, Wright 2008), civil war (Collier and Hoeffler 2002), trade volatility (Guillaumont and Chauvet 2001), and other economic shocks (Collier and Dehn 2001).

According to Figure 2.1, which shows the underlying framework of Burnside and Dollar (2004), aid enhances growth only under conditions of good governance. Good governance here signifies the presence of development-conducive institutional arrangements (e.g. efficient regulatory frameworks and corruption control) that contribute to the success of antipoverty policy in general and, more specifically, to the successful implementation of donor goals in foreign aid.

\(^3\)At the heart of this giving principle is the question of accountability, as heralded by the Washington Consensus
And, while it is important to account for variation in recipient governance, Burnside and Dollar only do so after the aid has been allocated to the recipient country. Such a theoretical framework is limited in three ways: First, it does not allow for aid flows to vary in character. Second, and more fundamentally, it only explores the direct causal mechanisms between aid, recipient policies/institutions, and aid outcomes, thus overlooking the possibility of indirect effects, which induces selective aid delivery among donors. What if donors think ahead and anticipate poor governance in the aid receiving country? Third: how would donors deal with variation in recipient characteristics in the aid allocation stage? Answers to these questions invariably associate aid allocation with donor interests and expectations. If, indeed, donors think selectively about aid allocation then the causal mechanism identified by Burnside and Dollar is no longer sufficient to explain variation in aid outcomes across all aid recipients. Why would donors who seek to maximize aid success in the recipient country continue to provide aid to corrupt governments -the very source of aid ineffectiveness, as suggested by Boone (1996)? More interestingly, perhaps, how can donors motivate recipient governments to use aid effectively with a view towards poverty reduction?
A more recent and increasingly prominent literature challenges the conditional literature on the untenable nature of their assumption, namely that aid flows are homogenous and affect all outcomes in exactly the same way. Scholars of this new strand advocate that aid be disaggregated (Clemens et al 2004, Mishra and Newhouse 2009; Michaelowa and Weber 2009, Mavrotas 2003, Mavrotas and Ouattara 2006). One noteworthy and influential piece of work in this tradition is Clemens et al. (2004), which disaggregates aid by its impact horizon. Convincingly, the authors argue that not all aid is given for purposes of generating economic growth and even if donors intend to impact growth some aid activities will have a longer impact-horizon than is permitted in typical growth regressions. As Clemens et al. describe: “Given the variety of ex-ante objectives for aid, it is to be expected that ex-post evaluations of aid efficiency find mixed results when conducted as if (short-term) growth were the only objective.” (p. 3) To remedy this short-coming, Clemens et al. distinguish foreign aid by the timing of its projected impact on growth. They claim that, by design, only short-term growth aid should exhibit a positive relationship with growth, while the success of long-term growth aid would not be detectable in the typical four-year growth regressions.

The “all-aid-is-not-alike” perspective exploits apparent variation in aid flows. Clemens et al (2004) match aid flows to the observation period over which they might reasonably affect growth. They divide aid into three mutually exclusive, collectively exhaustive categories: short-impact aid, long-impact aid and humanitarian aid. Figure 2.2. shows their schematic framework of inquiry.

This strand of aid effectiveness scholarship directly addresses the issue of variation in aid flows and distinguishes among different categories of aid, thus generating expectations for each of the subtypes. Such practice has encouraged other scholars to systematically evaluate the extent to which development assistance actually
reaches its designated objectives across aid sectors (Finkel et al 2007; Mishra and Newhouse 2009; Michaelowa and Weber 2009) or types of aid (Mavrotas 2002, 2003; Masud and Yontcheva 2005). For instance, Mavrotas (2002, 2003) who disaggregates aid to India into “program”, “project”, and “technical assistance” flows, finds that all three types of aid are negatively correlated with economic growth in India from 1970 to 92. When conducting a similar analysis of the effect of aid types on growth in Uganda, Mavrotas (2003) finds a significantly positive effect of “program” aid on growth, but significantly negative impacts of technical cooperation and food aid.

Instead of making overarching claims about the impact of all aid, this approach tests more narrow causal mechanisms. Consistent with scholars of the conditional literature, however, they remain silent on the possibility of endogenous and highly selective aid allocation decisions. For instance, Clemens et al. (2004) suspect that short-term aid is more successful in states with good institutions. Yet, their causal story does not account for the underlying donor decision-making process.

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4What distinguishes these three aid types is the degree to which they allow for recipient government influence. Technical assistance typically relies on donor consultants that provide advice for technical and reform matters. Project-aid subsumes largely donor-driven aid activities, both in terms of design and implementation. Programmable aid, on the other hand, grants recipients greater input on how the assistance is spent.
that might lead donors to distinguish different sectors or types of aid based on expectations about aid success. This raises an important analytical question: Is analysis of recipient conditions or aid characteristics sufficient for understanding the conditions under which different types of aid can alleviate poverty?

I argue that a focus on recipient incentives is insufficient for understanding conditions under which aid can contribute to general welfare. Equally insufficient is a focus on the heterogeneity of aid, without accounting for the selective nature of aid delivery decisions and underlying donor interests. As I will show in greater detail below, a better grasp of donor decisions about how to deliver aid allows us to uncover credible donor mechanisms that facilitate aid success ex ante, and represents a fruitful extension to existing theories of aid effectiveness.

My initial skepticism of existing aid effectiveness models and intuition about donors’ ability to enforce successful aid implementation in the face of poorly governed institutions stem from subjective, personal experience in delivering different types of aid projects in Bosnia, prior to embarking on this dissertation project. My theoretical “priors” are reinforced through in-depth interviews with donor officials, which generated novel insights about the mechanism linking donor allocation decisions and aid success. For the remainder of this chapter I present a thematic narrative analysis that explores the relationship between donor decision-making and aid outcomes.
2.3 Heuristics of Aid Effectiveness

2.3.1 Delivering foreign aid projects in Bosnia

My approach to the study of aid effectiveness has been influenced by first-hand experience in the delivery of aid projects in Bosnia between 2002 and 2004. I arrived in Bosnia with the goal of making a positive contribution to improving peoples’ lives in the midst of a post-conflict environment, where, despite significant increases in GDP and merchandise exports, unemployment remained staggeringly high, politics continued to be deeply divisive and local people harbored grim outlooks for the development of a multi-ethnic Bosnia. I was excited to join the OSCE Mission to Bosnia and Herzegovina as a development consultant, eager to learn more about the complexities of post-conflict development, and ready to thrust myself into the daily operations involving internal and external donor briefings, consultations with Bosnian authorities, and outreach activities to engage locals. The sheer size of the development assistance enterprise, I believed, which totalled more than $400 million in 2003, simply had to make Bosnia’s future brighter. This was naive, perhaps, but genuine.

Only a few weeks into my consultancy assignment I recognized that relations between donors and the recipient governments were quite fragile, in spite of the enormous volumes of foreign aid flowing into Bosnia every year. In locally held forums that discussed Bosnia’s future, donors usually expressed their frustration over the frequent obstruction of donor initiatives by Bosnian leadership. Aid targeted at enhancing social transfers to the poor disappeared before reaching its intended targets. Broad structural reforms aimed at building a market economy were stalled. In 2004, four out of ten Bosnians were unemployed and close to
falling below the poverty threshold (World Bank 2005). Mostly skeptical of the
government’s commitment to and the bureaucracy’s ability to carry out reforms,
the general public identified the international community as the principle agent
for carrying out reforms and delivering crucial services. In particular, the High
Representative (OHR) was regarded as the key authority figure responsible for im-
plementing the civilian provisions of the Dayton peace agreement and vested with
the power to issue laws and regulations.

Against the backdrop of mounting local and international frustration with the
lack of developmental progress, the development community engaged in heated
debates about aid effectiveness. At the core of these debates was a question about
aid delivery and strategic planning: how could donors get better traction from
the hundreds of millions of aid dollars sent to Bosnia every year, in the face of
uncooperative and incapable political leadership? What tactics were most likely
to yield success in outcomes?

The opportunity to observe and participate in these debates about aid delivery
mechanisms impressed upon me the diversity of aid portfolios and mechanisms.
Aid donations took the form of multiple projects and programs. Donors provided
baseline funding through sector program support or budget support activities.
They provided technical expertise for capacity-building, only to name the most
prominent aid instruments. Similarly, donors utilized a wide range of delivery
channels including government-to-government and non-state development channels
such as non-governmental and private organizations (e.g. International Executive
Services Corps, Partners for Development), and multilateral organizations (e.g.
OSCE, World Bank, UNDP). And, while there was a general consensus among
donors that a highly divided and obstructive local government prevented critical
economic reforms from happening and reduced the likelihood of aid reaching the
poor, the selection of delivery mechanisms varied across donors.

Some donors, notably the World Bank and the United States, placed short-term aid success at the top of their development agenda. Donor officials representing the United States seemed particularly keen on sponsoring aid initiatives that would allow donors to work around the very problem that they identified as being a primary cause of aid waste: political leadership. The idea of “bypass” was borne out of donor desire to maximize donor success in the short-term -to help generate a momentum strong enough to make progress on the larger development agenda.

One landmark aid project coming out of this desire to get things accomplished in the short-run was the “Bulldozer Initiative.” 5 The initiative built grass-roots constituency to speed up development in the face of uncooperative authorities (Herzberg 2004). Its principal aim was to strike down burdensome regulations that had stifled private sector investment. Within only 150 days, 50 reform proposals, identified by private business representatives and developed in collaboration with international consultants, were successfully passed in parliament. 6 By using an innovative grassroots methodology, donors were able to accomplish their goals in the face of uncooperative authorities. Because it delivered concrete, quantifiable results in all sectors of the economy, the initiative was characterized as a catalyst for progress in a more complicated structural reform process (Herzberg 2004).

Not all donors shared this positive view about the initiative, however. Officials representing the German and French governments in Bosnia, for instance, expressed concern about the potentially negative effects of working through channels

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5 Four international agencies -namely, the European Commission, the IMF, USAID, and the World Bank, were key advocates for this initiative and members of its committee. I participated in this initiative through a project cooperation agreement between the OHR and the OSCE Mission in Bosnia.

6 A schematic representation of the steps involved in the Bulldozer implementation process is presented in Appendix A, Figure A1.
other than the government. In their eyes, the success of the initiative largely de-
pended on the political clout and resolve of donor countries and did little to improve
the ability of a central government to generate indigenous development capacity -a
goal which was of particularly importance to the geographically proximate donors.
And, while debates about appropriate delivery tactics remain unresolved to this
day, my insights into the intricacies of foreign aid implementation have made one
issue abundantly clear: aid effectiveness is as much about strategic planning as it is
about successful implementation on the ground. In fact, “smart” donor allocation
tactics can dramatically reduce potential problems at the implementation stage.

In the following section, I examine the extent to which this intuition is shared
by donor officials who are involved in the making of allocation decisions. And,
more specifically, I want to find out whether aid delivery mechanisms indeed take
on a paramount role in donors’ pursuit of effective aid provision.

2.3.2 Interviews with senior officials from donor govern-
ments and implementing agencies

The interview material was collected during the summer of 2009. Over the course
of three months, I conducted 22 in-depth interviews with senior officials of donor
governments and their aid implementing agencies from four major donor countries,
the United States, United Kingdom, France, and Germany.\(^7\) The selection of
these four donor countries was based on their status as the major aid providers
worldwide. When combined, the four countries provide more than 60 percent of
all aid flows. As major powers, these countries provide significant amounts of aid
for political as well as developmental purposes, which suggests that respondents

\(^7\)A detailed list of the interviews can be found in Appendix A, Table A1
will be able to provide relevant insights into the multipurpose nature of foreign aid and the respective decision-making process.

Specifically, I targeted upper and middle management civil servants who either worked directly for the donor government or for a major implementing agency. At this level, civil servants feel direct and indirect pressure from political decision-makers to reduce fiduciary risks and improve conditions under which aid can be presented as atuned to the effectiveness imperative. At the same time, they are far enough removed from the actual business of field operations, which largely involves oversight of aid operations on the ground (as they are delivered by recipient governments, contractors or grantees). They have knowledge of highly aggregated information from the field that informs strategic planning related to effectiveness. I gained access to these officials primarily by using my network of development practitioners, but in two cases direct requests for interviews proved successful.

For each interview I followed a consistent format as follows: a) I asked donor officials to explain their process for country allocation or asked them to generalize across all countries, and to emphasize aspects of the process that they deemed particularly relevant for aid success. b) I then encouraged them to be more specific about the role of aid delivery in decision-making and how it was employed to achieve aid effectiveness. c) I followed up with specific questions about how they evaluated aid success ex ante and ex post. Each interview was audio-recorded and took between 45 to 60 minutes to complete.\(^8\)

\(^8\)After completion of each interview I transcribed the content and proceeded to the analysis. I present interview materials as bounded segments of interview text.
2.3.2.1 General insights into the decision-making process

Of the 22 respondents I spoke with, all emphasized that aid effectiveness was an important goal of bilateral foreign development assistance, alongside other objectives such as the nurturing of historical donor-government relationships, support of recipients within donor sphere of influence, access to natural resources, government stabilization, or democratization support. While the French and British respondents stressed their responsibility vis-a-vis former colonies, the US respondents, in particular, attributed much significance to national security concerns. As a senior official from the U.S. State Department suggested:

“On the highest level there has to be some strategic need for the US to be there. There does not have to be oil running underneath or it has to be contiguous to a conflict zone but we have to have some rationale for why involvement enhances US foreign policy in the end. It can be as simple as a failed state somewhere in Africa, which can be problematic for our goals in Africa. We don’t have large assistance programs in Bhutan or the Maldives or in other countries.”

At first glance, this statement supports the the conventional wisdom in the literature on aid allocation which suggests that non-developmental interests trump developmental ones in aid policy. In more recent years, however, according to several donor officials, developmental and non-development objectives increasingly overlap.

When prompted about the linkages between security and development, as they affect aid allocation decisions, US respondents’ comments describing decision-making became more nuanced. They pointed to “hot spots” like Afghanistan

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9Author interview on June 12, 2009.
and Pakistan, which were key for US security but also experienced high levels of poverty. They stated that their goal was to develop a foreign policy strategy that included the provision of development assistance as a means to reaching national security objectives. As one senior USAID official suggested in light of U.S. efforts in Afghanistan:

“They U.S. strategy in Afghanistan is changing. Rather than focusing on long-term development foreign aid short-term success in aid also help us address counter-insurgency. We want to show the people the benefits of siding with the Afghan government and the NATO coalition against the Taliban. The approach is to emphasize tangible benefits with a view towards stabilizing Afghanistan and certain areas of Pakistan. Some of the changes are dramatic. Today, everyone in Afghanistan is now within a four-hour walk of health care. We expect development to occur once basic needs are met and security is provided.”

Whether the success of development aid was defined as means to an end or end in itself, aid effectiveness was a central concern for all respondents. When I asked them about how they measured aid effectiveness, respondents referred to absolute poverty measures, as captured in the Millennium Development Goals and relative measures of income as well as economic growth. When pressed to identify appropriate measures of aid success for the world’s poorest countries, three US respondents emphasized that the goal of aid was to deliver basic services to impoverished populations. While the remaining respondents typically supported a focus on improving general welfare in the short-term, they also emphasized the

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10 Author interview on June 17, 2009.
need for mixed strategies that included more long-term measures of aid success.

### 2.3.2.2 Aid delivery decisions are crucial for aid effectiveness

When I asked respondents about the relationship between aid delivery and aid success, respondents generally claimed that a significant burden of aid effectiveness rested on donors’ shoulders, i.e. their decisions about how to deliver aid. Donors regularly hold strategic planning sessions with a view toward maximizing aid success in the aid-receiving country. These appear to revolve around the use of appropriate aid instruments. As a senior USAID official suggested:

“We process information and think a lot when coming up with allocation strategies. What do we want to achieve? What are our intermediate results? What are we going to be measured by? What aid instruments should we use? Who will best deliver our programs?”

The strategic nature of these questions, as all officials stressed, was particularly apparent in desperate developing countries with abysmal governance, where obstacles to aid provision seemed insurmountable. As a British senior government official stressed:

“The great conundrum of working in fragile states is that foreign aid can go terribly wrong. You do what you can but you have a different risk profile. A lot of donors will not even bother because it is hard to defend the investment. It becomes a vicious circle. It is a difficult business with high fiduciary risk, but necessary. It is in these states where the need for assistance is highest.”

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11 Author interview on June 17, 2009.
12 Author interview on June 12, 2009.
This position was expressed by most respondents, with the notable exception of a senior official at the United States Millennium Challenge Corporation, who advocated country selectivity:

“We, unlike many other donors, use performance indicators to assess the trustworthiness of the recipient government, and we are particularly interested in corruption ratings.” We do not work with fragile countries. It is simply too risky. We have to balance host country ownership with our fiduciary responsibilities as a government agency managing public resources. We have to be able to control and account for.”

He also provided detail on candidate countries for development assistance.

“In the MCC, there is a strong consensus around Liberia and a general consensus around Rwanda that both countries are doing well, with leadership that is focused on clean government, on getting resources to address key development constraints. Taken without any specific criteria you should come to the conclusion that these are the two countries in which you should be investing. But when you look at their performance score cards against our criteria there are clear areas of weakness that they still need to work on. In the case of Liberia one can probably argue that many of those weaknesses are attributable to twelve years of civil war. But we are not meant to be a rapid response agency to rebuild a country like Liberia even though some of us believe that this is a great opportunity for the very type of resources we provide. But our development model is unique.”

