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## FINAL REPORT

# EFFECTS OF U.S. FOREIGN ASSISTANCE ON DEMOCRACY BUILDING: Results of a Cross-National Quantitative Study

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## Executive Summary

- This study attempts to determine the impact of U.S. democracy assistance on democracy building world-wide. Unlike all prior published research, the data set is based upon an exhaustive survey of the entire democracy portfolio of the United States Agency for International Development. Moreover, we cover the entire post Cold War period, beginning in 1990 and continue up through 2003, the most recent year for which data are available. Prior published quantitative research has been based on data sets that were far more limited, either by restricting the analysis to fewer countries, fewer years and, perhaps most importantly, by not cleanly separating democracy assistance from other forms of assistance.
- The study is based on the fundamental assumption that an accurate assessment of the impact of U.S. foreign democracy assistance on democratization must begin by determining, in the first instance, what a given country's "normal" growth (or decline) of democracy has been in the period being studied (i.e., 1990-2003). This is accomplished by deploying "growth models" that are especially appropriate for this kind of problem. The analysis pays special attention to controlling for a very wide range of alternative explanations in democracy growth trends by including an important number of control variables. It also uses techniques to minimize the possibility that our findings are an artifact of "selection bias," that is, that U.S. aid somehow is channeled more intensively to the countries that were likely to have been "winners" and restricted to those that were likely to have been "losers" in the "democracy game."
- The descriptive portion of the analysis determined first, that among eligible countries, democracy has been increasing steadily since 1990, but that the gap between the advanced democracies and the developing democracies is still large. Second, U.S. foreign assistance in the area of democracy has also been increasing. Third, the total portfolio of democracy assistance, despite its growth, remains a relatively small proportion of total U.S. development assistance, which in turn is a relatively small portion of its GNP when compared to almost all other advanced industrial democracies.
- How much of this growth in democracy world-wide has been the result of U.S. foreign assistance? The study found consistent and clear positive impacts of foreign assistance on democratization. Using the most widely used measures of democracy (Freedom House and Polity IV), it was determined that *USAID Democracy and Governance obligations have a significant positive impact on democracy, while all other U.S. and non-U.S. assistance variables are statistically insignificant*. This effect occurs over and above the "normal" pattern of democratization dynamics of the country, and occurs controlling for a host of time-varying and country-level invariant economic, social and political attributes. This is a strong initial affirmative answer to the study's core research question.

- Statistical tests attempted to challenge this initial finding in many ways, but USAID DG obligations are significant, regardless of whether they are treated in raw or per capita terms.
- The study uncovered statistically significant lagged effects of DG obligations, suggesting first, that democracy and governance programs may often take several years to “mature” to generate full outcomes, and second, that the effects of DG assistance to some degree are cumulative, with the immediate impact augmented by an additional increment on the country’s level of democracy the following year.
- All of the models that control for both omitted variable bias as well as for the potential endogeneity of AID obligations only strengthened the original finding.
- How large are the increases? Ten million additional USAID dollars (measured in constant 1995 dollars, the equivalent of 11.8 million dollars in 2004) would produce — by itself — about a five-fold increase in the amount of democratic change that the average country would be expected to achieve, *ceteris paribus*, in any given year, based on the Freedom House measure of democracy.
- At the same time, these potential impacts must be viewed in the context of the *actual* current outlays for democracy assistance. The average eligible country during the time period received only \$2.07 million per year, and even the 2003 figure reached only \$3.66 million (figures in 1995 constant dollars).
- The DG variable is the *only* assistance variable from U.S. or non-U.S. sources that matters for predicting a country’s Freedom House score. That alone indicates some relative “importance” of the DG variable. However, in comparison to other time-varying factors such as GDP growth and especially regional democratic diffusion, the impact of AID DG assistance is somewhat more moderate in magnitude: it produces changes in democracy that are significantly weaker than those produced through regional democratic diffusion, but somewhat higher than GDP growth and more consequential than the negative impact on democracy that results from higher levels of political and social strife. Yet, if USAID assistance helps raise the level of democracy for individual countries within a region, then the diffusion effect can be thought of as spilling over to neighboring countries, and thus the DG aid might be having a small indirect impact on other countries through regional diffusion.
- The research also disaggregated DG assistance into four main sub-sectors: Elections and Political Processes, Rule of Law, Civil Society, and Governance, with certain models including the sub-sub-sectors of Human Rights and Mass Media obligations within the Rule of Law and Civil Society sectors, respectively. Three of the four DG sub-sector variables had significant effects on the democracy scores, with Elections and Political Processes and Civil Society obligations exerting primarily contemporaneous effects, while Rule of Law exerted a lagged effect on overall democracy. Only Governance obligations were seen to have neither current nor lagged impact on democracy, although this may be in part the result of the lack of appropriate measures for democratic

performance in the governance area. Moreover, when examining dependent variables related to *Free and Fair Elections, Civil Society, and Free Media*, it was found that the amount of DG assistance obligated to those areas were precisely the variables that had statistically significant effects, and these effects were often of reasonable magnitude. Thus, AID DG assistance in general matters for overall levels of democratization, and that sub-sectoral and sub-sub-sectoral obligations are also effective, generally on exactly the dimension of democracy for which they are targeted.

- The results for our human rights factor, *Respect for Human Integrity*, however, show a strong negative effect of contemporaneous DG obligations in this area. This finding represents the only strong apparently detrimental effect of AID DG obligations found in the entire study. It is possible that more AID obligations in the area of human rights strengthen the human rights NGOs and other organizations in a particular country, emboldening them to report or publicize the extent of the human rights-related problems in that country to a greater extent. Thus, the negative effect may be partly an artifact of the measurement process, whereby more DG assistance leads to higher levels of *revealed* human rights abuses, but not necessarily higher levels of actual abuse.
- The effect of DG obligations are largest in Asia and Africa, two regions that started the period at relatively lower levels of democratic development. The findings indicate that, to the extent that country or regional differences exist, AID DG effects appear to matter more in more “difficult” contexts, with the Middle East being the exception to this general pattern.
- The study concludes with the sense that in the area of democracy and governance assistance, U.S. foreign policy matters. Spending on the promotion of democracy, in the period 1990-2003, helped to increase democracy above the levels that would have been achieved based on all other factors that could reasonably be expected to have mattered. The increases occur both on countries’ overall level of democracy, and on measures of sectoral democratic development; moreover, the increases are seen generally among the sample of eligible countries at the global level, though there are some degrees of impact for each region. However, the positive impacts of increases in democratization were of a very modest nature. But then again, perhaps one could not reasonably expect more than a modest result, when the inputs themselves, by any comparative standard, have been so modest. U.S. levels of democracy assistance pales in comparison relative to other U.S. development assistance, relative to per capita development assistance provided by many other advanced industrial nations, and, relative to the sums expended on the U.S. military to enable it to cope with challenges from countries where democracies do not govern. Only when viewed from that relative perspective, and when considering the potentially stark consequences when democracy fails to emerge and take hold in foreign lands, can the gains achieved by USAID’s democracy assistance programs be appropriately evaluated.



## **Background of this Project**

This study represents the most comprehensive quantitative effort to measure the impact of democracy assistance provided by the United States Agency for International Development (USAID) that has been undertaken to date. The research team was selected as the result of an open competition held by the Academic Liaison Office for University Cooperation in Development, which is a consortium of institutions representing the American Council on Education (ACE), the Association of American Universities (AAU) and other similar bodies. The research forms part of the large effort by USAID to examine the impact of its democracy and governance programs. Specifically, the Democracy and Governance Office in the Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA/DG) undertook a long term evaluation of its democracy building programs called the Strategic and Operational Research Agenda (SORA). The present study represents the core of the cross-national quantitative effort, while there will be a number of country-based qualitative studies in the months and years to come.

The time frame for our entire effort was brief, with the project limited to a 42-week time frame beginning in early 2005 and ending in early September of that year. The project began with a start-up meeting in Washington on January 21, 2005, at which time the research team was able to discuss with USAID its plan of action. Close collaboration was established early on between the research team and Dr. Andrew Green, the person responsible for putting together the data on USAID's expenditures in the democracy area (the resulting data base is described in detail in the pages that follow). Without Dr. Green's extraordinary efforts at assembling the USAID component of the data base, this project could not have been undertaken. Dr. Margaret Sarles provided tireless overall theoretical and intellectual guidance for the research, while David Black efficiently and pleasantly handled the key administrative decisions and Michelle Wright gave us highly effective support at the Academic Liaison Office (ALO). We thank them all for their unstinting support.

A unique component of the research was the convening of an academic expert review panel that helped guide the research at critical junctures. The team consisted of Professor Michael Bratton, Professor of Political Science, Michigan State University, Professor Michael Coppedge, Professor of Political Science, University of Notre Dame, and Professor Pamela Paxton, Associate Professor of Sociology, Department of Sociology, Ohio State University. Without their invaluable advice, this study would have suffered many flaws. We are grateful to all of those at USAID and to the members of the academic review panel who gave so generously of their time and expertise. Any flaws in the study are, of course, the fault of the authors and not the review panel or those at USAID.

The study was presented in its early draft form at a meeting held at USAID in June 2005. Many helpful suggestions made by those at USAID and the expert panel were incorporated into our analysis and are reflected in this final report. We also thank those at our respective universities (Vanderbilt, Virginia and Pittsburgh) who helped in so many ways with the

numerous administrative issues. In particular, at Vanderbilt University we would like to thank Professor Neal Tate, Chair of the Department of Political Science, and his assistant Ms. Tonya Mills for extraordinary efforts in facilitating the administration of the project, and for invaluable research support we are grateful to Mitchell Seligson's graduate research assistants María Clara Bertini, Abby Córdova, Juan Carlos Donoso, Irek Kuzmerick, Daniel Moreno, and Vivian Schwarz. Dr. Clemente Quiñones helped with the review of the literature. The Center for the Americas at Vanderbilt has been a gracious host for the project, and we thank its new Director, Professor Vera Kutzinski for help in countless ways. At the University of Pittsburgh we would like to thank Ms. Charlene Sun Fang for her skillful research assistance.

## **The Challenge of Studying the Impact of Democracy Assistance**

What Huntington called the “Third Wave” of democratization, has lasted well over two decades and scholars and policy makers are now even talking about a fourth wave, that is reaching countries that never before had a history of democracy. Nonetheless, not all have been success stories, as there have been both advances and setbacks (Hagopian and Mainwaring 2005) and some countries have adopted hybrid forms of democracy with many restrictions on democratic liberties, and in some cases democracy has been ephemeral, with countries reverting to authoritarian rule.

Is there anything that the advanced industrial countries can do that would effectively promote the spread and consolidation of democracy world-wide? That is the central research question in this project, with a special focus on the efforts of the United States Agency for International Development (USAID). Older Western democracies have been actively involved throughout a quarter of a century in promoting and building democracy in former authoritarian countries, as well as countries that have retaken the path of democracy after a long hiatus, or countries that are trying to build democracy after civil wars. Millions of dollars from international organizations and bilateral donors have been poured into programs that seek to support democracy building. The big question for donors is whether or not what is usually called “democracy assistance” has had an impact on the democratization process.

This might sound like a simple question, but it is not. At least since September 7, 1854 when Dr. John Snow persuaded the Board of Guardians of St. Jame’s Parish in London to remove the handle from the community water pump well on Broad Street and thus ended one of the worst outbreaks of Cholera in that city’s history (Tufté 1997 27-37), scientists have been seeing to demonstrate that their research can lead to good public policy. In the case of public health, the evidence of success is overwhelming, as one disease after another has been tamed. In other fields, the story is not as clear. Consider the tangled case of the Head Start program, one in which “early intervention” in breaking the cycle of poverty in the U.S. inner cities has not yet, after decades of research, be proven to be effective (McKey 1983; Zigler and Styfco 1993; United States General Accounting Office 1997; United States Congress 2004). The research problems in the case of Head Start range from serious issues of “selection bias” (students who enter the program are different from those who do not), to the complexities of detecting the impact of pre-school education many years later in life (e.g., at the time of completion of college studies).

In the field of democratization research, the barriers to measuring success or failure are even higher than they are in the Head Start area. In Head Start, it was easy to specify benchmarks of program impact; did participants get better grades or more advanced degrees or end up with higher annual salaries than those did not participate? In the democracy arena, however, what are we to use as a criterion for impact? Are we satisfied to use a narrow standards (e.g., free and fair elections are regularly held), or are we interested in a broader definition that might encompass the extent to which citizens enjoy a wide range of civil liberties and human rights protection, as well as a system in which political parties are genuinely competitive? Many researchers would be dissatisfied with the limited standard, but that is the one that is easiest to measure objectively.

The more we move into broader and broader definitions of democracy, including respect for minority rights, protection of vulnerable groups, etc., the more complex the measurement of the dependent variable (in this case, democracy) becomes.

Without a universally agreed upon standard for defining the dependent variable, the more difficult it is to measure the impact of democratization programs. However, there are further complexities that becloud any study of the impact of democracy assistance efforts, and those deal with the entire myriad of confounding variables. Democracy assistance certainly does not go on in a vacuum. Nations have histories, including colonial origins (Weiner 1987; Weiner and Özbudun 1987) that may make them more inclined or less inclined to follow a democratic trajectory. Initial levels of economic development, research has shown, has a great deal to do with democratic sustainability (Przeworski, Michael E. Alvarez and Limongi 2000). Changes in rates of economic growth and distribution might also have an impact on democratic consolidation. The challenge, then, is to isolate the impact of democracy assistance from each of these other variables.

