A Quantitative Framework for Foreign Aid Allocation in the Post-Cold War Period

A Thesis
submitted to the Faculty of the
Graduate School of Arts and Sciences
of Georgetown University
in partial fulfillment of the requirements for the
degree of
Master of Public Policy

By

Kelley Anne Hampton, B.S.F.S.

Washington, D.C.
April 15, 2010
A QUANTITATIVE FRAMEWORK FOR FOREIGN AID ALLOCATION IN THE POST-COLD WAR PERIOD

Kelley Anne Hampton, B.S.F.S.
Thesis Advisor: Donna Morrison, Ph.D.

ABSTRACT

While there have been many studies of the determinants of bilateral and multilateral foreign aid, these studies have come in three fairly distinct waves with discrete understandings of the historical context of foreign assistance. The first wave of research focused on post-WWII aid from the U.S. to Europe (Marshall Plan); the next wave studied the role of colonial heritage as a determinant of aid to newly independent nations and the expansion of international aid mechanisms; the third wave has focused on aid in the post Cold War era. In this paper, I investigate the degree to which foreign aid levels are determined by a recipient country's economic and physical needs, civil rights and political rights, political terror and violence, and government effectiveness using new years of data that have not previously been studied to determine if the break-down of the Cold War geopolitical framework has affected foreign aid decisions. I conclude that while recipient needs, civil and political rights, and government effectiveness are significant factors in foreign aid decisions, the levels of recipient country political violence and governmental
independence have become increasingly important elements in determining donor
country foreign aid levels.
I would like to thank many individuals who put their time, thought, and energies into assisting me with this thesis. First and foremost, I would like to thank my thesis advisor Professor Donna Morrison, Ph.D. Kind, thorough, rigorous, and understanding, Professor Morrison challenged me to experiment and to learn. Her efforts throughout this process have been invaluable and I am deeply appreciative. I would also like to thank Christopher Johnson for his support during the year. Finally, I would like to thank my family for giving me great ideas and unconditional love.
# Table of Contents

Chapter 1. Introduction ........................................................................................ 1
  Dynamic Aid: From the Marshall Plan to the Post-Cold War Era .... 2
    The Marshall Plan ....................................................................................... 2
    Post-Colonial Period and the Cold War............................................. 4
    Post Cold War Period ........................................................................ 5

Chapter 2. Literature Review .............................................................................. 7

Chapter 3. Data and Methods ............................................................................ 11
  Data .............................................................................................................. 11
    Dependent Variable .............................................................................. 11
    Independent Variables .......................................................................... 11
  Methods ..................................................................................................... 15

Chapter 4. Results and Analysis ........................................................................ 18
  Descriptive Results ................................................................................. 18
  Multivariate Results ................................................................................. 22

Chapter 5. Conclusion ....................................................................................... 28

Chapter 6. Bibliography .................................................................................... 29
Chapter 1. Introduction

“I am committed to more partnerships with NGOs, but I want more of our tax dollars to be used effectively and to deliver tangible results. As we seek more agile, effective, and creative partnerships for development, we will focus on country-driven solutions…These initiatives must not be designed to help countries scrape by – they are a tool to help countries stand on their own.”

— U.S. Secretary of State Hillary Rodham Clinton, Foreign Policy Address to the Council on Foreign Relations\(^1\)

“Aid appears to have established as a priority the importance of influencing domestic policy in the recipient countries.”

— Benjamin F. Nelson, Director, International Relations and Trade Issues, Government Accounting Office\(^2\)

As these quotations illustrate, there are competing priorities in the decision of a donor country to give aid to a recipient nation. The competing priorities do not end there: not only is there no consensus about the motivations for foreign aid, there is no simple set of indicators that explain how developed nations determine which countries receive aid and to what extent that aid will be given. Foreign assistance decisions are influenced, and complicated by, the global political, economic, and historic context at the time the decisions are being made.

In this paper, I will focus my analysis on Official Development Assistance which is defined as a “transfer of resources on concessional terms…[that is] undertaken by official agencies; has the promotion of economic development and welfare as its main

---

objective [at least outwardly]; and has a ‘grant element’ of 25 percent or more.”

This definition encompasses the contemporary understanding of foreign aid that derives from over a half century of development in the field of foreign aid. While this definition highlights that foreign aid donor countries look to the needs of a recipient country and attempt to improve its developmental outcomes, the definition also highlights that there is much more information necessary to fully understanding why governments give foreign assistance.

