Development and Strategy: Aid Allocation in an Interdependent World*

Sarah Blodgett Bermeo

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Abstract

This paper develops and tests the argument that industrialized countries pursue an agenda of *strategic development* in their relations with developing countries. In an increasingly interdependent world, wealthy states have an interest in promoting development abroad. This leads them to focus on development, but disproportionately in the poorer states where the benefit from development to the wealthy states is higher. Hypotheses are tested in the area of foreign aid, where evidence is found that donors alter the composition of aid across recipients to account for different levels of government capacity to use aid for development, but also increase the volume of aid flows to developing countries with which they have strong existing connections. The attention to government capacity is new, suggesting that in an interdependent world relations between industrialized and developing countries have evolved, with development promotion becoming an important, strategic goal for industrialized states.

Two phases have dominated the history of relations between industrialized and developing countries: colonialism and the cold war. Colonies emerged from serving the security and economic interests of their colonizer to become newly independent states functioning as clients to one side of the bipolar power struggle. Today most colonies have gained independence and the cold war is over. At the same time, interdependence between states at different levels of development has increased rapidly. Our theories of relations between these groups of countries must evolve to encompass these changes.

This paper develops and tests the argument that industrialized countries pursue an agenda of *strategic development* in their relations with poorer states. In an increasingly globalized world goods, money, disease, environmental externalities, people, weapons, and ideology move in ways and at speeds they have never before (Keohane and Nye, 2000). Pollution in China, deforestation in Brazil, fanatical religious beliefs in the Middle East, HIV/AIDS in Africa, migration of people fleeing economic hardship or political oppression, pirate activity along commercially important shipping routes, and gangs in Central America, to name but a few issues of contemporary importance, each affect the developed countries of the world. And in each case, underdevelopment magnifies the negative effects. Promoting development abroad is increasingly a self-interested objective for industrialized states.

As Collier (2007, 99) states, "a cesspool of misery next to a world of growing prosperity is both terrible for those in the cesspool and dangerous for those who live next to it." This realization is not new; the work of Ullman (1983) represents an earlier articulation of the view that economic underdevelopment constitutes a threat to wealthy nations. However, the concept of strategic development goes beyond the somewhat under-specified idea that development abroad is good for rich countries. Factors such as proximity, historical ties, and economic engagement increase the interconnectedness between a particular industrialized-developing country pair. A wealthy state, motivated by a desire to improve its own wellbeing through development promotion, will disproportionately focus its efforts in poorer countries where measures of interdependence between the two are high.

The theory developed here has features in common with that advanced by Fearon and Laitin (2004), who focus on peace keeping operations and argue that wealthy states intervene in order to limit the negative externalities associated with state failure. It is also similar to the argument by Snyder (Forthcoming), that humanitarian interventions occur when they are in the interest of powerful states. In his

account, strategic interventions often (although not always) also accomplish humanitarian goals, but the distribution of intervention depends on the importance of a country to powerful states, leading marginalized states to fend for themselves. While both of these studies focus on military campaigns, I examine whether development concerns more broadly defined are a key factor in understanding relations between industrialized and developing countries.

The concept of strategic development rests on two claims. First, in an increasingly interdependent world, wealthy states have an interest in pursuing development abroad. Second, while this may hold across all developing countries, it is disproportionately the case where existing ties between a wealthy state and a developing state are strong. This is not meant to suggest that strategically promoting development replaces all other goals that wealthy nations pursue in their relations with developing countries. Rather, the claim is that it is one goal of wealthy states, and an increasingly important one.

To test whether industrialized states pursue a policy of strategic development, I analyze the foreign aid allocation of members of the Organization for Economic Cooperation and Development. As I will show, there is a long history of using aid allocation to assess the intentions of donor countries toward potential aid recipients. My analysis has two parts. First, I use aid flows disaggregated by channel of delivery, aid type, and category of assistance to examine the development intentions of aid donors. Previous studies have concluded that the quality of governance in a developing country does not affect the amount of aid the country receives (Alesina and Weder, 2002; Dollar and Levin, 2006; Easterly, 2007; Girod, Krasner and Stoner-Weiss, 2009; Neumayer, 2003). This has been viewed as *prima facie* evidence that development promotion is not an important goal of industrialized states, since donors do not condition aid flows on the capacity of the recipient government to use aid effectively. In contrast, I ask whether donors respond to variation in the quality of governance across recipients by altering the composition of aid to account for the capacity (or desire) of the government to use aid to further development objectives.[1] I test the claim that the importance of development has increased over time by comparing disaggregated allocation patterns in recent years to those observed during the cold war.

As a second step in the analysis I examine whether dyadic measures of interconnectedness - including

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[1] The dissertation of Akramov (2006) is the only work of which I am aware that links category of aid to the recipient government. However, that work examines the impact of levels of democracy on the amount of aid allocated by category; here I am interested in government capacity, not democracy, and the theory advanced and conclusions reached are quite different.

migration, trade, proximity, and former colonial status - influence the volume of aid flows between donors and recipients. In an increasingly interdependent world we should expect donors on average to care more about the efficiency of aid at promoting development. However, if donors are motivated by self interest, we should also expect them to disproportionately target aid toward recipients where the benefits of development *to the donor* are largest. I build on a large body of work that has analyzed determinants of dyadic aid flows (e.g., Alesina and Dollar, 2000; Dollar and Levin, 2006; Easterly, 2007; Neumayer, 2003; Schraeder, Hook and Taylor, 1998).

The evidence strongly supports the conclusion that wealthy countries are increasingly pursuing development strategically through their foreign aid programs. Industrialized countries are working to increase the efficiency of aid at promoting development, while simultaneously favoring recipients with whom they have other ties. The disaggregated pattern of aid allocation shows a nuanced approach to designing aid programs conditioned on the capacity of individual countries to use aid for development promotion. Poorly governed countries receive a greater percentage of their aid in the form of technical cooperation, rather than cash transfers, and have a greater proportion of their aid channeled through non-governmental providers. Better governed countries receive more aid in the form of cash transfers and help with infrastructure projects; in poorly governed developing countries donors focus disproportionately on providing humanitarian assistance and social services. While this pattern is strong in recent years, there is no evidence of its existence during the cold war, suggesting an evolution in the importance of development promotion to aid donors. The dyadic analysis of aid volume shows that the amount of aid offered by a donor to a recipient is higher for recipients that have colonial ties with the donor, are closer to the donor, and/or have stronger ties through migration and trade to the donor.

Consistent with earlier conclusions about the nature of relations between industrialized and developing countries, this study finds evidence that rich countries seek to promote their own self interest in their interactions with poorer states. Yet the concept of what constitutes self-interest is vastly different from that espoused by much of the literature. Developing countries are not merely on the periphery, ready to be used as puppets in the geopolitical games of great powers. The internal characteristics of these countries increasingly affect the well-being of other states. As such, the wealthy nations of the world promote their own interest by fostering development abroad. However, the patterns observed here suggest that already

marginalized developing countries - including some of the world's poorest - will benefit less from this shift, as wealthy states disproportionately focus on development in countries with which they already have strong ties.

This paper proceeds as follows. The next section further develops the concept of strategic development. Following that, I demonstrate how foreign aid can serve as an appropriate lens to view the changing nature of relations between industrialized and developing countries over time. I then develop hypotheses linking donor intent to observed aid allocation patterns, and present the data and empirical analysis. The final section concludes with a discussion of the implications of these findings for our understanding of relations between these groups of countries.

1   Interdependence and Development Promotion

Global integration has been increasing for some time, but the rate of interdependence between wealthy states and their developing counterparts has accelerated since the early 1990s. Trade between industrialized countries and non-oil developing countries tripled between 1990 and 2006, and after 1998 industrialized countries began to import more from developing countries than they export to these countries, a difference that continues to increase.[2] The stock value of foreign direct investment in developing countries in 2006 was six times the same figure in 1990.[3] According to the World Resources Institute (WRI), developing countries surpassed developed countries in total emissions, including those due to changes in land use, in 1986,[4] and China has recently surpassed the United States as the world's largest user of energy.

These statistics are simply examples of a broader trend. Globalization is not new, but the current era is different than any past period that could also, rightly, claim that title. Keohane and Nye (2000, 112) write of the increasing thickness of globalism, where "[a]s in scientific theories of chaos, and in weather systems, small events in one place can have catalytic effects, so that their consequences later, and elsewhere, are vast." This provides a lens through which we can view the evolving nature of relations between industrialized and developing states.

The concept of strategic development extends the logic advanced by Fearon and Laitin (2004)

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[2] Author calculations based on data from the International Monetary Fund's *Direction of Trade Statistics.*

[3] Author calculations based on data from UNCTAD.

[4] Data to determine this can be found at in the Climate and Atmosphere searchable database, variable "CO2 Emissions: Total CO2 emissions including land use change," comparison of developed to developing countries.

regarding failed states to a more general theory on the relationship between industrialized and developing countries. As nations become more interdependent it is not only failed states, but economically disadvantaged states in general, which create negative externalities that are increasingly felt by wealthy countries. And these externalities are not confined to the traditional security realm - such as issues of terrorist activity and nuclear proliferation - but include cross-border or global environmental issues, trafficking in persons and illegal substances, transnational transmission of disease, increased migration, and foregone opportunities in trade. While Fearon and Laitin (2004) note the Bush administration's change of heart regarding "nation building" in failed states, it is equally true that the same administration initiated two of the largest increases in foreign assistance ever: signing the President's Emergency Plan for Aids Relief (PEPFAR) that targets only those countries hardest hit by the HIV/AIDS pandemic, and creating the Millennium Challenge Corporation, which focuses its assistance on well-governed developing countries (and so explicitly excludes failed states).