A final difficulty needs to be noted before we turn to the literature review about democracy assistance itself. Many analyses of development projects rest on a “rate of return” evaluation of cost/benefit. That is, when one builds a road, one attempts to determine its economic benefits vs. its economic cost. More recently, other elements have been factored into the equation, such as environmental impacts. In the democracy area, however, we cannot produce a dollar value of democratic growth. We show in this report the impact of foreign assistance (or lack thereof) on reasonable measures of democracy. But from a larger perspective, democratic growth can have an intrinsic value that is hard to quantify. One frequently cited study (Rummel 1994), for example, has counted the tens of millions of citizens murdered by their own authoritarian governments in the twentieth century versus the very small number of citizens murdered by democracies. In addition, the so-called “second-order” benefits of democracy vs. dictatorship are very much beclouded in academic controversy. On the one hand, while the literature on the “democratic peace” is enormous, and it is probably the case that democracies are unlikely to make war on each other, it is far less clear if democracies are less likely to go to war with other countries that are not democracies themselves (Russett 1993; Brown, Lynn-Jones and Miller 1996; Henderson 2002; Moore 2004; Rasler and Thompson 2005; Geis, Brock and Müller 2006). On the other hand, despite frequent claims to the contrary by advocates of democracy promotion in bilateral and multilateral aid agencies, the impact of democracy on economic growth remains entirely controversial, after decades of research by many of the best scholars in the field (Lewis-Beck and Burkhart 1994; Barro 1997; Przeworski, *et al.* 2000).

## ***Review of the Democracy Promotion Literature***

To date, research to measure the effects of democracy assistance has been limited in scope. The majority of research has been qualitative, with much of it coming to very critical conclusions regarding USAID’s and other Western countries’ efforts to promote democracy. Those who have evaluated the research have been critical of its quality (Crawford 2001), while others have argued that despite that criticism, democracy is becoming an internationalized norm that one way or another will involve international actors, so democracy assistance is a fact of life

with which nations will need to learn to live (McFaul 2004). In looking at the research as a whole, we found three systematic problems with it. First, much of the literature is more concerned with the motivations behind the assistance than its impact. This literature is overwhelmingly critical, viewing with great suspicion the motivation for such assistance, viewing it as being entirely self-serving (i.e., pursuing single-mindedly the U.S. “national interest” as it would be defined by international relations experts of “realist” school [(Morgenthau 1982; Morgenthau and Thompson 1993)]). The literature tends to assume that what is good for the U.S. cannot be, or probably cannot be, good for the recipient countries.

The second difficulty we found with the literature is that the great bulk of it is qualitative, which in itself is not a problem, since qualitative methods can tease out the mechanisms by which the foreign assistance works or does not work. However, when searching for world-wide, cross-time patterns, which are the focus and the current research effort, it is very difficult to “add up” the qualitative literature and find those patterns. It seems to us that the qualitative evidence is crucially important once it is known if foreign assistance does or does not produce greater levels of democratization, and in what areas it works or does not work, and in what regions of the world it works better or worse. For example, if the cross-national longitudinal data should show that democracy assistance is good at promoting free and fair elections in Latin America, but not Africa, the qualitative literature can help us understand why that is so.

Third, among the few works that use rigorous quantitative methods, we found significant weaknesses. Perhaps the most serious problem is the data on which prior research has been built. Much of the quantitative work limits itself to either a short period of time, or a regional subset of the world. Those few studies that are world-wide and include a wide range of years, use data on foreign assistance that is highly aggregated. Such works used an estimated overall figure for U.S. assistance on the (in our view mistaken) assumption that general official development assistance should produce democratization. A further limitation of the quantitative studies, as a whole, is that they tend to underspecify their models by failing to include a sufficient number and variety of control variables, and they use statistical techniques that do not allow for the clear specification of the “added value” of foreign assistance.

Our approach has been to develop a data set that reflects USAID’s expenditures on democracy promotion world-wide,<sup>1</sup> for an extended period of years. We separate all USAID obligations in the democracy sector from those in areas such as education, health, and economic development, and include expenditures in each of these areas, as well as a wide range of control variables, in the statistical models.<sup>2</sup> This is the first comprehensive examination, then, of the specific effects of U.S. *democracy* assistance on levels of democracy in recipient countries.<sup>3</sup> Moreover, we further separate the amount of assistance in each of the specific sub-sectors in the

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<sup>1</sup> We define very specifically later in this paper what we mean by “world-wide.”

<sup>2</sup> Note that “obligations” is used throughout this study to refer to “actual appropriations,” or the amount for which USAID is allowed by Congress to incur obligations for specified purposes.

<sup>3</sup> Paxton and Morishima (2005) conducted analyses on a preliminary version of the data base we utilize here, and we relate our findings to theirs at several points in the report

USAID democracy portfolio --- Elections and Political Processes, Rule of Law, Civil Society, and Governance --- and assess the effects of each on countries' general levels of democracy, as well as their effects on additional variables that represent countries' levels of democratic development *on those specific sub-sectoral dimensions*. Thus, we show the impact of elections assistance on countries' level of free and competitive electoral processes, the impact of civil society assistance on the freedom and independence of countries' civil society sector, the impact of governance assistance on governance-related democratic outcomes, and so forth. None of these kinds of critical analyses for the overall assessment of USAID democracy efforts have been conducted previously.

Turning now to the qualitative literature itself, one of the earliest works in the field is an edited collection with the well chosen title of *Exporting Democracy* (Lowenthal 1991b; Lowenthal 1991c; Lowenthal 1991a). In this edited collection, reflecting the broader trend in much of the qualitative literature, the authors express deep skepticism of the motivations of the United States in attempting to promote democracy in Latin America. Certainly this skepticism is understandable, given the record of the U.S. in the 19<sup>th</sup> and much of the 20<sup>th</sup> centuries in supporting a wide variety of dictatorial/military regimes in Latin America (Schoultz 1987; Schoultz 1998). Therefore, in this early study, with most of the papers written only a short time after U.S. policy had resolved to make democratization a high priority in its foreign policy, the authors were concerned far less with the question "did it work?" than the question, "why is the U.S. doing it?" Ironically, some years later a highly systematic study of the impact by Mark Peceny of U.S. military intervention world-wide concludes that, on balance, it was positive for democracy promotion. In that study Peceny (1999) examines 90 cases of U.S. military intervention both from a qualitative and quantitative perspective and develops what is, in effect, an "invasion theory of democracy," one not dissimilar from Mancur Olson's thesis that shocks are needed to break up old patterns, in this case, dictatorial rule (Olson 1982). Yet, what is crucial here, and very relevant to the analysis undertaken in the present study, is that Peceny finds that it is not the military intervention itself, but what he calls the "promotion of proliberalization policies" (p. 199) that has served to increase democracy in those countries subject to U.S. intervention.

Diamond's (1992) seminal piece in *Foreign Policy* is another early effort that expresses skepticism of the motivations of the U.S. His main contribution, however, is to distinguish between "exporting democracy," the theme of the Lowenthal collection and "promoting democracy." Diamond urges policy makers to avoid the export model, and instead to support groups and even individuals in authoritarian regimes that are attempting to move in a democratic direction. This implies, argues Diamond, that much of the assistance should be channeled through non-governmental organizations such as civic associations, trade unions, the media, etc. Diamond's critique of USAID is that it is not light enough on its feet to be able to program the aid to where it is needed most. He recognizes, as do many of those inside and outside of USAID, that Congressional mandates, earmarks and other limitations, especially foreign policy considerations mandated by the State Department, make it difficult and sometime impossible for USAID to dedicate its democracy resources where they seem to be needed the most. Another early and frequently cited paper is also prescriptive rather than evaluative. Graham Allison and his co-author Robert Beschel, Jr. (Allison and Beschel 1992) establish ten principles or guidelines for promoting democracy, describing how the external environment, the infrastructure

and the strategies can be programmed for maximum effectiveness. Again, however, this work largely avoids any effort to evaluate the impact of foreign assistance on democracy, focusing instead on making the argument on the need for the U.S. to become heavily involved in the effort.

The most extensive, detailed evaluative work emerges in the several works of Thomas Carothers (Carothers 1991; Carothers 1996; Newberg and Carothers 1996; Carothers 1999b; Carothers 1999a; Ottaway and Carothers 2000; Carothers 2004b; Carothers 2004a; Carothers and Ottaway 2005). Carothers has been studying the role of the U.S. government in general, and USAID in particular, for over 15 years. During that period, he has developed a body of work that suggests a common theme, namely that U.S. democracy promotion is worth doing because when done well, it can work, but much of the time, it is not done well and fails. In a paper with Paula Newberg (Newberg and Carothers 1996), for example, he argues that in the former community countries of central and eastern Europe, the level of assistance was moderate, and the effects were of the same magnitude, being most notable in the area of elections where free and fair elections have emerged. In a more extensive, book-length treatment, Carothers (1999b) agrees with the earlier themes of Lowenthal and Diamond, both cited above, that the U.S. is engaged in a process of “exporting” rather than promoting democracy. The weakness of this model, argues Carothers, is that “one size does not fit all.” As a result, the effectiveness of the democracy efforts is hamstrung. In a more recent volume (Carothers 2004a), he echoes the theme raised in the Lowenthal and Peceny books, as well as the detailed studies by Schultz, namely that the U.S. has conflicted goals, which are to promote democracy on the one hand, but to focus first and foremost on U.S. national security interests. According to Carothers, the U.S. continues to tolerate and even support dictatorial regimes, the most infamous of which have been oil-exporting nations in the Middle East and the important case of China, while promoting democracy most heavily in countries of little direct strategic or economic interest.

The Carothers work, taken collectively, provides what is arguably the most detailed case study material available outside of the evaluations written under contract by USAID itself (i.e., end of project evaluations carried out by USAID contractors). The record is a mixed one, as it is in virtually all development projects, be they economic, social or, in this case, democracy focused. While this work therefore offers some important lessons for those who implement programs, it is difficult to determine from it if “aid works” or if “aid does not work.”

Additional qualitative studies seem to be uniformly negative. A book by Sogge finds that aid has failed to promote democracy because donor countries place their own interests first (Sogge 2002), a theme mentioned earlier, and one that is the focus of a paper and a book by Peter Burnell (Burnell 1997; Burnell 2000). An even more negative assessment is found in a study of foreign assistance to South Africa (Hearn and Third World Quarterly 2000). According to this study, foreign assistance has focused on establishment of political stability at the cost of the creation of an effective opposition. As a result, competitive democratic development has been constrained in South Africa. This thesis is echoed in the work of Carapico, focused on the Middle East (Carapico 2000), where she finds that democracy assistance to non-governmental organizations (NGOs) has produced more conflict between government and these organizations and less democratization.

Turning now to the limited number of quantitative studies that have attempted to evaluate the impact of foreign assistance on democracy, we find a mixed assessment of the effects of foreign assistance on democracy-related outcomes. The earliest study we could find that deals in only an indirect way with the question, as it does not focus on foreign assistance, *per se*, but on military intervention. This research harkens back to the discussion of the role of the U.S. in promoting democracy in post World War II German, Italy and Japan, in which the military defeat of these nations was followed by a *military* effort at promoting civil society and democracy more generally. Thus, the research deals with the *military* delivery of foreign assistance on democracy. The work of James Meernik, published in 1996 (Meernik 1996) tackles this question. Using a probit model with an N of 27, Meernik finds strong evidence that over the long run, invasions (and their presumable democratization efforts) help promote democracy, and that the effect is especially strong when the stated goal of the intervention is democracy and when the U.S. is opposed to the regime in power at the time of the invasion. Democracy is measured using the Gurr Polity II data series.

Only two published studies deal directly with the issue of U.S. civilian assistance and democratization. The first (Goldsmith 2001) is limited to Sub-Saharan Africa, and focuses not on democracy assistance but overall levels of assistance, regardless of its country source. The author wrestles with the question that foreign assistance might actually promote dictatorships by shoring up weak regimes. The dependent variable in the analysis is democracy measured using the Freedom House scores as well as the Gurr democracy index. The results show a positive effect of assistance on democracy, even when a number of control variables are introduced into the OLS regression equations (initial Freedom House score, logged GDP per capita (PPP), urbanization, percentage of Catholic, percentage of Muslim, log of population, and log of land area). Goldsmith concludes that those who see foreign assistance as promoting dictatorships are wrong, at least as far as Sub-Saharan Africa is concerned.

A more recent study (Knack 2004), focusing on a larger set of countries for a longer period of time, comes to an opposite conclusion. Using a variety of methods suitable for longitudinal data analysis and total OECD aid from 1975-2000 as his primary explanatory variable, Knack finds no effect of foreign assistance on democratic outcomes over the entire period, and no impact even if the study is confined to the post Cold War period.

Paxton and Morishima (2005) argue that the Knack results are flawed because the independent variable is *all* foreign assistance from all OECD countries, regardless of whether the assistance involve obligations related to democracy. Using an earlier version of the data set that we deploy in the analysis here, and on a somewhat smaller pool of countries, they find a small but positive impact of democracy assistance on overall levels of democracy, a finding that holds after using several different statistical procedures to replicate and extend the Knack (2004) analyses. There is thus suggestive evidence that disaggregated AID expenditures into democracy and other categories --- and perhaps sub-sectors within democracy assistance --- will show



greater impacts on democracy outcomes than have been found to date. We build on this insight in our analyses below.<sup>4</sup>

Several other studies relate to the general topic of democracy and foreign aid but do not provide direct tests of the impact of assistance on democratic outcomes. Jakob Svensson (Svensson 1999) focuses on the growth impact of foreign assistance. The paper finds that democracy matters in producing growth, such that, “the long run growth impact of aid is conditional upon the degree of political and civil liberties” (p. 293). This means that democracy conditions growth rather than the other way around. The author concludes that “democracy promotion may not only have a value in it, it may also increase the long-run growth impact of foreign assistance” (p. 294). When aid is not conditioned by democracy, then the aid merely serves to increase corruption. The paper shows, then, that aid needs to be given to promote democracy, because not only does it achieve its objective, it will help achieve other key foreign assistance objectives. The paper does not demonstrate, however, that aid produces democracy; only that democracy is needed for growth. Similar findings are reported by Kosack (2003). In this study, the dependent variable is “quality of life” as measured by the Human Development Index. The data set covers the period 1974 through 1985. Once again, the findings do not speak to the question of the impact of aid on democracy, but rather show that aid improves quality of life more in democratic systems.