There has been much scholarship on the development of foreign aid as a tool of economic aid during the Post WWII and colonial periods and as a foreign policy tool during the Cold War period. However, there has been less attention paid to foreign assistance in the post Cold War period, which includes the 9-11 era. This paper will provide a framework for what the definition of Official Development Assistance leaves open-ended: what are the determinants of foreign aid distribution since the break down of the Cold War geopolitical framework?

While this paper is not an exhaustive survey of the historic roots of foreign assistance, it will discuss three major periods in the global political climate that have shaped how countries determine foreign assistance allocation and levels of aid: Post World War II assistance, the independence of colonial states and the Cold War, and the break down of the Cold War political framework.

**Dynamic Aid: From the Marshall Plan to the Post-Cold War Era**

**The Marshall Plan**

---

Foreign aid in the form that we understand it today began as international post-war assistance. Because of the havoc wreaked during World War II, the U.S. was the main donor of foreign aid in the Post War period. Thus, most of the analyses of the determinants of aid during this period focus on motivations for U.S. assistance. Scholars of the structure and effectiveness of foreign assistance look to the Marshall Plan as one of the original and most successful foreign aid plans implemented in the last century. The Marshall Plan, officially called the European Recovery Program (ERP), was a program developed by the United States to help Western Europe reestablish its economy and infrastructure post World War II. Within the framework of this program, the United States gave over $13 billion in aid to assist European countries. Scholars have identified that the Marshall Plan had various motivations, ranging from imperialism to a sense of giving. However, the majority of scholars add that though altruism contributed to the decision of the United States to give foreign aid, the desire for a stable Europe, supported by a strong market-based economy was the main motivation. Still other scholars argue that political economy considerations lie behind the true impact of the Plan as the aid allocated provided the currency needed to relax the foreign exchange constraint.

---

4Ibid.  
7 Ibid., 4.  
8Ibid.  
10Ibid.”
Post-Colonial Period and the Cold War

The next era of foreign aid development occurred at the nexus of the independence of formerly colonized countries of the 1950’s and 1960’s, the expansion of multilateral institutions as foreign aid donors, and the political dynamics of the Cold War. Hjertholm and White state that the first wave of independent countries created a new “constituency” for foreign aid. This seemed to have fomented a new conceptualization of aid as both altruistic and as a type of reparation.

Occurring simultaneously was the expansion of regional and multilateral organizations. Starting as early as the 1970’s, as aid to independent nations and post-war countries was no longer new and analysis was conducted on the effectiveness of this aid, it became clear that there needed to be more coordination of aid programs. One of these studies, called the Pearson Commission, offered recommendations which advocated, in part, that utilizing multilateral agencies to manage foreign aid would strengthen the effectiveness of foreign aid plans. Two of the most impactful aid donor institutions have been the United Nations and the World Bank. Because of this expansion of multilateral institutions as aid donors, donor country governments have had to include these institutional donors into their aid allocation decision-making.

Throughout the Cold War, foreign aid was seen as a means for political dominance. During this period, because of the fight for power between the former USSR and the United States, recipient countries had more leverage vis a vis the donor governments to reject conditions placed on aid; because the two major powers wanted to

---

12 Ibid.
14 Ibid.
build supporters through aid donations, these powers did not have as much credibility to demand democratic changes to government nations receiving aid.\(^{15}\) Thus, foreign aid decisions during the Cold War were primarily strategic and politically motivated.

**Post Cold War Period**

In the post-Cold War era, there has been an increased global value placed on democracy as it related to development. In the early 1990’s with the dissolution of the former USSR, foreign aid donor governments began to reassess their foreign aid choices. Now that foreign aid did not necessarily need to be a purely political or strategic tool, and because research had shown that foreign aid had not proven to be as effective at improving development outcomes for poor countries as donor governments had assumed, donor governments were faced with the challenge of how to reconfigure foreign aid to make it work. This “rethinking” resulted in the acceptance of “good governance” and human rights as elements tied to conditional aid as way to improve development outcomes. Foreign aid scholars have described this change as a shift from using aid to support structural adjustment to conditioning aid on political values, from using foreign aid to encourage strategic alliances to conditioning aid to improve governance and award democratic accountability.\(^{16}\)

This was a major change from the way that foreign aid had been conceived previously and led to a massive examination of indicators of democracy and governance effectiveness. These indicators included measuring administrative reform, human rights,

---


civil and political liberties, government accountability, and trade openness. A quotation from Stokke, as quoted in Boulding and Hyde’s paper, sums up the overarching sentiment of bilateral and multilateral foreign aid donors during the post Cold War period:

“in the emerging [post-cold war] world order, with the competition between East and West for political influence and strategic positions in the Third World removed, Western governments felt freer than before to pursue basic political concerns vis-à-vis the governments of the South.”