Recent national security strategies of OECD countries link poverty, underdevelopment, and lack of state capacity abroad to such problems as conflict, illegal migration, the spread of disease, crime, pollution, and terrorism.[5] The website for the United Kingdom's Department for International Development (DfID) proclaims,

> "in a world of growing wealth... human suffering and wasted potential are not only morally wrong, they are also against our own interests. We are becoming much closer to people in faraway countries. We trade more and more with people around the world. Many of the problems which affect us, such as war and conflict, international crime, refugees, the trade in illegal drugs and the spread of diseases like HIV and AIDS, are caused or made worse by poverty in developing countries. Getting rid of poverty will make for a better world for everybody."[6]

It is important to note that development, especially if not well managed, can also create problems or exacerbate existing externalities. Development with the least expensive technological alternatives is likely to increase negative environmental spill-overs. When political institutions do not develop to keep pace with economic growth, instability can occur (Huntington, 1968). It might be helpful to think of developing countries as members of two broad groups: those whose development has stalled and those who are

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[5]See, for example, "Securing an Open Society: Canada's National Security Policy, 2004"; "The National Security Strategy of the United Kingdom: Security in an Interdependent World, 2008"; "The National Security Strategy of the United States of America, March 2006".

[6]http://www.dfid.gov.uk/aboutdfid/.

developing fairly rapidly (Collier, 2007). In the first, wealthy countries have an incentive to intervene to prevent problems associated with state failure and counter the symptoms of severe underdevelopment that can transcend borders, such as disease and the unsanctioned migration of people. However, even where development is occurring without outside assistance, wealthy states have an incentive to be involved and help prevent potential negative side effects of growth. In these cases we might expect industrialized countries to provide assistance in building institutional capacity, or to offer financial incentives to mitigate the increased cost of using "green" rather than "brown" technology for development.

1.1   A Moment for Development

Many see the attacks of September 11, 2001 - and subsequent terrorist attacks such as those in Bali, Madrid, and London - as creating a "moment" that brought into stark relief policy debates linking development and security that had been percolating on the periphery for some time. Almost two decades before these attacks, Ullman (1983, 135) noted "the generally unenthusiastic reception given to programs aimed at aiding poor countries," when compared to the ease with which military programs are funded, even though both are often justified in terms of national interest. For development, the link with national interest is less direct than is the case with tanks or nuclear weapons. Attacks by international terrorist groups operating out of under-developed countries helped to make the connection clearer in the public mind. Regarding the United States, Girod et al (2009) argue that "[w]hat had been a peripheral concern for the [George W. Bush] administration when it first came to office, governance and development in poorer countries, assumed much greater prominence after the attacks on the World Trade Center and the Pentagon."

Proponents of development capitalized on the momentum to argue that increased development assistance broadly defined was important for the national security of wealthy countries. Following September 11, 2001, World Bank president James Wolfensohn asserted that it was essential to deal with the "breeding grounds of discontent" caused by poverty as a "necessary step two" in the fight against terrorism.[7] Within a year of these attacks US president George W. Bush, who had been skeptical of foreign engagement before assuming office, had announced the establishment of both PEPFAR and the MCC.[8]

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[7]See, for instance, Wolfensohn interview with Charlie Rose, available online at http://www.charlierose.com/view/interview/2912; also Mallaby (2004).

[8]See Lancaster (2007, 17) for a discussion of the importance of US public opinion toward development following September 11,

Neither of these programs had a direct link to terrorist activities. Prior to the recent financial crisis, almost all OECD countries had increased financial assistance to developing countries significantly since 2001, and overall aid had increased even after excluding debt relief and the exceptional cases of Iraq and Afghanistan.

Yet the link between wealthy country interests and increased development abroad has not marshalled in an era where, as Tony Blair (2007, 90) has claimed, "the idealism becomes the real politik." The theory advanced here does not suggest that an invisible hand is at play ensuring that the selfish acts of wealthy nations effortlessly lead to an altruistic distribution of development support. While underdevelopment anywhere can create externalities for other nations, the effects will be disproportionately large where connections between states are high. If wealthy states seek to enhance their interests through development promotion abroad, they will focus their efforts on poor countries with whom they have stronger existing ties. Snyder (Forthcoming) comes to a similar conclusion regarding humanitarian interventions. Questioning the altruistic motivations advanced by Finnemore (2003), he argues that interventions occur in countries of strategic importance and are usually led by a powerful state with key interests in the area, such as Australia in East Timor, the United States in Haiti, or Great Britain in Sierra Leone. The concept of strategic development implies that development promotion is targeted at countries where the benefits to the wealthy states are high; these are not necessarily the states most in need of external assistance.

2   Foreign Aid as Foreign Policy

This paper examines patterns of foreign aid allocation to determine whether industrialized states are pursuing development strategically abroad. As such, it builds on a strong body of scholarship that, since the end of World War II, has argued that foreign aid is a tool used to advance the objectives of wealthy states *vis-à-vis* states that have been referred to as "third world," "periphery," and currently, "developing countries." This view of aid as a tool of foreign policy has spanned ideological divides in international relations. For instance, scholars of the *dependentista* school have argued that aid actively promotes a relationship of dependency between donor and recipient (e.g., Dos Santos, 1970). Morgenthau (1962) exemplifies a realist view, arguing that much aid is simply a traditional bribe between states channeled through "an elaborate machinery of foreign aid for economic development" (302). More recently, Bueno de Mesquita and Smith (2009) have claimed that aid flows are the result of rational donor

2001 in the creation of the Millennium Challenge Account.

governments buying costly concessions from their counterparts in developing countries. Focusing on domestic political influence in aid giving, Fleck and Kilby (2006) show that the allocation of United States aid across recipients varies based on different foreign policy goals of liberal and conservative political actors. From a constructivist standpoint, Lumsdaine (1993) argues that foreign aid serves as an exemplar of an evolving "moral vision" in international politics, where the norm of helping the poor at home is projected abroad by rich countries through their foreign policy.

The argument presented here is that in the post-cold war, increasingly interdependent world, wealthy states pursue development strategically abroad. This explicitly incorporates the view that in a prior, bipolar, less interconnected era the priorities of wealthy states were likely different. Thus, it is consistent with the argument to claim that foreign aid was often a non-development oriented bribe during the cold war. In some cases it most likely is today. Cooperative countries in militarily important locations are still likely to be rewarded with aid, as the large sums of money flowing from the United States to Eastern Europe and Central Asia demonstrate. Kuziemko and Werker (2006) show that when a developing country occupies a rotating seat on the UN Security Council its aid receipts increase significantly. Other examples would make the same point: aid can serve multiple purposes, only one of which is development. Furthermore, my emphasis on aid as foreign policy does not preclude an important role for domestic political interests and constraints in donor states' formulation of aid policy. Indeed, the concept of pursuing development strategically is compatible with the idea that many foreign policy priorities - such as those regarding trade and migration - have important roots in domestic political considerations.[9] Finally, there is a high probability that humanitarian concern drives some types of foreign aid, such as assistance in the wake of a natural disaster, consistent with a norm of extending a helping hand when situations are truly dire.

The claim made here is that development promotion is an important, strategic motivation driving foreign aid allocation. Previous studies may be correct in arguing that geopolitical priorities, domestic politics, and/or humanitarian norms help explain aid patterns. However, they have missed the evolution of development promotion as a strategic goal of wealthy states. It is this gap that the current analysis fills.

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[9]A growing literature has studied the domestic politics of foreign aid in recent years, for example, Fleck and Kilby (2001); Milner and Tingley (2010); Noel and Therien (1995); Therien and Noel (2000); Tingley (2009, 2010). However, these studies focus on the importance of domestic political considerations in determining the amount of aid a donor gives, rather than exploring how that aid is allocated across potential recipient states.

3 Aid Allocation Hypotheses

This paper will test whether (1) wealthy countries increasingly prioritize development promotion when deciding on the composition of aid to offer a recipient and (2) the amount of aid allocated to a recipient is conditioned on existing ties between that country and donor states. In this section I develop testable hypotheses using the patterns of aid allocation we should expect to see if these hold.

3.1 Development Capacity and Aid Composition

The importance of good governance for development has been used in recent scholarly work to study donor intentions. Expecting aid to be more effective at promoting development in countries with good governance, studies have examined whether donors respond to this in their allocation decisions.[10] Neumayer (2003) looks at aid flows in the 1990s and finds that few aspects of good governance have an important impact on aid allocation. Alesina and Weder (2002) find that corrupt countries do not receive less aid than their less corrupt counterparts. Dollar and Levin (2006) find that there is no significant relationship between rule of law in a recipient and aggregate bilateral aid flows, although some individual donors do seem to condition on rule of law. Easterly (2007) finds that aid donors show "little or no sign of increased selectivity with respect to policies and institutions" in the recipient (668). Alesina and Dollar (2000) conclude that, on average, donors do not reward respect for civil liberties and rule of law with more aid. Girod et al (2009) find that "[s]tatistically, there is no overall relationship between changes in aid allocations and changes in governance."

The fact that total bilateral aid flows are not sensitive to the quality of governance in recipients has led to the conclusion that donors place a low priority on using aid to promote development. For instance, Alesina and Weder (2002, 1127) argue that "if one finds that governments that are more corrupt receive more foreign aid, one could safely interpret this finding as a failure in the decision process allocating aid amongst developing countries." However, the finding that poorly run governments do not receive less aid does not necessarily mean that donors are unresponsive to capacity constraints and development concerns.

Donors interested in decreasing negative externalities associated with underdevelopment will not

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[10]There is a fairly large body of scholarship examining the effectiveness of aid across different policy environments, which reaches various conclusions. For key points in the debate, see Burnside and Dollar (2000) and Easterly et al (2004). Although largely outside the scope of this paper, the empirical results obtained below question the legitimacy of using the same measure of effectiveness to assess aid in countries where the quality of governance is significantly different.

necessarily channel more aid to better governed recipients. The importance of a particular country's development to the outside world may not be positively correlated with the functioning of its government. As Fearon and Laitin (2004) point out, wealthy countries are particularly intent on decreasing externalities associated with failed states, which surely score quite poorly on indicators of governance. If donors seek to decrease flows of refugees and undocumented migrants, it would not make sense to ignore developing countries where the push factors for migration are magnified by poor governance.