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13 Created in 2003, this US aid agency is deeply grounded in the Washington Consensus and its underlying expectation that investments in reforming countries are more likely to have impact.
14 Author interview on June 10, 2009.
15 Author interview on June 10, 2009.
In spite of the obvious risks associated with the provision of aid to fragile countries, at least one donor representative across all four donor governments spoke about a recent, “post 2000”- paradigm shift in thinking about aid allocation. At the core of this new paradigm was a general recognition that tough spots in development should no longer be left behind, as the accountability principle of the Washington Consensus would dictate. It is this tension between accountability and need that donors must to resolve when providing the aid. How can donors ensure that aid is successful in the world’s poorest states? Respondents’ answers to this question were surprisingly similar in advocating differentiated aid delivery strategies.

Generally, I was impressed by how strongly respondents placed the aid delivery mechanism in the forefront of their discussions of aid effectiveness. In the eyes of many respondents, well-designed programs were indispensable for exploiting the potential of aid. A senior French government official was most forthcoming about the pivotal role of aid delivery for effective aid delivery in his comment about how much aid delivery mattered in the decision-making process:

“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.”

Decisions about how much aid to allocate, albeit important, do not include a mechanism for effective aid delivery, as presented by a senior German government official:

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16Author interview on July 16, 2009.
“At the heart of the effectiveness debate is the question about how to squeeze more aid success out of available funds: we need money to do something. We need appropriate delivery mechanisms to turn money into success.”\textsuperscript{17}

\textbf{2.3.2.3 Endogenous aid delivery: the importance of recipient institutions}

Where appropriate I pressed respondents to be more specific about the determinants of aid delivery mechanisms. What factors do decision-makers consider when selecting delivery mechanisms? The vast majority pointed to recipient characteristics as important determinants of aid delivery, with a particular emphasis on recipient institutions. Five respondents, mostly German, suggested that decisions about delivery mechanisms were also a function of donor politics and the organizational structures of aid agencies. Three of 22 respondents indicated that organizational survival and personal promotion in the head offices of national missions of implementing agencies and their implementers influenced aid delivery decisions.\textsuperscript{18} All interviewees noted, that donor agencies assessed different dimensions of recipient country governance on a regular basis to stay current about risks associated with aid provision. These assessments were based on frequent reports from donor offices and implementation agencies on the ground, embassies, multilateral organizations, and specific indicators on corruption such as Transparency International.

\textsuperscript{17}Author interview on June 30, 2009.

\textsuperscript{18}Martens et al 2002 examines the organizational incentives and constraints that guide the behavior of people involved in aid implementation. Also, scholarship analyzes the domestic determinants of aid levels, identifying ideology (Noel and Therien 1995, Milner and Tingley 2010) domestic interest groups (Lumsdaine 1993, Fleck and Kilby 2001) and political parties (Bermeo, Leblang, and Tingley 2010) as factors that influence how much foreign aid donors allocate to developing countries. A next step of my research is to analyze domestic determinants of aid delivery, with a particular interest in learning more about the extent to which donor politics conditions the effect of recipient governance on donor decision-making.
In the course of discussing the endogenous nature of aid delivery mechanisms, respondents referred to their aid giving portfolios as being differentiated by aid mechanisms, which, in the eyes of most officials, was particularly crucial when donors provided funds to countries in which the quality of governance was low and corruption endemic.

“Governance is an important criterion for success,” claimed a US senior official and continued: “If governance is poor we need to respond with appropriate instruments. We consider budget support only in countries with better governance. If neither capacity nor will are present, we are more inclined to do technical cooperation projects or channel funds through non-state development actors, to allow for better accountability over our funds.”

A preference for finding delivery tactics outside of recipient governments in fragile governance contexts appeared to transcend levels of government. A senior DfID official related differentiated aid tactics to subnational aid giving strategies in India, where the British government provides funds to “five focus” states including Andrah Pradesh, Madhya Pradesh, Orissa, West Bengal and Bihar:

“When the capacity of local non-governmental organizations is considered weak, multilateral organizations and international NGOs are the preferred mode of aid delivery. In many countries the World Food Organization or UNHCR may be the only organizations on the ground that deliver basic needs services. An example here are the early days of British aid programs in Bihar, India, where the only ”credible” developmental partner on the ground was UNICEF. Local non-governmental

19 Author interview on June 20, 2009.
organizations were there, too, but they did not have the capacity to deliver.”

The systematic nature of aid delivery decisions was echoed by all other respondents, albeit to varying degrees. Generally, U.S. respondents, with the exception of the official representing the Millennium Challenge Corporation, were resolute advocates of bypass in the face of corrupt governments. German, British, and French officials also promoted differentiated aid delivery yet, articulated concerns over the potentially negative implications of bypass for the prospect of sustainable development. A French official, in particular, stressed the need to think carefully about the trade-offs between responding to immediate need, as expressed in the Millennium Development Goals and long term sustainability concerns:

“When I see that some NGOs are hiring teachers that cost three to four times the cost of a government-sponsored teacher I wonder what this practice implies for medium and long-term development. These NGOs might get the school teachers that otherwise would not come. But when funding ceases then they cannot provide the teachers. How can such developments to be sustainable?”

In this vein, several respondents claimed that the default mode of service delivery in foreign aid should be government-to-government and only for fragile states should this preference, where necessary, be substituted by bypass.

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20 Author interview on June 12, 2009.
21 Author interview on July 16, 2009.
22 Or, at least, initially channeled through recipient governments who then can outsource it to private agencies for implementation.
23 This preference setting does not apply for foreign democracy assistance, which, by definition, often bypasses central authorities with the goal of strengthening the role of civil society organizations in the political process.
“When we cannot practice the default mode, the aid goes through other channels such as non-governmental organizations or multilateral agencies,” added a senior British official.²⁴

British and German officials further explained that this preference was embedded in, what they described, a “multi-staged aid framework.” Three interviewees suggested that donors tended to embrace low capacity situations to actively work on interim development solutions with non-state development partners that save lives, before committing to government-to-government cooperation. One German official said:

“It takes some trust to directly transfer money into a recipient’s budget or even provide technical assistance. In a country in which there is nothing it is fair to say that we go first with NGOs and IOs as an interim solution. In fact, we consider some of our German non-governmental organizations as paving the way for government-to-government development cooperation. Yet, we cannot continue to do that for years by ourselves and that is why we next look at building local government capacity and engaging the government.”²⁵

Frequently, as many respondents claimed, the selection of alternative development partners was problematic. Local NGOs, are, in theory, virtuous development partners due to their non-profit nature and issue-focus. But, in poorly governed countries, as a US senior government official at USAID stressed, they might not rise to their role as viable development partners:

“In countries with poor governance, NGO capacity is judged as being

²⁴Author interview on June 12, 2009.
²⁵Author interview on July 3, 2009.
very marginal and the mission will thus hesitate to give direct grants to local organizations. Instead, we prefer larger US NGOs or international organizations that we hold accountable. We encourage them to integrate the local NGO sector in the implementation process to help strengthen them.” He furthermore added: “We have a fairly good idea about the capacity of civil society in aid-receiving countries. We know what the local, American and other international NGOs can do. We know what the for-profits contracting community can do. And, based on this knowledge, we generate our procurement mechanism. We want foreign aid to be cost-effective.”

Alternatively, respondents claimed that multilateral organizations were often indispensable development partners, due to their wide geographic reach into regions where no other non-state channels have a presence on the ground.

“Organizations like UNICEF for instance are unbeatable”, according to a German government official. He adds: “They are flexible and have large reserves. They tap into the local drug markets. They buy local medication and test it thoroughly.”

Political neutrality, too, is a characteristic that US and German respondents valued in multilateral organizations. And, where possible, as suggested by many respondents, donors combine non-state development channels to enhance traction.

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26Several respondents also linked the selection of non-state actors to comparative advantage. For instance, as referred to by a German official, if donors want to establish a stock market private contractors are likely to be more cost-effective than international NGOs like the International Executive Service Corps or the Financial Services Volunteer Corp. If donors seek to install light bulbs in villages they will consult local development partners, while the construction of energy power plants requires international solutions.

27Author interview on July 3, 2009.
Generally, donor officials appeared to be confident about their existing systems of monitoring and ex ante risk evaluation that inform the selection of delivery channels. Only one French respondent articulated concerns over the dilemma of accountability, especially when funding local NGOs.

“How can we be confident that our funds are properly used? We have witnessed an explosion of NGOs around the world, in remote communities, and it becomes increasingly difficult to assess the NGOs quality. We do our best to use as much available tangible information about organizations as possible. But much of what makes an NGO trustworthy depends on its governance quality, which we often know little if anything about.”

While I did not press respondents to be more explicit about which specific indicators or informational short-cuts donor agencies employed in ex ante assessments of non-state development actors, they often referred to institutional factors, such as organizational capacity and management, as being indicative of good NGO performance in service delivery.

2.3.2.4 Expectations for theory-building

Without doubt, these interviews strengthened my confidence in the importance of aid delivery decisions for aid success, as I set out to work on this project. Donors possess a range of options by which they can increase the possibility that aid reaches the intended objectives. The interviews helped me identify one of these options by exploring in detail an important aspect of aid decision-making, aid delivery, which scholarship has remained largely silent about. While the interview material

28 Author interview on July 16, 2009.
is clearly not exhaustive, it is representative of decision-making preferences and tools as shared by representatives of four major donor countries. Based on the interview material I have developed expectations about how donor interests affect aid outcomes that directly inform the development of my argument, which is the core of Chapter Three.

In light of fiduciary pressures and expressed commitment to development, coupled with intensive monitoring of conditions in developing countries, I would expect donor aid allocation portfolios to exceed mechanisms of aid allocation that hinge exclusively on cooperation by the recipient government, as advocated by theoretical models of aid effectiveness. While donor interviews provided evidence of more than just one mechanism of delivery, the channel of aid delivery, appeared to be an important mechanism for effective aid implementation. Further I expect outcome-oriented donors to condition aid delivery mechanisms on what they identify as obstacles to successful aid implementation. The interviews overwhelmingly identified recipient governance as a signal that directly affects donor expectations; thus establishing the endogenous character of aid delivery decisions.

2.4 Conclusion

This chapter examined existing analytical frameworks in the aid effectiveness literature and surveys resulting knowledge about the factors that make aid more effective. Although, scholars have identified a wealth of factors that can enhance aid success, this research agenda remains underdeveloped theoretically.

\textsuperscript{29}The four donor countries account for more than half of official development assistance flows every year.

\textsuperscript{30}These factors are largely recipient characteristics including e.g. governance, macroeconomic policy, civil war, although more recent research examines characteristics of aid flows more closely.
I discussed the analytical shortcomings of existing research strands studying aid effectiveness, which focus on aid levels\textsuperscript{31} and does not take into account the endogenous nature of donor decisions about how to deliver aid. The interview insights presented suggest that donors derive utility from recipient development and actively pursue aid allocation tactics that maximize aid success. This represents a departure from the existing aid effectiveness literature. I subsequently develop a causal relationship between donor allocation decisions and aid outcomes, which formalize expectations gained through heuristic inquiry.

\textsuperscript{31}The limits of a focus on how much aid donors commit or disburse become most apparent in the prominent policy-driven aid effectiveness debates. Some argue that more is good (Sachs 2005) while others say that less would be better (Easterly 2002, Moyo 2009). But spending more foreign aid does not necessarily equal more aid received by the poor. Moyo’s (2009) recent request to eliminate all aid to sub-Saharan Africa is based on her simplified view of aid delivery, when she characterizes all foreign aid as handouts to governments. If her criticism were translated into policy practice, Western aid to sub-Saharan Africa would only modestly decrease, since budget and program support make up only a fraction of the aid. By only looking at levels of spending, discussants oversimplify (or perhaps even misrepresent) donor sophistication in aid delivery.
Chapter 3

A Theory About Bilateral Foreign Aid Delivery and Poverty

3.1 Introduction

The prevailing view among students of aid allocation is that foreign aid represents a primary instrument of state-craft, used to influence policy choices in the aid-receiving country. Bilateral aid, in particular, is viewed by many as advancing non-developmental goals such as, for instance, government stability (Kono and Montinolla 2009), access to natural resources (Kapfer et al 2007), and democratization (Wright 2009, Henderson 2003). Indeed, it is mere coincidence, in the eyes of Bueno de Mesquita and Smith (2009), if bilateral aid improves recipient development:

“Recipient and donor leaders seek substantive policies and resource allocations that protect their hold on power. To the extent that such

1 Multilateral aid, on the other hand, is viewed as being more development-oriented (Maizels and Nissanke 1984, Girod 2008), although evidence exists that large donors exercise significant influence over the decision-making process in multilateral organizations (Stone 2004; Dreher and Jensen 2007; Dreher, Sturm, and Vreeland 2009)
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)

In contrast to this prevailing view, I suggest that donors derive utility from development and maximize this utility with regards to the aid delivery mechanism. If donor governments used aid solely to obtain policy concessions by recipient governments, the use of “bypass” tactics is puzzling. As Figure 1.1 illustrated, some aid recipients receive over half of their bilateral foreign assistance through bypass, while others receive their aid through government-to-government channels. Variation in aid delivery decisions represents an important puzzle for political scientists interested in the effect of donor decision-making on aid outcomes.

I argue that donor use of multiple aid delivery tactics is prima facie evidence that development is in itself an explicit end goal of donors, rather than mere coincidence, as suggested by Bueno de Mesquita and Smith (2009) above, and that donors have options to credibly enforce this goal.

From the view of a development-oriented donor, foreign aid has two objectives: On the one hand, foreign aid has a long-term effect as catalyst for economic growth and sustainable development. On the other hand, foreign aid has an explicit short-term orientation, in which it is meant to reduce absolute levels of poverty as expressed in the MDGs. While the short-term goal of poverty reduction is often motivated by a normative imperative of reducing the gap between the rich and
the poor\textsuperscript{2}, it also serves as a necessary (yet insufficient) condition for achieving sustainable development. In many of the world’s developing countries, the poor are entrenched in struggles for survival and unable to take advantage of growth opportunities. In such environments, foreign aid delivers critical services that improve immediate welfare. Such welfare improvements might, perhaps, lead to economic growth down the road, conditional on other factors falling into place as well such as, for instance, better macroeconomic policies and governance.

The purpose of this dissertation is to examine whether aid is able to make a difference for impoverished populations, which represents a necessary condition for sustainable development. Outcome-oriented donors derive utility from short-term aid success, as advocated in the MDGs. Importantly, they maximize utility with respect to the composition of aid flows: they will opt for the aid delivery mechanism that they expect to be most successful at improving general welfare. To capture the donor’s role in shaping aid outcomes, I focus on the endogenous nature of foreign aid. Specifically, I build on and extend existing theories of aid provision in order to draw a causal arrow between donor allocation decisions and outcomes. Uncovering these links opens up a new way of thinking about the complex dynamics between donors, recipient governments, and aid success, and offers a fruitful extension to theories of aid effectiveness.

Interviews with aid bureaucrats show that studies of aid effectiveness need to incorporate donor interests, as expressed in aid allocation decisions. One aspect of decision-making, aid delivery, has received little attention among scholars of aid provision, yet represents a crucial link between aid allocation and aid effectiveness.

\textsuperscript{2}As leaders of wealthy donor countries stated, declaring their millennium development agenda: “We will spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty, to which more than a billion of them are currently subjected.” Quote from Rajan and Subrahimian (2005), p.5
As donor experience with bilateral development assistance has grown, the range of donor aid delivery tools has become increasingly diverse. Donors can work directly with the recipient government, either through technical assistance, investment projects or program support. They can also hire international or local non-governmental organizations to implement programs and projects on the ground. They can also give the aid to multilateral organizations for specific project delivery. Donors also channel their funds increasingly through private contractors or give them to private-public partnerships (OECD CRS Reporting Directives Manual 2008).

These non-state channels of delivery are directly responsible to donors and represent important third party actors that affect the aid implementation process. Existing theoretical models of aid provision, as we find them in the aid allocation literature, exclusively focus on the interactions between donors and recipient governments. This literature has concluded that aid success hinges on cooperation by recipient governments and that donors are effectively unable to coerce recipient governments into the proper use of foreign aid. This chapter now reviews existing models of aid provision and then presents an original theoretical framework for understanding cross-national variations in aid effectiveness.

3.2 Existing theories of aid provision

While the aid effectiveness research agenda has traditionally focused on examining recipient characteristics, scholars interested in studying aid policy have developed a sizeable body of work that focuses on donor incentives for the non-developmental

\(^3\) Bilateral aid channeled through multilateral organizations is outside the scope of what the OECD classifies as multilateral aid. It refers to specific program/project-related support for activities carried out by multilateral organizations. It does not include donors’ core-contributions.

In the eyes of many aid policy scholars, bilateral foreign aid is a primary instrument of foreign policy whose objectives were predominantly political (Schraeder et al 1998; Alesina and Weder 2002; Neumayer 2003; Berthelemy and Tichit 2004; Stone 2006; Bueno de Mesquita and Smith 2007, 2009). Alesina and Weder (2002) argue that donors prioritize self-interest over humanitarian motives. They provide evidence that more corrupt governments actually receive more aid and conclude that such practice can only be motivated by non-developmental goals. Stone (2006) looks at aid allocation patterns for some bilateral donors from 1990 to 2001, and argues that donors use aid to further their geopolitical and economic agendas. Examining allocation patterns over an almost identical post-Cold War time frame (1991-2000), Neumayer’s findings are consistent with Stone’s: good governance, after controlling for levels of income, has limited if any importance for shaping donor allocation decisions in the 1990s (Stone 2006; Neumayer 2003). The basso continuo of this research is that aid allocation patterns do not show sincere donor interest in poverty reduction. Sophisticated decision-making models à la Alesina and Weder have led to the establishment of a conventional perception in the literature, namely that donors use foreign aid to push their geo-strategic agendas as opposed to poverty reduction in the aid-receiving country.