As Boulding and Hyde note, the freedom that donor countries experienced translated into a shift in focus to preventing humanitarian disasters, promoting good governance, and building political and civil liberties in states with poor records of progressive governance. In these ways, the end of the Cold War has affected how, when, and to what level donors give foreign aid.

---

Chapter 2. Literature Review

The literature in this area is diverse and sweeping, and has varied largely based on the era within which it was conducted. While there are certain foundational studies that have identified key variables that have affected bilateral allocation of aid decisions throughout these eras, the relative significance of these variables has shifted.

Much of the analysis of foreign aid determinants is based on, or includes information from, a seminal study by McKinlay and Little that established a basic understanding of foreign aid through either a donor interests based model or a recipient needs based model. The recipient needs based model assumes that donor nations give aid in part as “…a form of concessional finance…” that is “…allocated to a state…in proportion to its need, and the distribution of aid, will reflect the relative needs of the recipient states.” The donor interest model is based on a realist political perspective and assumes that donor countries see aid as a tool of foreign policy and ‘uses aid allocation to pursue its own interests.’ This study uses U.S. foreign aid from 1960-70 as a case study and shows that the donor interests model tends to be the dominant aid allocation model. Later studies, including that of Maizels and Nissanke, concluded that the interests of the donor countries determined bilateral aid more significantly than did the needs of the recipients.

20 Ibid, 237-238.
These two models are dynamic and can be defined in various ways. Both political and developmental indicators have been used to proxy donor interests. A study by Alesina and Dollar in 2000 used variables such as how open the recipient country is to trade, the colonial history of the donor and recipient country, and the relationship of the recipient country with the United Nations (UN), for their donor interest model.\textsuperscript{22}

While earlier research focused on defining variables within the McKinlay and Little framework, later analysis added two other groups of determinants to the framework of foreign aid allocation. Broadly, these two categories were civil and political rights of the country and the strength of the governance institutions of the recipient country.\textsuperscript{23}

Again, these categories are amorphous and can be defined in various meaningful ways. A study by Trumbull and Wall in 1994 used a fixed effects model, holding donor interests constant, and determined that per capita income and a democratic governance system of a recipient country can affect foreign aid. This study also recognized that there are limitations to the effect of political rights of recipient countries, finding that the added indicators were as significant as the political interests of the donor countries.\textsuperscript{24}

Bandyopadhyay and Wall identify other studies that have broadened into the concept of government effectiveness. One of these studies, by Alesina and Weder, show that there is not a statistically significant connection between foreign aid levels and corruption in governance.\textsuperscript{25} A second study, from Dollar and Levin,\textsuperscript{26} found that as

\begin{itemize}
\item \textsuperscript{23}Bandyopadhyay and Wall, 547-553.
\item \textsuperscript{25}Alberto Alesina and Beatrice Weder, "Do Corrupt Governments Receive Less Foreign Aid?," \textit{American Economic Review} 92(4) (2002):1126-1137.
\end{itemize}
donor countries have understood the effects of foreign aid, recipient countries with sound governance institutions tend to receive more aid. 27

Eric Neumayer, a prolific scholar on the role of political and civil rights as it relates to foreign aid allocation, describes that while political/civil rights are subjective, most studies use the following indicators to understand this concept. For political rights, many scholars look to free and fair elections, freedom to organize politically, and a competitive election system. 28 Further, Neumayer has studied whether the respect for political rights equate to higher bilateral aid, but Neumayer concluded that the role of rights is limited and did not increase in the post-Cold War era. 29 Bandyopadhyay also identifies that Neumayer has shown that a recipient country that respects human rights will be more favorable as a recipient of aid, but it will not dictate the amount of aid that will be given. 30

Other scholars have offered a different theory relating to the impact that the post-cold war political context has had on foreign aid. Boulding and Hyde, in an influential paper presented at the 2008 Western Political Association Annual Meeting, find that since the Cold War, donor governments have focused on promoting democracy and supporting good governance. 31 They assert that though donor governments had included these factors in their foreign aid decisions during the Cold War, they had not been as important as strategic or economic interests. They find that there is a higher probability that foreign aid will be withdrawn if a recipient country defies democratic principles,

27 Ibid.
29 Ibid, 510.
30 Bandyopadhyay and Wall, 537.
when donor’s strategic interests are controlled for. According to Hjertholm and White, many anticipated that foreign aid would have been greatly increased by the end of the Cold War. These authors note that this has not been the case and cite globally declining state aid budgets as illustrative of this trend. However, Hjertholm and White also note that because Eastern European nations are now recipients of aid rather than part of the former USSR, which had previously been a foreign aid donor, and because of a new focus on governance, foreign aid allocation determinations have fundamentally changed.