In addition, while poor governance indicates a lack of capacity for using aid effectively, it also indicates an increased need for external assistance. Poorly run governments are likely less able (or less willing) to provide necessary services and public goods to their populace. Even those who advocate decreasing aid to countries with poor governance acknowledge this (e.g., Collier, 2007, 102). This increased need suggests that poor governance magnifies the negative effects of underdevelopment, making it even more likely that development-conscious donors will want to target these countries.

If aid consisted only of cash transfers to recipient governments, it might be obvious that giving money to countries with corrupt or poorly managed governments would have little impact on development. But aid comes in many varieties, from cash transfers to training programs, vaccination campaigns to highway projects. Some aid involves the transfer of funds, other simply the transfer of knowledge through technical assistance. At times aid is given directly to a recipient government; in other situations donors choose to channel aid through international agencies, the private sector, or civil society and non-governmental organizations. Previous studies correctly argue that donors interested in promoting development will treat well-governed and poorly-governed recipients differently. However, that difference may be in the composition of aid - particularly in the level of access the recipient government has to the aid - rather than in the aggregate amount of aid sent to a country.[11]

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[11]The difference in how aid is provided will not matter if aid is highly fungible. However, the degree of fungibility in aid is an open question. Feyzioglu et al (1998) , the most commonly cited study in support of aid fungibility, is only able to examine concessionary loans (not grants), is confined to the cold war period, and analyzes at most 38 recipient countries. Pack and Pack (1990) find no evidence of aid fungibility across sectors in Indonesia, but find that aid is fungible in the Dominican Republic (Pack and Pack, 1993). Collier (2006) argues that fungibility in some African countries may be limited by the fact that aid has been providing virtually all of the country's development finance in the recent past. Thus, additional money that is used for a development project cannot displace government funding. Unfortunately, no cross-national empirical study has explicitly examined aid fungibility in the post-cold war period. However, there is some evidence from other studies that suggests limits on fungibility. Clemens et al (2004) find that the purpose for which aid is allocated has an impact on its ability to promote development. Bermeo (2010) shows that aid from democratic donors increases the likelihood of a democratic transition in an authoritarian recipient, while aid from non-democratic donors has the opposite effect. Both of these findings are inconsistent with the idea that aid is a fully fungible resource. While some aid is certainly fungible, this is likely not true of all aid - as the analysis

Policy makers in donor countries have indicated that they are sensitive to the difficulties involved in using aid effectively in poorly governed recipients. Hilary Benn, while serving as British Secretary of State for International Development, wrote,

> "some have argued that in the worst cases - where corruption is rife and governance poor - we should walk away. But we cannot abandon aid just because a country has corrupt leaders. What we have to do in such circumstances is to shield aid from corruption while continuing to help the poor. Around the world, DfID [UK Department for International Development] finds practical ways to ensure that aid cannot be siphoned off...we can earmark aid for a particular programme of work in a sector and account for that money independently through a separate bank account. We do this in the education sector in Kenya, where the financial risk of handing over money to the government is too great."[12]

The establishment of the Millennium Challenge Corporation (MCC) of the United States provides another example of a donor differentiating aid based on the quality of governance in a recipient, in this case explicitly rewarding good governance. First announced in 2002, the MCC makes large-scale grants available to countries that score in the top-half of their peer group on several indicators, including control of corruption and multiple measures of political and economic freedom. When a country is deemed eligible, its government must develop a proposal for the use of aid and a plan by which it will administer the proposal, and submit this to the MCC for approval. This gives larger-than-normal grants to governments in well-run countries, in order for them to carry out (after approval) development programs that they designed, which often include large infrastructure projects. The MCC was established outside of traditional aid agencies to ensure that it would use innovative aid practices in well-governed countries (Girod, Krasner and Stoner-Weiss, 2009). These examples suggest that examining disaggregated aid will provide better insight into donor responsiveness to the quality of governance in recipient countries.

If we want to determine the impact (if any) of governance on aid allocation, the correct question is not "do poorly governed states receive less aid than well-governed states?" Although this has been the question tested thus far in the literature, the question we really want to answer is, "do countries with better governance receive *different* aid than countries with worse governance?" I examine whether and how the baskets of bilateral aid offered to different recipients vary based on the quality of governance. To do this, I

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of aid channel and type below exemplifies. Donors may actually choose to give less fungible forms of aid (such as humanitarian assistance channeled through NGOs, or peace corps volunteers) to more poorly governed recipients. In short, the question of fungibility should be part of the analysis, not a reason to avoid disaggregation.

[12] See the debate, "Is Foreign Aid Working?" between Hilary Benn and William Easterly, Prospect Magazine, Issue 128: November 2006, at http://www.prospect-magazine.co.uk/article_details.php?id=7914.

utilize data that allow me to differentiate aid flows by: (1) channel of delivery; (2) type of aid given; and (3) category for which it is designated. For each, I develop a testable hypothesis based on the patterns we should expect to see if donors are concerned about the capacity or willingness of the recipient to implement development programs. I restrict the analysis to bilateral aid as it more directly captures donor intentions than does aid allocated by multilateral donors, such as the World Bank, which may have their own agendas in addition to those of their principals.

Channel of Delivery   Donor governments can choose among multiple channels for aid delivery. For instance, if a donor desired to circumvent recipient government involvement in aid, it might channel its aid through a multilateral organization or a NGO. The OECD recently began collecting data on channel of delivery, where channel can be specified by the donor as NGO/civil society, multilateral organization, public-private partnership (a very small category) or public sector.[13] The way aid is classified, a multilateral organization can be the channel of delivery for bilateral aid. Aid is considered bilateral if the donor directs it toward a specific recipient, even if it is channeled through a multilateral organization; multilateral aid consists only of aid over which the multilateral agency has control. For example, UNHCR may give money from its own funds for refugee camps in Chad, while at the same time serving as a coordinating body to implement projects funded by bilateral donors. In the first case UNHCR is the donor (and channel), in the second it is the channel only. On average we would expect recipient government involvement to be lowest for aid delivered through multilateral organizations or NGOs. Thus, if donors wish to promote development with aid, they can increase the proportion of aid given through non-governmental channels in poorly governed recipients, leading to the following hypothesis:

H1a: Poorly governed countries receive a higher percent of their aid channeled through NGOs and multilateral organizations than recipients with relatively better governance.

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[13]Public sector is somewhat ambiguous, as it does not specify more concretely exactly which channel is used: it could include involvement from the donor and/or recipient public sector.

Type of Aid   The OECD classifies an aid flow as one of three types: sector program aid, investment project aid, and technical cooperation.[14] As a rule of thumb, sector program aid gives the recipient government the most freedom to use the aid money as it sees fit, since aid is not tied to a specific project and is not in the form of technical assistance. Technical cooperation, on the other hand, provides no direct increase in funds for the recipient government, instead involving the transfer of knowledge through people, training programs, etc. Therefore, if donors are concerned about the ability or willingness of a recipient government to put money to good use, they might increase the percent of their aid that is provided to that recipient in the form of technical cooperation. This leads to the following hypothesis:

H1b: Poorly governed countries receive a higher percent of their aid as technical cooperation than recipients with relatively better governance.

Although studying the impact of governance on channel and type of aid provides important insights, there are limitations with using these two forms of disaggregation. Data on channel of delivery have only been collected for a short time period, and to date reporting has been voluntary. While coverage increases for recent years, it does not allow for over time comparisons. With regard to type of aid, there are some categories, such as budget support, food aid, and humanitarian assistance that seldom report by type; less than 50% of aid dollars from bilateral donors are classified by type. To get broader coverage, it is possible to examine aid disaggregated by category.

Aid Categories   Most bilateral aid given by OECD countries is classified by the category to which it is allocated; from 2002-2008 less than one percent of bilateral aid flows did not specify a category (more specifically, specified the category "unallocated/unspecified"). The Social Infrastructure and Services (social sector) category accounted for 36% of bilateral aid from 2002-2008 and includes funds for education, health, population, water, and government and civil society. Economic Infrastructure (13% of

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[14]The OECD reporting directives state that sector program includes aid that "comprises contributions to carry out wide-ranging development plans in a defined sector such as agriculture, education, transportation, etc. Assistance is made available 'in cash' or 'in kind', with or without restriction on the specific use of the funds, but on the condition that the recipient executes a development plan in favour of the sector concerned." According to the OECD "investment projects comprise a) schemes to increase and/or improve the recipient's stock of physical capital and b) financing the supply of goods and services in support of such schemes." Technical cooperation is defined as "the provision of know-how in the form of personnel, training, research and associated costs." Definitions are from CRS reporting directives for type of aid, except in the case of technical cooperation where the DAC directives provided a more concise definition.

bilateral aid) is mainly used in transportation, communications, energy, banking and finance, and business services. Production sectors (6%) include agriculture, forestry, fishing, industry, mining, construction, trade, and tourism. General budget support (3%) consists of aid such as "unearmarked contributions to the government budget" and "support for the implementation of macroeconomic reforms (structural adjustment programmes, poverty reduction strategies)."[15] Food aid (1-2%) includes food for development purposes, but not emergency food aid (which is included in humanitarian assistance). Humanitarian assistance (8%) is meant to include help rendered for a situation that is the result of a man-made or natural disaster.[16]

The basic descriptions suggest that the ability of donors to avoid recipient government involvement will vary by category. For instance, general budget support gives resources directly to the recipient government; if donors want this money to be used for development then they should disproportionately favor this type of aid in well governed, as opposed to poorly governed, recipients. NGOs and multilateral organizations are often associated with humanitarian relief efforts, or social sector programs such as school lunch initiatives and vaccination campaigns. It is less often that we would consider an NGO as the main channel for implementing a program targeting recipient trade policy or road construction (production sector programs) or establishing rules for banking and finance or communication infrastructure (economic infrastructure aid). Of course, NGOs may help in some capacity in these sectors; agricultural production is an area with active NGO involvement. Nevertheless, on average we would expect more NGO involvement in humanitarian relief and social sector initiatives than in the development of production sectors and economic infrastructure in recipients.