A testable implication that comes out of this body of research is that aid, when allocated for non-developmental purposes, should be largely ineffective at promoting good outcomes. Bearce and Tirone (2010) provide evidence in support of this hypothesis by analyzing variation in donor interests and economic growth. They find that foreign aid committed during the Cold War (which many of the above mentioned works have plausibly characterized as being driven largely by
non-developmental goals) is less effective at stimulating growth than aid committed post-Cold War. While Bearce and Tirone advance research by identifying and testing a causal mechanism that links aid allocation decisions to development outcomes, they do not offer a departure from existing models of aid allocation. Instead, they draw on standard assumptions about the nature of bilateral aid flows, i.e. all bilateral aid flows are channeled through the recipient governments and affect recipient governments in the same way.

In contrast, I introduce one aspect of donor decision-making, aid delivery, that allows us to discern important variation in bilateral aid flows. What is more, disaggregating bilateral aid by channel of delivery allows us to uncover aid mechanisms through which donors affect the chance of aid success in the aid-receiving country. Donors can significantly shape the fungibility of aid, i.e. the extent to which recipient governments can influence the destination of the funds (whether they are used to serve their own interests or spur development at home). So far, however, scholarship on aid allocation and effectiveness has remained silent on the aspect of aid delivery, overlooking an important empirical fact: donor decision-making goes beyond identifying aid recipients and allocating aid amounts: donors must consider how the aid is delivered. Understanding what these mechanisms are and why donors resort to them is important for understanding the conditions under which aid can alleviate poverty in the developing world.

The pursuit of this question brings the study of aid allocation decisions to the forefront of aid effectiveness concerns and places the study of aid effectiveness squarely on the research agenda of political scientists. Integrating selective donor behavior in the study of aid success allows for a new way of thinking about the complex dynamics between recipient institutions, donor aid allocation, and aid success. Collier (2002) and Radelet (2004) are at the forefront, yet embrace the
importance of aid delivery for effectiveness from a prescriptive perspective. Both suggest that donors do not think enough about how to provide aid, especially in countries whose institutional weaknesses pose severe challenges for development and where social outcomes are poor. As Collier (2002) writes, “the question is not whether anything should be done to remedy these outcomes, but rather whether anything can be done. It is unlikely that conventional channels for aid delivery in these conditions will be effective. If health and outcomes are to be significantly improved, innovative delivery mechanisms will need to be used.” (p. 18)

Similarly, Radelet (2004) recognizes the need for improvements in aid allocation and advocates donor selectivity with regards to delivery mechanisms: “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 ODA 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.” In his view, improvements in aid delivery would lead to more progress in achieving the Millennium Development Goals. Recently, Winters (2010) shows evidence that the World Bank differentiates its lending tools on the basis of recipient governance characteristics, yet does not test a straightforward implication, namely that differentiated lending portfolios should improve the success of individual aid projects.

In addition, evidence from case studies in Sub-Saharan Africa (Bratton 1989, Hulme and Edwards 1997, Wallace, Bornstein and Chapman 2006) have shown that donors increasingly turn to non-governmental organizations for aid implementation in some of the continent’s poorest countries. Multilateral organizations and, more recently, private contractors, have become important donor allies in delivering
assistance to impoverished populations around the world. While scholars have identified and discussed this trend at the level of case studies, the role of non-state actors in development assistance has received little attention at the cross-national level. These alternate non-state channels of aid delivery represent an important third party actor, which donors employ in aid implementation. The fact that donors can bypass recipient governments with their aid necessarily alters the bargaining dynamics inherent in the principal-agent relationship between donors and recipient governments. Bypassing offers a new mechanism that can potentially solve the problem of “aid credibility,” i.e. donors have the option of circumventing the recipient government to ensure that aid reaches the intended beneficiaries.

In what follows, I develop an argument that explains cross-national and cross-temporal variation in aid effectiveness. The framework unifies what otherwise are two separate topics under study: aid allocation and effectiveness. My theory of aid effectiveness should be of interest to political scientists and economists interested in modeling donor decision-making and evaluating the extent to which important donor decisions affect outcomes.

### 3.3 A Political Economy of Aid Effectiveness

At the heart of the aid effectiveness debate is aid capture.\(^4\) Each year donors give money to developing countries, many of which exhibit unproductive situations and a high probability of aid capture. No matter how much aid donors provide to any given country, a fundamental obstacle for aid success is the diversion of aid for non-developmental purposes.

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\(^4\)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.
From the perspective of an outcome-oriented donor, aid implementation environments that exhibit high levels of aid capture invariably carry fiduciary risks. Donors are accountable to taxpayers and, thus, have incentives to avoid wasteful spending (e.g. Milner 2006). When making their allocation decisions, donors look for indicators that allow them to judge the extent to which their aid is threatened by aid capture. This raises a crucial question: what distinguishes recipients that are more and less prone to aid capture? Consistent with aid effectiveness theory, I suggest that state institutions account for much of the variation in aid capture. Therefore, a recipient government’s inclination/ability to misdirect aid flows is endogenous to the quality of its institutions.

The crucial question facing donors is how to reconcile their desire to reach impoverished populations, with the challenge of identifying appropriate forms of engagement in the countries exhibiting high risk of aid capture. Indeed, how can donors effectively deliver aid to places such as Haiti or Zimbabwe, where the majority of the population live under two dollars a day, many children are not immunized, and where one out of every five children dies before reaching her/his first birthday? I identify the selective use of aid delivery mechanisms as one avenue by which this question can be answered.

Going beyond existing research, I stress that aid capture indirectly affects aid success by causing donors to condition aid delivery mechanisms on the expected probability of aid capture. Donors examine the quality of recipient state institutions to assess this probability and decide to what extent to engage with or bypass

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5In spite of the fact that the feedback loop between government action and taxpayers’ reaction may not be as straightforward as in other domestic policy areas, taxpayers likely find out if money ends up wasted either through reporting by media or active non-governmental organizations, such as e.g. The Reality of Aid, Concorde Europe, or Aidinfo, which shed light on what happens to the aid. Using a principal agent framework, Milner (2006) shows that voters act as principles to their agent governments.
recipient governments via other non-state developmental actors. Of main interest is the decision of donors to bypass recipient governments and to channel their development assistance to non-state actors in the world’s poorest countries. In these countries the need for assistance is highest and recipient governments are often unwilling/unable to come up with an indigenous solution to escape the poverty trap.

At the heart of this decision are assessments about the quality of state institutions. When institutions are weak and donor and recipient government preferences diverge, the implementation of aid according to donor goals becomes difficult. In such environments, donors are unable to come up with solutions to end the poverty trap using fungible forms of aid that are susceptible to misuse by recipient governments.6

Even if recipient leadership promises to use the aid effectively donors know that it is easy to renege on aid contracts, as bargaining theory and evidence has demonstrated. Foreign aid can lead to agency problems and/or bureaucratic inefficiencies that undermine donor poverty alleviation efforts (Djankov et al 2008, Brautigam and Knack 2004, Reinikka and Svensson 2004, Svensson 2000). Others have found that government-to-government aid can increase corruption in the recipient country and incur long-term costs on the quality of state institutions (Weinstein 2005, Remmer 2004, Knack 2001, Bates 2001). From this perspective, the central problem with aid lies not in how much is given but rather how it can be given to reduce counterproductive incentives and promote development. Facing little assurance about whether the aid will be captured, I argue that donors respond by looking

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6In better governed aid-receiving countries, on the other hand, recipient institutions are more capable and government interest in further developmental progress is more likely to overlap with donor goals, thus rendering aid implementation by indigenous state institutions more cost-effective and efficient.
for ways to mitigate institutional failure to ensure that aid reaches the intended beneficiaries. Government-mediated aid may not work in poorly governed recipient countries because it does not reduce and possibly even exacerbates motivational problems.

When making decisions about aid allocation, outcome oriented donors maximize utility with regards to the delivery mechanism. Specifically, they distinguish between government-to-government aid and aid channeled through non-state development actors. I define government-to-government aid as any aid activity that involves the recipient government as an implementing partner, across varying degrees of influence. In some instances, a recipient government receives budgetary support from a donor government and is fully responsible for the implementation process. In other instances, donor governments directly engage recipient authorities by providing them with consulting services. Compared to budget support however, this form of engagement allows for much less ownership over the actual implementation process. In contrast, aid delivered through non-state development channels does not engage government authorities at all. There are four types of non-state development actors: local/international NGOs, multilateral organizations, private contractors and public-private partnerships.

Local grass-roots NGOs are important development partners for donors. From a short-term development perspective, their issue focus and local knowledge about what types of projects are needed most makes them particularly attractive to donors who seek to deliver services effectively. In the long-run, too, local NGOs are important for strengthening indigenous development capacity. Examples of local/regional NGO success stories in foreign aid delivery across the developing world include Love Live in South Africa, The AIDS Support Organization in Uganda, and the Grameen Bank in Bangladesh (Radelet 2004). Utilizing NGOs can help
alleviate absorptive capacity issues and intentional corruption-induced misuse of aid by expanding the number of agencies that provide services.

Not all NGOs are equally virtuous and capable. In poorly governed countries, grass-roots NGOs may not necessarily be a viable alternative for better service delivery. According to evidence reported in Barr, Fafchamps and Owens (2005) local NGOs in Uganda are often quite young with limited expertise in delivering the kind of services that donors are interested in. Evidence from the same study of Ugandan NGOs suggests, too, that local NGOs often display similarly corrupt practices as donors expect from governments. As Barr et al (2005) find, many NGOs do not file tax returns and are subject to little or no government scrutiny regarding the distribution of profits. Even worse, the local NGO sector might face threats by governments trying to shave off as much development assistance as possible. In the latter case, government infiltration may lead to the founding of quasi-NGOs which attempt to trick donors into funding them.\(^7\) How can donors be sure that they are funding NGOs that can deliver services relatively better than governments? From donor accounts in interviews, I learned that donors understand the challenge of accountability well, making local NGOs subject to extensive monitoring.

In environments where civil society lacks the capacity to implement foreign aid projects relatively better than the recipient government, international NGOs assume a paramount role in aid delivery. They, too, are issue focused, have a good understanding of the local non-governmental sector, and have better sense of what interventions are needed than donor governments abroad. Donors use international NGOs to insulate the aid from misappropriation through recipient governments as

\(^7\)Author’s interview with senior Kreditanstalt fuer Wiederaufbau (KfW) official, Frankfurt, Germany, July 5, 2009.
well as bad local NGOs. International NGOs not only improve accountability but they also play a pivotal role in strengthening the civil society sector, as much of their programming involves collaboration with local actors.

In regions of the world where international NGOs are not represented on the ground, or the aid project requires an “economy of development,” donors can turn to multilateral organizations for service delivery.\(^8\) 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 sheer size of their operations and their capacity to quickly mount emergency response interventions as well as sustain more long-term service delivery programs.\(^9\)

Yet another important type of non-state development channel is for-profit contracting. Donor governments often out-source development assistance to the private sector by awarding contracts to private contracting firms, which are hired for very specific purposes. These include, for instance, consulting and direct hands-on assistance in the implementation of aid activities.

Despite the potential difficulties that donors encounter in their search for effective channels of aid delivery, I argue that aid allocated through non-state channels is, on average, less fungible than government-to-government aid. It is largely insulated from government pressure to divert it for unintended use and thus associated with a lower degree of distortion. While there is considerable variety among non-

\(^8\)Bilateral foreign aid channeled through multilateral organizations for specific purposes is different from multilateral aid, which is comprised of annual core contributions. While the latter leaves discretion over spending exclusively in the hands of the multilateral decision-making body, aid channeled for specific project purposes (e.g. UN Foundation Fund for AIDS, Tuberculosis and Malaria) extends objectives of donor governments. Donors are able to maintain some influence over aid implementation.

\(^9\)Critics might note that large organizations usually come with significant amounts of red tape and intra-organizational dynamics that reduce efficiency and perhaps effectiveness (Martens et al 2002).
state channels of delivery, what makes them distinct is their role as viable alternatives to the recipient government. I thus subsume them all under the category non-state development actors.

If feasible, I expect donors to have a preference for the government-to-government channel as initial mechanism of delivery. When recipient governments have a vested interest in development and indigenous development capacity in place, their knowledge about is need and what works in aid delivery renders aid activities more cost-effective and likely to succeed in the short-run. This preference has been articulated in international aid forums and donor declarations (e.g. Paris Declaration) and has found support in the theoretical literature. In higher capacity environments, therefore, donors expect aid capture to be less likely. Instead, they will view recipient governments as trustworthy development partners who effectively employ their knowledge of development priorities and local circumstances to ensure that aid reaches the poor, and channel a greater proportion of their funds through the government-to-government channel.

While the aid effectiveness literature, largely driven by economists (e.g. Burnside and Dollar 2000), has taught us to think about the direct influence of recipient governments on aid once the aid reaches the recipient (see Figure 2.1), recipient institutions influence aid effectiveness indirectly by shaping donor decision-making and specifically the choice of aid delivery mechanisms. Consider Figure 3.1 below. The quality of recipient governance serves donors as a signal of recipients’ development-orientation by suggesting whether the likelihood of aid capture is low or high. In badly governed countries, the probability of aid capture is high, leading to low levels of donor confidence. In such environments, outcome-oriented donors will take actions to decrease their aid’s sensitivity to aid capture ex ante.

\[^{10}\text{See Svensson (2000) and Hefeker and Michaelowa (2005)}\]
by insulating the aid from government intervention. They bypass weak and corrupt government structures and channel the aid through alternative channels of development.\footnote{Simultaneously, in recipients of intermediate development capacity, solid state institutions ease donor concerns over aid misallocation and donors expect aid capture to be less likely. These expectations, in turn, lead to the adoption of delivery mechanisms that engage the recipient government. When the aid reaches the well-governed recipient, the probability of aid capture is low given leader constraints imposed by well-functioning institutions, yielding successful aid efforts.}

**Figure 3.1.** Analytical Framework for Effective Aid Delivery

When juxtaposing the conventional framework of the conditional strand (Figure 2.1) with my modified framework that emphasizes the indirect effects of recipient governance on aid allocation above, it becomes more apparent that the direct effect of recipient governance on aid effectiveness decreases, as donor governments do a better job of anticipating the probability of aid capture and condition their delivery on the quality of recipient governance. By integrating the strengths and weaknesses of the recipients’ governance systems into the design of aid delivery mechanisms ex ante, they are able to increase the prospects of aid success before the aid even reaches the recipient country. According to this new causal framework, the burden of effective aid implementation squarely rests on the shoulders of donors. Aid is ineffective in promoting development when donors fail to systemat-
ically condition aid on the quality of governance, as shown in Figure 3.2.

**Figure 3.2.** Analytical Framework for Ineffective Aid Delivery

If aid capture by recipient governments is the primary source for aid effectiveness and donor decisions about delivery mechanisms endogenous to aid capture is the source of aid ineffectiveness, then the recipe for aid success is straightforward. Donors can successfully combat poverty in badly governed recipient countries. To achieve this goal they need to be selective about how they deliver the aid, and use delivery mechanisms that insulate the aid from recipient government influence. These provide them with defenses against overt manipulation of aid by recipient leadership and the lack of absorptive capacity of recipient institutions. In Chapter Four, I assess the extent to which donors systematically condition aid delivery on the quality of recipient institutions.

Up to this point my argument assumes that the effect of recipient institutions on donor decision-making is uniform across all OECD donors. I now relax this assumption in order to investigate whether variation in donor utility associated with recipient development influences aid delivery. As one would expect, donor calculus in aid allocation differs according to whether donors pursue developmental or non-developmental goals. Aid allocation theory and evidence support the assumption that donors tend to be less development-oriented in countries where

Until now, I have suggested that donors always try to maximize the effectiveness of their aid by conditioning aid delivery mechanisms on recipient institutions. Whether donors assign utility to recipient development, \(U(\text{Development})\), can help us explain why some donors are more likely than others to condition their aid allocation on recipient governance in some countries. When combining the utility that donors assign to development in any given recipient with donor expectations about aid capture, \(E(\text{Aid capture})\), recalling the underlying assumption that donors typically prefer government-to-government assistance to aid delivery via non-state actors, I generate a series of expectations with respect to the probability of donors bypassing recipient governments:

(1) High \(U(\text{Development})\) combined with high \(E(\text{Aid capture})\) yields a high probability of bypass.

In this scenario, donors are outcome-oriented and seek to maximize the effectiveness of their aid. Faced with poor institutions, which signal a high probability of aid capture, they choose to insulate their aid from recipient influence by channeling greater shares of their funds through non-state channels.

(2) High \(U(\text{Development})\) combined with low \(E(\text{Aid capture})\) yields a zero-to-low probability of bypass.

Again, outcome-oriented donors seek to maximize aid effectiveness. Unlike in the previous scenario, however, donors allocate their funds for a recipient whose institutions are much stronger, signaling a low prob-
ability of aid capture. Consequently, there is less need for donors to
insulate the aid, leading them to channel a greater proportion of their
aid funds through the recipient government.

(3) Low $U(\text{Development})$ combined with high $E(\text{Aid capture})$ yields a low
probability of bypass.