The literature has demonstrated the challenges in quantifying broad concepts like government effectiveness or trade openness in trying to determine their relative effects on foreign aid levels. Further, the literature has not fully addressed the changing landscape of foreign aid in the post Cold-War backdrop. In this paper, I will add to the analysis of foreign aid determinants by presenting a study that modifies the quantification of recipient needs, donor interests, government effectiveness and includes political violence as an additional variable. I will also use more recent years of data, 2002 to 2005, to expand on the results from previous analyses of the factors of foreign aid decisions.

---

33 Hjertholm and White (1998).
Chapter 3. Data and Methods

Data

Drawing from several published sources, I assembled a cross-sectional time-series data file for 151 countries, spanning the years from 2002 to 2005. Sources for the raw data as well as my variable creation strategies are outlined below.

Dependent Variable

The dependent variable is the natural log of total “Official Development Assistance” (ODA) received by recipient countries as tracked by the Organization for the Economic Cooperation and Development (OECD). Total foreign aid is measured in thousands held at 2009 U.S. dollars.\(^\text{34}\) ODA excludes foreign aid that is not specifically purposed for social or economic development. Military aid, for example, is not included in this measure. The amount of foreign aid is measured as the net ODA a country receives from donor countries in the Development Assistance Committee (DAC). The DAC is a group of selected countries that work on foreign aid and development related issues.

Independent Variables

My independent variables are grouped within four main conceptual categories, in line with current foreign aid literature: recipient need, political and civil rights of the recipient country, donor interest, and government effectiveness of the recipient country.

Recipient Need

To capture recipient need, I use three proxy measures: infant mortality rate, the natural log of total population and gross national income. The rate of infant mortality, the number of infant deaths divided by the number of live births in a given year, is commonly used in the scholarly literature to operationalize the physical well being of the community, as high infant mortality rates are generally correlated with poor health outcomes for the adult community. Population size serves as a measure of a country’s physical need. I take the natural log of population size to account for a well-documented bias in estimates of the relationship between foreign aid and population size when measured in raw numbers. Previous research shows that while population initially rises, so to will aid, but at a certain population level, the aid will begin to drop relative to the population growth.  

I obtain both population size and measure of infant mortality rates from the Census Bureau. Gross national income (GNI) of the recipient country is considered a strong indicator of a poor financial or economic well being of a country. I obtained these annual data from the World Bank Country data and reported them in current U.S. dollars.

**Political/Civil Rights**

To operationalize the political and civil rights concept, I will use both a Freedom House data set and the Political Terror Scale (PTS) index, which is amassed by Amnesty International and the State Department. The Freedom House data set includes measures of democracy and civil liberties of a country on a scale of 1 to 7, with 1 being the most free.

---

35 Bandyopadhyay and Wall, 540.
and 7 the most restrictive.

The Political Terror Scale of a country is measured by a ranking of state sponsored violence against political opponents in ordinal data. The political terror score is based on data from Amnesty International and the U.S. State Department that is compiled in yearly reports that measure “physical integrity rights” throughout the world and political terror that a country experiences in that year. The ranking is on a scale of 1 to 5 where a country whose score is 1 has the least political violence and most secure rule of law. Though the Boulding and Hyde study uses the averages of these indicators, I will only use the PTS as measured by Amnesty International in my model.

Donor Interests

It is well documented that the notion of “donor interest” factors importantly in explanations of trends in donor giving. There are several valid and potentially effective ways to operationalize the concept of donor interests in the context of this study. These include measures of the colonial status of the country, strategic importance of the recipient country to the donor country, direct foreign investment of the donor country to a recipient country, and trade openness of the recipient country to capture the political, strategic, and economic donor interests involved in aid decisions. Unfortunately, I am unable to include these variables in my empirical model related to both data limitations and the nature of my estimation strategy.

First, most studies that examine foreign aid determinants incorporate the colonial status between a donor country and a recipient state on donor foreign aid decisions. These

---

studies have used a database called the Colonial History Dataset (from ICOW) to illustrate the colonial ties between sets of donor and recipient countries. However, due to the static nature of the ICOW data, this variable could not be incorporated into my analysis in a meaningful way.