We can use channel and type of aid across categories to get a more systematic idea of how recipient government involvement might vary. Table 1 shows the channel and type of aid by category in 2008, the most recent year for which data are available. As a percent of aid classified by channel, very little aid for economic infrastructure is channeled through NGOs or multilateral organizations. A somewhat larger proportion of aid for production sectors and social sectors is given through these channels (23% and 28%, respectively). On the other hand, the vast majority of food aid (80%) and aid for humanitarian assistance

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[15]This and all sector descriptions comes from the REPORTING DIRECTIVES FOR THE CREDITOR REPORTING SYSTEM, 11/4/07, available online at http://www.oecd.org/dataoecd/16/53/1948102.pdf.

[16]There are also other categories of aid, such as "multisector" and "administrative costs of donors" that are not part of the analysis here either because they represent a small amount or, in the case of "multisector" are intrinsically difficult to classify. I also do not include an analysis of debt relief (17%), since it is impossible to determine the true value of this form of assistance (rather than the book value that is reported), as there was a high risk of non-payment if the debt was not forgiven.

(85%) is channeled through providers outside of the recipient government. Examining type of aid, a relatively small amount of aid for developing economic infrastructure (9%) is in the form of technical cooperation, compared to 35% and 54% for production sector and social sector aid, respectively. The majority of food aid and aid for humanitarian relief is not categorized by type.

[Table 1 about here.]

There are clearly differences across category in the nature of aid provision. The categories of economic infrastructure and production sectors appear to have relatively high levels of recipient government involvement. The same is true for general budget support - it is not broken out be channel or type because by definition it is financing provided to the recipient government. Social infrastructure has a medium level of recipient government involvement; over half of this category of aid is provided as technical cooperation (which includes the services of peace corps teachers, NGO medical professionals, etc.). Food aid and humanitarian assistance are provided with little direct involvement of the recipient government. Because of this, donors may be able to focus less on government capacity in these categories, enhancing their ability to respond to the increased need that might be felt in poorly governed recipients. This allows me to test the following:

H1c: For categories where government involvement is high, better governed recipients will receive more aid; this relationship will diminish or disappear (and possibly reverse) for categories where recipient government involvement is comparably low.

3.2 The Evolution of Development Promotion

During the cold war, aid was often viewed as a tool in the power struggle between the United States and Soviet Union, rather than a vehicle for promoting development. McGuire (1952, 343) argued that the aid initiative known as "Point Four" was "an instrument designed to strengthen the power position of the United States in the world struggle with Soviet Communism and it is recognized as such by all participants in this power conflict, including the Communists." Furthermore he claimed that "conceivably Point Four might also be considered successful *if it did not stimulate the growth of the retarded economies appreciably,*

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provided that the attempt to give economic impetus to the backward areas created a more favorable attitude on the part of their governments and their peoples toward the United States than otherwise would have prevailed" (345, emphasis added). Similarly, Friedman (1958) claimed that "foreign economic aid is widely recognized as a weapon in the ideological war in which the United States is now engaged. Its assigned role is to help win over to our side those uncommitted nations that are also underdeveloped and poor." Following the end of the cold war, Radelet (2003, 107-08) observed that "[i]f some foreign aid meant throwing money down rat holes, Washington at least made sure they weren't communist ones." This suggests that, if donors prioritize development in recent years, it is likely a change from past policy.

Given the importance of September 11, 2001 in focusing public attention in donor states on self-interested reasons for promoting development abroad, I compare aid in the post-2001 period to aid in the last years of the cold war.[17] I am interested n determining whether donors place more weight on recipient capacity in the latter period, consistent with an increased emphasis on using aid for development. I test the following:

H2: In the post-2001 period there is a relationship between governance and aid composition; the relationship did not exist (or was less pronounced) during the cold war.

3.3 Strategic Targeting

While studying the composition of aid within recipients can provide information about the importance donors place on the efficient use of aid for development, it does not tell us how donors decide their cross-country allocation of aid. If donors are targeting recipients strategically, then dyadic ties between donor and recipient countries should influence the volume of aid allocated across countries. In examining the importance of dyadic considerations, I build on a large body of existing scholarship. The finding of McKinlay and Little (1977, 1978) that "power-political" and security concerns explain observed allocation patterns much better than economic or development interests launched a wave of empirical studies examining the relative importance of donor interest and recipient need in determining aid flows. Most studies during the cold war indicated that donor security and/or economic interests were the driving factor

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[17]For reasons of data availability discussed below, the "last years of the cold war" includes the years 1984-1988.

in allocation decisions (e.g., Maizels and Nissanke, 1984; Schraeder, Hook and Taylor, 1998).[18]

Counter to the theory of strategic development advanced here, the claim that donors place a low priority on development when allocating aid across countries has not disappeared. Several recent studies have found that aid flows disproportionately to trade partners, allies, and former colonies, rather than to better governed countries or those with the most need (Alesina and Dollar, 2000; Alesina and Weder, 2002; Bueno de Mesquita and Smith, 2007, 2009; Burnside and Dollar, 2000; Collier and Dollar, 2002; Dollar and Levin, 2006; Easterly, 2007; Neumayer, 2003). The conclusion has been that donors privilege strategic priorities at the expense of development concerns in aid allocation decisions. The concept of strategic development challenges this interpretation of these findings. Donors may disproportionately choose to target recipients with whom they have other ties because the benefits of development promotion are highest in these states. Although often forgotten, this claim is not new: Dudley and Montmarquette (1976, 137) make a similar point, claiming that "one might expect the economic returns to the donor from a given amount of aid to be greater where there are already economic links between the two countries."

Alesina and Dollar (2000, 55) express a common view from the literature when they claim that "the allocation of bilateral aid across recipient countries provides evidence as to why it is not more effective at promoting growth and poverty reduction" since "bilateral aid has only a weak association with poverty, democracy and good policy," instead flowing disproportionately to recipients with whom the donor has other ties. It is the combination of (1) failure to respond to government capacity and (2) strategic targeting of aid flows across recipients, that leads to the conclusion that development concerns are not a priority for aid donors.

The previous section argues that donors increasingly respond to issues of governance in an attempt to improve the efficiency of aid at promoting development. By also examining the impact of dyadic considerations, I am able to distinguish between a strategic and more altruistic explanation for any observed increase in the concern for development. Lumsdaine (1993) has argued that increased emphasis on development promotion is part of an evolving norm of "moral vision" in international relations. Noel and Therien (1995, 2002) argue that aid is a projection of the social welfare preferences of the donor country, used to promote these same types of programs abroad. While there may be some validity to the

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[18]Mcgillivray (2003) is an exception, finding that recipient need was a factor in determining aid flows, but only after accounting for strategic importance.

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claim that norms and domestic structures influence aid decisions, the argument here is that these cannot fully explain any increased attention to development. Here I examine whether dyadic considerations remain important in determining aid flows. If, in recent years, donors are found to respond to both capacity concerns and dyadic relationships, then we can safely conclude that development is an important goal of donors, but that pursuing development is driven by strategic, rather than purely altruistic, concerns.

I examine whether several dyadic measures of "connectedness" are associated with increased dyadic aid flows. Bilateral trade is a key measure of economic interdependence between a donor and recipient. Increasing development in trade partners can lead to more diverse and higher quality imports for industrialized countries, as well as providing enhanced markets for donor exports. In recent years, donors have increased the use of aid for building trade capacity in developing countries. I test whether dyadic trade is positively linked to dyadic aid flows.

Industrialized countries are increasingly worried about migration, particularly the arrival of low-skilled, undocumented individuals. One way to decrease unwanted immigration is to improve conditions in migrant sending countries. For instance, USAID claims that its programs are critical to "address the underlying causes of large-scale illegal migration by promoting regional stability, democracy, and broad-based growth, particularly in Central America and the Caribbean."[19] Migration from a sending to a receiving country tends to be path dependent, making current migrant stock a good predictor of future migrant flows (Massey et al., 1993). As such, I examine whether donors give aid disproportionately to countries that have a large stock of emigrants living in the donor. To date, cross-national studies of foreign aid have not included migration as a potential explanatory variable for aid flows.

The externalities associated with underdevelopment are likely to decrease with distance. Wealthy countries are disproportionately affected by environmental pollution, disease transmission, and internal instability in developing countries close to their own borders. Thus, I hypothesize that aid flows will be inversely related to distance. Donors also feel the impact of historical ties, such as those with a former colony, which increase the connections between individuals in a donor and recipient. Former colonies often have institutionalized relationships with their former colonizer, such as those observed in the Organisation Internationale de la Francophonie or the Commonwealth of Nations. I test whether former colonies receive

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[19]USAID Congressional Presentation, FY 2000, Latin America and the Caribbean, available online at http://www.usaid.gov/pubs/cp2000/lac/lac_over.html.

more aid from their former colonizer.

The expectations from this section can be summarized in the following hypothesis:

H3: Dyadic aid flows are influenced not only by the need and capacity of the recipient, but by connections between donor and recipient, such as trade flows, migrant stock, proximity, and historical ties.

It is important to note that the causal mechanisms linking aid and other measures of connectivity, such as trade and migration, may be multidimensional and difficult to untangle. Additionally, they may arise from a combination of security and economic considerations, and be influenced by domestic political forces in the donor. Establishing the exact nature of the causal relationship between these variables is a profitable task for future work, but outside the scope of this paper. Instead, the hypothesis tested here is more modest. One possibility is that donors judge potential recipients based solely on their need and the capacity of their government to use aid effectively. An alternative is that they disproportionately favor recipients with whom they have other ties - particularly ties whose benefits may be increased, or negative externalities decreased, by development promotion. This third hypothesis is meant to differentiate between these two alternatives.

4 Data

For the main analyses, I examine aid commitments from bilateral members of the OECD's Development Assistance Committee (DAC) to low-income and lower-middle income recipients for the period 2002-2007.[20] I focus on the post-2001 period to best reflect recent allocation strategies of donors, and then compare this to an earlier period. Aid refers to "official development assistance," which excludes military aid. There are 117 "low" and "lower-middle" income countries. Although a few countries are dropped from the statistical analysis for reasons of missing data on key explanatory variables, the overall country coverage is quite high (often 106 out of 117), particularly for studies of developing countries where missing data is often a problem.[21] The DAC consists of 22 industrialized aid donor countries: Australia,

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[20]Income classifications are based on World Bank coding. I exclude upper-middle income and high income aid recipients in order to focus on how aid works in the poorest countries and out of recognition that it might work differently in richer countries with better access to international capital markets. Note that starting in 2005 money given to high-income countries can no longer be considered official development assistance or official aid. Aid to upper-middle income countries accounts for a small percent of aid: about six percent of ODA commitments in 1985 and less than four percent by 2005. I exclude recipients that are not countries.