In this scenario, donors do not attribute much utility to recipient de-
velopment. If they are largely motivated by non-developmental goals,
foreign development assistance becomes a foreign policy tool. What
will perhaps encourage donors to use some of the aid effectively is peer
pressure from other donors to spend resources effectively for poverty
alleviation. Such influence will ensure that at least some of the funds
credibly contribute to poverty alleviation.

(4) Low $U(\text{Development})$ combined with low $E(\text{Aid capture})$ yields a zero
probability of bypass.

Again, donor utility for recipient development is low. Yet, expectations
about aid capture are also low, making a bypass strategy unnecessary
for development reasons. Donors have no incentives to insulate their
aid.

Describing the relationship between donor utility from recipient development and
donor expectations about aid capture underscores the need to assess aid policy
and integrate it in the study of aid success. If bypass is what makes aid successful
in poorly governed countries then variation in $U(\text{Development})$ gives us a sense of
variation among donor countries, i.e., the extent to which they seek to maximize
poverty reduction in the recipient.
3.4 Conclusion

The integration of what otherwise are two separate research agendas, aid allocation and aid effectiveness, puts us in a better position for understanding conditions under which aid does work. While economists explain cross-national variation in aid effectiveness by focusing on recipient characteristics, political scientists largely focus on explaining aid allocation patterns that are attributed to non-developmental donor goals.

In this chapter, I develop a theoretical framework that links donor interests and aid outcomes on the basis of a donor decision calculus that seeks to maximize aid success in the aid-receiving country. More specifically, the dissertation introduces an aid allocation mechanism, “bypass”, which enables donors to deliver aid around the very source of aid capture in the aid-receiving country. The existence of such a mechanism implies that donors can employ allocation tactics that improve the chances of aid reaching the intended beneficiaries ex ante. Understanding why and when donors employ different allocation mechanisms is thus crucial for answering the question: under what conditions does foreign aid reach its intended beneficiaries?

From an analytical perspective, my framework highlights the importance of donor expectations about aid outcomes in the study of aid effectiveness. Incorporating the indirect effects of recipient governance on aid effectiveness represents a fruitful extension of previous work, in which scholars bite off just one piece of the pie, i.e., they account either for recipient heterogeneity or aid heterogeneity, respectively. By analyzing the causes and effects of donor expectations about outcomes, I emphasize the complexity of the interactions between recipient institutions, aid delivery, and aid outcomes. My research also contributes to the scholarly literature
by investigating aid delivery policy and its outcomes, a topic which has received little attention to date. Perhaps it is due to these two related oversights that the study of aid employing the conventional frameworks as shown in Figure 3 and 4, combined with their focus on aid levels, has only produced mixed findings.

The next two chapters specify the empirical implications of the theoretical model developed here and develop testable hypotheses linking recipient governance, aid delivery, and aid success. Chapter Four tests whether donor expectations about aid capture are causally related to an aid delivery strategy of bypass. Chapter Five investigates the extent to which the decision to bypass reduces poverty, captured by a measure of child health.
Empirical Examinations I: The Effect of Recipient Institutions on Aid Delivery

4.1 Introduction

In this chapter I present a time-series cross-sectional test of my aid allocation thesis. Chapter Three argues that weak and corrupt state institutions positively influence donor expectations about the likelihood of aid capture, causing donors to pursue a strategy of bypass. Since aid that bypasses corrupt governments is by definition insulated from bad governments’ influence it has better chances of reaching the poor. Establishing a direct causal path between aid delivery decisions and aid success via donor expectations about aid capture is crucial because it allows me to demonstrate the strategic nature of donor decision-making; and permits a straightforward test of the effects of donor delivery choices on aid outcomes.

My theoretical framework requires a systematic investigation of donor decisions
about aid delivery. Are donors strategic about allocating the aid? More specifically: “do donors condition their aid delivery on the probability of aid capture in the recipient country? If my argument is borne out empirically, then we should see donors bypass more frequently in poorly governed states. I find strong evidence in favor of this hypothesis, even after controlling for alternative causes of aid delivery and using two different measures of bypass. As a corollary, of course, we expect strategic aid delivery to have effects on aid success. I explicitly test these expectations in Chapter Five, where the main hypothesis states that bypass decreases poverty in poorly governed recipients.

4.2 Research Design

4.2.1 Estimation Sample and Data Sources

I explain donor decision-making about aid delivery across 22 OECD donor countries. The universe of recipient countries includes ODA eligible countries as defined by the OECD. These include developing countries that fall into the following three income categories: low, lower middle and upper middle income countries. The unit of analysis is the donor-recipient dyad year.

The data for my statistical analyses come from a range of sources that offer data in both cross-national and time-series formats. The Organization for Economic Cooperation and Development (OECD) provides data for my dependent variable, the channel of delivery, discussed in more detail in Section 4.2.2. It also provides comprehensive data for donor welfare spending in its Social Expenditures Database (2005), which I use to proxy donor ideology. A third OECD database used in this study is its Database on Immigrants in OECD Countries (2008). Data
on political institutions come from the Polity IV project (Marshall et al 2008). The World Bank’s World Development Indicators data provide information for important economic and demographic variables (WDI 2009). To account for natural disasters and domestic conflict, I draw on the Emergency Events Database EM-DAT (EM-DAT 2009) and the PRIO conflict dataset (Gleditsch et al 2002), respectively. Finally, I draw on the CIA World Factbook to code recipient countries’ former colonial status.

### 4.2.2 The Dependent Variable: Donor Bypass

My central empirical analysis asks: Does recipient governance explain donor bypass of recipient government institutions? The outcome of interest, therefore, is donor propensity to bypass recipient governments. This section discusses the data source for channel of delivery, my definition of bypass and my measurement strategies.

So far, the systematic literature on aid effectiveness has been silent on the importance of distinguishing among channels of aid delivery. I not only contribute to the literature by providing new theoretical insights into the effectiveness of different aid channels, I also construct a new measure of aid delivery that captures the extent to which donors engage recipient governments in the implementation of aid activities.

To construct a measure of aid delivery I draw from the recently introduced data item “channel of delivery” in the OECD CRS aid activity database. The OECD began collecting (donor reported) information on the “channel of delivery” in 2004, as it became a basic data item on the new CRS++ reporting manual. Information on the channel of delivery conveys how aid is delivered. It records the amounts of bilateral aid flows channeled through five channel categories. These
include government-to-government aid as well as aid through non-governmental organizations, multilaterals, public-private partnerships, and other development actors. I distinguish between government-to-government aid and aid channeled through non-state development actors. I define government-to-government aid as any aid activity that involves the recipient government as an implementing partner, across varying degrees of influence. In contrast, aid delivered through non-state development channels does not engage government authorities at all. While there is considerable variety among non-state channels of delivery, they all share an obvious commonality. They do not involve recipient governments in the aid implementation process.

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 channel information in 2008. This suggests two things: First, the donor cross-section in the sample expands with time across the five year panel. Second, the partial reporting implies missing data.

I deal with missing data by way of using two related, yet operationally different outcome measure. First I employ a binary bypass measure, with “1” indicating aid delivery that exclusively works with non-state development partners. This may be any combination of international/local NGOs, multilateral institutions, or public-

\footnote{In future extensions, I plan to extend my theory to generate more specific predictions related to the various channels of non-state actors.}
private partnerships but it excludes state-to-state 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 non-state aid) or exclusive cooperation with the recipient government. Importantly, the “simple” coding of my binary outcome, bypass yes/no, reduces the missing data problem substantially. Recall that I code bypass as “1” if donors rely exclusively on non-state channels of delivery. Bypass is coded “0” if the donor cooperates exclusively with the recipient. But it also becomes “0” if the donor mixes state and non-state channels. In both cases, I derive a “true” measure of bypass even under conditions of underreporting.

Table 4.1. Fraction of (Binary) Bypass by OECD DAC Donors, 2008

<table>
<thead>
<tr>
<th>Donor</th>
<th>Bypass Fraction</th>
<th>Donor</th>
<th>Bypass Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>75.5</td>
<td>Belgium</td>
<td>13.9</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>59.8</td>
<td>Canada</td>
<td>10.0</td>
</tr>
<tr>
<td>Austria</td>
<td>58.7</td>
<td>Greece</td>
<td>4.7</td>
</tr>
<tr>
<td>Denmark</td>
<td>31.0</td>
<td>United States</td>
<td>4.5</td>
</tr>
<tr>
<td>Norway</td>
<td>22.5</td>
<td>Finland</td>
<td>3.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>20.2</td>
<td>Portugal</td>
<td>3.5</td>
</tr>
<tr>
<td>New Zealand</td>
<td>20.5</td>
<td>United Kingdom</td>
<td>3.3</td>
</tr>
<tr>
<td>Switzerland</td>
<td>20.1</td>
<td>Italy</td>
<td>2.6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>18.6</td>
<td>Germany</td>
<td>2.3</td>
</tr>
<tr>
<td>Australia</td>
<td>15.7</td>
<td>Japan</td>
<td>0.7</td>
</tr>
<tr>
<td>Spain</td>
<td>15.6</td>
<td>France</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Table 4.1 presents donor bypass behavior measured by the fraction of dyad years in which donors bypass recipient institutions using the binary bypass measure. It shows considerable variation across donors. While Ireland bypasses governments 75 percent of the time, France does not bypass at all but rather engages with recipient governments, regardless of the level of governance. Ireland is followed
by Luxembourg, Austria and the Scandinavian countries. At the lower end of the bypass table, Japan is almost equal to France in its unambiguous preference for government-mediated aid. Germany, Italy, the United Kingdom, and the United States bypass slightly more often, yet also tend to favor state-to-state relations in development assistance.

Next, I construct a continuous measure that captures the proportion of aid channeled through non-state development actors. If donors allocate funds to a particular country, what proportion of the assistance goes to non-state actors? Figure 4.1 presents a histogram of the continuous measure, exhibiting a large degree of variation in donor-recipient observations, ranging between aid being exclusively delivered through the government-to-government channel and aid that fully bypasses governments in aid-receiving countries.

Table 4.2 presents the proportion of non-state aid each donor country allocates
Table 4.2. Proportion of Aid Channeled Through Bypass by OECD DAC Donors, 2008

<table>
<thead>
<tr>
<th>Donor</th>
<th>Bypass aid</th>
<th>Donor</th>
<th>Bypass aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>0.73</td>
<td>Australia</td>
<td>0.37</td>
</tr>
<tr>
<td>Finland</td>
<td>0.68</td>
<td>United States</td>
<td>0.34</td>
</tr>
<tr>
<td>Spain</td>
<td>0.68</td>
<td>Denmark</td>
<td>0.30</td>
</tr>
<tr>
<td>Norway</td>
<td>0.63</td>
<td>Belgium</td>
<td>0.29</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.61</td>
<td>United Kingdom</td>
<td>0.27</td>
</tr>
<tr>
<td>Canada</td>
<td>0.61</td>
<td>Austria</td>
<td>0.15</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.59</td>
<td>Germany</td>
<td>0.10</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.58</td>
<td>Japan</td>
<td>0.08</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.50</td>
<td>Greece</td>
<td>0.07</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.49</td>
<td>France</td>
<td>0.02</td>
</tr>
<tr>
<td>Italy</td>
<td>0.43</td>
<td>Portugal</td>
<td>0.01</td>
</tr>
</tbody>
</table>

across its recipient countries. As in Table 2, considerable variation exists among OECD donors. While the Scandinavian countries also rank high, other donor countries like Spain, Italy, and the United States allocate a significant portion of their aid to non-state actors, a fact, which was not evident when solely consulting the descriptive statistics from the binary bypass measure.

Unlike my binary measure of delivery channel, a proportional measure is more vulnerable to missing data by construction. Conceivably, one solution to address missing data is to drop donor-recipient observations for which foreign aid is not exhaustively reported as government-to-government or non-state aid. Doing so, however, threatens the validity of our inferences, as has been pointed out elsewhere (King et al 1999). Instead, King et al (1999) recommend addressing missingness through multiple imputation techniques. For multiple imputation techniques to produce unbiased estimates the mechanism for missingness must be either missing completely at random (MCAR) or missing at random (MAR).

I assume that the reason reporting practices vary across donors and years is
not related to the channel of delivery. In other words, donors do not systematically report more information on either the government-to-government or non-state channels of delivery. Rather, shortcomings in reporting are the result of a lack of training of and resources for technical staff in aid agencies. According to reports by Aidinfo (2008, p.16), a pro-transparency aid advocacy group, donors do not allocate enough resources, technology, or professional skill for data management and reporting, which is complicated by the fact that management requires the integration of multiple implementation levels, e.g. field and country level systems.

To get a sense of the volume of reporting, note that in 2008 the United States provided its bilateral foreign aid in 15,510 individual aid transactions using more than seven different implementing agencies (including but not limited to USAID, the Millenium Challenge Corporation, U.S. departments of State, Defense, Agriculture, Interior, and Energy). Further, it takes time for donors to get used to the recently (2004) introduced CRS++ reporting format. This explains in part, why Germany only began systematic reporting of delivery channels in 2005.\(^2\) If time and the related lack of appropriate reporting technology are the mechanisms of data missingness—and if donors that did not report their aid exhaustively in any given year were no more or less likely to give money to government-to-government or non-state channels—then multiple imputation is clearly feasible.

Specifically, I approach missing data analysis from a counterfactual perspective, building on work by Frisina et al (2006). I ask: what would the aid shares looks like for any donor-recipient dyad had the donor allocated 100 percent of the aid across the channels? To answer this question I need to reallocate unreported aid flows between government-to-government and non-state aid. To illustrate the feasibility

\(^2\)Numerous interviews with OECD data collection staff and representatives from donor agencies provide strong anecdotal support for this assumption
of this method, consider the following hypothetical example.

Suppose a donor allocates US$ 20 million to a recipient in 2007. Based on donor reports we know that 40 percent (or eight million US$) was provided as government-to-government aid and 45 percent (or nine million US$) was provided as non-state aid. 15 percent of the aid is unobserved, not accounted for by channel of delivery. At a minimum, we know that the recipient will not receive less than nine million dollars in aid through non-state channels or eight million dollars in aid through state-channels. The observed shares thus contain some information about latent values, suggesting that the partially observed channel shares would be (equal to previous levels or) strictly increasing. Similarly, we know that the recipient country’s government will never receive more than (or equal to) US$ 12 million from the donor, as the observed non-state channel share places an upper bound for how much government-to-government aid could change. The extent to which the aid shares increase or decrease therefore is a function of the imputation model, which imputes values for the dependent variable at the level of the log-transformed Y. I use Amelia II for the imputation (King et al 1999).³

The observed variation in bypass behavior among donors, as shown in Tables 4.1 and 4.2, is considerable and bodes well for the subsequent empirical tests. Before I proceed to the analysis of the data, however, it is necessary to provide a more in-depth discussion of the statistical implications of using a proportional outcome measure.⁴ Let me begin by pointing out that the share of non-state aid that a donor gives to a given recipient is an example of a compositional variable.

³A detailed description of the underlying assumptions/procedures by which I allocate unobserved aid transactions as well as a copy of my imputation program written in R is available upon request.

⁴For an excellent discussion of compositional data analysis see Herron et al (2008), whose notation I follow in the subsequent discussion.
aid channels shares must be one hundred percent. 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 non-state channels might receive is doubly bounded, falling between 0 and 1,

$$A_{i,j} \in [0, 1] \quad \forall \ i, j, \quad (4.1)$$

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

$$\sum_{j=1}^{J} A_{ij} = 1 \quad \forall \ i, j, \quad (4.2)$$

where $J$ is the total number of delivery channels, which equal 2 in this hypothetical example.

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

$$Y_{i1} = \ln \left( \frac{A_{i1}}{A_{i2}} \right) = \ln \left( \frac{A_{i1}}{(1 - A_{i1})} \right) \quad (4.3)$$

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 non-state share variable then describes how the log ratio of non-state aid changes with respect to government-to-government aid. After modeling, the estimates are transformed back into their original scale of interest:

$$A_{i1} = (1 + e^{-Y_{i1}})^{-1}. \quad (4.4)$$
The substantive interpretation of parameters requires familiar techniques employed by users of non-linear models such as predicted and estimated values and/or first-differences. With my binary and continuous outcome measures in hand, I now turn to the empirical tests. I begin with a discussion of the model specifications employed in the analyses.

4.3 Estimators and Model Specification

The binary and continuous specification of my outcome measures require the use of two different estimators, Probit and OLS respectively, to estimate the following model:

\[ \text{Bypass}_{it} = \beta_0 + \beta_1 QG + \beta_2 Z + \epsilon_{it}, \]  

(4.5)

where Bypass is either a latent (Probit) or continuous log-transformed (OLS) variable, i represents country and t represents year, \( \beta_0 \) is the intercept, \( \beta_1 \) and \( \beta_2 \) represent the vectors of coefficients to be estimated, \( QG \) denotes the quality of recipient governance as described in Section 4.3.1., \( Z \) denotes the vector of control variables described in section 4.3.2., and \( \epsilon_{it} \) is the error term of the equation.

4.3.1 The Explanatory Variable: Recipient Governance

At the heart of donor decisions about aid delivery are assessments about the quality of governance in the recipient country. If state institutions are poorly run, 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 the quality of recipient institutions. To capture institutional quality I use an
aggregate indicator from the Governance Matters project (Kaufman et al 2009). The aggregate indicator subsumes five governance dimensions: political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. The values of the indicator range from -2.5 to 2.5, with higher values representing a higher quality of governance.