Second, as a part of measuring strategic interests of donor countries, other scholars have used data that measures openness of a recipient country to trade from other countries. For earlier studies, trade openness is measured on a zero-one index developed by Sachs and Warner and updated by Wacziarg and Horn Welch. In this data, a “closed” trade regime has average tariffs on machinery and materials above 40% and/or a black market premium on foreign exchange of at least 20% and/or pervasive government control of exports. While this metric would have been a good fit for my model, the most current data available are from 1998. To measure trade openness, I use the Penn World Table database which uses two variables for its data: ”openc,” which is the ratio of exports plus imports to GDP at current prices and “openk,” which is the same ratio at constant prices. I use the data included in the “openc” category, as it comports with the measure of my other economic data that is held at current prices.

Limitations in data availability also prevented me from accounting for the strategic importance of the recipient country to the donor country and vice versa as implemented in Boulding and Hyde’s influential study. They used data on the alliance portfolios of a country to create a scale from -1 to 1, from least similar alliance portfolio to most important.

---

similar. Unfortunately, this measure has not been updated past 2001, and thus could not be integrated into my analysis.

Finally, other studies of foreign aid determinants include statistics describing exports and imports between donor and recipient countries to illustrate the concept of trade openness. However, there is a potential for simultaneity bias in measuring the impact of imports and exports as related to the foreign aid, as there could be overlap. Thus, I have not included a specific import and export variable.

**Government Effectiveness**

I use data from the World Bank’s Governance Indicators to measure government effectiveness. Countries are assigned scores, ranging between −2.5 and 2.5, on the basis of the competence of their bureaucracy and the quality of public service delivery. Many preeminent researchers in this field, such as Neumayer, have used this indicator in their large-scale empirical models and it is normally used to determine the extent to which political corruption influences the aid donation or aid-withdrawal decisions of a donor country.

**Methods**

Time-series cross-sectional data are regularly employed in analyses of cross-country differences. In my analysis, I predict levels of donor contributions among 151

---

44 Bandyopadhyay and Wall, 540.
countries over 4 years, which results in a data set made up of 604 country-years. Thus, each observation and exogenous variable in my data file is indexed by both a country identifier (i) and time (t), which presents estimation challenges and analytic advantages and disadvantages. One of the advantages of this type of data is that by having multiple observations (years of data) from each country I can control for heterogeneity bias stemming from time-invariant unobservable characteristics of countries such as geographic features, natural resources, and religious or cultural traditions.

One of the empirical challenges inherent in time-series data is the strong potential for autocorrelation among the country-year observations. That is we can reasonably assume that a country’s value on a given variable in one year will be associated with the value on that same variable from another period. If true, this would violate a fundamental assumption of OLS regression, which is that residuals are random and uncorrelated across observations. Thus, OLS estimation is generally inappropriate for data with repeated observations.

There are numerous statistical remedies for serial autocorrelation. One commonly employed strategy is to assume that each unit, which is “country” in this case, has its own intercept, a condition easily implemented by using fixed effects regression models. However, a fixed effects strategy is not well suited to my data because the number of countries (i) is notably larger than my number of years (t). Consequently it would cost me too many degrees of freedom to estimate a fixed effects model. An alternative approach is to treat the autocorrelation as estimation “nuisance” rather than something to
be explicitly modeled.\textsuperscript{46} Viewed in this way, the violation can be corrected by using feasible generalized least squares (FGLS) regression.

Beyond correcting for serial autocorrelation, FGLS estimation has the added advantage that it corrects for heteroskedasticity, non-constant variance in the error term, which is often problematic when analyzing cross-sectional data. To ensure that my model is predicted accurately, and to avoid the high potential for heteroskedasticity, FGLS is the suitable estimation model for this analysis.

In the present analysis, I use the GLS procedure in STATA to estimate my FGLS models.\textsuperscript{47} I begin my analysis with a presentation of descriptive statistics, after which I present the findings from estimating three models examining the relative importance of the physical and economic needs, donor interests and government effectiveness, and the political terror scale of recipient countries to decisions of donor aid.