Summarizing what we know from the prior research, we can draw the following conclusions. First, there has been little research on the impact of democracy promotion on democracy. This result is disappointing given the importance that democracy promotion has taken in U.S. foreign policy in recent years, and the enormous volume of research on democracy and democratization in general. Second, much of the work has been qualitative rather than quantitative. Third, the qualitative work is largely negative in its evaluation of the impact of democracy assistance, while the quantitative research has shown at least some suggestions of positive findings, especially if foreign assistance is disaggregated into democracy and non-democracy elements.

Our analysis extends all of these previous efforts in two important ways, as we stress in the sections that follow. First, we have far better measures of the independent variables (i.e., United States foreign assistance for democracy) and a far more comprehensive set of dependent variables (i.e. democratic outcomes) than have been used to date. Second, we make use of more appropriate statistical procedures that allow us to test with greater rigor the hypothesis that democracy assistance leads to positive democratic outcomes, controlling for the confounding effects of many other variables and controlling for each country’s own specific democratic trajectory over time. We shall explain these procedures in more detail below; for now we turn to describing our data set, first in terms of what it contains (and does not contain), and then in terms of its basic descriptive characteristics.

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<sup>4</sup> The parallel notion that different components of foreign *economic* assistance (e.g. infrastructure investment versus humanitarian aid versus technical assistance) have different kinds of effects on economic outcomes is the theme of an important recent addition to the “Does aid affect growth?” literature (Clemens, Radelet, and Bhavnani 2004).

## **The Data Set**

### ***Cases***

#### ***Countries and Regions***

The dataset developed for this project covers 195 countries between 1990 and 2003. The time frame was determined by the terms of the grant established by the ALO and by the availability of data on USAID democracy programs. As we discuss below, only 165 countries were included in the analysis because the remaining 30 cases are advanced industrial democracies. The relevant set of countries therefore includes all sovereign states considered to be eligible for foreign assistance. Standard academic criteria for the inclusion of territorial units into the “universe” of sovereign states proved to be too restrictive for our analytical purposes. For instance, the Small-Singer “gold standard” adopted by the Correlates of War project requires country membership in the United Nations, or a population of at least 500,000 and presence of diplomatic missions from two major international powers (Small and Singer 1982). Because several countries in the USAID investment database would be excluded using the Small-Singer criteria, we considered to be part the universe all territorial units that matched two criteria: (1) they were recognized (i.e., assigned a numeric code) by the United Nations Statistical Division; and (2) were independent states (we excluded overseas territories like Martinique, islands in free association with a larger country like the Cook Islands or Puerto Rico, autonomous regions like the Aland Islands, or occupied territories like Tibet; when in doubt we adopted the “date of independence” stated by the CIA’s World Factbook).

The only exception to this rule was the inclusion of Palestine (the West Bank and Gaza); since it is possible that Palestine will become an independent state in the future, it is treated as distinct territorial unit in the USAID investment database, and it is covered by comparative datasets (e.g., the World Bank and Penn World Tables) as a distinct entity. Even though Kosovo and Northern Ireland were also treated as distinct territorial units in the USAID database, we were unable to include them given the operational rule (these units are not recognized by the UN statistical division) and the absence of any systematic information in standard comparative datasets. Investment for Kosovo was aggregated into Serbia-Montenegro, and investment for Northern Ireland into the United Kingdom (funds directed to the UK, however, were not included in the analysis since they did not reflect programs managed by USAID—as opposed to the Department of State or other agencies). According to these operational criteria, the universe of states was constituted by 195 territorial units between 1990 and 2003 (194 excluding the United States). Of these, only 165 countries were considered “eligible” for USAID Democracy and Governance programs and thus included in the analysis (see Appendix 1).

***“Eligibility” for USAID Assistance***

We did not focus on formal criteria of eligibility for foreign assistance (which are hard to pinpoint and often do not reflect underlying assumptions in USAID policy) but on functional principles. Countries were included in the analysis of the impact of U.S. democracy assistance when they met any of the following criteria: (1) they were recipients of USAID funds at any point during 1990-2003; (2) they were classified by the World Bank as low or middle-income countries; (3) historically they were rated by Freedom House as a “partially free” or “not free” (i.e., had an average combined score equal to or greater than 3 over the period 1972-2003); or (4) they were newly independent countries (i.e., states created after 1990, typically in Eastern Europe or the former Soviet Union). In total, 165 countries met at least one of the above criteria. In contrast, there were 29 countries that failed to meet any of these criteria (i.e., those that never received funds and were high-income, “free” by Freedom House standards and independent prior to 1991) were excluded from the analysis. We considered them virtually “ineligible” for USAID Democracy and Governance programs because they were too wealthy, too democratic, and too stable.

The summary classification of countries is presented in Table 1, which shows the number of eligible and non-eligible countries by region. The table also shows the “eligible” countries that were recipients of USAID democracy assistance in the period under study (1990-2003).

**Table 1. Summary of Countries**

| <b>Region</b>                     | <b>Total Countries In Sample</b> | <b>Non-Eligible Countries In Region</b> | <b>Eligible Countries In Region</b> | <b>Recipients Of Democracy Assistance</b> |
|-----------------------------------|----------------------------------|---|-------------------------------------|---|
| Africa                            | 48                               | 0                                       | 48                                  | 39  |
| Asia                              | 26                               | 1                                       | 25                                  | 17  |
| Eurasia                           | 12                               | 0                                       | 12                                  | 12  |
| Europe                            | 40                               | 22                                      | 18                                  | 16  |
| Latin America and the Caribbean   | 33                               | 2                                       | 31                                  | 22  |
| Middle East and the Mediterranean | 20                               | 1                                       | 19                                  | 14  |
| North America*                    | 1                                | 1                                       | 0                                   | 0   |
| Oceania (Pacific Islands)         | 14                               | 2                                       | 12                                  | 1   |
| Total                             | 194                              | 29                                      | 165                                 | 121                                       |

\* Sample excludes the United States. *Source:* Appendix 1, for list of countries.

### ***Protocol for Cases of State Fragmentation and Unification***

Some states presented a complex structure because they were divided and sometimes also re-unified. The general problem adopted three forms: (i) secession, when a splinter state abandoned the “root” country (e.g., when Eritrea separated from Ethiopia); (ii) fracture, when the root country fragmented into multiple new states (e.g., Czechoslovakia); and (iii) unification (or re-unification) when two or more countries consolidated into one (e.g., Germany, Yemen).

Cases of state fragmentation or re-unification presented a challenge for the estimation of “level 2” variables. In the terminology adopted for this project, “level 1” variables are indicators that display variation across countries as well within a given country over time. For example, a country’s rate of inflation is a “level 1” variable, in that it takes on different values at different times for a particular country, and of course the values differ across countries at given times as well. Level 2 variables, in contrast, display variance across countries but *not* over time—at least during the period under study. For instance, the territorial extension of the country is typically a “level 2” variable. Thus, while level 1 variables capture primarily time-serial variation, level 2 variables capture cross-national variation in “fixed” attributes. However, such attributes can be hard to pinpoint when the territorial structure of the state changes.

We have addressed this problem in three different contexts: (1) when identifying territorial units (the countries for which latent curves were estimated); (2) when creating retrospective level 2 variables (e.g., the historical level of democracy between 1900 and 1989), and (3) when computing short-term lags (e.g., the two-year moving average for aid).

### **Rules for Identification of Level 2 Units**

**Secessions:** Splinters were treated as a new unit, while the crippled successor state was treated as a lasting unit. Thus, the Russian Federation was treated as a continuation of the USSR, but Ukraine was not. Note that, according to the rules described below, retrospective level 2 variables for Ukraine were the same as the ones for Russia, but latent curves were estimated separately for the two countries.

**Fractures:** We treated splinter countries as new units. For instance, in the case of the former Czechoslovakia, we estimated latent curves for three countries: the Czech and Slovak republics, and the last few years of Czechoslovakia. The three units had equivalent scores for retrospective level 2 variables based on the history of Czechoslovakia.

**Re-Unifications:** This was not a problem for us, since both Yemen and Germany were re-united by 1990. But as a rule the “leading” state in the re-unification process would be treated as a surviving unit (e.g., Germany would preserve the same ID code of West Germany; Yemen, of North Yemen; Viet-Nam, of North Viet-Nam, etc.).

## **Rules for Retrospective Level 2 Variables**

A typical example of level 2 measurement is given by a country's historical trajectories: an indicator reflecting the historical experience of a country prior to 1990 (the first year in the study) will be treated as "constant" within each country for the period under study (1990-2003). We refer to those historical summary measures as retrospective variables. The estimation of retrospective variables required particular rules when countries had been split or reunified prior to 1990.

For secessions and fractures, retrospective values referred to the root country (for instance, the history of democracy imputed to the Czech and the Slovak republics between 1918 and 1992 was in both cases the one for Czechoslovakia). When the root country was partly dismembered but it did not disappear (e.g., the Russian Federation remained after the collapse of the USSR, Yugoslavia after 1991, Ethiopia after 1993) we considered the crippled successor state a continuation of the root country.

For unifications (Germany, Yemen) retrospective values corresponded to the average score for the country partitions, weighted by the relative size of their population at the time of reunification. For instance, we assumed that the democratic experience of West Germany between 1945 and 1989 affected 79% of the population of the current Germany (or their parents) while the experience of East Germany affected the remaining 21% of the population.

## **Rules for Lags**

Some of the independent variables in the study (discussed in the next section) were "lagged." For example, because foreign aid may take some time to make an impact in the recipient countries, it may be useful to explore the relationship between democracy at time  $t$  and foreign assistance at time  $t-1$  (say the previous year). The use of lagged variables is relevant when causal effects are not expected to be immediate. However, the estimation of lags was difficult when territorial structures changed—in some cases, data for previous years did not exist because the country as such did not exist. In order to address this problem, we adopted the same continuity rules applied to the identification of level 2 units. The underlying principle was that lagged variables would be meaningful only when there was continuity in the country unit.

## ***Variables***

After determining the universe of cases and the states to be included in the sample, we collected indicators in three areas: measures of democratic development (the dependent variable), estimates of USAID funds obligated to each country on a yearly basis (the main independent variable), and a set of control variables accounting for alternative explanations of democratization. We circulated a preliminary version of the codebook to the expert group in early February and worked on the data collection process following the expert group's feedback.

### ***Measures of Democratic Development***

We collected more than fifty indicators of democratic development dealing with five general dimensions: General Democracy and Governance (overall indices of democratization); Elections and Electoral Processes (including Voting Rights, Participation, and Electoral Competitiveness); the Rule of Law (Human Rights and Civil Liberties); Civil Society; and Governance (including Decentralization and Governance proper). The information originated in more than ten different sources and country coverage varied according to the source. Appendix 2 presents the complete list of indicators.

### ***Democracy and Governance Funding***

USAID investment was estimated based on a database on USAID obligations at the activity level compiled by John Richter and Andrew Green. The database comprises 41,355 records that capture the composition of USAID budgets for specific activities in all sectors between 1990 and 2003 (and sometimes traces spending information back as far as 1973). In consultation with Andrew Green we developed a series of aggregation routines to generate yearly totals for: (a) Democracy and Governance (DG) spending at the country level; (b) DG sub-sectors (Elections, Rule of Law, Civil Society, and Governance) at the country level; (c) Non-DG Sectors (Agriculture and Economic Growth, Education, Environment, Health, Humanitarian Assistance, Human Rights, and Conflict Management and Mitigation) at the country level; (d) Programs that operate at the regional level (in any of the fields just described); and (e) Programs that operate at the sub-regional level (in any of the fields). In addition, we used USAID's Overseas Loans and Grants congressional reports (the so-called "Greenbook") to document U.S. official development assistance and aid not channeled through USAID. Totals were transformed in constant 1995 dollars to facilitate comparisons. The aggregation procedure yielded over 50 different indicators of U.S. aid that are described in Appendix 3.

### ***Other Independent Variables***

**Level 1.** In order to control for alternative explanations of the democratization process, we gathered information on more than 40 additional variables. The items can be classified into seven general categories: International Factors and Democratic Diffusion; Official Development Assistance from Non-U.S. Sources; Domestic Political Conditions (prior experiences with coups, elections, forms of government); Economic Development; Economic Performance; Social Characteristics (population, ethnic fractionalization, literacy, social inequality); and Economic Dependence. A complete list of these items is available in Appendix 4.

**Level 2.** While the previous items display variance across countries and over time (and thus were coded following a standard pooled time-series structure), some additional characteristics were found to vary across countries but not within countries during the period under study. For instance, a country's territory was unlikely to change in the short run. As explained above, historical experience prior to 1990 can also be considered a "constant" for each country. We identified 36 such "Level 2" variables (in some cases they were convenient transformations of time-varying covariates). (See Appendix 5).

## **The State of Democracy in the World and USAID Democracy Assistance**

Before we move to the core of this report, which is the impact of USAID democracy assistance on democratization in the recipient countries, it is appropriate to take an overall descriptive look at the key independent and dependent variables in the analysis. The data set we have prepared contains the most extensive and finely grained quantitative information on USAID expenditures in the democratic governance assistance (hereafter DG) area that has ever been constructed. All prior analyses, with the partial exception of Paxton and Morishima (2005) of the impact of foreign assistance on democracy have been based on very coarse estimations of foreign assistance world-wide. This section proceeds by first presenting an overview of the trends in state of democracy in the world for the period covered by the study (1990-2003), and then gives a general distribution of the democracy assistance provided by USAID in that same period.

To have a clear understanding of the countries that are included in the figures and the analysis that follow, Table 2 presents the detail of the eligible countries by region and indicates whether or not the country was or not recipient of USAID democracy assistance in the period under study (for a complete list of countries, including non-eligible countries, see Appendix 1). The last column shows the number of years in which that country received assistance out of the 14 possible years included in our study.