[21]Importantly, Iraq and Afghanistan are not included in the regression analysis because they lack data on multiple independent variables. These two cases are clearly outliers in terms of aid receipts in this period. Furthermore, many of the aid programs in

Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

Aid Data   For aid commitments disaggregated by channel, type, and category, I use data from the OECD's International Development Statistics CRS online Database on Aid Activities.[22] For these analyses I focus primarily on aid aggregated over all DAC members, for reasons discussed below; data are in constant (2008) US dollars. Data for dyadic aid commitments come from the OECD's International Development Statistics online database: "DAC3a, ODA Commitments" and are reported in constant (2007) dollars.[23] For the dependent variables I use the log of (one plus) aid commitments.[24]

Governance Variables   The main measure of recipient governance used is an aggregate measure from the Governance Matters project of the World Bank (Kaufmann et al, 2006). This project reports data on six variables: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. These data are available every other year beginning in 1996 and annually from 2002. To create these variables, researchers collect data from 31 sources across 25 organizations that track governance, including the World Bank, regional development banks, universities, NGOs, and business consultant groups. In addition to rankings by country experts from many organizations, these sources also include surveys of business owners and polls of individuals conducted by organizations such as Afrobarometer. Values range from -2.5 to 2.5, with higher numbers representing better governance. I use the average of a country's score on five of these variables as a measure of governance *(Governance)*; I exclude the voice and accountability component since it includes data from Freedom House, which I

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these two countries are carried out by, or in conjunction with, foreign military agencies; it is difficult to form a causal story linking government quality and aid in this context.

[22]Extracted May 11, 2010. To analyze aid by category during the 1980s it was necessary to obtain raw data on aid projects from the OECD and aggregate them by category for each recipient year.

[23]Extracted on November 21, 2009. Where necessary, I summed commitments for official development assistance and official aid (although most of the latter category did not apply to the countries in this study).

[24]The reporting directives for DAC define a commitment as "a firm written obligation by a government or official agency, backed by the appropriation or availability of the necessary funds, to provide resources of a specified amount under specified financial terms and conditions and for specified purposes for the benefit of a recipient country or a multilateral agency."(DAC STATISTICAL REPORTING DIRECTIVES, April 6, 2007, available online at http://www.oecd.org/dataoecd/28/62/38429349.pdf. I use data for commitments rather than disbursements for two reasons. First, when I disaggregate aid only commitment data are available for a long time horizon. Second, commitments can be preferable as a measure of changing policy since they can adjust more quickly. There is a greater lag for disbursements since these in part represent commitments made in a previous year. DAC members are required to report annually on their aid commitments.

control for separately.

To examine changes in the importance of governance in determining aid allocation patterns over time, I need a measure with longer historical coverage. For this, I use a recipient's average score across three variables collected by the International Country Risk Guide: bureaucratic quality, law and order, and control of corruption. This variable can be included as early as 1984; however, it is not collected for all countries and the selection process is non-random.[25] While problematic, this is likely less of an issue when looking for changes over time, as the same problem will exist in both periods examined. An additional benefit is that using this variable *(ICRG)* serves as a robustness check to ensure that the main results are not driven by the choice of governance variable.

Democracy   Previous studies on foreign aid allocation have generally used data from Freedom House as a measure of democracy, and I follow this convention here. I use the average of a country's score on the civil liberties and political rights indicators as a measure of democracy *(Democracy)* and invert the scale so that 1 is associated with the lowest levels of democracy and 7 with the highest levels of democracy.[26]

Traditional measures of need   In keeping with other studies, I control for the average income *(Income)* and population *(Population)* of potential aid recipients. Data are from the World Bank's World Development Indicators (WDI) online database and are logged for the analysis. Data for income are in constant dollars adjusted for purchasing power parity.

Emergency variables   Although some studies of aid control for the presence of civil war, they do not generally include other measures of emergency need. I include a measure of the number of people affected by a natural disaster from the International Disaster Database,[27] which collects data on the impact of individual natural disasters. I used the natural log of (one plus) the total of the "total affected" category for each country year *(Disaster)*.[28] To capture need caused by refugee populations living in a recipient, I use

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[25]For the post-2001 period, there are 106 recipient countries included in Table 3 where the World Bank measure of governance is used; for the same period, regressions using the ICRG measure of governance only cover 71 countries.

[26]Although not reported here, there are no significant changes to the conclusions if the polity2 variable from the Polity IV dataset is used instead of Freedom House. Freedom House is used because it has broader country coverage and is used in many studies of foreign aid.

[27]EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Universit Catholique de Louvain - Brussels - Belgium.

[28]This is the number of people injured, left homeless, or requiring other immediate assistance as a result of natural disasters in a country in a given year. A score of zero was given if no people in a country were recorded as being affected by a natural disaster in this data set.

data from the United Nations High Commissioner on Refugees (UNHCR) Statistial Yearbook for various years.[29] I include the log of (one plus) the number of refugees from other countries living in a recipient in a given year *(Refugees)*. The civil war variable *(Civil War)* takes on the value of 1 if the UCDP/PRIO Armed Conflict Dataset codes the country as having a civil war. To be included a conflict must cause at least 25 battle related deaths and the state must participate as one of the players (Gleditsch et al, 2002).[30]

Measures of dyadic connections   As a measure of trade relations, I use data from the IMF's Direction of Trade Statistics and include the log of trade (exports plus imports) between the donor and recipient *(Trade)*. Immigration is often mentioned by aid policy makers. Yet, to date, studies of aid allocation have not examined the impact of immigration. I include the natural log of (one plus) the number of foreign born individuals from the recipient living in the donor as an explanatory variable *(Immigrants)*. Data on immigration are collected by the OECD.[31] These data are not time series, but represent a single snapshot. For most DAC countries they are based on census data, surveys, or population registers around the year 2000.

Wealthy countries are likely disproportionately concerned about negative externalities from developing countries in their neighborhood. Therefore, I include the natural log of distance between the donor and recipient as calculated by EUGene v. 3.2 (Bennett and Stam, 2000), based on (in most cases) the distance between capital cities.[32] I also include an indicator variable that takes the value 1 if a recipient was ever a colony of the donor *(Colony)*. This was coded using information available in the CIA World Factbook.

Other strategic priorities   I do not contend that development concerns drive out the importance of other strategic factors when determining aid allocation; instead I include two measures to control for them in the analysis. To account for the strategic importance of oil, I use the measure of *Oil Wealth* from Ross

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[29] Available online at www.unhcr.org/statistics. The most recent report with statistics for the year under observation were used. For recent years data are available through the WDI.

[30] Most recent version of the data and the codebook are available at http://www.prio.no/CSCW/Datasets/Armed-Conflict/. Version 4-2007 was used for coding in this analysis; civil wars are defined as a type 3 or 4 war in the data.

[31] Available from www.sourceoecd.org. Data are from the "Immigrants and expatriates: Total population by nationality and country of birth" table, Vol. 2006, available under International Migration Statistics. They include both naturalized citizens and "foreigners."

[32] Data are reported by dyad-year; when data for early years are missing I use the distance in later years to fill this in, so that there are no missing values on this variable. Additionally, for a small number of contiguous dyads it appears that the method of measuring distance has changed over time; here I use the most recent method for all years.

(2009).[33] To account for possible security interests I include the natural log of (one plus) the constant dollar value of military assistance a country received from the United States in a given year *(US Military)*. Data are from the Greenbook available on the USAID website.[34] Unfortunately, I do not know of data available for a comparable measure for other donor countries; because most DAC members are also part of NATO, US military assistance is included as an explanatory variable for all donors to (imperfectly) capture common strategic importance.[35]

5 Analysis and Results

This section tests separately the hypothesis that donors condition the composition of aid on the ability of the recipient to use it effectively for development and the hypothesis that dyadic considerations matter for aid allocation.

5.1 Baskets of Aid

If donors seek to promote development in their chosen recipients, then the composition of aid should depend on the quality of governance in recipient countries. Hypotheses H1a, H1b, and H1c each posit that donors will give different aid to poorly governed recipients than they give to well governed recipients. To examine this, I use aid commitments to a recipient aggregated across bilateral donors. The unit of analysis is therefore a recipient year, rather than a dyad year. This is desirable since OECD donors may specialize in different kinds of aid provision, or donors may coordinate aid efforts within a recipient. So, Donor A may decide to build schools because Donor B is already paving roads. Aggregating across donors gives a better idea of how bilateral donors as a group respond to characteristics of the recipient. Additionally, it allows for comparison with many previous studies that have examined allocation of aggregate bilateral aid across

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[33]Data were generously supplied by the author via email in August 2009. Where the value is missing in the Ross data, I checked the CIA World Factbook to see if the country is an oil producer. In most cases, the answer was no and the country was coded as having zero oil production. In the very few cases where the country is an oil producer but the production is not captured by Ross, the value remains blank.

[34]Available online at www.usaid.gov; extracted November 2009.

[35]Other studies have included similarity in UN voting and/or alliances to account for strategic importance in aid flows, but the results across studies are not robust and the interpretation is always that strategic importance matters, regardless of the sign on the coefficient. For instance, if a donor gives more aid to countries that have alliance ties or similar UN voting patterns, it is said to be favoring friends. If instead the effect is found to be negative, it is said to be buying favors from unfriendly regimes with aid money. Given the difficulty in determining what these variables are actually capturing, they are not included here. However, when I include the s-score for UN voting (Gartzke, 2010) in the dyadic analysis in Table 6, the coefficient is not significant and other results are not largely altered (although observations are lost by including this variable). Alliance data is not included as the most widely used sources are not updated to include much of the time period under analysis.

recipients. I also do not include measures of donor interest in the main composition analysis, for two reasons. First, many measures of interest are dyadic in nature, and so difficult to quantify when aggregating across donors. Second, it is a stronger test of the composition analysis when these variables are excluded. What I test here is whether, regardless of a recipient's dyadic importance, characteristics of the recipient affect the channel, type, and category of aid commitments. If an effect is found, it is not only residual - after controlling for donor interest - but instead operates on average across all recipients. However, since either the aggregation across donors or the exclusion of interest variables can be questioned, I also run the aid composition analysis dyadically with measures of strategic interest and report the key results for robustness.