\textsuperscript{47} StataCorp. 2007. Stata Statistical Software: Release 10. College Station, TX: StataCorp LP.
Chapter 4. Results and Analysis

Descriptive Results

The average aid per recipient country was $447 million, which obscures the fact that there are over 5 countries that receive, or have received, more than 1 billion in foreign aid in the years studied, including China, Egypt, and Afghanistan. There are also a handful of countries, primarily small or fairly well developed nations such as Anguilla or Bahrain, who have received less than $10 million in aid over the time period studied. The Gross National Income (GNI) of the recipient countries fall around $4,600, though there are also countries, like Bahrain, Slovenia, and Israel, who were significantly richer countries, with GNI’s of over $15,000.

Table 1: Means and Standard Deviations of Dependent and Independent Variables

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Terror Scale</td>
<td>2.92</td>
<td>.82</td>
</tr>
<tr>
<td>GNI Per Capita (thousand)</td>
<td>4580.41</td>
<td>4165.35</td>
</tr>
<tr>
<td>Infant Mortality (deaths per 1000 births)</td>
<td>47.44</td>
<td>33.42</td>
</tr>
<tr>
<td>Civil/Political Rights</td>
<td>7.49</td>
<td>3.43</td>
</tr>
<tr>
<td>Real aid (million)</td>
<td>447</td>
<td>17</td>
</tr>
<tr>
<td>Population (million)</td>
<td>36.3</td>
<td>139</td>
</tr>
<tr>
<td>Government effectiveness</td>
<td>-.29</td>
<td>.63</td>
</tr>
<tr>
<td>Trade Openness</td>
<td>85.5</td>
<td>37.3</td>
</tr>
<tr>
<td>FDI (million)</td>
<td>1410</td>
<td>5350</td>
</tr>
</tbody>
</table>

Because these data were collected from several data sets, the variables are
measured on very different scales. Political terror is measured on a 1 to 5 scale, with 5 reflecting the highest degree or incidences of politically motivated crimes and widespread instability. Thus, a mean of almost 3 on the scale (\( x = 2.9 \)) signifies that the average recipient country reports frequent instances of political imprisonment and political violence. According to the political terror scale database, an example of a 3 on the political terror scale is best demonstrated by the case of Cambodia in 2003, where, although it was noted that the Cambodian government respected human rights in some areas, there were also instances of political killings by state officials, torture of individuals in custody by law enforcement personnel, and failure by the government to investigate many of these cases.

Civil and political rights, ranked on two separate scales, are averaged for this model and thus are on a scale from 2-14, with 14 demonstrating a country with a restrictive political/civil rights. The recipient countries in this model enjoy, on average, a slightly more liberal political and civil rights system (x=7.5). According to the technical notes from the Freedom House dataset, a rating on the political rights data index of 3 or 4 would indicate that citizens of these countries typically experience some political rights like the right to assemble, along with more damaging influences such as civil war or one-party rule. At the furthest end of the scale, if a country were to receive a 6, the would mean it was governed by a dictatorship, experienced a military coup, or was ruled by an “autocrat”.\(^48\) Countries with a rating of 7 would not enjoy many political rights and would be living under oppressive regimes, experiencing a civil war or conflict, and suffering from extreme violence.

Finally, the government effectiveness variable is measured from -2.5 to 2.5, with 2.5 representing an effective government and -2.5 representing a highly corrupt, bureaucratic government. The average government effectiveness score (x = -0.29) indicates that the recipient countries in this data set have slightly less effective government bureaucracy, quality of public services, and independence from political pressures.

The average rate of infant mortality observed in these data is high at 47.44 infant deaths per 1000 live births. Infant mortality, which includes death from birth to age 1, is highly correlated with the poverty of the recipient countries. For instance, Slovenia, which has a higher per capita gross national income than the majority of the sample, had an average infant mortality rate of only 4.52 over the observation period, whereas the average infant mortality rate over the same period in Somalia, a country with an extremely low gross national income per capita, was 108.

Table 2 presents two-way correlations among all of the variables in my analysis. These figures allow us to see how well these data conform to expected relationships.
Table 2 shows that political terror has a small positive relationship with FDI (r=.13) and a positive relationship with civil liberties and political rights (r=.13). Because of the manner in which the freedom variable is captured, this would mean that political terror is high in countries that have less freedom in civil liberties. It also indicates that as political violence increases in a country, or in a country with a high political terror score, foreign direct investment is also higher or high. This seems a curious correlation intuitively, but upon further review, could indicate that state government’s of donor or
investing countries may see investment opportunities in countries that have high incidence of political motivated violations. For instance, China has invested in infrastructure projects throughout Africa, in various countries with dubious records of political rights/independence. There was also a slight but positive correlation between foreign aid and foreign direct investment ($r=0.28$).