**Table 2. Countries Eligible for USAID Assistance: Recipients of DG Aid, 1990-2003**

| USAID Regions | Country                  | Recipient of<br>USAID DG<br>Assistance<br>1990-2003 | Total<br>Years Of<br>Democracy<br>Assistance |
|---------------|--------------------------|---|--|
| Africa        | Cape Verde               | No  | 0  |
|               | Chad                     | No  | 0  |
|               | Comoros                  | No  | 0  |
|               | Djibouti                 | No  | 0  |
|               | Equatorial Guinea        | No  | 0  |
|               | Gabon                    | No  | 0  |
|               | Mauritania               | No  | 0  |
|               | Mauritius                | No  | 0  |
|               | Seychelles               | No  | 0  |
|               | Angola                   | Yes   | 9  |
|               | Benin                    | Yes   | 9  |
|               | Botswana                 | Yes   | 3  |
|               | Burkina Faso             | Yes   | 1  |
|               | Burundi                  | Yes   | 10   |
|               | Cameroon                 | Yes   | 2  |
|               | Central African Republic | Yes   | 2  |
|               | Congo, DR (Zaire)        | Yes   | 8  |
|               | Congo, Republic of the   | Yes   | 1  |
|               | Cote d'Ivoire            | Yes   | 9  |
|               | Eritrea                  | Yes   | 9  |
|               | Ethiopia                 | Yes   | 12   |
|               | Gambia                   | Yes   | 6  |
|               | Ghana                    | Yes   | 10   |
|               | Guinea-Bissau            | Yes   | 6  |
|               | Guinea                   | Yes   | 11   |
|               | Kenya                    | Yes   | 9  |
|               | Lesotho                  | Yes   | 4  |
|               | Liberia                  | Yes   | 10   |
|               | Madagascar               | Yes   | 11   |
|               | Malawi                   | Yes   | 11   |
|               | Mali                     | Yes   | 11   |
|               | Mozambique               | Yes   | 13   |
|               | Namibia                  | Yes   | 12   |
|               | Niger                    | Yes   | 4  |
|               | Nigeria                  | Yes   | 11   |
|               | Rwanda                   | Yes   | 10   |
|               | Sao Tome and Principe    | Yes   | 1  |
|               | Senegal                  | Yes   | 12   |
|               | Sierra Leone             | Yes   | 8  |
|               | Somalia                  | Yes   | 7  |
|               | South Africa             | Yes   | 14   |
|               | Sudan                    | Yes   | 3  |



| USAID Regions | Country                            | Recipient of<br>USAID DG<br>Assistance<br>1990-2003 | Total<br>Years Of<br>Democracy<br>Assistance |
|---------------|------------------------------------|---|--|
|               | Swaziland                          | Yes   | 1  |
|               | Tanzania                           | Yes   | 11   |
|               | Togo                               | Yes   | 4  |
|               | Uganda                             | Yes   | 10   |
|               | Zambia                             | Yes   | 12   |
|               | Zimbabwe                           | Yes   | 8  |
| Asia          | Bhutan                             | No  | 0  |
|               | Brunei Darussalam                  | No  | 0  |
|               | Iran                               | No  | 0  |
|               | Korea, Democratic People's Rep (N) | No  | 0  |
|               | Laos                               | No  | 0  |
|               | Maldives                           | No  | 0  |
|               | Singapore                          | No  | 0  |
|               | Taiwan                             | No  | 0  |
|               | East Timor                         | No  | 0  |
|               | Afghanistan                        | Yes   | 5  |
|               | Bangladesh                         | Yes   | 14   |
|               | Cambodia                           | Yes   | 13   |
|               | China                              | Yes   | 2  |
|               | India                              | Yes   | 6  |
|               | Indonesia                          | Yes   | 14   |
|               | Korea, Republic of                 | Yes   | 2  |
|               | Malaysia                           | Yes   | 1  |
|               | Mongolia                           | Yes   | 8  |
|               | Myanmar (Burma)                    | Yes   | 7  |
|               | Nepal                              | Yes   | 12   |
|               | Pakistan                           | Yes   | 5  |
|               | Philippines                        | Yes   | 14   |
|               | Sri Lanka                          | Yes   | 14   |
|               | Thailand                           | Yes   | 8  |
|               | Vietnam                            | Yes   | 1  |
| Eurasia       | Armenia                            | Yes   | 12   |
|               | Azerbaijan                         | Yes   | 12   |
|               | Belarus                            | Yes   | 12   |
|               | Georgia                            | Yes   | 12   |
|               | Kazakhstan                         | Yes   | 12   |
|               | Kyrgyzstan                         | Yes   | 12   |
|               | Moldova                            | Yes   | 12   |
|               | Russian Federation                 | Yes   | 12   |
|               | Tajikistan                         | Yes   | 12   |
|               | Turkmenistan                       | Yes   | 12   |
|               | Ukraine                            | Yes   | 12   |
|               | Uzbekistan                         | Yes   | 12   |
| Europe        | Ireland                            | No  | 0  |
|               | Portugal                           | No  | 0  |
|               | Albania                            | Yes   | 13   |

| USAID Regions                      | Country                        | Recipient of<br>USAID DG<br>Assistance<br>1990-2003 | Total<br>Years Of<br>Democracy<br>Assistance |
|------------------------------------|--------------------------------|---|--|
|                                    | Bosnia-Herzegovina             | Yes   | 11   |
|                                    | Bulgaria                       | Yes   | 14   |
|                                    | Croatia                        | Yes   | 12   |
|                                    | Czech Republic                 | Yes   | 4  |
|                                    | Czechoslovakia                 | Yes   | 3  |
|                                    | Estonia                        | Yes   | 5  |
|                                    | Hungary                        | Yes   | 9  |
|                                    | Latvia                         | Yes   | 7  |
|                                    | Lithuania                      | Yes   | 9  |
|                                    | Macedonia                      | Yes   | 12   |
|                                    | Poland                         | Yes   | 10   |
|                                    | Romania                        | Yes   | 14   |
|                                    | Serbia and Montenegro          | Yes   | 10   |
|                                    | Slovakia                       | Yes   | 8  |
|                                    | Slovenia                       | Yes   | 4  |
| Latin America<br>and the Caribbean | Antigua and Barbuda            | No  | 0  |
|                                    | Argentina                      | No  | 0  |
|                                    | Dominica                       | No  | 0  |
|                                    | Grenada                        | No  | 0  |
|                                    | Saint Lucia                    | No  | 0  |
|                                    | St. Kitts and Nevis            | No  | 0  |
|                                    | St. Vincent and the Grenadines | No  | 0  |
|                                    | Suriname                       | No  | 0  |
|                                    | Trinidad and Tobago            | No  | 0  |
|                                    | Belize                         | Yes   | 4  |
|                                    | Bolivia                        | Yes   | 14   |
|                                    | Brazil                         | Yes   | 8  |
|                                    | Chile                          | Yes   | 6  |
|                                    | Colombia                       | Yes   | 10   |
|                                    | Costa Rica                     | Yes   | 7  |
|                                    | Cuba                           | Yes   | 4  |
|                                    | Dominican Republic             | Yes   | 13   |
|                                    | Ecuador                        | Yes   | 14   |
|                                    | El Salvador                    | Yes   | 14   |
|                                    | Guatemala                      | Yes   | 14   |
|                                    | Guyana                         | Yes   | 13   |
|                                    | Haiti                          | Yes   | 14   |
|                                    | Honduras                       | Yes   | 14   |
|                                    | Jamaica                        | Yes   | 10   |
|                                    | Mexico                         | Yes   | 9  |
|                                    | Nicaragua                      | Yes   | 14   |
|                                    | Panama                         | Yes   | 13   |
|                                    | Paraguay                       | Yes   | 9  |
|                                    | Peru                           | Yes   | 14   |
|                                    | Uruguay                        | Yes   | 1  |
|                                    | Venezuela                      | Yes   | 3  |

| USAID Regions                        | Country                      | Recipient of<br>USAID DG<br>Assistance<br>1990-2003 | Total<br>Years Of<br>Democracy<br>Assistance |
|--------------------------------------|------------------------------|---|--|
| Middle East<br>and the Mediterranean | Israel                       | No  | 0  |
|                                      | Kuwait                       | No  | 0  |
|                                      | Libya                        | No  | 0  |
|                                      | Syria                        | No  | 0  |
|                                      | United Arab Emirates         | No  | 0  |
|                                      | Algeria                      | Yes   | 7  |
|                                      | Bahrain                      | Yes   | 2  |
|                                      | Egypt                        | Yes   | 13   |
|                                      | Iraq                         | Yes   | 2  |
|                                      | Jordan                       | Yes   | 4  |
|                                      | Lebanon                      | Yes   | 10   |
|                                      | Morocco                      | Yes   | 6  |
|                                      | Oman                         | Yes   | 2  |
|                                      | Qatar                        | Yes   | 2  |
|                                      | Saudi Arabia                 | Yes   | 1  |
|                                      | Tunisia                      | Yes   | 5  |
|                                      | Turkey                       | Yes   | 4  |
|                                      | West Bank and Gaza           | Yes   | 10   |
|                                      | Yemen                        | Yes   | 7  |
| Oceania (Pacific Islands)            | Fiji                         | No  | 0  |
|                                      | Kiribati                     | No  | 0  |
|                                      | Marshall Islands             | No  | 0  |
|                                      | Micronesia, Federated States | No  | 0  |
|                                      | Nauru                        | No  | 0  |
|                                      | Palau                        | No  | 0  |
|                                      | Samoa                        | No  | 0  |
|                                      | Solomon Islands              | No  | 0  |
|                                      | Tonga                        | No  | 0  |
|                                      | Tuvalu                       | No  | 0  |
|                                      | Vanuatu                      | No  | 0  |
|                                      | Papua New Guinea             | Yes   | 1  |

Note: Some of the above nations had USAID missions, but no DG assistance was given during the time frame covered (e.g., Chad).

## Overview of the Main Dependent Variable: The State Of Democracy In The World

While the focus of this project is on the impact of USAID's DG assistance on democratization, we want to control for the overall trends in democratization world-wide during the period under study (1990-2003). If, for example, world trends had been stable or declining, we need to know that. Similarly, if we find shifts in trends, where are they occurring? Are the shifts confined to the advanced industrial countries, or are they found in the democratizing areas? The dataset that was put together for the purposes of this study provides the opportunity to observe the state of democracy in the world for the period under study (1990-2003). We illustrate the trends in democratization using two conventional indicators: the Freedom House Index (recoded to range between 1 and 13, with 13 representing the most democratic score) and the Polity index (which ranges from -10 to 10, with 10 being the most democratic).

Using these two measures, it is clear from the results presented in Figure 1 that in this 14-year period, democracy has been on the increase. The results include all the countries in the sample, eligible and non-eligible ones.

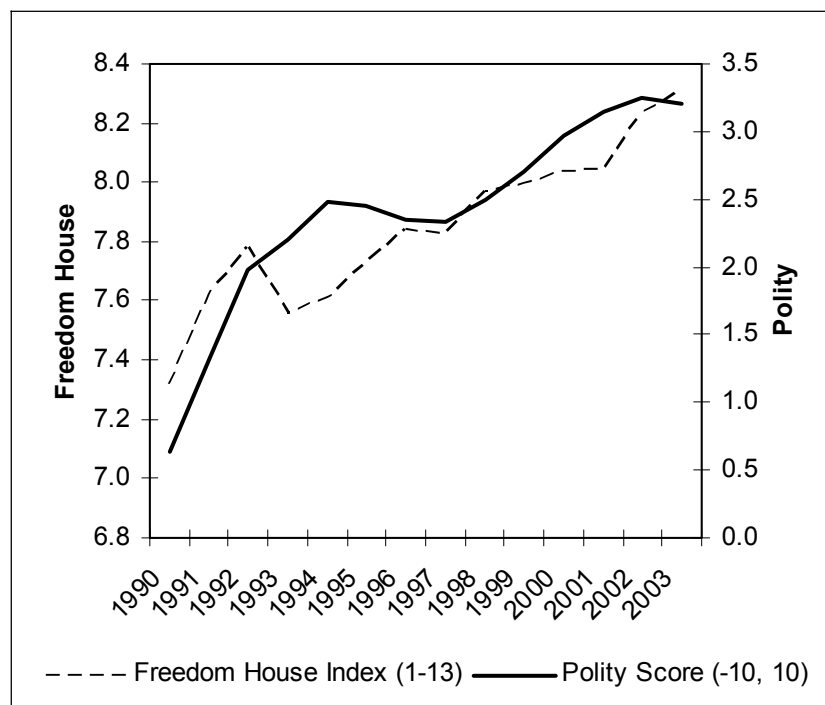


Figure 1. The Growth of Democracy in the World: Averages for Eligible and Non-Eligible Countries

We want to be able to focus on the eligible countries (as defined in the data section above), since the focus of our study is on those countries that could have received USAID DG assistance during the time period under study. To distinguish clearly between trends in

democratization world-wide between those countries that are eligible and those that are non-eligible, the data base is divided and the results are shown in Figure 2. It can be observed that the non-eligible countries, which are generally advanced democracies, have kept a high level of democracy throughout the period under study. The non-eligible countries, largely consisting of advanced industrial nations, enter the period under analysis here with very high levels of democracy, and it is therefore not surprising that there is no change in those scores over time. In effect, those countries, as a whole, have “maxed out” on the Freedom House or Polity indices. The eligible countries, in sharp contrast, have scores that are only about half of those of the non-eligible countries.