A quick glance at the data suggests that recipient governance should indeed be a critical factor. The following states were bypassed by at least five OECD donor countries: These include, e.g., Burundi, Somalia, Sudan, Chad, Cote d’Ivoire, Eritrea, Central African Republic, Liberia, Myanmar, and Haiti. These states all share fragile state institutions. Using Sudan as an example of an aid-receiving country with fragile state institutions, I generate a dotplot (employing the continuous bypass measure), which documents the bypass behavior of donor countries, ranked according to their economy size, in Figure 4.2 below. With the exception of Greece, all OECD donors commit at least fifty percent of their official development assistance to non-state channels for delivery.

4.3.2 Control Variables

In this section I present the variables that need to be included in the model to credibly test the causal mechanism linking recipient institutions and aid delivery. As I argued in Chapter Three, recipient governance influences donors’ expectations about the probability of aid capture in the recipient; and thus directly affects donor decisions to bypass. To properly isolate the effects of recipient governance on government bypass I need to account for alternative explanations of the outcome.

Typically, the specification of models integrates findings from other literatures studying the same outcome as controls. In this case, however, the relevant liter-
Recipient democracy Scholars of aid policy have shown that donors have a preference for supporting democratic developing countries. According to Kosack (2003) and Svensson (2002) democracies are built on political institutions that constrain leadership through accountability mechanisms, thus increasing the likelihood that the aid reaches its intended goals/beneficiaries. The conventional
expectation therefore is that the more democratic a recipient, the more likely it is to receive (more) aid (Alesina and Dollar 2002). It would be similarly plausible for donors to condition aid delivery on political institutions in the manner suggested above. If this is the case, donors should be more likely to provide government-to-government aid. However, emerging research on the effect of democracy on poverty suggests that democratic institutions might not necessarily improve the living conditions of the poor (Ross 2005, Dietrich and Bernhard 2010). While Ross shows that previous findings about the positive effect of political institutions on poverty are due to selection bias, Dietrich and Bernhard suggest that it may be due to omitted variable bias. They show that state institutions trump democratic ones in their importance for poverty outcomes. If donors adopt a skeptical view of democratic institutions and their role for aid effectiveness, they may be more inclined to bypass in more democratic states, particularly because non-governmental organizations move around more freely and thus are more available development partners.

**Log recipient income** To control for variation in levels of wealth among recipient countries, I include the log of per capita GDP. As studies of aid allocation show, donors consider recipient wealth when making their aid allocation decisions. Low levels of wealth indicate greater need for assistance. As the data show, the world’s poorest countries are not only the ones that need the aid most, but also that they typically have weak state institutions. I therefore expect donors to be more likely to bypass in poorer countries.

**Log disaster deaths** Next I include the log number of people killed through natural disasters. The expectation here may be that disasters can create demands on recipient governments that are difficult to meet. The burden of disaster-relief further weakens institutional capacity, thus leading donors to bypass recipient au-
It is equally plausible, however, that donors decide to increase their engagement with recipient authorities to help them with reconstruction and long-term development. I therefore have no theoretical prior about how the number of disaster deaths affects the probability of bypass; and include it in the measure primarily to address previously raised concerns about its role as a confounder.

**Civil conflict** Much like the hard times following disaster deaths, domestic conflict also increases demands and poses additional burdens on recipient governments. In the wake of domestic conflict, recipient governments can be unstable and state institutions no longer able to pursue developmental goals. Although I suspect domestic conflict to influence donor decision-making, I am unsure of the direction of the relationship. Donors might prefer to commit funds through non-state development actors to compensate for weakened state institutions. Or, equally plausibly, donors might favor government-to-government aid to stabilize recipient governments as they face pressure from insurgents. Without a strong theoretical prior at hand, I include a binary measure of civil conflict with "1" indicating the presence of low-scale civil war.

**Former colony** In the aid allocation literature, the former colonial status of the aid recipient is a strong predictor not only for whether the recipient receives any aid but also for how much aid it receives (Alesina and Dollar 2002, Neumayer 2003). On average, former colonies are more likely to receive development assistance and also to receive greater amounts than recipients without a colonial history. While the study of aid giving has treated former colonial status as an indicator for donor strategic interests, it is much less obvious what its relationship would be with respect to aid delivery. Perhaps former colonial powers prefer to channel more government-to-government aid to former recipients to further interests other than recipient development. At the same time, it is equally plausible that former colonial
powers care about the development results in their former territories, for reasons of guilt or a sense of responsibility. I include the variable as a control, yet am agnostic about the direction of its association with bypass. Historical ties between the donor and recipient is indicated by whether the recipient was a donor’s former colony.

**Log trade** A straightforward indicator of a donor’s economic self-interest is the flow of bilateral trade with a developing country. If donors use foreign assistance to reward the developing country for serving as a strong trading partner then we would expect high intensity trading to increase the probability of allocating aid (Younas 2008, Mayer and Raimondos-Moeller 2003). As non-developmental objectives of donors influence aid eligibility decisions, so should they influence the aid delivery mechanism. I expect donors to allocate more centralized, state-to-state aid to recipients when their trade relationship with the donor is strong. I measure trade intensity as the logged sum of imports and exports of a recipient-donor dyad.

**Log distance** Geographic proximity, as captured in distance between the donor and the recipient, is also likely to influence aid allocation. Consistent with Fortna (2008), I hypothesize that donors are more likely to support developing countries that are closer, and thus more likely to be within their geographical sphere of influence. If recipients are geographically farther, donor influence and intent “fades” and I expect donors to resort to more decentralized aid giving, either through multilateral organizations, non-governmental organizations, or contractors. If close by, donors should be more likely to engage recipient government authorities. I log the variable.

**Log foreign born** Consistent with Bermeo and Leblang (2009) and Leblang (2010) I suspect that immigration matters for development policy. Bermeo and Leblang (2009) show that an increase in migrants in donor countries yields larger
amounts of development assistance to migrants’ countries of origin. I suspect that higher levels of migrants in donor countries will encourage donors to be more outcome-oriented, thus relying more on non-state development actors in countries where the probability of aid capture is high. A useful measure for capturing migrant stock donor countries is the log number of foreign born individuals living in OECD countries.

**Donor welfare** In addition to recipient characteristics, political factors in the donor country should also affect the decision of whether to cooperate in development. Scholars have suggested that donor politics and ideology have a discernible effect on aid effort (Tingley 2010, Milner and Tingley 2009, Therien and Noel 2000, Lumsdaine 1993). I define donor ideology in terms of the size of its welfare state, capturing the government’s commitment to intervention and redistribution (Therien and Noel 2000, McCarty et al 2006). Stronger welfare states exhibit greater commitments to global redistribution. The expectation here is that strong welfare states will tend to be more generous with foreign assistance and likely to support a greater number of developing countries. Simultaneously, donor ideology should also be associated with the choice of delivery channel. Here I expect donors who rank high in terms of domestic redistributive policies and efforts to show greater interest in whether the aid actually reaches the intended beneficiaries. I would thus expect bigger welfare states to be more likely to pursue recipient government bypass policies. I measure donor commitment to redistribution as a country’s public social expenditures over GDP.

**Log population** Yet another, though sufficiently, crude indicator of donor interest in recipient development is the size of the recipient population. If donors are development-oriented they should be more likely to provide aid to more populous countries. I do not expect population size to affect delivery mechanisms. I log the
measure.\footnote{See Appendix B for descriptive statistics.}

I now turn to evaluate my theoretical argument empirically. First, I present findings from multivariate regressions estimating donor bypass behavior in Section 4.3. Second, I extend the main empirical analysis by addressing an important concern: potential selection effects. Since the group of countries for which donors’ choose whether to bypass government institutions is not randomly selected but a function of earlier self-selection, I model the interdependence of these two decisions by employing a Heckman Probit Selection Model in Section 4.5.

### 4.4 Empirical Evaluations

Tables 4.3 and 4.4 presents the result of panel probit and OLS analyses, from 2004-2008. In order to investigate possible bias from serial correlation, I apply the Wooldrige test for panel data (Wooldridge 2002, p. 282-283.) The insignificance of the test-statistic (p = 0.28) 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 errors.

My main variable of interest, recipient governance, clearly stands out. The coefficient is highly significant for both the binary (Table 4.3) and continuous (Table 4.4) outcome specifications. Its “sign” backs my theoretical claims: The poorer a recipient’s governance quality, the more likely it is that donors (1) bypass the recipient government and (2) channel a larger portion of their aid through non-state channels. This result lends strong support for my hypothesis, which states that donors are outcome-oriented and condition the aid delivery mechanism on recipient state institutions.
Table 4.3. Recipient Capacity and Bypass, 2004-2008

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/No Bypass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Governance</td>
<td>-0.227**</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Polity2</td>
<td>-0.010+</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Recipient Income</td>
<td>0.050</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Civil War</td>
<td>0.034</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Deaths from Natural Catastrophy</td>
<td>-0.032*</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Former Colony</td>
<td>-0.006</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Trade</td>
<td>-0.045</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Distance</td>
<td>0.196**</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Stock Foreign Born</td>
<td>-0.040</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Donor Welfare State</td>
<td>0.018**</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.598**</td>
<td>(0.59)</td>
</tr>
<tr>
<td>N</td>
<td>5404</td>
<td></td>
</tr>
</tbody>
</table>

+ p<0.10, * p<0.05, ** p<0.01

The control variables distance and donor welfare influence the probability of bypass and the proportion of non-state aid consistently in the predicted direction. As the distance between donor and recipient increases, non-state development actors systematically become the channel of choice, both in terms of the binary and the proportional outcome measure.

Donor ideology also matters for explaining delivery mechanisms. Donors with
more established systems of domestic redistribution externalize their commitment to the poor in the developing world with a greater commitment to bypassing weak and/or corrupt states. This finding dovetails with research by Noel and Therien (2000), which suggests that more redistributive donors make greater aid efforts in terms of aid levels committed.

For both outcome measures, levels of wealth do not affect aid delivery decisions.
Neither does it matter whether the recipient was a former colony. The impact of either control on donor decisions to bypass or provide more aid to non-state development channels was indistinguishable from zero. Equally consistently, civil war does not increase the likelihood of bypass or the proportion of aid channeled through non-state actors. This suggests that in the wake of civil wars, donors pursue a combination of development and stabilization measures, with no systematic preference for either government-to-government or non-state aid.

The results with regards to the other controls are more mixed. For instance, the relationship between donor-recipient trade levels and bypass behavior varies in statistical significance by outcome measure, although the direction of the association between the two variables is negative as predicted. For the binary measure in Table 4.3, the negative relationship fails to attain statistical significance at conventional levels. The results of Table 4.4, however, indicate that donors systematically decrease the proportion of non-state aid as donor-recipient trade levels increase.

The results for disaster deaths seem contradictory. In the case of the binary outcome measure, donor response to natural disasters suggests a systematic increase in government-to-government aid. In contrast, when analyzing the proportion of aid channeled through non-state actors, greater numbers of disaster deaths lead to a statistically significant increase in the proportion of non-state aid. One plausible explanation for these findings is that the binary measure of bypass is one that captures the magnitude of donors’ exclusive reliance on non-state actors. In the wake of natural disasters, however, it is crucial to stabilize the situation by increasing government-to-government cooperation, while continuing to rely on specialized non-governmental organizations and multilaterals for immediate reconstruction and relief.

Results concerning the population of foreign born are also mixed. In the case of
the binary measure, the relationship misses conventional levels of significance. In
the case of the fractional outcome, on the other hand, I find solid statistical support
for my predictions: as the number of foreign born increases, donors send greater
portions of non-state aid to the migrants’ countries of origin, thus improving aid’s
likelihood for success ex ante.

Democracy, too, has a statistically significant effect on the probability of donor
bypass, indicating that more democratic countries are less likely to be bypassed
exclusively. In contrast, the direction of the relationship flips when employing the
proportional bypass measure, yet the impact of democracy on the proportion of
non-state aid is indistinguishable from zero.

Next I derive the substantive effect of governance across the full range of bypass
behavior via statistical simulation in Zelig (Imai et al 2006). Figure 4.3 graphs the
expected values of bypass using 90 percent confidence intervals. The confidence
intervals around the S-shaped curve are tight, suggesting that the model fits the
data well. In addition, the quality of governance explains bypass across the entire
range of possible outcomes, ranging between 0 and 1. For a country like Sudan,
which scores -2 on the governance quality ranking the expected value of bypass is
greater than 0.9.

With these findings in mind, I now turn to address an important statistical
concern in Section 4.5: potential selection effects. Since the group of countries for
which donors’ choose whether to bypass government institutions is not randomly
selected but a function of earlier self-selection, I model the interdependence of
these two decisions by employing a Heckman Probit Selection Model.
4.5 Additional Model Specification: accounting for selection effects

Since the group of countries for which donors choose whether to bypass government institutions is not randomly selected but a function of earlier self-selection, it is important to address the selection effects. From a theoretical perspective, the decision-making process involves two decisions that are directly related. When donors allocate the aid, they decide both whether to fund a country and how to provide the aid. Figure 4.4 depicts the decision-making as a two-step process, where donors make decisions about delivery mechanisms conditional upon any aid being given.
4.5.1 Modeling Aid Selection

To account for the aid selection stage, I develop a model that allows me to test whether donors give aid in response to need. The dependent variable of the decision to give aid is whether, within a donor-recipient dyad, a sovereign recipient receives aid. “1” indicates aid and “0” indicates no aid flows within a dyad. I then include several “need” indicators. These include log GDP per capita, log number of disaster related deaths, and whether a civil war occurred in the previous year. If donors are needs-oriented then we would expect them to give to countries with lower per capita income, greater number of disaster related deaths, and in the aftermath of civil war, when need for reconstruction and long-term development is particularly acute. To generate fully-specified models of aid selection I also include a series of “strategic” controls in either or both stages. Again, these controls can be divided...
into recipient and donor characteristics.

The variable selection draws on specification practice in the aid allocation literature, where scholars have examined determinants of aid selection. Since the model specification overlaps with my model specification for aid delivery for most controls, my discussion thereof will be brief. I include a dummy variable indicating whether the developing country is a former colony. Consistent with Alesina and Dollar 2000, I expect former former colonies to be more likely to receive support. Geographic proximity, as captured by the distance between the donor and the recipient, should also influence aid selection. According to Fortna (2008) donors are more likely to support developing countries within their geographical sphere of influence.

Economic aspects of a donor’s relationship with the recipient should affect donors’ decisions to provide aid. According to Younas (2008), Raimondos-Moeller (2003) and Alesina and Dollar (2000) donors use foreign assistance to reward the developing country for bilateral trade, thus making the sum of exports and imports in a dyad a straightforward indicator of donor self-interest: the greater the sum of imports and exports the higher the probability for aid selection. A political factor repeatedly cited by scholars and donor government representatives alike is that donors have a preference for funding democratic regimes: the expectation therefore is that more democratic regimes are more likely to receive aid.

Finally, domestic political factors are also crucial for aid selection decisions. Consistent with research by Therien and Noel (2000), I consider donor ideology as an important determinant of donor commitment to redistribution. I proxy ideology with a measure of the welfare state: social spending as percentage of GDP. The stronger the donor’s commitment to domestic redistribution the more likely it is that the government will redistribute to more developing countries in
need. Relatedly, the donor’s income should matter: wealthier donors engage in more partnerships with developing countries. I use donor log GDP per capita to capture the wealth of donors.

To statistically model the interdependence between the decision to give aid and the decision about how to deliver it I employ a sample selection model (Heckman 1979). Since the data show within-donor correlation I include donor clusters to derive appropriate standard errors. Time-varying variables are lagged one year.

The selection equation for whether donors choose to give aid to a country can be written as:

\[ \text{AidSelection}_{it}^* = w_{it} \gamma + \nu_{it}, \] (4.6)

where \( \text{AidSelection}_{it}^* \) is the assumed latent variable of the selection equation, \( w_{it} \) denotes the vector of independent variables in the first stage, \( \gamma \) represents the vector of coefficients to be estimated and \( \nu_{it} \) is the error term of the selection equation. Vector \( w_{it} \) includes the main variable of interest, Quality of Governance.

\[ \text{AidSelection}_{it} = \begin{cases} 
1 & \text{if } \text{AidSelection}_{it}^* \geq 0 \\
0 & \text{otherwise.} 
\end{cases} \] (4.7)

denotes the measured dichotomous dependent variable for the first stage.

The outcome stage for whether donors choose to bypass recipient governments can then be written as

\[ \text{AidBypass}_{it}^* = x_{it} \beta + \epsilon_{it}, \] (4.8)

where \( \text{AidBypass}_{it}^* \) specifies is the assumed underlying continuous dependent variable, \( x_{it} \beta \) represents the vector of exogenous variables and \( \epsilon_{it} \) the error term of the outcome equation. Vector \( x_{it} \) includes, again, my main predictor, Recipient Governance.
\[ \text{AidBypass}_{it} = \begin{cases} \text{AidBypass}^*_{it} & \text{if\ AidSelection}^*_{it} \geq 0 \\ 0 & \text{otherwise.} \end{cases} \] (4.9)

denotes the measured dichotomous dependent variable of the outcome stage. The disturbance terms \( \nu_{it} \) and \( \epsilon_{it} \) are assumed to follow a joint normal distribution, with \( E[\nu_{it}] = E[\epsilon_{it}] = 0 \), \( Var[\nu_{it}] = Var[\epsilon_{it}] = 1 \) (for the binary measure) and \( Var[\nu_{it}] = Var[\epsilon_{it}] = \sigma \) (for the continuous measure), and \( Cov[\nu_{it}, \epsilon_{it}] = \rho \). If the two stages were independent we would constrain \( \rho \) to 1. My argument suggests, however, that the two stages of the decision-making process are clearly related and should be modeled jointly, by maximum likelihood.