There is a moderately sized positive correlation between gross national income and government effectiveness ($r=0.42$). It is not surprising that recipient countries with strong government processes and policies also had higher levels of gross national income per capita, however it was surprising that the correlation was this high.

Civil and political rights have an inverse relationship with official development assistance, indicating, based on the method of measure for the variable, that less “free” countries might receive more foreign aid ($r=0.11$). This correlation is different than results of other analyses of foreign aid determinants, but a sample explanation could be that aid is truly being used as a tool to assist in opening up repressive regimes.

While correlation results indicate that there could be potential statistically significant effects of these variables on foreign aid decisions, without controlling for these variables through multivariate estimations, there is no way to tell whether or not these effects exist.

**Multivariate Results**

The aim of this research is to illuminate which factors donor governments will rely upon in making their determinations of recipient countries of foreign aid. Having established the expected bivariate relationships among the explanatory variables, the next
step is to explore in a multivariate context the relative importance of the recipient needs of a country in foreign aid decisions, including which factors of recipient need are significant in explaining this relationship, the importance of donor interest and government effectiveness, and the significance of the political terror scale of recipient countries in determining which countries receive foreign aid. Table 3 presents the results of a series of FGLS models designed to address the components in my conceptual model.

Table 3. Estimated FGLS Coefficients for Models Predicting (Ln) Thousand Dollars of Foreign Aid

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN (GNI) (in thousand dollars)</td>
<td>-.72** .65</td>
<td>-.61** 0.07</td>
<td>-0.59** 0.07</td>
</tr>
<tr>
<td>LN (Population)</td>
<td>.22** .03</td>
<td>0.17** 0.02</td>
<td>0.16** 0.02</td>
</tr>
<tr>
<td>LN (Rate of Infant Mortality)</td>
<td>-.07 .08</td>
<td>-0.03 0.08</td>
<td>-0.05 0.08</td>
</tr>
<tr>
<td>Freedom</td>
<td>0.04** 0.01</td>
<td>0.03** 0.01</td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>5.80e-11** 1.17e-11</td>
<td>5.22e-11** 1.17e-11</td>
<td></td>
</tr>
<tr>
<td>Trade Openness</td>
<td>-0.004** 0.001</td>
<td>-0.003** 0.001</td>
<td></td>
</tr>
<tr>
<td>Government Effectiveness</td>
<td>-0.30** 0.11</td>
<td>-0.25** 0.11</td>
<td></td>
</tr>
<tr>
<td>Political Terror</td>
<td>0.25** 0.08</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Log Likelihood                        -1042.97 -1021.96 -1016.48
Number of Observations                574 574 574
Number of Countries                   151 151 151
Wald                                  190.95 230.01 245.50

Note: * = p < .05; ** = p < .01
What Is the Relationship Between Donor Contributions and Recipient’s Physical and Economic Needs?

There are a variety of motivations for donor nations to provide foreign aid to recipient countries; traditionally, foreign aid was given as a means of assistance for the poorest or most in need countries. Keeping in mind the traditional importance of recipient need, in the post Cold-War paradigm, is recipient need a factor in these decisions, and if so, to what extent does the relationship between donor contribution and recipient need exist? Model 1 includes my three measures of need – population size, the natural log of gross national income in thousand dollars, and the rate of infant mortality - in a model predicting total contributions from the DAC countries measured in (ln) thousand dollars.

The results reveal that population, my proxy for the physical need of a country, is positively associated with levels of foreign aid, net of gross net income and infant mortality. This indicates that as population increases, so too do levels of foreign assistance. Interestingly, population maintains its statistical significance even with the inclusion of gross national income in the model. This illustrates that population size is capturing more than the level of poverty of a recipient country. With a coefficient of .22, a 1 percent increase in population size is associated with a 2.2 percent increase in donor assistance levels.

As hypothesized, as gross national income increases by 1 percent, the amount of foreign aid decreases by 7.2 percent on average, net of population size and infant mortality. This indicates that the richer a recipient country becomes, the less foreign aid that country should expect to receive. This is a key insight, as it speaks to the continuing importance of poverty of a country in the foreign aid decisions of donor nations, and
illustrates the hypothesis that in the post Cold War, there is a focus on foreign aid as a tool of assisting countries per their need, not necessarily per their strategic importance.

Finally, the coefficient on infant mortality does not achieve statistical significance aid, as measured in this model.