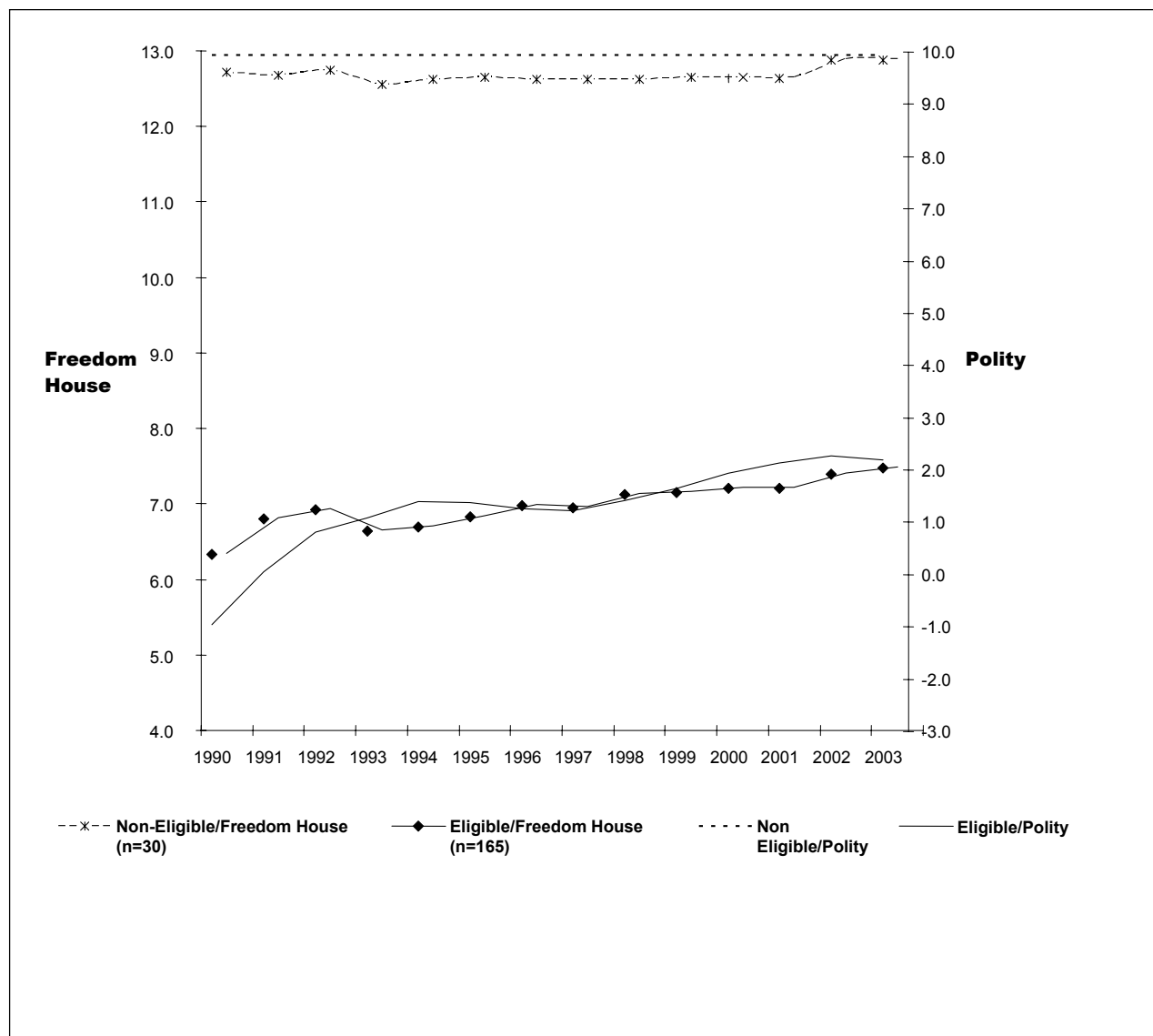


Figure 2. The Growth of Democracy in the World: Averages for Eligible vs. Non-Eligible Countries

In Figure 3, more specific results for the eligible countries using Freedom House scores are presented. In other words, all the countries that, according to the criteria used in this study,

are not eligible for USAID democracy assistance are excluded in the graph. The regional divisions follow USAID standard practice. Oceania (the Pacific Islands) is the region with the highest level of democracy, followed by Europe and Latin America and the Caribbean. Those three regions form a cluster at the top part of the chart. In sharp contrast, the remaining four regions show far lower levels of democratic development. Africa is the region—among the bottom four—with the highest score, followed by Asia, Eurasia and the Middle East and the Mediterranean.

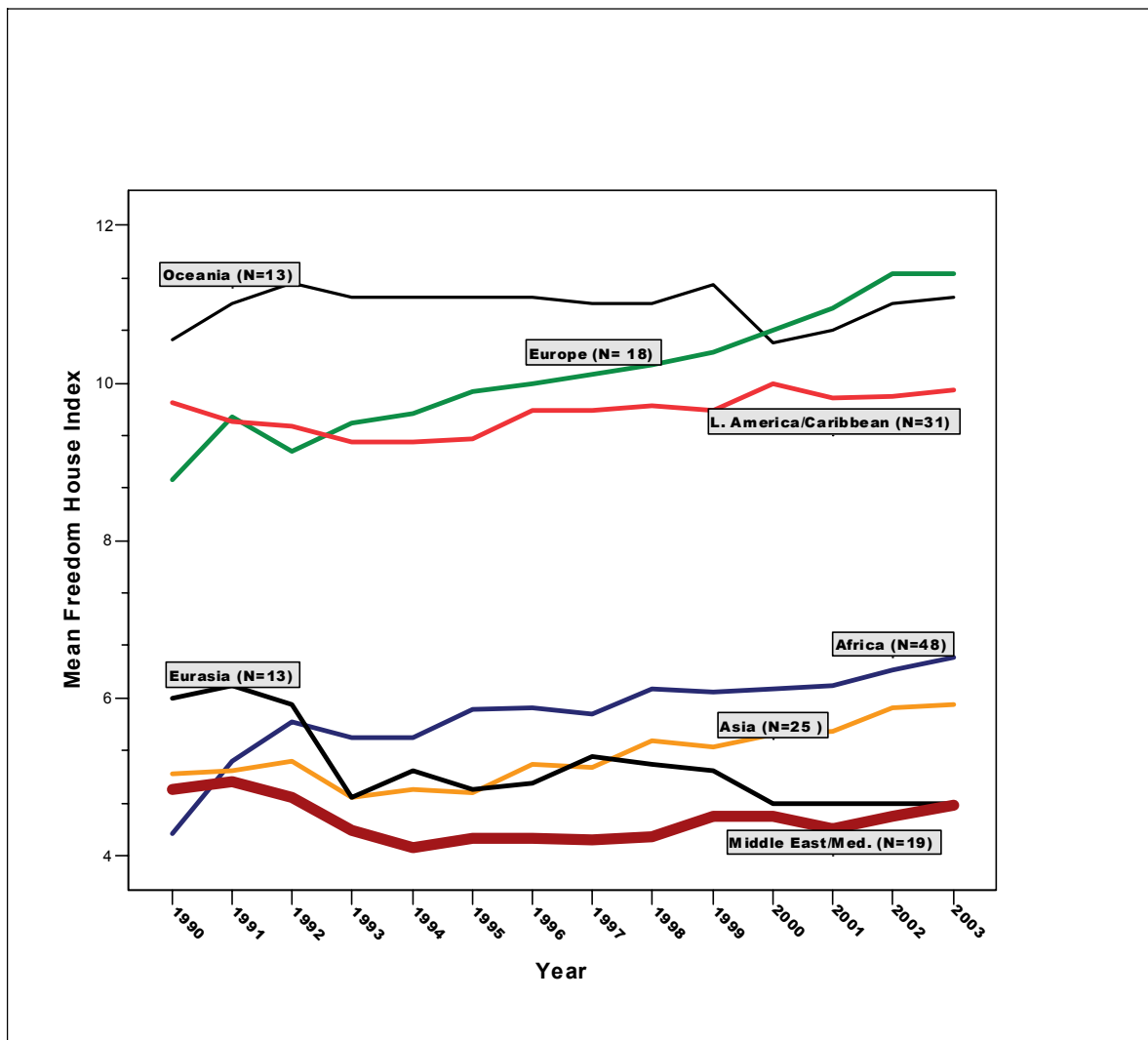
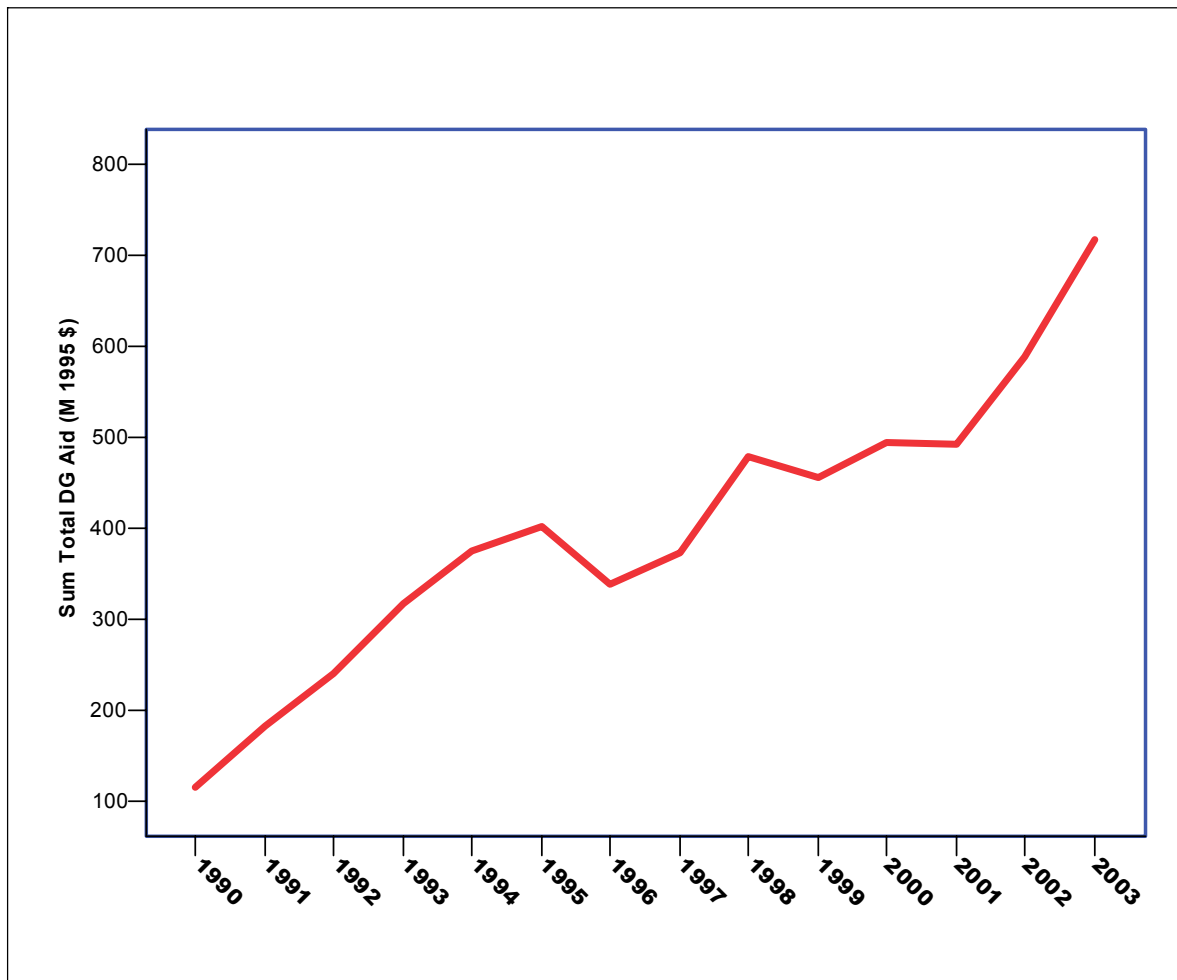


Figure 3. The Growth of Democracy, 1990-2003, in Eligible Countries (by USAID regional groupings)

## ***Overview of the Main Independent Variable: USAID DG Assistance***

The following graphs present an overall perspective of the democracy assistance provided by USAID in the period between 1990-2003. Figure 4 shows that democracy assistance has been steadily increasing over the years. Measured in 1995 dollars, it escalated from \$121 million in 1990 to \$722 million in 2003. In current dollars, the expansion represented an increase from \$106 million in 1990 to \$830 million in 2003.



**Figure 4. World-Wide USAID Democracy Assistance, 1990-2003 (in millions of 1995 dollars)**

The results shown in Figure 5 make clear a point whose importance is difficult to overstate in light of the results of our study. The figure shows that in spite of the large increase in democracy spending, such spending is still a small percentage of the total aid provided by USAID (9% in 2003). When measuring the impact of DG programs and asking the key question, “should more money be spent?” it is important to recognize that as proportion of all U.S. assistance for developing nations, democracy assistance is quite small. The results shown in this

chart also show that non-democracy assistance started at a high level in 1990, then declined in the 1990s but then increased again after 2001.

A further point that needs to be stressed is that U.S. overall development assistance in terms relative to other donors is very low, indicating considerable capacity to expand. Although in absolute terms, given the enormous size of its economy, the U.S. is the world's largest donor of net official development assistance, and has been throughout the entire post World War II period, in relative terms it lies at the opposite extreme among donor countries. According to a recent issue of the United Nations *Human Development Report* (2003 160), in 2001 U.S. assistance amounted to 0.11% of GNP, the lowest of any advanced industrial donor country. Only Italy (0.15%) and Greece (0.17%) came close to the comparatively low levels of the U.S., while all others on the list donated portions of their GNP at levels at least twice that of the U.S. Taken together, these figures speak loudly to the question of the capacity of the U.S. to increase democracy assistance.