### 4.5.2 Results

The first column of Table 4.5 (located at the end of the chapter) reports coefficients from the binary outcome stage equation, the second column summarizes the selection stage. The coefficient of \( \rho \) and the likelihood ratio test indicate that the two stages are correlated. The likelihood ratio test also shows that \( \rho \) differs significantly from 0. The coefficient of \( \rho \) is statistically significant and positive. Consistent with my expectations the positive sign of \( \rho \) suggests that the processes of recipient and delivery channel selection are positively related: unmeasured factors that increase the likelihood of receiving aid also increase the likelihood of donors bypassing recipient governments. Further, the identification assumption of the model is satisfied. There is sufficient unique information in the selection and outcome equations to identify parameters. My main variable that satisfies the exclusion restriction is “Donor Income.” While donor income influences donor decisions to support countries in need, it is unlikely to influence the probability of donor bypass.
Are donors outcome-oriented? Are they selective in choosing delivery mechanisms? I now turn to evaluate my theoretical argument explaining donor aid bypass strategy. The estimated coefficients in the selection stage back most of my initial predictions. Most importantly, the estimates for variables capturing recipient need are all in the expected direction, and are statistically significant: donors are more likely to assist countries that incurred high fatalities in the aftermath of natural disasters. Also, donors are more likely to help poor countries, measured in terms of GDP per capita. They are also more likely to fund more populous countries. The quality of recipient governance does not seem to matter in the aid selection stage.

As expected, the selection stage results also show that donors respond to non-developmental factors. A shared colonial past affects selection positively. Democratic political institutions in the recipient make aid flows more likely. More distant recipients have a lower probability of receiving aid. A stronger elite presence by recipient elites in donor countries increases the likelihood of funding their home country. In addition, the selection stage results suggest that donor characteristics matter too: as a donor’s commitment to domestic redistribution increases, the more likely the government will be to redistribute its wealth to more developing countries. Relatedly, wealthier donors allocate their resources to a greater number of developing countries.

Aside from the estimates, independent tests of model fit show that the predictive power of the aid selection stage model is high. The predicted probabilities for the individual observations span almost the entire range from 0 to 1, with
a mean of 0.73 and a standard deviation of 0.23. Another way of interpreting the
effect of development factors on aid eligibility is to compute predictions at specific
values. Table 4.6 (located at the end of the chapter) lists ideal types of recipients.
For "fragile state" I set recipient income and governance to their minimum val-
ues, with the remaining variables set to their means. The "strong state" has both
need indicators set at their maximum values, with the rest set at mean values.
The "average state" has all variables set a their means. The results show that
my model of aid eligibility does best in predicting aid for fragile states and worst
for strong developing countries. The strong predictive power of the aid selection
model bodes well as I turn to assessing the results of the outcome stage. After all,
the reliability of Heckman estimates critically depend on a well-specified model of
the aid selection stage.

[Table 4.6 here]

Moving beyond an interpretation of coefficient signs and statistical significance
of the outcome stage, I analyze the effect size of my key variable in the model.
This step is complicated by the fact that “Recipient Governance’ (as well as most
other predictors) appear in both the selection and outcome stages of the selection
model. Sigelman and Zeng show that it is incorrect to interpret coefficients as the
marginal effect of recipient governance on the probability of bypass. Instead it is
necessary to adjust the coefficient in the outcome equation. I draw on Sigelman
and Zeng’s adjustment formula derived for OLS and modify it to fit the binary
outcome case.\(^6\) The marginal effect of \(x_k\) on \(y\) is:

\(^6\)Sigelman and Zeng 1999, p. 177; see also Sweeney 2003
\[ \hat{\beta}_k - \hat{\gamma}_k \rho \sigma_e \delta(-\omega \gamma), \]

where \( \hat{\gamma}_k \) is the estimated coefficient for \( x_k \) in the selection equation, \( \rho \) is the correlation between the error terms in the two equations, \( \sigma_e \) is the root mean squared error of the outcome equation, and \( \delta(-\omega \gamma) \) is a function of the inverse mills ratio for each observation.

Once I adjust the coefficients I compute an expected value of bypass via statistical simulation. The expected values were then calculated on each set of simulated parameters. Holding all other variables at their mean (and setting binary measures to zero) I generate a series of expectations across three levels of governance, from “dismal” (-2), to “mediocre” (0), to “good governance” (2).

Figure 4.5 presents violin plots around the three expected values. Violin plots are convenient for summarizing data and illustrating effect size. They start with a boxplot, and add kernel density plots on each side of the boxplot. Quite clearly, dismal governance yields the highest probability of bypass, holding all other variables constant and setting dummy variables to zero. While mediocre governance quality reduces the probability of bypass some, recipient governments with strong governance institutions are rarely bypassed, with a median probability of 0.15.

4.6 Conclusion

My empirical findings are congruent with my account of donor decision-making. In the aggregate, OECD donors allocate aid with an eye towards effective poverty

\[ ^7 \text{I also employed a two-stage sample selection approach for the continuous outcome measure on the basis of one (randomly selected) of five data sets that are generated by Amelia II in the multiple imputation process. Again, governance is a strong predictor of the proportion of non-state aid share in the predicted direction. Since the analysis of multiply imputed data requires the use of all five data sets, I do not report the results here. The analysis and substantive interpretation (as for the binary bypass model) requires the writing of a simulation program, which is currently being developed by the author.} \]
Figure 4.5. Expected Probability of Donor Bypass Across Levels of Governance

reduction: they target countries in need and are more likely to bypass governments in countries that have missing or weak state institutions.

So far, scholars have distinguished between bilateral and multilateral aid, establishing a conventional wisdom suggesting that bilateral aid lacks development credibility, while multilateral aid is pro-development by nature. I show that even within bilateral aid flows, donors are outcome-oriented and choose their delivery channels selectively. As Tables 1 and 2 show, not all donors, however, make the choice of the delivery mechanism equally contingent on the quality of governance in the recipient. In fact, considerable variation exists. The Scandinavian countries consistently show a high propensity to bypass recipient governments, large donors seem to bypass (binary) much less, although some (Spain, Italy, and the U.S.) send
large portions of their aid through non-development actors.

Arguably, one might expect there to be some differences in the statistics of the two measures. The binary measure presents aid delivery as an “all-or-nothing” decision for donors: they either engage or bypass the government. By construction, the measure does not utilize all the information as it codes mixed strategies, i.e., any combination of aid that includes both government-to-government and non-state aid actors, as one of engagement. The continuous bypass measure, on the other hand, does not suffer from this problem as it measures the proportion of non-state aid out of all aid. Its sensitivity to missing data might potentially raise concerns. I addressed this concern using multiple imputation techniques.

What remains to be addressed is the relationship between bypass and poverty in countries that have weak and/or corrupt institutions. Chapter Five will take up this question and offer empirical assessments. What served as the outcome variable in this chapter, will now become the central independent variable in the subsequent chapter: the proportion of aid channeled through non-state development actors. Does bypass cause infant health to improve in poorly governed countries?
Table 4.5. Sample Selection Model for the Likelihood of Bypass, 2004-2008

<table>
<thead>
<tr>
<th></th>
<th>$Y_2$: Bypass: yes/no</th>
<th>$Y_1$: Aid: yes/no</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Governance</td>
<td>-0.242**</td>
<td>-0.089</td>
</tr>
<tr>
<td>Polity2</td>
<td>-0.010+</td>
<td>0.022*</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Recipient Income</td>
<td>0.002</td>
<td>-0.259**</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Disaster Deaths</td>
<td>-0.028</td>
<td>0.033+</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Civil War</td>
<td>0.105</td>
<td>0.694*</td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td>(0.28)</td>
</tr>
<tr>
<td>Former Colony</td>
<td>0.053</td>
<td>0.294**</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Trade</td>
<td>-0.026</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Distance</td>
<td>0.211**</td>
<td>-0.168*</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Stock Foreign Born</td>
<td>-0.026*</td>
<td>0.087*</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Donor Welfare State</td>
<td>0.021**</td>
<td>0.024**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Recipient Population</td>
<td></td>
<td>0.249**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.06)</td>
</tr>
<tr>
<td>Donor Income</td>
<td></td>
<td>0.507**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.07)</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.081**</td>
<td>-7.238**</td>
</tr>
<tr>
<td></td>
<td>(0.60)</td>
<td>(1.26)</td>
</tr>
</tbody>
</table>

$\rho$ (est.) 0.416**

LR test of indep. 8.58

$p$ [0.003]

Wald $\chi^2$ (whole model) 65.52

$p$ [0.001]

N (Censored N) 6257 (4962)

$+ p < 0.10, * p < 0.05, ** p < 0.01$
Table 4.6. Predicted Probability of Aid Selection

<table>
<thead>
<tr>
<th>Types</th>
<th>Pr(Aid)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragile State</td>
<td>.97</td>
<td>(0.94, 0.99)</td>
</tr>
<tr>
<td>Strong State</td>
<td>.27</td>
<td>(0.08, 0.46)</td>
</tr>
<tr>
<td>Average State</td>
<td>.74</td>
<td>(0.75, 0.81)</td>
</tr>
</tbody>
</table>
Empirical Examinations II: Does Selectivity in Aid Delivery Help the Poor?

5.1 Introduction

In Chapter Three, I develop a theoretical framework to understand variation in aid effectiveness among poorly governed countries. At the heart of this theory is the complex relationship between donor interests/expectations, aid delivery, and aid effectiveness. I argue that outcome oriented donors want their aid to reach the poor. In pursuit of this objective, they assess the probability of aid success ex ante, a process which forms expectations about the likelihood of aid capture in the recipient country. In some recipients, whose institutions are weak and/or corrupt, the expectations for aid capture are high, inducing donors to channel a larger proportion of their aid through non-state development actors. They do so to insulate more aid from recipient government intervention. For other recipients, on
the other hand, expectations for aid capture are lower, causing donors to channel more aid directly through governments. Ultimately, the decision about how much of the aid to send through non-state channels is a strategic one, and is motivated by donor interests and differences in aid recipients. Such strategic behavior, in turn, should have implications for the effectiveness of aid. If recipient governance is the primary obstacle to aid effectiveness, then larger fractions of insulated aid should have greater effects on aid outcomes in countries where the level of governance is low.

In Chapter Four, I test one part of the argument, one that explains donor delivery choices. I find that that donors are more likely to bypass recipient governments in countries where the quality of governance is low. They also channel a greater proportion of the aid through non-state development actors, such as non-governmental organizations and multilateral organizations. It is the purpose of this chapter to test the effect of aid delivery on aid outcomes. My argument suggests that aid channeled through non-state actors is more insulated from aid capture in the recipient, thus reducing the likelihood of government-induced development failure. I present evidence that donors can effectively reduce absolute poverty levels, measured as infant mortality rates, when bypassing recipient governments in poorly governed countries.

5.2 Research Design

5.2.1 Estimation Sample and Data Sources

My analysis incorporates all developing countries that are eligible for official development assistance. Given data constraints on aid delivery channels, which nears
complete coverage across 22 OECD donors only in 2008, my initial analyses are cross-sectional.\footnote{In future extensions I will use multiple imputation methods to augment data coverage.}

I draw on data from a range of sources that offer data in both cross-national and time-series formats. The data for my poverty indicator, infant mortality, come from the CIA World Factbook.\footnote{Currently, the World Health Organizations and the United Nations make infant mortality rates up to 2007 available, although new data updates are expected by the end of the year. Once updated data are available I will check the robustness of my findings across different infant mortality data.} The Organization for Cooperation and Development (OECD) provides data for my independent variable, the channel of delivery, whose operationalization I will discuss in more detail in Section 5.2.3. The World Bank’s World Development Indicators provide data for economic and demographic recipient characteristics (WDI 2009). I turn to the Polity IV data for its measure of democracy. To account for domestic conflict, I draw on the Emergency Events Database EM-DAT (EM-DAT 2009) and the PRIO conflict dataset (Gleditsch et al 2002), respectively.

### 5.2.2 Measuring Aid Effectiveness: Infant Mortality Rate

In the majority of aid effectiveness studies, the dependent variable is economic growth. However, scholars have begun to use alternative measures of aid success such as, for instance, child health and education (Akhand and Gupta 2002, Masud and Yontcheva 2005). Consistent with Boone (1996), they reject the use of economic growth as a measure for aid success because “aid can increase consumption rather than investment, which would explain the disappointing results of studies of growth, but still reduce poverty through either higher consumption of the poor or greater provision of services to the poor. (p. 5) From a different perspective,
Sen (1999) also advocates a shift from income and growth to more distributive sensitive measures of welfare when judging a person’s advantage and depravation. This request is is particularly appealing in the world’s poorest countries, where many lack the most basic requirements need to take advantage of growth opportunities, such as health and education. If donors can increase consumption and the provision of services, then foreign aid is clearly valuable. There is evidence in international aid policy, which suggests that progress in meeting peoples’ needs is on top of donors’ development agendas. The adoption of the Millennium Development Goals (MDGs), for instance, associates poverty reduction with basic needs rather than with earlier donor pushes for industrialization programs. Furthermore, aid is more likely to affect basic development indicators in the short-run, while economic growth (especially one that is sustainable over time) requires a multitude of economic, institutional, and developmental factors to fall into place around the same time.

I claim that infant mortality is an exceptionally useful indicator for the cross-sectional study of aid outcomes. Infant mortality rate is an absolute measure of poverty, taking into account income as well as basic needs satisfaction, i.e. quality of public services across different sectors, such as water and sanitation, immunization and maternal services, education, nutrition, and disease. In addition, the data coverage is extensive and is available for all developing countries in my sample. Infant mortality is measured as the annual rate of infant deaths out of 1,000 births. The data come from the CIA World Factbook archive. Consistent with common practice (Waldman 1992, Ross 2005, Mishra and Newhouse 2009), I log infant mortality rate.
5.2.3 Measuring Bypass: Proportion of Aid Delivered Via Non-state Actors

Consistent with my analyses in the previous empirical chapter, I measure aid delivery as the proportion of bilateral aid committed by OECD donor countries to non-state development actors. I lag the proportion of non-state aid one year since I expect most of the aid to have short-run effects on infant mortality. The data are taken from the OECD’s Creditor Reporting System (CRS). Figure 5.1 below shows the distribution of non-state aid share for poorly governed recipients in 2008, across five regions of the developing world. The comparison of regions shows that the share of non-state aid varies by region, although the underlying distribution shows consistency across regions: Only some observations exceed 50% of aid channeled through non-state development actors. Sub-Saharan Africa contributes 6 recipient observations for which the proportion of non-state aid is high (greater than 50 percent), as does Latin-America. Central Europe and Eurasia have five recipients which receive a large fraction of their aid (greater than 50 percent) through non-state development actors, while Asia only contributes one recipient to this category.

5.3 Methodology

In the study of aid effectiveness, concerns of selection effects and endogeneity are real. In Chapter Three I find that donors are more likely to send aid through non-state actors in recipients that are poorly governed, and which are the ones where infant mortality levels are often high. A common solution to reciprocal causation between aid and poverty outcomes is to find a suitable instrument and
perform a two-stage least-squares regression (2SLS). For instruments to be good, they need to be relevant and valid, i.e., exclusion restrictions must hold. These are stringent criteria and demand that the instruments are uncorrelated with all the omitted variables in the outcome equation of interest. Careful examination of the extent to which chosen instruments meet the above requirements is critical in applied work. Weak instruments tend to be biased towards OLS estimates and may be inconsistent (Chao and Swanson 2005). IV estimation also relies on strong assumptions about modeling and functional form (King and Zeng 2006, Ho et al (2007). If the assumed model is not the correct one, then model predictions and inferences are invalid. In light of these concerns identifying causal effects of non-state aid on infant mortality rates is a difficult endeavor.\footnote{In future extensions I will test my thesis using instrumental variable estimation. For now, I have identified exogenous instruments, which describe the extent to which donors have incentives to spend their foreign aid even more effectively: these include measures of donor unemployment and inflation.}
In an ideal world, which allows for unbiased causal inference, we would like donors to randomly allocate their funds between state and non-state channels and determine the effects through experimental analysis. My study takes place in an observational setting, however, where the data contain selection effects. As demonstrated in Chapter Three donors do not choose their aid delivery at random. Instead, they are selective about the delivery mechanisms. For causal inference to be unbiased I need to ensure that aid delivery is not affected by infant mortality rates.

To mimic, as closely as possible, conditions of a randomized experiment, where selection mechanisms are unconfounded (unaffected by the outcome) by design, I employ statistical matching techniques, which rely on the potential outcomes framework developed by the literature on estimating causal effect and program evaluation (Rubin 1973, Little and Rubin 2000, Rosenbaum 2002). Matching allows me to adjust for observable confounders and ensures that any differences between units that receive treatment and the ones that do not receive treatment are in fact due to the treatment and not due other characteristics that are common to the treatment group but not the control group.

5.3.1 Theoretical Framework

Under the potential outcomes framework, a causal effect is defined as the difference between an observed outcome and its counterfactual (Rubin 1973, 1978). I adopt the Rubin model set out in Rubin (2005), which describes the simple case of two interventions (treatment and control), one of which is assigned to \( N \) units. Let \( Y_{1i} \) denote the potential outcome for individual \( i \) if the unit receives treatment, and let \( Y_{0i} \) denote the potential outcome for that individual in the absence of
treatment (the control regime). The treatment effect for observation $i$ is defined by $\tau_i = Y_{i1} - Y_{i0}$.