**Are Strength of Recipient’s Government and Donor Interests Predictors of Foreign Aid?**

Having established the predictive power of the three recipient needs explanatory variables, I turn to the next question. What, if any, is the explanatory influence of the health of the recipient country’s government and economic interests of the donors in the recipient country on foreign aid decisions? To address this question, Model 2 adds to the baseline model of recipient need by including indicators of political stability and government strength, foreign direct investment, and trade openness.

The results illustrate that the political and civil rights have statistically significant effects on determining foreign aid levels, net of government effectiveness, economic interests, and recipient need. This indicates that as the civil and political freedom of a country decreases, foreign aid increases. Other studies of these data have also obtained a positive relationship between civil and political rights and foreign aid decisions. These results suggest that foreign aid donors reward countries that have strong records of human rights activity. Though donor countries may seek to reward strong human rights records, which would indicate a strong government role in protecting human rights, my results indicate that the government effectiveness of a recipient country has an inverse effect on foreign aid levels. As government effectiveness decreases by 1 standard deviation, foreign aid increases by 30%. Though seemingly counter-intuitive, there are
various potential explanations for this finding. First, this result could illustrate that
government effectiveness may not be associated with political and civil rights of a
country and that donor governments will give money to a relatively ineffective
government as long as it protects human rights. An alternative, and more plausible,
exploration could be that donor government’s see foreign aid as a tool to increase good
governance outcomes in recipient countries.

Surprisingly, trade openness has an almost negligible effect on aid levels. This
measure of exports plus imports divided by gross domestic product (GDP) gauges the
total trade between DAC countries and recipient countries. This result does not comport
with my hypothesis that a donor country would have a strategic trade advantage in giving
foreign aid to a recipient country with which it has a strong trade relationship. Foreign
direct investment has a similarly small but positive effect on aid levels. Together, these
economic variables indicate that economic strategic interests do not, net of government
effectiveness and political and civil rights, have a large impact on foreign aid decisions.

**Does Vulnerability to Political Terror Drive Foreign Aid?**

Thus far my results have demonstrated the importance of recipient need,
governance strength, and donor interests in explaining variance in foreign aid. Model 3
examines the key question of this study: is there a relationship between the presence of
political terror and violence of a recipient country and the level of donor contributions?
The results of the regression demonstrate that the political terror scale of a country is
positively associated with aid levels: as political terror increases in a country, so too will
foreign aid. Intuitively this makes sense, as countries would want to pour aid into
countries that have worse political violence, and likely humanitarian, conditions.
Comparing Model 2 and Model 3, the level of political terror in a recipient
country is also significant as an omitted variable: when a measure of political terror is not
included in the model, the effects of the other explanatory variables on the dependent
variable are over-estimated. In other words, the magnitude of the coefficients of the other
independent variables decrease when the political terror scale is incorporated into the
estimation.

Further, the correlation of freedom and the political terror scale of a recipient
country support the supposition that political terror in a country has explanatory power
above and beyond the civil rights and political liberties of a recipient country in
predicting the donation of foreign aid from a donor country.
Chapter 5. Conclusion

These conclusions are a foundation for comprehending foreign aid decisions in this new global order; however, there is much more information that need be studied to understand the complex nature of foreign aid. One of the challenges faced in conducting this study, and an opportunity for future research in this area, was the lack of availability of current data. For instance, the strategic interests data set compiled originally by Jeffrey Sachs has only been updated to 2001, thus I was unable to use this measure in my model. Including this variable would have improved the predictive ability of my model, presenting more meaningful results for policy makers or donor governments.

While this paper does not present data that compares the foreign aid levels during the Cold War to the foreign aid levels in the post Cold War period, the analysis has presented a snapshot of significant factors in foreign aid decisions since the dissolution of the Cold War order and the establishment of the current political landscape. In this paper, I have estimated the potential determinants of foreign aid decisions in the post Cold-War era, using measures of recipient need, donor interests, civil rights and political liberties, political terror measures, and government effectiveness of the recipient country. Particularly, I have shown that the level of political violence in a country affects foreign aid decisions, above and beyond the affect of civil and political rights in a recipient country. Donor governments take into account the political violence or governmental independence of a country when determining foreign aid levels, which illustrates a growing trend towards valuing assistance in governance development versus conditioning aid on existing good governance that has occurred since the end of the Cold War.
Chapter 6. Bibliography


Hattori, Tomohisa. “Reconceptualizing Foreign Aid.” *Review of International Political*
Economy (Winter 2001).


StataCorp. 2007. Stata Statistical Software: Release 10. College Station, TX: StataCorp LP.