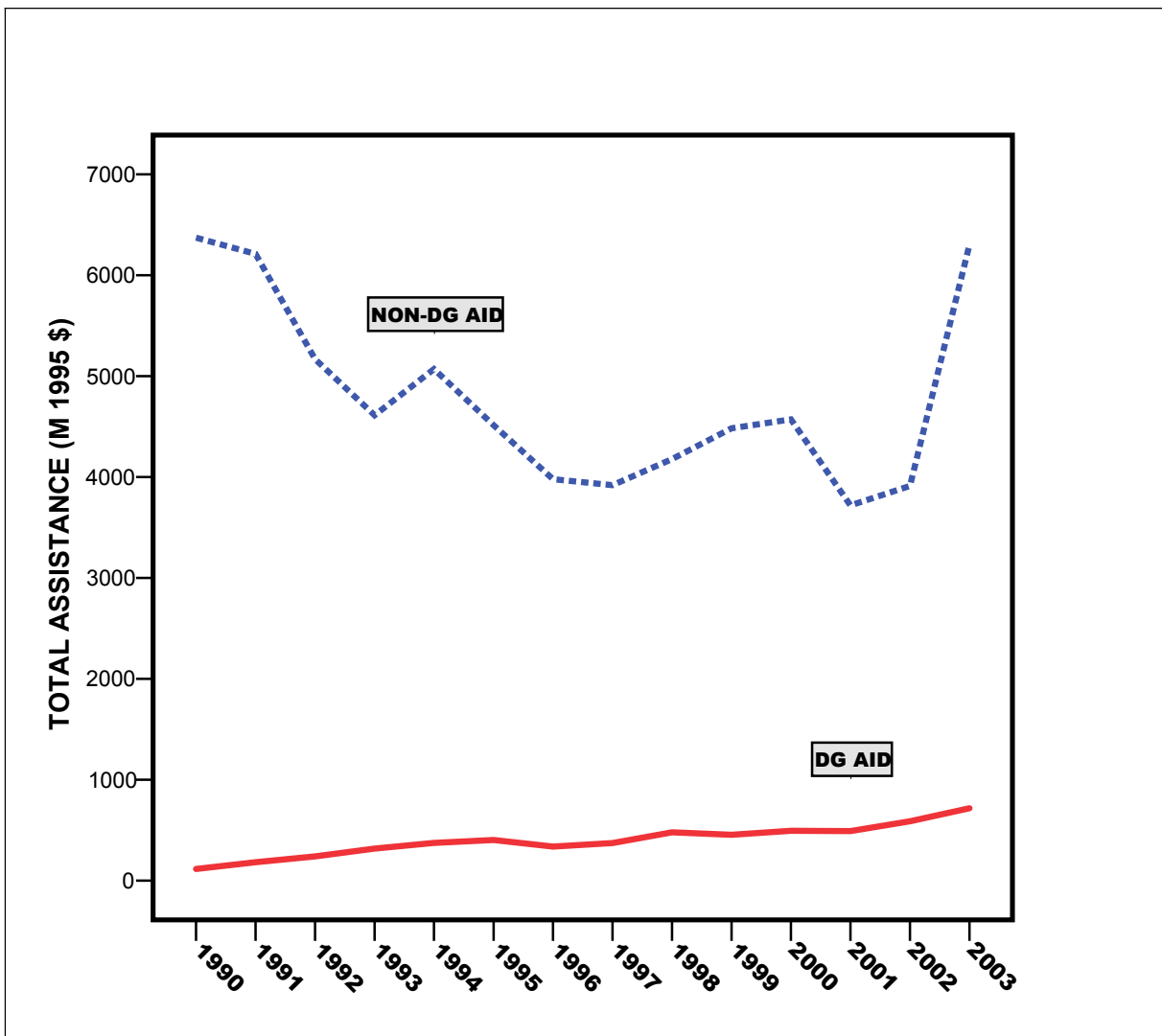
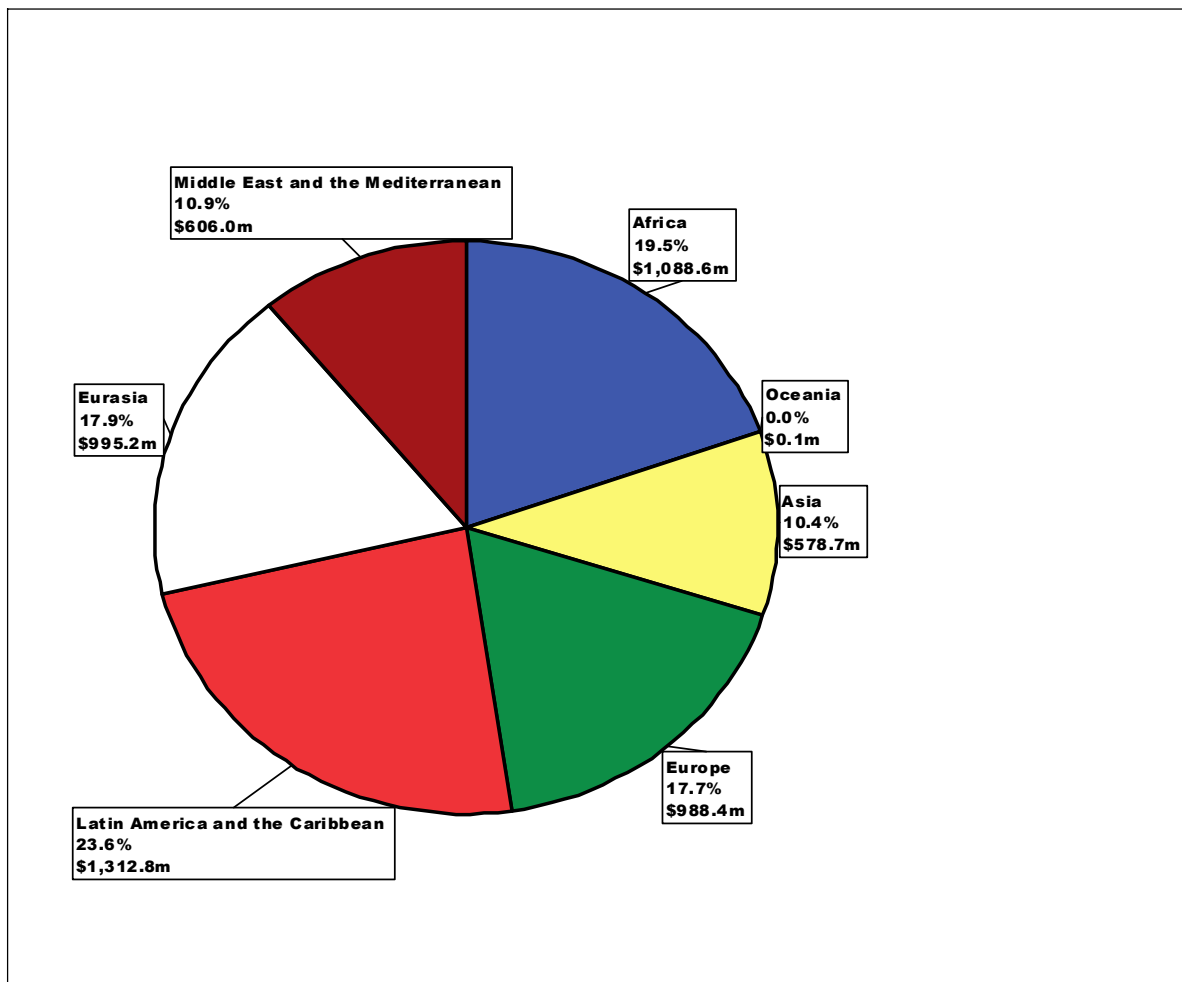


Figure 5. General USAID (Non-DG) Assistance and Democracy Assistance, 1990-2003 (in millions of 1995 dollars)



The following figure (Figure 6) shows the overall regional distribution of democracy assistance in the period under study (1990-2003). It can be seen that Latin America and the Caribbean received the highest percentage of aid in the period, with 24%, followed by Africa with 20%. Eurasia and Europe have both received over the years around 18% of the total democracy assistance, whereas the Middle East and the Mediterranean has received 11%. Oceania (the Pacific Islands) has not received any significant aid.



**Figure 6. Distribution of USAID Democracy Assistance by Region: 1990-2003 (in millions of 1995 dollars)**

In Figure 7 we can see that the pattern of overall distribution has changed over the years. Whereas in the early 1990s Latin America and the Caribbean was the region that received the higher percentage of democracy aid, by the year 2003, it was one of the regions that received less. In turn, in other regions, democracy assistance had increased significantly, in particular in the Middle East and the Mediterranean.

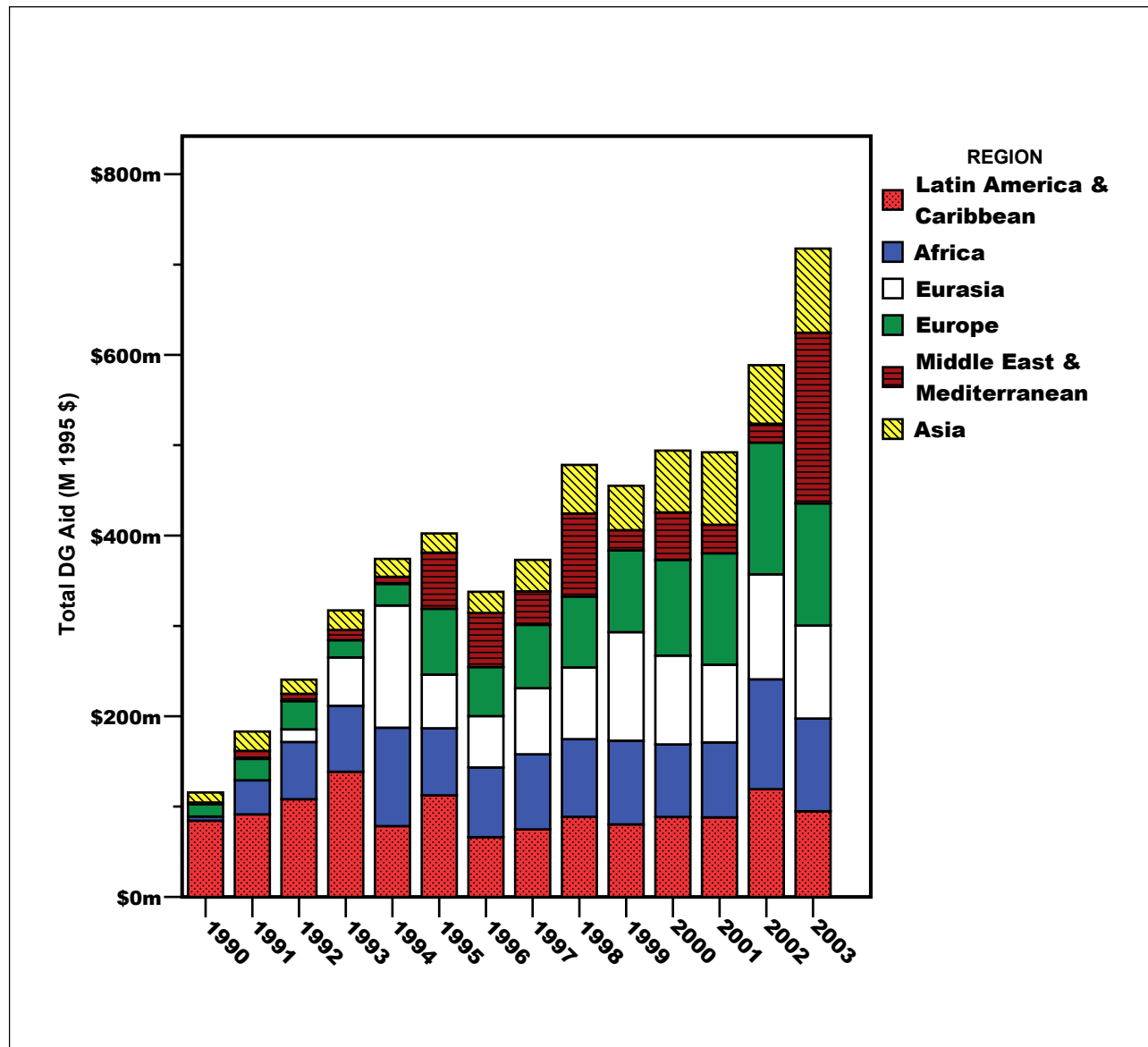


Figure 7. Distribution of USAID Democracy Assistance by Year and Region (in millions of 1995 dollars)

In Table 3 we show the total amounts of DG and Non-DG assistance provided by USAID to each region, by year, in the period under study.