Let $D_i$ be a treatment indicator: 1 when $i$ is in the treatment group and 0 otherwise. Let “1” represent aid recipients, which receive a significant share of their aid through non-state channels and “0” represent recipients which do not receive a significant share of their aid through non-state development actors. Specifically, I code countries as “treated” that receive more than 50 percent of their aid channeled through development actors other than the recipient governments. When non-state aid encompasses less than 50 percent of a recipients foreign aid then it is coded as a control unit. Figure 5.2 below shows that infant mortality is indeed higher in countries that receive the aid treatment than in countries that do not receive the treatment.

To avoid arbitrariness, I use a series of cut-off points for my treatment indicator. They range from 25 percent to 60 percent. Naturally, the size of the group of treated units decreases as the level of the cut-off point increases. Among 129 aid recipients only 17 receive more than 60 percent of their aid through non-state development actors. These include e.g. Chad, Cuba, Central African Republic, Myanmar, Sudan, Somalia, and Swaziland.

The observed outcome $i$ is then $Y_i = D_iY_{i1} + (1 - D_i)Y_{i0}$. When assignment mechanisms are unconfounded and probabilistic, as is the case in (conditionally) randomized experiments, they are considered strongly ignorable. As the sample size increases, observed and unobserved baseline variables become balanced across treatment and control groups. In the case of randomized experiments treatment assignment is independent of $Y_0$ and $Y_1$, implying that $(Y_1, Y_0 \perp \perp D_i)$. Therefore,

$^4$Since one never observes both potential outcomes, causal inference is essentially a missing data problem. Yet, through a set of assumptions, which I discuss below, it is possible to derive the causal effect in expectation.
Figure 5.2. Kernel density of infant mortality rate

\[ E(Y_{ij}|D_i = 1) = E(Y_{ij}|D_i = 0) = E(Y_i|D_i = j). \]

Therefore, the average treatment effect (ATE) can be estimated as:

\[ \tau_{ATE} = E(Y_{1i}|D_i = 1) - E(Y_{0i}|D = 0) = E(Y_i|D_i = 1) - E(Y_i|D_i = 0) \quad (5.1) \]

In experimental settings, where observations in the treatment and control groups are exchangeable, scholars estimate Equation 1. If donors had randomly assigned the channel of delivery, the potential infant mortality rate of recipients
had they not received treatment, which is an unobservable quantity, would be well-represented by the randomly selected control group.

In the absence of an experiment, on the other hand, treatment and control groups are imbalanced because they are not drawn from the same population. As Chapter 3 shows, donors do not assign delivery mechanisms at random. They favor non-state channels of delivery for a subpopulation of recipients, which exhibit e.g. weak state institutions.

Instead of the ATE, I estimate the average treatment effect on the treated (ATET). That is, I seek to answer the question: how well did donors do in the range of cases where it actually decided to channel significant amounts of their aid through non-state development channels, and if donors were to prefer non-state aid in a similar recipient, how much would we expect the aid reduce poverty? The goal of this empirical test is to estimate the effects of the treatment on infant health so that the treatment can be evaluated. For each aid recipient, $i$, who receives treatment ($D$) in 2008, I observe infant health ($Y_{1i}$) in the following year. The counterfactual of interest refers to the unobserved infant health in 2009 that would have been observed in the absence of treatment ($Y_{0i}$).

I thus estimate the ATET:

$$
\tau_{ATET} = E(Y_{1i}|D_i = 1) - E(Y_{0i}|D_i = 1)
$$

Again, Equation 2 cannot be directly estimated because $Y_{0i}$ is not observed for the treated. Following Rosenbaum and Rubin (1983), we can make progress by assuming that the selection for treatment depends on observable covariates $X$. By adjusting for $X$, the treatment assignment is unconfounded ($Y_0, Y_1 \perp \perp D|X$), assuming that the support of $X$ for the treated is a subset of the support of $X$ for
control observations. Taken together, unconfoundedness and common support constitute a property known as strong ignorability of assignment, which is necessary for identifying the ATET.

By adjusting for $X$, the treatment and control groups become balanced:

$$E(Y_{ij}|X_i, D_i = 1) = E(Y_{ij}|X_i, D_i = 0) = E(Y_i|X_i, D_i = 1) \quad (5.3)$$

Estimating the ATET as:

$$\tau_{ATET} = E\{E(Y_i|X_i, D_i = 1) - E(Y_i|X_i, D_i = 0)|D_i = 1\} \quad (5.4)$$

A potential rejoinder to the use of the potential outcomes framework as a model of inference is that the framework invokes conditional independence of the treatment assignment. Skeptics might argue that unobservable confounders affect both aid delivery mechanisms and poverty, rendering estimators based on the selection-on-observables assumption inadequate. I address this criticism in two ways, by argument as well as statistical adjustment. First, I argue that efforts to establish conditional independence between treatment and outcome even on the basis of closely studied observable confounders are worth pursuing, as alternative parametric approaches such as IV estimation also have important limitations. It prevents me from specifying the functional form of the relationship between infant mortality and its covariates. Second, I include the infant mortality rate of the previous year into my vector of observable confounders. By doing so, I systematically account for all unobservable factors that contribute to explaining infant mortality in 2007.
5.3.2 Observable Confounders

Chapter Three theoretically and empirically derived a model that explains the selection of the delivery mechanism: recipient government bypass. In this section, I examine the variables in this model and assess the extent to which they are confounders, for which I need to adjust in order to have balanced treatment and control observations. Confounding factors are those covariates that (1) influence poverty conditional on receiving a significant portion of non-state aid, (2) are correlated with the receipt of significant amounts of non-state aid, and (3) are causally prior to receiving such aid. For example, if the recipients that received a significant portion of non-state aid are characterized by poor governance and poor governance is associated with higher infant mortality rates, then not controlling for the confounding influence of governance quality will bias the results. I now turn to identify the set of confounding factors, which exhibit pretreatment differences between treated and control units. I do so by discussing the confounders individually, with a focus on their theoretical associations with the treatment assignment and the outcome. Table 5.1 below summarizes the confounders’ statistical properties.

Governance Governance is a confounding factor because it is negatively correlated with infant mortality (Kaufman and Kraay 2003, Dietrich and Bernhard 2010) and, as shown in Chapter 3, negatively correlated with bypassing recipient governments. As the before-balance statistics in Table 1 demonstrate the level of governance of the treated group is significantly lower than those of the control group, and both simple difference-in-means and Kolmogorov-Smirnov (KS) tests indicate that the covariate distributions are different with p-values around 0.02.

Democracy In addition to state institutions, political institutions are also
a confounder. Many scholars find democracy to have positive effects for infant health (Moon and Dixon 1985, Przeworski et al 2000, McGuire 2001). This finding has recently been challenged, however, by uncovering selection bias and omitted variable bias inherent in previous work (Ross 2005, Dietrich and Bernhard 2010). As I find in Chapter 3, evidence on relationship between democracy and aid delivery is also mixed: while more democratic recipients lead to less bypass (as captured through the binary bypass measure) it increases the proportion of aid delivered through non-state actors. Before-balance statistics in Table 1 show that the level of democracy of the treated group is significantly higher than that of the control group. The covariate t-test and KS tests indicate that variable distributions of the treated and control groups are different with p-values around 0.1 and below 0.2, respectively.

**Previous infant mortality rate** I control for infant mortality rate in the year prior (2007) to the aid allocation. Adjusting for previous levels of infant mortality is important for two reasons: First, it allows me to compare two aid recipients with very similar baseline infant mortality rates, thus increasing the empirical validity of my theoretical claim that improvements in infant health are due to treatment, rather than differences in baseline levels of infant health. Second, the inclusion of previous infant mortality also allows me to capture, although somewhat noisily, unobservable confounders that contributed to explaining variation in infant health.

**Regional controls** According to a recent UNICEF (2008), infant mortality varies by region. Furthermore, additional model specifications in Chapter 3 show that aid delivery varies by region as well, with a greater, and statistically significant,

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5I measure democracy using the Freedom House Index, which is different to how I measure Democracy in Chapter 3. Although I prefer Polity IV’s definition of democracy (as suggested in chapter 3) I use Freedom House here to avoid the the loss of treated cases as well as to increase the number of potential matches for treated observations.
probability of donor bypass for countries in Sub-Saharan Africa and Latin-America. I therefore include regional dummies in the the set of $X$s, on which I balance the treated and control units. By including regional controls in my list of confounders I also capture what scholars commonly refer to as region-specific characteristics. The genetic matching algorithm matches treated and control units from the same region. My regional categories are Latin America, Asia, North Africa/Middle East, Sub-Saharan Africa, and Eastern Europe/Eurasia.

**Log Aid Levels** While foreign aid levels is not a confounder in the classic sense, it is important to match recipient observations on how much per capita aid they receive. I log the covariate.

**Other potential confounders identified in chapter 3:** disaster deaths and civil war I do not include these as confounders, although they are part of the selection mechanisms of aid delivery. No large scale civil war occurred among aid recipients. Although the log number of disaster deaths is a potential confounder I exclude it on the basis of data missingness. Missing data poses a substantial problem to causal inference. One way to address this problem is to match on previous IMR here because it does contain some information about other confounders that are not explicitly modeled here.\(^6\)

### 5.3.3 Matching and Balance

With this set of observed confounders in mind I now turn to my non-parametric analysis: matching. Statistical matching involves the construction of a matched subset of treated and control units, which share very similar distributions of the variables identified as confounders in Section 2.2. If matching successfully balances

\(^6\)In future extensions I will use multiple imputation to augment the data on disaster deaths.
the treated and control units, then any subsequent parametric modeling applied to the data is less model-dependent and reaches improved inferences (Rubin 2001; Ho et al. 2007).

The most straightforward and nonparametric way to achieve balance is to exactly match on the covariates. This approach is not suitable in my case given the continuous nature of most covariates in conjunction with a small estimation sample. Common alternatives to exact matching are Mahalanobis and propensity score methods. I employ Diamond and Sekhon’s (2005) genetic matching procedure (GenMatch). It incorporates Mahalanobis (Cochran and Rubin 1973; Rubin 1979) and propensity score methods (Rosenbaum and Rubin 1983) to minimize the observed discrepancy between the matched treated and control groups on the basis of an additional weight matrix.\footnote{Consult Diamond and Sekhon (2005) for details} Specifically I generate matched observations using one-to-one nearest-neighbor matching with replacement to obtain matches

---

### Table 5.1. Confounder Statistics

<table>
<thead>
<tr>
<th>Covariate</th>
<th>mean $\overline{treated}$</th>
<th>mean $\overline{control}$</th>
<th>t-test (p-value)</th>
<th>K-S test (p-value)</th>
<th>var ratio $Tr/Co$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Governance</td>
<td>-0.74</td>
<td>-0.38</td>
<td>0.02</td>
<td>0.02</td>
<td>1.27</td>
</tr>
<tr>
<td>Democracy</td>
<td>4.31</td>
<td>3.6</td>
<td>-0.11</td>
<td>0.21</td>
<td>1.15</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>41.79</td>
<td>44.01</td>
<td>0.77</td>
<td>0.17</td>
<td>0.98</td>
</tr>
<tr>
<td>Log Aid per capita</td>
<td>-10.53</td>
<td>-10.31</td>
<td>0.47</td>
<td>0.38</td>
<td>0.91</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>0.29</td>
<td>0.05</td>
<td>0.44</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Eastern Europe/Eurasia</td>
<td>0.24</td>
<td>0.05</td>
<td>0.06</td>
<td>3.93</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>0.05</td>
<td>0.25</td>
<td>0.01</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>L-America</td>
<td>0.33</td>
<td>0.22</td>
<td>0.37</td>
<td>1.34</td>
<td></td>
</tr>
<tr>
<td>Middle East</td>
<td>.09</td>
<td>0.10</td>
<td>0.94</td>
<td>0.98</td>
<td></td>
</tr>
</tbody>
</table>
from my control cases for each of the treated recipients. Table 5.2 lists the aid recipient pairs that were selected by the matching algorithm.

**Table 5.2.** Matched Aid Recipient Pairs

<table>
<thead>
<tr>
<th>Treated</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haiti</td>
<td>Guatemala</td>
</tr>
<tr>
<td>St. Kitts Nevis</td>
<td>Suriname</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Grenada</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Mexico</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Paraguay</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Guatemala</td>
</tr>
<tr>
<td>Argentina</td>
<td>Mexico</td>
</tr>
<tr>
<td>Macedonia</td>
<td>Albania</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>Albania</td>
</tr>
<tr>
<td>Moldova</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Belarus</td>
<td>Cote d’Ivoire</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Armenia</td>
</tr>
<tr>
<td>Mauritania</td>
<td>Tanzania</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>Guinea</td>
</tr>
<tr>
<td>Chad</td>
<td>Equatorial Guinea</td>
</tr>
<tr>
<td>Congo, Dem. Rep.</td>
<td>Guinea</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Togo</td>
</tr>
<tr>
<td>Swaziland</td>
<td>Cameroon</td>
</tr>
<tr>
<td>Sudan</td>
<td>Yemen</td>
</tr>
<tr>
<td>Iran</td>
<td>Syria</td>
</tr>
<tr>
<td>Fiji</td>
<td>Maldives</td>
</tr>
</tbody>
</table>

In observational settings, matching rarely leads to perfect balance. Among scholars of the statistical matching literature there is little consensus about how to properly assess balance. The use of p-values as sole measures of balance has been criticized by Ho et al. (2007) and Imai et al. (2008), suggesting that researchers consult a broad range of balance statistics, including ones that allow one to assess
balance at higher moments of the data. I therefore rely on a range of diagnostic checks, looking for signals that bias resulting from selection effects in the data has been reduced. These include standardized difference in means, covariate densities, t-tests, QQ plots, and the Komogornov-Smirnov test. I now present a range of balance metrics to discuss the degree to which matching was able to reduce the imbalances between treated and control units.

Figures 5.3 and 5.4 present two popular balance diagnostics: mean standardized differences between treated and control units’ empirical cumulative distribution functions and covariate densities. In Figure 5.3, the solid dots represent the post-matching differences. The balance diagnostic shows that across most covariates,
Table 5.3. Balance Statistics After Matching

<table>
<thead>
<tr>
<th>Covariate</th>
<th>mean treated</th>
<th>t-test p-value</th>
<th>ks-test p-value</th>
<th>reduction in max raw diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Governance</td>
<td>-0.74</td>
<td>0.25</td>
<td>0.56</td>
<td>0.16</td>
</tr>
<tr>
<td>Democracy</td>
<td>4.31</td>
<td>0.35</td>
<td>0.90</td>
<td>0.50</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>41.79</td>
<td>0.37</td>
<td>0.26</td>
<td>52.24</td>
</tr>
<tr>
<td>Log Aid per capita</td>
<td>-10.53</td>
<td>0.47</td>
<td>0.51</td>
<td>0.05</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>0.29</td>
<td>0.32</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Eastern Europe/Eurasia</td>
<td>0.24</td>
<td>0.31</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Asia</td>
<td>0.05</td>
<td>1</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>L-America</td>
<td>0.33</td>
<td>1</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Middle East</td>
<td>0.09</td>
<td>1</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Matching reduces the mean standardized differences. While for some this reduction results in perfect balance between treated and control units (region dummies for Asia, Middle East, and Latin America) or near full balance (Democracy), the matching algorithm is unable to do the same for the remaining covariates.

Figure 5.4 is useful as it allows us to see graphically the change in covariate densities before and after matching for the continuous confounders. Based on these initial diagnostics, it is clear that the matching strictly reduced imbalances, although to varying degrees. For each set of matched confounders I then present, in Table 5.3, (1) a paired t-tests for a difference in means, (2) a bootstrap Kolmogorov-Smirnov (KS) test p-value for a difference of distributions, and (3) the maximum difference between the empirical quantile functions of treated and control units.

Across all covariates, the t-test p-value suggests that the matching was successful, as it reduced prior significant mean differences to non-significant mean differences. However, one should not stop when the genetic algorithm identifies
Figure 5.4. Confounders Before & After Matching: Densities of Treated and Control Units
the matched controls producing the highest p-value. The K-S test is an alternative and superior diagnostic tool as it is sensitive to difference in location and shape of the empirical cumulative distribution functions of the two (treated and control) samples. For the polychotomous confounders the K-S bootstrap p-values show that the distribution functions of the two samples are no longer significantly different. Finally, the last column of Table 5.3, which provides information about the extent to which matching reduced the maximum raw differences (expressed in the natural units of the variable) for each covariate, shows that matching strictly reduces largest difference between the empirical quantile functions of treated and control units. The respective QQ plots that serve to estimate the maximum differences are presented in Figure 5.5.

While some degree of imbalance remains across some of the confounders, the balance diagnostics presented in Figures 5.3, 5.4, and Table 5.2 indicate that genetic matching has significantly increased the prospect for unbiased inference at the level of the causal estimate. At a minimum, the remaining imbalance is not longer statistically significant, as the t-test and the KS test statistics show.