Models 1 and 2 in Table 2 examine the composition of aid commitments by channel and type in 2007. I chose to examine the most recent year in the analysis because of improvements in reporting coverage over time. Therefore, the analysis is of a cross-section, capturing differences across recipients in the same year. The dependent variable in Model 1 is the percent of all bilateral aid reported by channel that is channeled through either an NGO or multilateral organization (e.g, a UN agency). Throughout this section, p-values are reported in parentheses. The analysis shows that as governance improves, a country receives less of its aid through these non-governmental providers. When countries are poorly governed, a larger percentage of their aid is channeled through providers working outside of the recipient government. This effect is substantively large. Setting all other independent variables at their median value and increasing the value for the Governance variable from its value at the 25th percentile to its value at the 75th percentile changes the expected value of the percent of aid channeled through an NGO or multilateral organization from 30.2% to 19.7% - a 35 percent (10.5 percentage point) decrease.[36]

[Table 2 about here.]

A similar picture emerges in Model 2 of Table 2. In this model the dependent variable is technical cooperation as a percent of all aid reported by type. As country governance improves, donors move away

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[36]The positive and significant finding on Income is somewhat surprising, but difficult to interpret. Scholars disagree about whether income represents need, strategic importance, or something else. In this case, one possible interpretation is that, the richer an aid recipient is, the more likely that it receives aid in order to compensate for the government's lack of ability/willingness to use the country's wealth to provide for the poorest citizens. Thus, it potentially provides a complimentary story to the one captured by the coefficient on Governance, but further study would be needed to fully understand the link between income and the channel of delivery of aid.

from technical cooperation to provide more project and program aid. Since technical cooperation involves the transfer of people and knowledge rather than the transfer of money or physical assets, the implication is that donors respond to poor governance by decreasing the chance for aid to be poorly utilized. Once again, the change is substantively important. Using the same simulation performed above for aid channel, improving a recipient's governance score from its value at the 25th percentile to its value at the 75th percentile decreases the expected value of the percent of aid accounted for by technical cooperation from 63.5% to 50%, a 21 percent (13.5 percentage point) change.[37] The results from both models suggest that donors seek to limit recipient government involvement in aid provision when the government lacks the will or capacity to utilize aid effectively for development, as measured by quality of governance.

Category of Aid   Because data are more limited for the channel and type of aid, the analysis of aid by category is important for better understanding the extent to which donors respond to the quality of governance in recipient countries. For this analysis, I analyze the impact of governance on the amount of aid a recipient receives for each category, rather than focusing on aid to that category as a proportion of total aid receipts. A reason for doing this is to facilitate interpretation: when the proportion of aid for social sectors is higher, is it because more aid is allocated to social sectors or because overall aid to the recipient is lower? While focusing on levels avoids this difficulty, it can be useful to ask if the proportion of aid allocated by category is also influenced by governance, and I return to this in the robustness section below.

Table 3 examines the determinants of aid allocation separately by category. The dependent variable is the log of (one plus) bilateral aid a recipient receives for that category in a given year. Roughly speaking, the categories are ordered from left to right to show a declining role for the recipient government in aid provision. The final column (Model 9) shows the results for total aid (excluding debt relief). Robust standard errors were calculated by clustering on recipient. For many categories of aid, all (or almost all) recipients receive some bilateral aid in each year, meaning there are very few zeros on the dependent variable. In these cases I used an OLS model. However, for budget support and food aid this is not true. To more properly fit the data in these categories, I employ a Tobit model.[38] I include a time trend variable

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[37] All simulations reported throughout this section were performed in STATA using the software Clarify (Tomz, Wittenberg and King, 2001; King, Tomz and Wittenberg, 2000).

[38] It is possible to view these zeros as either censored values or corner solutions. In either case, standard ordinary least squares estimation will lead to inconsistent estimates of the parameter values (Wooldridge, 2002). There has been much debate in the aid literature regarding the correct model to specify in this situation. Both Neumayer (2003) and Berthelemy and Tichit (2004) contain a discussion of the strengths and weaknesses of a two-part model (in which a Probit model is used for the selection stage, followed

(Year) to ensure that any observed pattern between sector aid and the independent variables is not caused by a common trend over time.

[Table 3 about here.]

The results shown in Table 3 support the hypothesis that donors differentiate across recipients based both on the need of the recipient and the capacity of the recipient government to use aid for development. Better governed recipients receive more aid for budget support, economic infrastructure, and production sectors. The impact of governance on the amount of aid to the social sector and the amount of food aid is estimated to be much smaller (about one-half of the coefficient on governance in the production sector model) and does not achieve significance at conventional levels. The coefficient on governance is negative, although not statistically significant, for humanitarian relief aid. Overall aid commitments (Model 9) respond to governance in the post-2001 period, which differs from existing results in the literature covering earlier time periods. This suggests that governance plays a greater role in determining aggregate aid flows after 2001. However, the main point of the analysis is to show that the composition of aid varies based on quality of governance.[39]

The results are substantively important. When all variables are set at their median value and the governance variable is increased from its value at the 25th percentile to its value at the 50th percentile, the expected value of aid for economic infrastructure rises from $5 million to $9.1 million, an 81% increase. The change for production sectors is also large: performing the same calculation results in an average increase of the expected value of aid to production sectors from $6.3 million to $9.6 million, a 52% increase.[40]

The findings in Table 3 support the idea that donors respond to need, as well as government capacity, in recipients in the post-2001 period. Overall aid commitments (Model 9) increase for poorer and more

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by an OLS model of allocation for only those observations where aid is greater than zero) and Tobit model. The difficulty arises because the factors influencing the two stages (selection and level) are believed to be the same. Regarding the two-part model, Berthelemy and Tichit (2004) note that it "suffers from the risk of introducing a selection bias in the second step, since the fact that a country receives strictly positive aid flows is not independent from the right-hand variables" (259). I follow Berthelemy and Tichit (2004) in using a Tobit specification.

[39]Results are qualitatively similar if a random effects model is used; in that case, the coefficients on Governance are (in same order as in Table 3: 7.148 ($p < 0.01$); 1.529 (p=0.02); 1.072 (p=0.02); 0.602 (p=0.07); 1.468 (p=0.32); -1.465 (p=0.06) and, for total commitments, 0.762 (p=0.02).

[40]The expected value of the change for budget support aid cannot be calculated using Clarify, as the software does not support the Tobit model.

populous countries (this is true for many categories, as well). Furthermore, humanitarian assistance increases when a recipient experiences a civil war, has more people affected by a natural disaster, or hosts larger refugee populations - suggesting that donors respond to emergency needs with relief aid.

5.2 Robustness and Alternate Approaches

Addressing Potential Endogeneity There is the potential that aid flows improve governance in recipients. To the extent that aid commitments are path dependent, with current commitments an indicator of previous aid, then endogeneity could create a problem for interpreting the causal direction in the above analysis.[41] To account for this, I re-ran the analysis in Table 3 using first differences for the categories of economic infrastructure, production sectors, social sectors and humanitarian relief; budget support and food aid are not included because of the large number of zeros for the dependent variable. This specifically examines whether changes in a recipient's governance from time *t-1* to time *t* result in changes in aid commitments for a given category. This represents a particularly difficult test for aid, as it requires donors to observe and respond to changes in recipient governance in a short period of time. Row A of Table 4 reports results for the coefficients on the Governance variable across categories in this analysis. Each model includes (not shown) the changes in Freedom House score, income, population, number of people affected by a disaster, refugees, and civil war; also included are the time trend variable and the lagged value of aid for that category to the recipient, as the initial amount of aid may have an impact on the amount by which it can feasibly be increased.[42]

[Table 4 about here.]

The results from Row A in Table 4 suggest that endogeneity is not driving the pattern seen above. Improvements in a recipient's governance score result in increases to aid for multiple categories, suggesting that donors reward better governance broadly with more aid. The positive effect is strongest for aid to economic infrastructure and negative (although not significant) for humanitarian relief. Although the

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[41]Although it is possible that aid improves governance, the literature has usually come to the opposite conclusion (Alesina and Weder, 2002; Svensson, 2000), suggesting endogeneity may not be an issue. It is also unclear how a story of potential endogeneity would apply across categories.

[42]In each model the lagged value is negative, significant, and ranges from -0.26 to -0.38. Full results are available in supplemental materials. If the lagged values of aid are excluded, the pattern becomes stronger, with a coefficient on governance for economic infrastructure of 2.30 ($p < 0.06$), production sectors 1.11 ($p < 0.05$), social sectors 0.97 ($p < 0.06$) and humanitarian relief -1.84 ($p < 0.35$).

pattern in the middle differs slightly from that above, the question asked here is somewhat different, and some forms of aid may be able to adjust more quickly to changes in government quality than others. Given the exacting nature of this test for the realities of foreign aid, the pattern observed in Row A, while not identical to that in Table 3, is reassuring.