Table 3. USAID General (Non-Democracy) and Democracy Assistance  
By Region, 1990-2004 (in millions of 1995 dollars)

| Region       | Year | DG Assistance | Non-DG      | DG/Total (%) |
|--------------|------|---------------|-------------|--------------|
| Africa       | 1990 | 4.68          | 688.02      | 0.7          |
|              | 1991 | 37.61         | 906.51      | 4.0          |
|              | 1992 | 63.38         | 873.38      | 6.8          |
|              | 1993 | 73.03         | 701.64      | 9.4          |
|              | 1994 | 108.90        | 675.92      | 13.9         |
|              | 1995 | 74.23         | 634.87      | 10.5         |
|              | 1996 | 77.18         | 459.81      | 14.4         |
|              | 1997 | 83.14         | 504.30      | 14.2         |
|              | 1998 | 86.06         | 599.94      | 12.5         |
|              | 1999 | 92.62         | 674.48      | 12.1         |
|              | 2000 | 80.30         | 660.43      | 10.8         |
|              | 2001 | 83.05         | 701.68      | 10.6         |
|              | 2002 | 121.67        | 777.28      | 13.5         |
|              | 2003 | 102.73        | 931.54      | 9.9          |
| Total Africa |      | \$ 1,088.58   | \$ 9,789.78 | 10.0         |
| Asia         | 1990 | 11.13         | 946.29      | 1.2          |
|              | 1991 | 21.51         | 784.03      | 2.7          |
|              | 1992 | 15.55         | 533.74      | 2.8          |
|              | 1993 | 21.86         | 356.88      | 5.8          |
|              | 1994 | 19.89         | 235.71      | 7.8          |
|              | 1995 | 21.29         | 268.22      | 7.4          |
|              | 1996 | 23.40         | 187.63      | 11.1         |
|              | 1997 | 34.70         | 247.68      | 12.3         |
|              | 1998 | 53.90         | 257.12      | 17.3         |
|              | 1999 | 48.97         | 255.51      | 16.1         |
|              | 2000 | 68.44         | 350.82      | 16.3         |
|              | 2001 | 80.11         | 437.15      | 15.5         |
|              | 2002 | 64.73         | 1048.08     | 5.8          |
|              | 2003 | 93.22         | 1130.16     | 7.6          |
| Total Asia   |      | \$ 578.69     | \$ 7,039.02 | 7.6          |
| Eurasia      | 1990 | 0.00          | 5.59        | 0.0          |
|              | 1991 | 0.00          | 0.05        | 0.0          |
|              | 1992 | 13.93         | 122.84      | 10.2         |
|              | 1993 | 53.48         | 446.18      | 10.7         |
|              | 1994 | 135.23        | 1374.60     | 9.0          |
|              | 1995 | 59.47         | 659.59      | 8.3          |
|              | 1996 | 56.89         | 571.90      | 9.0          |
|              | 1997 | 73.27         | 435.00      | 14.4         |
|              | 1998 | 79.30         | 657.56      | 10.8         |
|              | 1999 | 120.22        | 662.88      | 15.4         |
|              | 2000 | 98.35         | 664.27      | 12.9         |
|              | 2001 | 85.96         | 323.66      | 21.0         |
|              | 2002 | 116.24        | 397.90      | 22.6         |

| Region                                  | Year | DG Assistance |          | Non-DG       | DG/Total (%) |
|---|------|---------------|----------|--------------|--------------|
|   | 2003 |               | 102.86   | 309.04       | 25.0         |
| Total Eurasia                           |      | \$            | 995.19   | \$ 6,631.05  | 13.0         |
| Europe                                  | 1990 |               | 13.58    | 591.44       | 2.2          |
|   | 1991 |               | 23.80    | 345.53       | 6.4          |
|   | 1992 |               | 31.28    | 487.07       | 6.0          |
|   | 1993 |               | 19.24    | 235.65       | 7.5          |
|   | 1994 |               | 24.03    | 446.58       | 5.1          |
|   | 1995 |               | 72.79    | 340.83       | 17.6         |
|   | 1996 |               | 54.34    | 470.12       | 10.4         |
|   | 1997 |               | 70.10    | 279.26       | 20.1         |
|   | 1998 |               | 78.49    | 390.89       | 16.7         |
|   | 1999 |               | 90.42    | 544.41       | 14.2         |
|   | 2000 |               | 105.94   | 466.68       | 18.5         |
|   | 2001 |               | 123.41   | 337.78       | 26.8         |
|   | 2002 |               | 145.78   | 253.83       | 36.5         |
|   | 2003 |               | 135.23   | 181.91       | 42.6         |
| Total Europe                            |      | \$            | 998.42   | \$ 5,731.99  | 14.8         |
| Latin America And The Caribbean         | 1990 |               | 84.31    | 1599.26      | 5.0          |
|   | 1991 |               | 91.36    | 1119.41      | 7.5          |
|   | 1992 |               | 108.13   | 777.45       | 12.2         |
|   | 1993 |               | 138.51   | 635.64       | 17.9         |
|   | 1994 |               | 78.35    | 378.37       | 17.2         |
|   | 1995 |               | 112.37   | 358.61       | 23.9         |
|   | 1996 |               | 66.07    | 261.67       | 20.2         |
|   | 1997 |               | 74.64    | 336.31       | 18.2         |
|   | 1998 |               | 88.62    | 307.44       | 22.4         |
|   | 1999 |               | 80.22    | 337.32       | 19.2         |
|   | 2000 |               | 88.47    | 289.13       | 23.4         |
|   | 2001 |               | 87.89    | 322.16       | 21.4         |
|   | 2002 |               | 119.14   | 618.97       | 16.1         |
|   | 2003 |               | 94.77    | 677.57       | 12.3         |
| Total Latin America And Caribbean       |      | \$            | 1,312.85 | \$ 8,019.31  | 14.1         |
| Middle East and the Mediterranean       | 1990 |               | 1.94     | 2522.92      | 0.1          |
|   | 1991 |               | 8.84     | 3035.08      | 0.3          |
|   | 1992 |               | 8.17     | 2354.85      | 0.3          |
|   | 1993 |               | 11.09    | 2213.25      | 0.5          |
|   | 1994 |               | 7.82     | 1945.01      | 0.4          |
|   | 1995 |               | 62.25    | 2238.11      | 2.7          |
|   | 1996 |               | 59.89    | 2014.29      | 2.9          |
|   | 1997 |               | 37.14    | 2104.00      | 1.7          |
|   | 1998 |               | 91.93    | 1951.47      | 4.5          |
|   | 1999 |               | 22.59    | 1995.57      | 1.1          |
|   | 2000 |               | 52.57    | 2139.32      | 2.4          |
|   | 2001 |               | 31.73    | 1596.65      | 1.9          |
|   | 2002 |               | 21.07    | 816.56       | 2.5          |
|   | 2003 |               | 188.93   | 3072.42      | 5.8          |
| Total Middle East and the Mediterranean |      | \$            | 605.95   | \$ 29,999.49 | 2.0          |
| Oceania                                 | 1990 |               | 0.00     | 18.74        | 0.0          |
| (Pacific Islands)                       | 1991 |               | 0.06     | 21.27        | 0.3          |

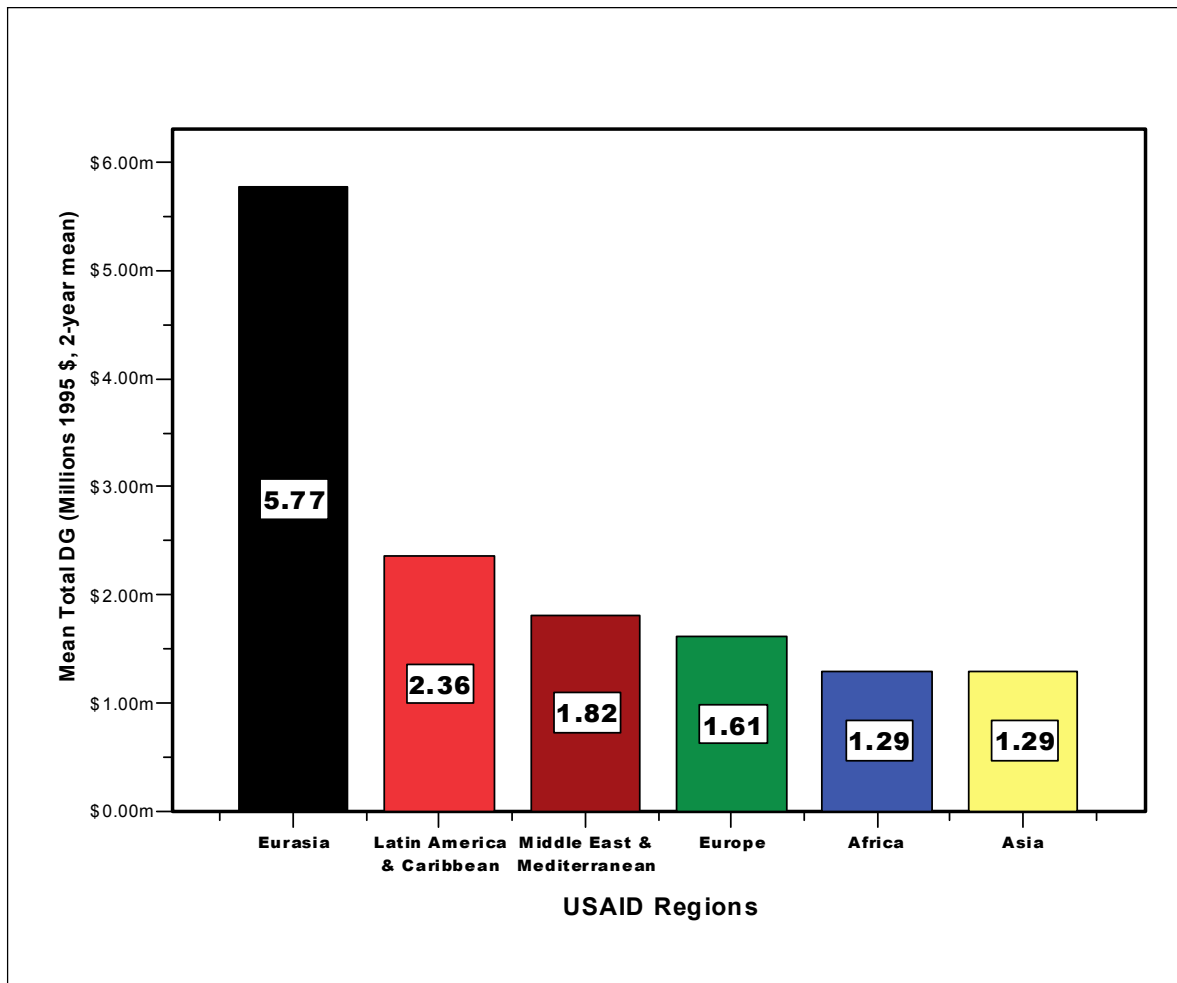
| Region        | Year | DG Assistance | Non-DG    | DG/Total (%) |
|---------------|------|---------------|-----------|--------------|
|               | 1992 | 0.00          | 19.93     | 0.0          |
|               | 1993 | 0.00          | 22.81     | 0.0          |
|               | 1994 | 0.00          | 14.31     | 0.0          |
|               | 1995 | 0.00          | 14.00     | 0.0          |
|               | 1996 | 0.00          | 13.73     | 0.0          |
|               | 1997 | 0.00          | 13.47     | 0.0          |
|               | 1998 | 0.00          | 13.30     | 0.0          |
|               | 1999 | 0.00          | 13.11     | 0.0          |
|               | 2000 | 0.00          | 0.00      | --           |
|               | 2001 | 0.00          | 0.00      | --           |
|               | 2002 | 0.00          | 0.00      | --           |
|               | 2003 | 0.00          | 0.00      | --           |
| Total Oceania |      | \$ 0.06       | \$ 164.68 | 0.0          |

*Source:* USAID investment dataset (includes regional programs)

Figure 8 presents another perspective on the democracy assistance provided to the different regions in the world. Since the number of countries varies in each region, the regions with more recipient countries would logically obtain a smaller share of the total regional assistance in comparison with those regions that have less recipient countries. Figure 7 above represents regional investments in democracy, not country-level investments. For example, in the period under study, Latin America and the Caribbean received as a region a total of US\$1,312.8 million (for 22 countries). Eurasia, as a region, received a total of US\$995.2 million (for 12 countries).

However, when that total is distributed among the different recipient countries within a region, Figure 8 shows that the countries of Eurasia individually had the largest share of U.S. democracy assistance, followed in recent years by some Middle East countries. In other words, in the whole period, the average democracy assistance received by each country in Eurasia was 5.77 million (in 1995 \$), which is far above the rest of the regions. In comparison each Latin American country received in the period an average of 2.36 million (in 1995 \$).

If we compare the results of the last three graphs, we can see that over the course of 1990-2003 Latin America received 1.3 billion dollars (1995 \$) in democracy assistance, while Eurasia received \$995 millions. Nonetheless, while in Latin America there are 22 recipient countries, in Eurasia there are 12, and therefore on a per country basis Latin America received less aid than Eurasia.



**Figure 8. Average Democracy Assistance Received by Countries in Each Region, 1990-2003 (in millions of 1995 dollars)**

Figure 9 presents a different perspective. It shows in what sectors democracy assistance has been invested in the past 14 years. These totals represent what the average country got in any given year (two-year mean). The aid categories are drawn from USAID's criteria. We can see that Civil Society assistance has always been at the top of all sub-sectors of democracy assistance, but has significantly increased in recent years. The activities included in the sub-sector called Governance have also increased in recent years. On the other end, it is noticeable that the aid directed towards Human Rights programs has decreased over the years. These are overall trends, but the emphasis on one or another type of assistance may vary from country to country.