5.3.4 Estimating the Effects of Bypass in Poorly Governed Recipients

I now analyze my basic question: Does aid that is largely insulated from recipient government intervention reduce infant mortality in poorly governed recipient countries? I derive point estimates of the causal effect of the treatment via regression adjustment after matching. That is, I include all the confounders whose distributional differences between treated and control units that I was unable to effectively reduce to zero. To test the conditional nature of my hypothesis, the regression also
Figure 5.5. Confounders Before & After Matching: Densities of Treated and Control Units
Table 5.4. OLS Regression Estimates, Post-Matching

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Matched data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Governance</td>
<td>-0.413</td>
</tr>
<tr>
<td></td>
<td>(4.49)</td>
</tr>
<tr>
<td>Bypass</td>
<td>7.749*</td>
</tr>
<tr>
<td></td>
<td>(3.29)</td>
</tr>
<tr>
<td>Bypass*Governance</td>
<td>11.342**</td>
</tr>
<tr>
<td></td>
<td>(3.84)</td>
</tr>
<tr>
<td>Democracy</td>
<td>0.441</td>
</tr>
<tr>
<td></td>
<td>(0.92)</td>
</tr>
<tr>
<td>Log(Aid per capita)</td>
<td>-1.123</td>
</tr>
<tr>
<td></td>
<td>(1.00)</td>
</tr>
<tr>
<td>Log(GDP per capita)</td>
<td>-0.774</td>
</tr>
<tr>
<td></td>
<td>(1.30)</td>
</tr>
<tr>
<td>GDP growth</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Infant Mortality2007</td>
<td>1.032**</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.415</td>
</tr>
<tr>
<td></td>
<td>(11.78)</td>
</tr>
<tr>
<td>N</td>
<td>42</td>
</tr>
</tbody>
</table>

+p < 0.10, *p < 0.05, **p < 0.01

includes the critical interaction term, aid delivery*governance quality. My theory predicts bypass to be effective in countries were the quality of governance is low. To account for alternative causes of infant mortality I expand the OLS regression model to include measures of recipient wealth and economic growth.

Table 5.4 presents the regression results. From the start, it is important to recognize that the coefficients of the confounders on which the matching took place are not very meaningful. The only reason for including them is to control for any remaining imbalances in the data. The interaction term is positive and significant,
**Figure 5.6.** Assessing the Conditional Effect of Bypass on Infant Mortality

which suggests that bypass only exerts a negative effect on infant mortality in countries with poor governance.

To identify the effects of bypass across different levels of governance, I calculate the full range of conditional coefficients and standard errors and graphically illustrate them in Figure 5.6. The horizontal axis represents the full range of governance. The vertical axis captures changes in infant mortality rate coverage, where negative values represent a reduction in mortality and thus improved child health. The solid sloping lines show how the value of the estimated causal effect of the health aid changes across the range of governance. I draw a 90% confidence interval around the conditional coefficients to see whether they are statistically significant.

Figure 5.6 illustrates the substantive significance of the interaction. The figure graphs the expected marginal change in growth associated with the treatment, at different levels of governance. At the lowest levels governance (below -1.5) as in the
Democratic Republic of the Congo, Guinea, and -the treatment decreases infant mortality by 10-20 infants (out of 1,000 live births) who live longer than their first year of life. This effect decreases to 5 infants (per 1,000) whose life exceeds their first birthday in aid recipient countries with governance levels around -1 as in Equatorial Guinea, Togo, Belarus, and Ecuador. For aid recipients with governance levels greater than -0.7 bypass is associated with an increase in infant mortality as in Mexico, Mauritania, Maldives, and Fiji.

In terms of sample composition, Figure 5.6 suggests that there is a statistically significant, negative correlation between treatment and infant mortality in twenty-seven percent of the sample with governance quality at or below -1. Sixty-seven percent of the sample is composed of countries whose quality of governance is at or below -0.5. Thirty-three percent of the sample countries have levels of corruption control between -0.5 and 0.5, and only one, Fiji, has higher governance ratings (0.7). It is for aid recipients with governance levels greater than -0.7 that Figure 5 shows a positive effect of bypass on infant mortality.

Finally, Figures 5.7 through 5.9 show the Average Treatment Effect on the Treated for poorly governed countries using different definitions of bypass. As stated in Section 5.3.1 above, I employ nine different cut-off points (x-axis) for my treatment indicator, ranging between a 25 percent fraction of non-state aid to 60 percent of the aid delivered through non-state development actors. Figure 5.6 graphs the ATET for countries at the lowest possible level of governance (-2.5) with 90 percent confidence intervals across all possible cut-off points. The point estimates of the causal effect range between -10 and -22 depending on the cut-off point.

Figures 5.8 and 5.9 depict the ATET for countries at -2.0 and -1.5 levels, respectively. What Figures 5.6 and 5.7 share is that the treatment is consistently
associated with lowering infant mortality rate. In Figure 5.8, the positive effect of the bypass remains statistically significant for some but not all cut-off points. Above governance levels of -1, the treatment no longer has a statistically detectable negative effect on mortality.

5.4 Conclusion

Does aid channeled through non-state development actors cause better infant health in countries at low levels of governance? In this chapter I present cross-national statistics to answer this question empirically. I use non-parametric estimation techniques to test my core hypothesis, which predicts that non-state aid improves infant health in poorly governed countries. My statistical results are supportive of this hypothesis.

The main benefit of employing matching techniques is that it allows me to
statistically adjust for selection effects in the data, thus increasing the confidence in my inferences and most of all, causality. The evidence suggests that there is a positive, statistically significant average causal effect of bypass on infant health in poorly governed countries. I am confident of this effect if the confounders identified are the only ones requiring adjustment.

A potential statistical rejoinder to my findings is that, in spite of the matching, I was not able to effectively reduce all imbalances to zero. Failure to do so might introduce scepticism about whether I can really firmly establish that the direction of the causal arrow goes from aid delivery to infant mortality. Such limitations encourage me to test my hypotheses using alternative matching algorithms as well as matching on a suitable instrument.8

The findings of this Chapter have implications for the study of aid effectiveness as well as donor policy. With regard to the former, I show that modeling donor

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8I plan to extend this Chapter along these lines in the coming months.
Figure 5.9. Average Treatment Effect for the Treated for Badly (-1.5) Governed Recipients

interests and expectations is key to understanding the strategic nature of donor decision-making, and its effects on poverty. In the last few years, it has become fashionable to be a critic of aid, and in particular donor aid policy. Most recently, for instance, Moyo (2009) calls for the elimination of all aid flows to Africa. In her view, foreign aid largely serves as cash handouts that makes it into the pockets of leaders, with detrimental effects for the poor. The limits of such popular brushstroke critiques become apparent, as one takes a closer look the aid allocation pattern of donors in sub-Saharan Africa. Western aid to sub-Saharan Africa only contains a small portion of budget and program support (which would qualify as cash handouts). If her advice to cut these types of aid were followed, the aid flows to the region would only modestly decrease. As Figure 5.1 in Section 5.2.3 above shows, however, donors channel much of their aid to Sub-Saharan Africa through non-state development actors, bypassing the very leaders that Moyo claims usurp their power to pocket the aid.
Given the complex interactions between donor interests, recipient institutions, and aid success it is important to move away from oversimplifying the nexus between aid flows and outcomes. While foreign aid is no panacea of underdevelopment, it does produce good outcomes, most certainly at the micro-level. To detect effects of aid at the macro-level it is important to test models that explain aid effectiveness by taking into account donor interests, expectations, and delivery mechanisms. I offer such a model in Chapter Two. In Chapter Three, I show that there is systematic evidence of endogenous aid: donors condition the aid delivery mechanism on the quality of governance in the recipient. I then use this very allocation model to statistically adjust for donor selection effects in this current Chapter, which shows evidence that non-state aid is more effective at reducing infant mortality (not across all developing countries but only) in countries that are poorly governed.

From a policy perspective, the implication of this chapter is straightforward. Donors have alternative non-state bilateral means for increasing aid effectiveness, which are more insulated from threats of failed aid contract enforcement by recipient governments. By increasing the amount of aid delivered through non-state development actors in poorly governed states, donors increase the chance of aid reaching and improving the livelihoods of the poor. While there is evidence of outcome-orientation among donors, Chapter Three also shows that room for improvement remains. Aid allocation from several donors, e.g. France and Germany, still remains largely government-to-government and not selective in terms of delivery mechanisms.
Chapter 6

Conclusion

6.1 Introduction

With the Millennium Development Goals, OECD donor governments acknowledged the moral imperative in assisting the poor emerge from the poverty trap. Among donors there is a general recognition that improvements in general welfare allow the world’s poor to take advantage of economic growth opportunities, however limited they may be. Hundreds of billions of aid dollars have crossed borders since 2000, yet only scant evidence exists that suggests aid actually reaches the poor.

This dissertation contributes to the study of aid effectiveness - a research agenda which has been around for decades but has failed to produce certainty about causal mechanisms. My research advances knowledge about the conditions under which aid can improve general welfare by merging two separate research agendas: aid allocation and aid effectiveness. While the study of aid effectiveness is dominated by economists who analyze what happens to the aid in the recipient country (e.g. Burnside and Dollar 2000, 2004; Easterly 2002), political scientists focus on ex-
plaining aid policy and offer little insight in how selective decision-making affects the poor (e.g. Stone 2002, Bueno de Mesquita and Smith 2007, 2009). Instead, they explain the political, non-developmental use of aid.

My argument suggested that the study of outcomes benefits significantly from the study of endogenous donor decision-making, as it uncovers politically relevant variation in bilateral aid delivery. I also showed that theoretical frameworks of aid allocation benefit from explicit consideration of aid outcomes, as they affect the expectations of a donor interested in maximizing aid success in the aid receiving country. In this conclusion I recapitulate the argument, summarize my findings, and discuss the study’s implications for debates about foreign aid in development economics and political science.

6.2 Goals of My Research

The primary goal of this dissertation was to contribute to our understanding of the condition under which aid is a successful tool for poverty alleviation, as measured by infant health. I presented a theoretical framework that models a donor who derives utility from development in the aid-receiving country and who maximizes utility with regards to the aid delivery mechanism. I introduced an aid allocation mechanism, aid delivery through non-state development actors (“bypass”), which allows donors to deliver aid effectively in developing countries where recipient governments are uncooperative, corrupt, and/or inefficient. The existence of such a mechanism implies that donors can employ allocation tactics that improve the chances of aid reaching the intended beneficiaries 

ex ante. Understanding why and when donors employ different allocation mechanisms is crucial for answering the question: under what conditions does foreign aid reach its intended beneficiaries?
My central argument posits that donor expectations about the likelihood of aid capture in the recipient country induce systematic donor decisions about the selection of aid delivery mechanisms. What informs donor expectations about aid capture is the quality of recipient institutions. In poorly governed countries, state institutions are dysfunctional, fraught with corruption, and lacking developmental credibility. In well-governed recipients, on the other hand, state institutions of intermediate capacity demonstrate trustworthiness and indigenous capacity to pursue development-oriented policies. Badly governed institutions signal a high probability of aid capture, leading to low levels of donor confidence. In such environments, outcome-oriented donors will take actions to decrease their aid’s sensitivity to aid capture ex ante by insulating the aid from government intervention. They bypass weak and corrupt government structures and channel the aid through alternate channels of development that can implement them relatively better. The (endogenous) bypass decision by necessity reduces poverty in poorly governed recipient countries.

My argument departs from existing explanations of aid provision which model the aid delivery process as exclusively government-to-government. Scholars engaged in assessing the effect of government-to-government provision of aid have largely voiced skepticism about the ability of donors to coerce aid receiving governments into using the aid well, in light of problems such as moral hazard and adverse selection. By exploiting important variation in aid delivery mechanisms, I introduce a third party development actor into the conventional principal-agent models of aid provision. This third party mechanism allows donors to work around the very source of ineffective aid: errant governments. Such a model represents a refinement over previous models as it shows a way in which outcome-oriented donors can credibly pursue development. What is more, resolving how donors de-
liver their assistance is crucial for unbiased assessments of aid effectiveness. In the
next section, I turn to a discussion of the results.

6.3 Results of this Study

My first empirical analysis asks: Does recipient governance explain donor by-
pass of recipient government institutions? The outcome of interest here is donor
propensity to bypass recipient governments. I construct my binary and continuous
measures of aid delivery by drawing from a recently introduced data item “chan-
nel of delivery” in the OECD CRS aid activity database. I distinguish between
government-to-government aid and aid channeled through non-state development
actors. I define government-to-government aid as any aid activity that involves the
recipient government as an implementing partner. Aid delivered through non-state
development channels, on the other hand, does not engage government authorities
at all. I then develop a statistical model of “bypass,” controlling for recipient char-
acteristics, non-developmental donor goals, and donor politics; and employ Probit
and OLS regressions to estimate the binary and continuous outcomes, respectively.
My empirical findings are congruent with my account of donor decision-making. I
find strong statistical evidence for selective aid allocation: OECD donors allocate
aid with an eye towards maximizing aid success in the recipient country: they are
more likely to bypass governments in countries that have missing or weak state
institutions.

The second empirical investigation asks: Does aid channeled through non-state
development actors reduce poverty in poorly governed countries? The outcome
of interest is infant mortality rate. Consistent with my analyses about aid deliv-
ery patterns in the preceding empirical investigation, I measure “bypass” as the
proportion of bilateral aid committed by OECD donor countries to non-state development actors. To estimate the causal effect of bypass on infant mortality I employ statistical matching. Matching allows me to explicitly adjust for observable factors (confounders) that drive donor selection decisions, such as the quality of recipient governance. By adjusting for observable confounders I ensure that any differences between units that receive the bypass treatment and the ones that do not receive bypass treatment are in fact due to bypass and not due to other factors that are common to the treatment group but not the control group. I find empirical support for my conditional hypothesis: bypass reduces infant mortality in poorly governed.

In summary, the statistical analyses presented in Chapter Four and Five provide empirical support for my theoretical framework linking aid delivery decisions to aid outcomes. This suggests, of course, that the burden of aid effectiveness, as measured by infant health, squarely rests on the shoulders of donor governments and their implementing agencies. As long as donors systematically condition aid delivery on the quality of recipient institutions, aid should effectively improve general welfare in poorly governed countries.

6.4 Implications of Results for Future Work

With this dissertation I attempted to show a new avenue by which scholarship can fruitfully pursue the study of aid effectiveness. It is multidisciplinary in character, weaving together analytical frameworks employed by economists and political scientist. In this final section, I consider two implications of my results for existing debates in development economics and political science.

First, cross-national examinations of aid effectiveness by economists largely
focus on analyses of recipient country characteristics and how they mitigate aid flows once they reach the recipient country. These analyses do not allow donors to directly shape outcomes. Rather, economists relegate the role of the donor to the statist realm, which merely accounts for decisions about aid levels. This passive role of the donor raises a fundamentally positivist question from a development perspective: why would donors continue to send significant amounts of aid donations to corrupt and poorly governed countries in which the likelihood of aid capture is high and the probability of aid success is low? Instead my research demonstrated that donor decisions can get traction from their donations in poorly governed countries, by actively conditioning their aid delivery mechanisms on the probability of aid capture in the aid-receiving country. Specifically, I explain and document the extent to which donors employ government bypass tactics in developing countries. Uncovering this more active role for donors to deliver credible aid opens up a new way of thinking about the dynamics between donors, recipient governments, and aid success, and offers a fruitful extension to theories of aid effectiveness.

Second, my findings also add to the study of aid allocation. The *basso continuo* of work by political scientists or political economists is that bilateral aid allocation largely serves political, non-developmental donor goals. Sophisticated decision-making models à la Alesina and Weder (2002), for instance, have led to the establishment of a conventional perception widely shared in the literature: if donors channel more funds to corrupt states they must do so in order to reach non-developmental objectives and not to expect success in poverty reduction. And, as Bueno de Mesquita and Smith (2009) would add, success in recipient development would occur only if development overlaps with other, more important goals. This focus on non-developmental donor motivations is perhaps based on the un-
derlying assumption that all bilateral aid is delivered through the government-to-
government channel, implying that the donations are equally fungible and can be spent as the leaders see fit. My research, on the other hand, explores a deliberate tactic, “bypass”, to give up influence and outsource portions of bilateral aid. This tactic pursues development through third party actors. Such a tactic implies that donors can selectively decrease the fungibility of funds in their attempt to maximize the effect of aid on general welfare in the recipient country. By exploring the endogenous nature of effective aid delivery, I develop a model of a donor that actively promotes general welfare. As shown in Chapter Four, considerable variation exists among donors. The Northern and Scandinavian countries consistently show a high propensity to bypass recipient governments; larger donors in generally seem to bypass (binary) much less, although some (Spain, Italy, and the U.S.) send larger portions of their aid through non-development actors. This suggests that some donors still have room for improving their aid allocation decisions to ensure aid success in the short-term.

Finally, my research also opens up a discussion about the goals of development assistance: while bypassing state structures may improve the general welfare of impoverished populations, the tactic might also represent a double-edged sword. It might hamper or even undermine long-term efforts to build up a state capable of managing its own development. This donor dilemma is particularly stark in fragile countries where the majority of people have an income of less than two dollars a day and where institutions lack capacity for indigenous development. In this dissertation, I focus on the effect of foreign aid on general welfare-a goal to which wealthy donor countries have committed themselves publicly and which arguably represents a necessary (yet insufficient) condition for sustainable development. My findings suggest that donors, on average, are effective at improving general wel-
fare. More infants live beyond their first birthdays in countries with fragile state institutions. The key to donor success lies in selective aid delivery, which places the burden of aid effectiveness squarely on the shoulders of donor governments.
Appendix A

Bulldozer Initiative, Interview Dates

Figure A.1. Bulldozer Initiative-Implementation Process, Public Private Dialogue, 2006
Table A.1. Interviews With Senior Donor Government and Agency Officials

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<td>Germany, Ministry of Development Cooperation, Evaluation</td>
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Sample Descriptives

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Bibliography


Bermeo, Sarah, David Leblang, and Dustin Tingely. 2010. Clowns to the Left of Me, Jokers to the Right: How Donor Partisanship Shapes the Allocation of Foreign Aid. Manuscript.

Berthelemy, Jean-Claude, and Ariane Tichit. 2004. Bilateral Donors Aid Alloc-


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