Dyadic considerations   Row B in Table 4 shows the coefficients on the governance indicators for a dyadic analysis of aid to economic infrastructure, production sectors, social sectors, and humanitarian relief. Budget support and food aid are not analyzed dyadically, as some donors do not give any aid in these categories. The dependent variable is the log of (one plus) aid from a donor to a recipient in a given year for each category. The dyadic analysis is modeled with a Tobit specification and the unit of analysis is the dyad-year; donor fixed effects are included and robust standard errors are calculated by clustering on dyad.[43] All variables from Table 3 are included, as well as measures of dyadic trade flows, the stock of migrants from the recipient in the donor, an indicator variable that equals one if the recipient was ever a colony of the donor, a measure of distance between the donor and recipient, the amount of military aid a recipient receives from the United States, and the value of oil production in the recipient. Later I will analyze the overall impact of these variables on dyadic aid flows. Here, however, the dyadic analysis by category is simply included for robustness. The results presented in Row B show that the impact of governance on aid flows varies across categories even in a dyadic setting controlling for variables of strategic interest. The coefficient on governance is strongest for economic infrastructure aid, declining substantially for social sector aid, and becoming negative (and significant) for humanitarian assistance, consistent with the hypotheses developed above.

United States   The United States is considered to be one of the donors most likely to use aid to promote its strategic agenda. Therefore, in some ways it represents a difficult case: some might argue that development-oriented donors differentiate aid across categories in response to government quality, but strategically oriented donors, such as the United States, are less likely to show this pattern. However, the theory advanced here is that development itself has become strategically important, perhaps even more so since the terrorist attacks in 2001. Thus, one would expect the country most affected by those attacks, the

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[43]For a discussion of the incidental parameters problem when using fixed effects in a Tobit model see Greene (2004), where the coefficient bias in a Tobit model is found to be small relative to that observed in similar estimations with a Probit or Logit model.

United States, to pursue development abroad. Row C of Table 4 repeats the analysis from Row B using only data for the United States, and reports the coefficients on the governance indicator for each category. The models still use a Tobit specification and robust standard errors are calculated by clustering on recipient. The only difference is that an indicator variable is included that equals 1 if the recipient is in Eastern Europe or Central Asia, to account for that particular region's importance to the United States given the wars in Iraq and Afghanistan. The results again suggest that better governed recipients receive more aid for economic infrastructure and production sectors than do poorly governed recipients. The difference between the importance of governance in these categories and the social sector category is more extreme here, with the United States giving more social sector aid to poorly governed countries. However the overall conclusion is the same for the United States as it is for bilateral aid as a whole: better governed recipients receive different aid than poorly governed recipients. Additionally, it is important to note that the United States is not driving the overall dyadic results. When the dyadic analysis is re-run excluding the United States (Row D), the same cross-category pattern observed in Row B is evident.

Percent of Aid by Category   So far, the analysis of aid by category has used the log of aid as the dependent variable to examine whether better governed countries receive more aid for a particular category than poorly governed countries. However, a complementary analysis could examine how donors alter the portion of a recipient's total aid allocated to a particular category. Row E of Table 4 returns to the analysis of bilateral aid aggregated across donors, as was done in Table 3, using the same observations, modeling techniques, and independent variables. However, here the dependent variable is the proportion of a recipient's total bilateral aid that is allocated to a particular category. The results show that as governance improves, a recipient receives a greater proportion of its basket of aid in the form of budget support and aid for economic infrastructure and production sectors. Poorly governed countries receive a larger proportion of their aid basket for use in social sectors and humanitarian relief.

Combined with the analysis of Table 3, this tells us that better governed recipients receive more budget support and more aid for economic infrastructure and production sectors; these three categories also make up a greater proportion of total aid for better governed recipients. Better governance may also be rewarded with increased levels of social sector aid; however, the amount of aid for the first three categories is increasing more rapidly, meaning that social sector aid is a smaller proportion of total aid in well governed

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recipients. Humanitarian relief aid makes up a greater proportion of aid in poorly governed recipients.

Summary   The analysis of aid disaggregated by channel of delivery, type, and category shows a clear pattern of donors differentiating across recipients based on the recipient government's capacity (or willingness) to use aid for development promotion. Donors clearly offer a different basket of aid to well governed recipients than they do to poorly governed recipients. Furthermore, the observed pattern suggests that donors are mindful of the problems poor governance creates for development, and design aid packages to limit the negative impact of poor governance on aid effectiveness.

5.3   Comparison Over Time

Table 5 shows results for the coefficients on governance by category of aid in the post-2001 period and the last years of the cold war, using the ICRG measure of governance for reasons discussed above. The top half of Table 5 shows results of the same analysis presented in Table 3. We observe a similar pattern: recipients that score well on the ICRG measure receive more budget support and more aid directed at economic infrastructure and production sectors; no significant relationship is found between governance and aid for other categories. The bottom half of the table reports the same results for the period 1984-1988. In all categories except food aid the magnitude of the coefficient is much smaller in the earlier period and does not approach statistical significance.

[Table 5 about here.]

Clearly, the importance that donors place on the capacity of the recipient government when determining the basket of aid has changed over time. The impact of governance on aid effectiveness did not garner much attention prior to the mid-1990s. Therefore, some might argue that the new allocation patterns are the result of increased knowledge about what works in aid. However, it is more likely that donors did not devote attention to the impact of governance on aid effectiveness during the cold war because they did not wish to acknowledge the connection. It stretches credibility to argue that donors gave equal amounts of direct budget support to highly-corrupt and less-corrupt countries because they did not realize the more corrupt country was less likely to use the money for development. Rather, in early periods they deliberately did not focus on government quality, instead giving aid to help achieve non-development, geopolitical goals.

5.4 Dyadic Considerations in Aid Allocation

The analysis thus far shows that donors are increasingly interested in the efficient use of aid for development promotion in recipients. However, the theory outlined above suggests that there is a strategic component to donors' development goals. In particular, it is posited that measures of interdependence - such as dyadic trade patterns, migrant stock, proximity, and historical ties - affect the degree to which underdevelopment in a country has an impact on a particular wealthy state. If donors pursue development strategically then these relationships should help determine how much aid a particular country receives.

Table 6 shows the results of a dyadic analysis of the determinants of foreign aid commitments. The dependent variable is the log of (one plus) aid commitments from a donor to a recipient in a given year. Due to the number of zero values on the dependent variable (2760 out of 12031 total), a Tobit specification is used. Donor fixed effects are included but not reported; robust standard errors are calculated by clustering on dyad.[44]

[Table 6 about here.]

As can be seen from Table 6, dyadic relationships have a significant impact on the allocation of aid.[45] On average, donors give more aid to trade partners, countries from which they have received more migrants, closer countries and former colonies. This is the first study, to my knowledge, to separately examine the post-September 11, 2001 period, although patterns for distance, trade, and former colonies have been observed in previous studies covering different years. It is also the first to document a statistical relationship between migrant stock from a recipient living in a donor and bilateral aid flows.

While Table 6 shows the results pooled across dyads, it is also possible to run the same regressions for each donor (with standard errors clustered on recipient). The results of this analysis (not shown) indicate that Australia, Austria, Canada, and the United Kingdom give significantly more aid to trade partners (at $p < 0.10$ or better), and for no donor does trade have a significant, negative effect on aid commitments.

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[44]The use of fixed-effects in non-linear models, such as Tobit, can lead to an incidental parameters problem resulting in bias and incorrectly estimated standard errors. However, in the case of Tobit models, Greene (2004) shows that the bias is surprisingly small and problems with precision estimates decline rapidly with panels containing more than 5 time periods.

[45]If a random effects Tobit model is used the conclusions drawn are quite similar, with the exception that the impact of US military assistance is significant and positive in the random effects model. If the s-score for affinity in UN voting between donor and recipient is included, its coefficient is not significant (p=0.757) and its inclusion has only small effects on the estimation of other coefficients; since it results in a loss of observations it is not included here.

Australia, Belgium, Finland, France, Greece, Ireland, Italy, Luxembourg, New Zealand, Norway, Spain, Sweden, Switzerland, and the United States give more aid to recipients that have a larger migrant stock residing in the donor; the opposite is true for only Austria and Germany. The relationship between distance and aid flows also holds for most donors, being negative and significant for 15 of the 22 donors, with no donor showing a significant, positive relationship between distance and aid. While former colonial status does not apply to all donors, France, Portugal, Spain, and the Netherlands each give significantly more aid to former colonies. The US and New Zealand give significantly less aid to former colonies, but for both donors there are few colonies in the data.[46] It is also interesting to note that, while US military aid does not predict development assistance overall in the dyadic analysis, it is a significant, positive predictor for aid flows from Japan, the United Kingdom, and the United States, who together account for almost one-half of bilateral development assistance each year, suggesting that military importance does still matter, at least for some donors.

It is beyond the scope of this paper to identify the various causal mechanisms linking foreign aid to trade, migrant stock, distance, and former colonial status. The point here is only that dyadic relationships, particularly measures of interdependence between donors and recipients, matter when making cross-country aid allocation decisions. If we envisioned each donor's aid agency as run by a benevolent social planner with a "moral vision" to decrease poverty in the world, these dyadic considerations would take a back seat to measures of recipient needs and capabilities. While it does appear that need (as measured by income, population, the number of people affected by a disaster and refugee stock) and capability (measured by governance) matter, measures of dyadic connections are also important determinants of aid flows.

6 Conclusion

The argument of this paper is that industrialized states are increasingly pursuing development strategically abroad. An empirical analysis in the area of foreign aid provides strong support for the theory. Donor governments alter the channel of delivery, type of aid, and category of assistance based on quality of governance in a recipient to help improve the efficiency of aid at promoting development. There is no

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[46]US former colonies include the Marshall Islands, Micronesia, Palau, and the Philippines. For New Zealand the colony variable is essentially a dummy variable for its only former colony in the dataset, Samoa.

evidence that the composition of aid was conditioned on government capacity in the 1980s, indicating that the end of cold war bi-polarity, coupled with rapidly increasing interdependence, has altered the relationship between richer and poorer states. Industrialized countries also give disproportionate amounts of aid to developing countries with whom they have strong existing connections, consistent with a strategic component to aid flows. The findings have important implications for our understanding of both foreign aid and the more general movement in relations between industrialized and developing countries.

As interdependence continues to increase, we should expect wealthy states to maintain their interest in development promotion abroad. However, the strategic nature of this interest results in a mixed outcome for developing countries. Industrialized states seek to develop areas with which they have strong existing ties, implying that the most marginalized countries, which are often quite poor, are likely to reap disproportionately few benefits. This could further enhance the gap between those who benefit from the forces of globalization and those who do not.

The fact that industrialized countries are strategically promoting development should affect our analysis of other issue areas important to relations between rich and poor countries. For instance, the desire to improve development may influence the creation and terms of international agreements in trade or investment, possibly giving more negotiating room to well-positioned developing countries. One implication is that, if development continues as an important strategic objective for wealthy country governments, it may give foreign policy forces in those governments the momentum needed to override the influence of domestic lobbies determined to block changes in trade policy that would be harmful to concentrated groups but beneficial for development (such as the elimination of agricultural protections and subsidies in wealthy states). Also conceivable is that strategic concerns will help determine the distribution of assistance for climate change mitigation and adaptation agreed to in the Copenhagen Accord, similar to the way in which dyadic ties influence development aid commitments. It does not seem far-fetched to hypothesize that developing countries where the effects of climate change have a higher probability of adversely affecting wealthy states will attract a disproportionate amount of climate change funding. These represent fruitful areas for future research.

The attention to governance in allocation decisions is a recent development in foreign aid. It is still too early to definitively determine whether these changes in allocation will increase the development impact of

aid. Results of a recent study by Bearce and Tirone (2010) suggest that they may: the authors find that aid has a positive impact on recipient growth in the post-cold war period, but not during the cold war. However, the above analysis suggests that the typical measure of aid effectiveness - growth in the few years following receipt of aid - is unlikely to capture the effectiveness of aid in poorly governed countries. On average, these countries receive a disproportionate share of their assistance for humanitarian relief or social service provision, which are much less likely than other categories of aid to produce measurable differences in aggregate growth over such a short time frame (Clemens et al, 2004). This means that our concept of what constitutes effectiveness should be different across recipients with varying levels of government quality. We should therefore be wary of findings regarding the impact of governance on aid effectiveness that do not account for the difference in aid composition in poorly governed states (e.g., Burnside and Dollar, 2000, 2004; Easterly, Levine and Roodman, 2004).

Promoting development strategically abroad is not the only foreign policy objective of wealthy states. However, the analysis presented here suggests that it is an increasingly important one, which must form part of our understanding of the evolving relationship between industrialized and developing countries. As the study of international security has begun to evolve to take account of new threats from non-traditional enemies, so the study of economic relations between states must account for the new realities of interconnectedness. Thinking about development as a strategic priority is one step in that direction.

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Delivery Channel	Economic Infrastructure	Production Sectors	Social Infrastructure & Services	Food Aid	Humanitarian Assistance
Public Sector	83%	69%	63%	20%	12%
NGO & Civil Society	5%	10%	15%	40%	29%
Multilateral Org.	5%	13%	13%	40%	56%
Delivery Type					
Sector Programme	13%	23%	19%		
Investment Project	77%	41%	26%		
Technical Cooperation	9%	35%	54%		

Table 1: **Channel of Delivery and Type of Aid by Category, 2008.** Author calculations based on data in the OECD International Development Statistics online CRS dataset. Totals for delivery channel may not sum due to rounding and to small percentages in the categories "public-private partnerships" and "other". For the purposes of calculating percents, dollar amounts where channel or type is listed as "to be defined" were excluded. No type is broken down for food aid or emergency assistance as 65% of food aid and 98% of humanitarian assistance is not classified by type.

	NGO/Multilateral Percent Model 1	Technical Cooperation Percent Model 2
Governance	-35.410***	-18.158***
	(0.00)	(0.00)
Democracy	1.909	-1.598
	(0.33)	(0.27)
Income	8.849***	-2.164
	(0.01)	(0.36)
Population	-3.236*	-4.131***
	(0.10)	(0.01)
Disaster	-0.637	0.780*
	(0.28)	(0.08)
Refugees	0.356	0.560
	(0.61)	(0.28)
Civil War	0.905	7.335
	(0.89)	(0.14)
Constant	10.388	91.042***
	(0.78)	(0.00)
Observations/Recipients	93	93
R-squared	0.293	0.368

Table 2: Channel and Type of Aid, 2007. Dependent variable for Model 1 is the percent of aid reported by channel that is channeled through NGOs or multinational organizations. Dependent variable for Model 2 is the percent of aid reported by type that is in the form of technical cooperation. OLS, with p-values in parentheses. *Significant at the 10 percent level. **Significant at the 5 percent level. ***Significant at the 1 percent level.

	Budget Support	Economic Infrast.	Production Sectors	Social Sectors	Food Aid	Humanitarian Assistance	Total
	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Governance	6.651**	1.697***	1.236**	0.625	0.644	-0.949	0.894**
	(0.03)	(0.00)	(0.01)	(0.12)	(0.74)	(0.19)	(0.03)
Democracy	1.306	0.216	0.178	0.191**	0.170	0.036	0.131
	(0.14)	(0.15)	(0.21)	(0.04)	(0.76)	(0.86)	(0.17)
Income	-7.773***	-0.278	-0.576**	-0.405	-4.874***	-0.823**	-0.491*
	(0.00)	(0.35)	(0.03)	(0.12)	(0.00)	(0.02)	(0.07)
Population	1.319	0.810***	0.644***	0.384***	1.729***	0.480**	0.380***
	(0.15)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.00)
Disaster	0.059	0.018	0.054	0.053	0.048	0.186***	0.054
	(0.75)	(0.65)	(0.10)	(0.11)	(0.66)	(0.00)	(0.12)
Refugees	0.950***	-0.004	-0.005	0.026	-0.028	0.216***	0.032
	(0.00)	(0.93)	(0.88)	(0.36)	(0.86)	(0.00)	(0.26)
Civil War	-1.463	0.058	0.006	0.226	0.093	1.044**	0.492
	(0.50)	(0.88)	(0.98)	(0.47)	(0.94)	(0.03)	(0.12)
Year	-0.523	0.216***	0.190***	0.153**	-0.079	0.321***	0.154**
	(0.16)	(0.00)	(0.00)	(0.02)	(0.65)	(0.00)	(0.02)
Constant	1078.788	-427.182***	-371.833***	-292.615**	177.207	-634.484***	-291.651**
	(0.15)	(0.00)	(0.00)	(0.02)	(0.61)	(0.00)	(0.03)
Sigma	13.805***				7.937***		
	(0.00)				(0.00)		
Observations	601	601	601	601	601	601	601
Censored	313				149		
Uncensored	253				417		
Countries	106	106	106	106	106	106	106
R-squared		0.262	0.299	0.217		0.373	0.228

Table 3: Category Analysis of Bilateral Aid Commitments, 2002-2007. Dependent variable is log of (one plus) aid commitments to the recipient for the category analyzed aggregated over all OECD bilateral donors. Models 4, 5, 6, 8 and 9 use OLS; Models 3 and 7 use a Tobit specification. Robust standard errors (not shown) were calculated by clustering on recipient; p-values in parentheses. *Significant at the 10 percent level. **Significant at the 5 percent level. ***Significant at the 1 percent level.

	Budget Support	Economic Infrast.	Production Sectors	Social Sectors	Food Aid	Humanitarian Assistance
A: First Differences		2.190**	0.833	1.045**		-1.288
		(0.01)	(0.11)	(0.02)		(0.49)
B: Dyadic		5.263***	3.685***	0.848**		-4.095***
		(0.00)	(0.00)	(0.04)		(0.00)
C: United States		5.174***	5.361***	-1.992**		-1.126
		(0.00)	(0.01)	(0.02)		(0.49)
D: Non-United States		5.488***	3.783***	0.991**		-4.444***
		(0.00)	(0.00)	(0.02)		(0.00)
E: Category Percent	1.084**	0.573***	0.436***	-0.246***	-0.096	-0.731***
	(0.01)	(0.01)	(0.01)	(0.00)	(0.74)	(0.00)

Table 4: Coefficients on Governance Variable, 2002-2007. Robust standard errors (not shown) calculated by clustering on recipient or dyad; p-values in parentheses. Full results available in supplemental materials. **Significant at the 5 percent level. ***Significant at the 1 percent level. Based on panel data for low and lower-middle income countries.

	Budget Support	Economic Infrast.	Production Sectors	Social Sectors	Food Aid	Humanitarian Assistance
ICRG, 2002-2007	5.430**	1.178***	0.775**	0.402	-0.043	-0.335
	(0.04)	(0.01)	(0.02)	(0.25)	(0.97)	(0.55)
ICRG, 1984-1988	0.012	0.195	-0.024	-0.100	-0.555**	-0.046
	(0.97)	(0.25)	(0.84)	(0.51)	(0.03)	(0.74)

Table 5: **Comparison of Governance Impact over Time.** Dependent variable is log of (one plus) aid commitments to the recipient for the category analyzed aggregated over all OECD bilateral donors. Models for Budget Support and Food Aid use a Tobit specification; other models use OLS. Robust standard errors (not shown) calculated by clustering on recipient; p-values in parentheses. *Significant at the 10 percent level. **Significant at the 5 percent level. ***Significant at the 1 percent level.

	Dyadic Aid Commitments
	(1)
Trade	0.132*
	(0.07)
Immigrants	1.295***
	(0.00)
Distance	-4.098***
	(0.00)
Colony	3.315***
	(0.00)
Governance	1.257**
	(0.05)
Democracy	0.353**
	(0.04)
Income	-2.164***
	(0.00)
Population	1.999***
	(0.00)
Disaster	0.157***
	(0.00)
Refugees	0.145**
	(0.02)
Civil War	0.087
	(0.83)
Oil Value	-0.101***
	(0.00)
US Military	0.005
	(0.86)
Year	0.369***
	(0.00)
Constant	-704.234***
	(0.00)
Sigma	11.491***
	(0.00)
N	12031
Donors	22
Recipients	107

Table 6: Dyadic Analysis of Aid Commitments, 2002-2007. Dependent variable is the log of (one plus) aid commitments from the donor to the recipient in a given year. Donor fixed effects included but not shown. Robust standard errors (not shown) calculated by clustering on dyad; p-values in parentheses. *Significant at the 10 percent level. **Significant at the 5 percent level. ***Significant at the 1 percent level.