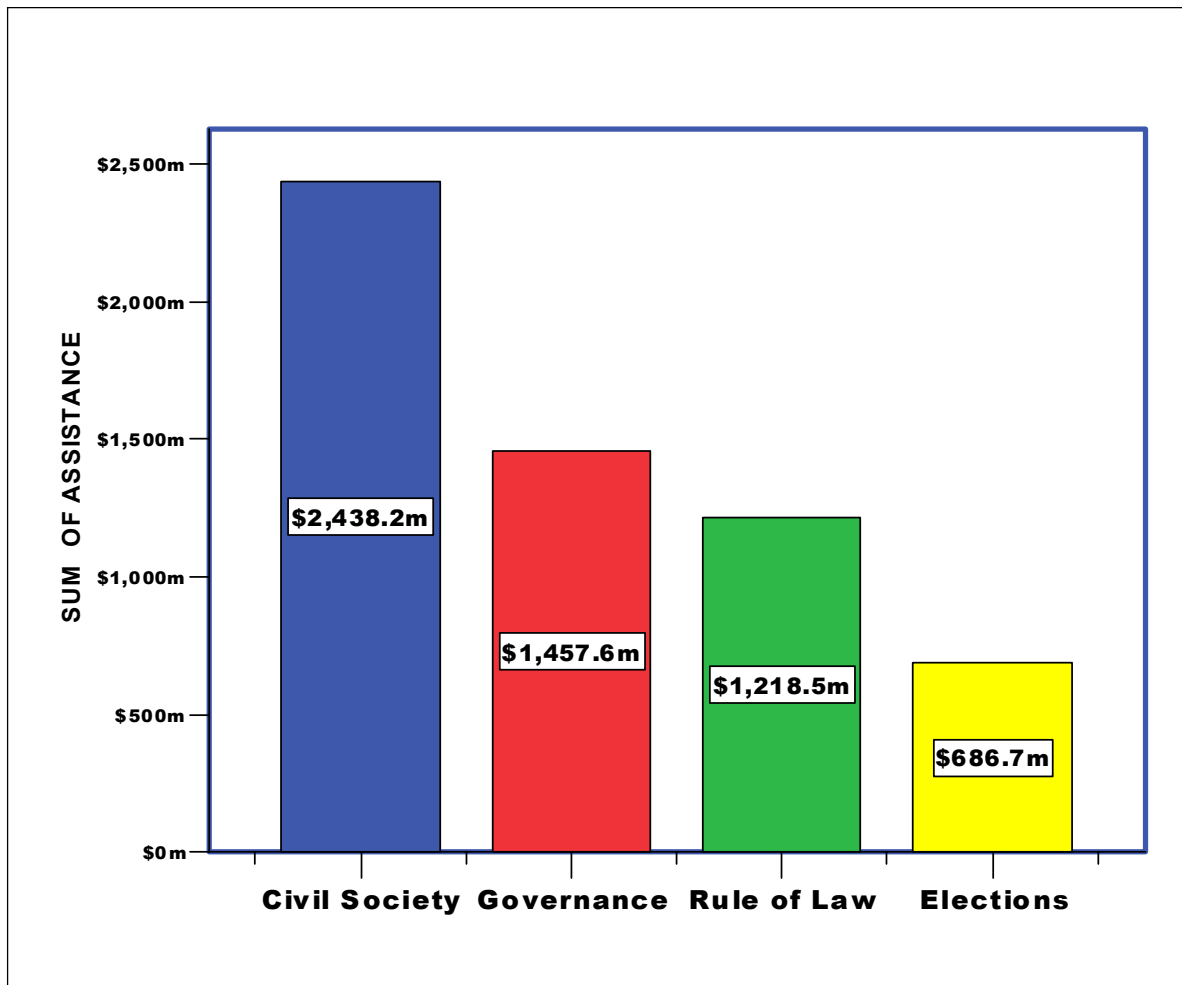


Figure 9. Total USAID Democracy Assistance by Sub-Sector, 1990-2003 (in millions of 1995 dollars)

Figure 10 shows the functional distribution of funds over the period of the study. Throughout the period, important shifts have occurred. While Civil Society has been a steady leader, Governance has expanded dramatically, largely reflecting the recent concern over control of corruption (the activities geared towards curbing corruption are categorized by USAID as part of the more general Governance category).

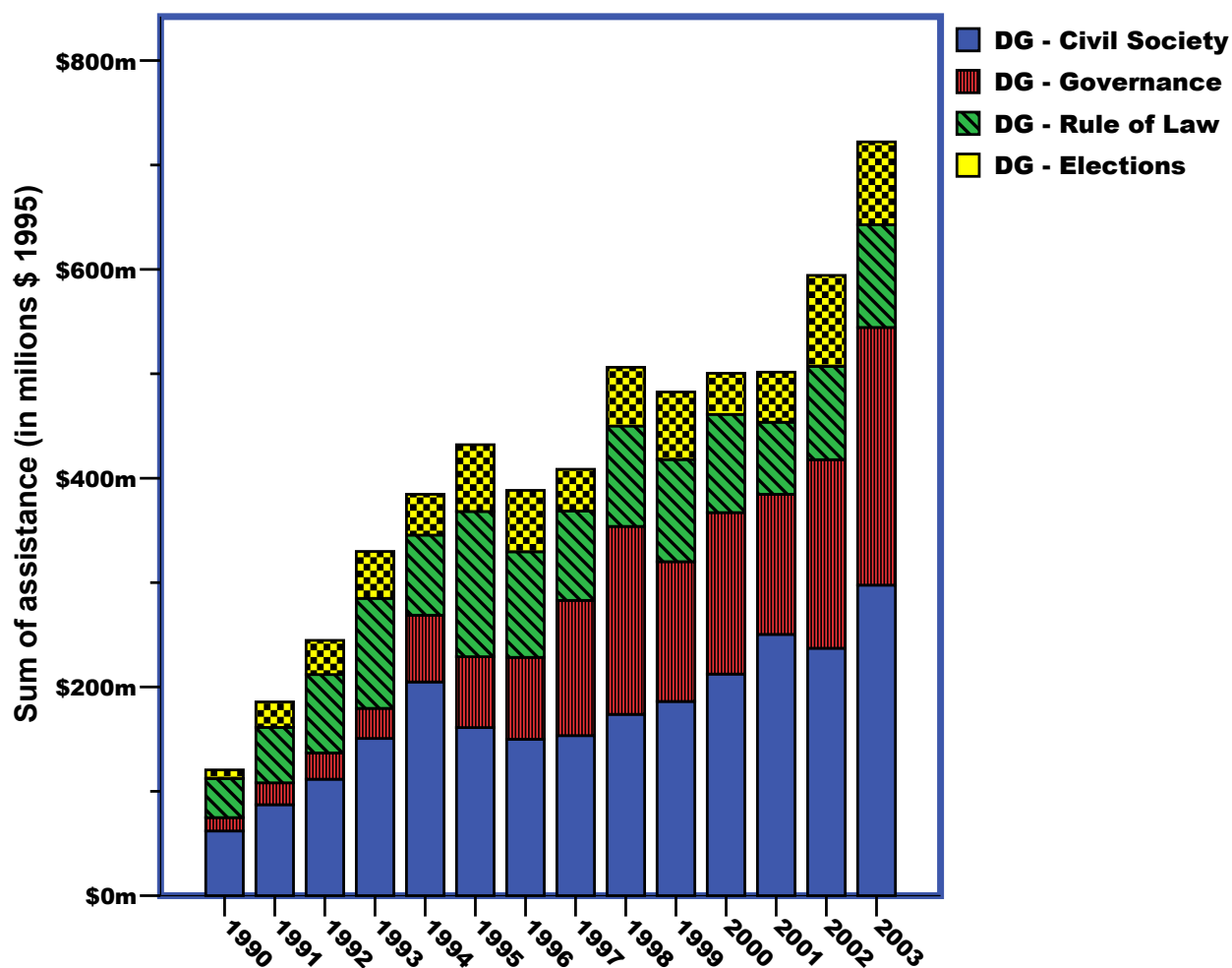


Figure 10. USAID Democracy Assistance by Sub-Sector and Year, 1990-2003

The final figure in this series expands upon the functional distribution, breaking it down by world area. As shown in Figure 11, there is not a great deal of variation across regions in the proportions of the funding that has been dedicated to each of the major functional categories. Electoral assistance is quite low however in the Middle East and Asia. Another variation on the overall theme is that the rule of law has absorbed far more money in Latin America than in any other world region.



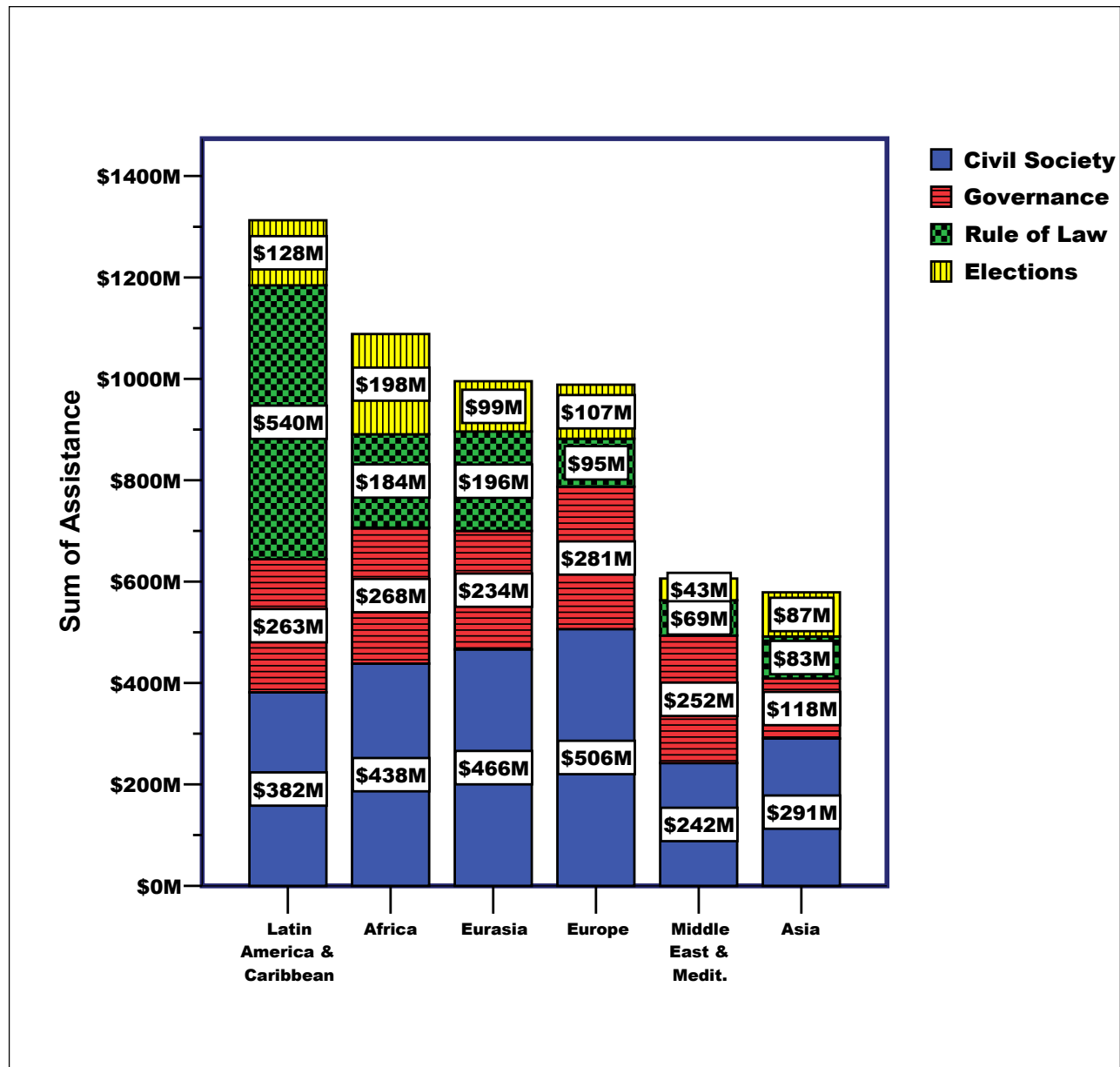


Figure 11. Democracy Assistance by Region and Sub-Sector (1990-2003)

## Methods

In this section of the study we review the approach we have taken to analyze the data discussed in the prior section. We apologize to the non-technical reader about the complexity of this section, but the research problem at hand requires this formal presentation. The problem, in a nutshell, is that we are attempting to determine the impact of U.S. foreign assistance on democracy, and do so while minimizing the chance that our results could be somewhat or entirely misleading. In the section on data above we discussed the many challenges in measuring both the independent variable (i.e., U.S. democracy assistance), the dependent variable (i.e., changes in democracy, 1990-2003) and the control variables (e.g., wealth of the country, prior level of democracy, etc.). In this section of the paper we deal with the challenges we face analyzing the data.

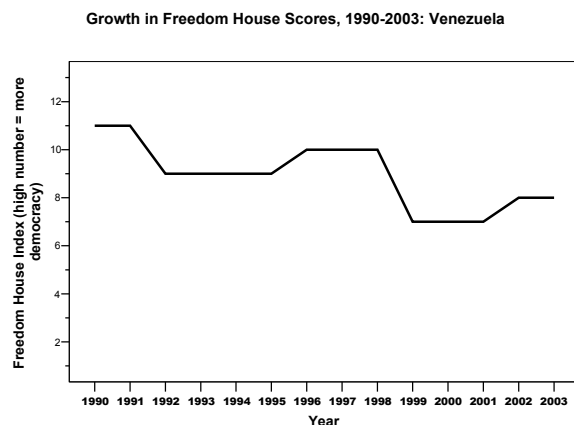
We need to be able to determine, in the first instance, what a given country's "normal" growth (or decline) of democracy has been in the period 1990-2003, so that we can then examine the impact of U.S. foreign assistance. We do that, as we explain below, with "growth models" that we believe are especially appropriate for this kind of problem. Another challenge is to determine if U.S. foreign assistance has an impact on democracy, once the various control variables are employed. At another level, we want to be sure that we do not have the causal arrows reversed; we want to be as certain as we can be that it is U.S. assistance that produced change in democracy, and not that democracy is what is driving U.S. assistance levels. We also needed to be very sensitive to issues of missing data, a problem that is vexing for all of the social sciences, since random missing data can attenuate the strength of true findings, while non-random missing data can produce misleading conclusions. We therefore encourage even non-technical readers to attempt to absorb as much of the material we present below so that the meaning of findings themselves will be more clearly apparent.

### *The General Growth Modeling Procedure*

We utilized a statistical technique known as "latent growth models" or "individual growth curves" in order to assess the impact of AID obligations on countries' democratic outcomes over time. The growth curve model is an increasingly popular approach to longitudinal analysis that has seen applications in areas as diverse as individual-level voter turnout (Plutzer 2002), crime rates in U.S. cities (Hipp, *et al.* 2004), tolerance of deviant behavior among adolescents (Raudenbush and Wing-Shing 1992), and alcohol use among young adults (Curran, Harford and Muthen 1996). The goals of the analysis are to estimate parameters that determine an individual unit's (in our case, country) developmental trajectory (or "growth") over time, and then to estimate the effects of independent variables on that trajectory. In terms of the concerns of this project, we seek to estimate the parameters that govern a given country's democratic trajectory throughout the 1990-2003 period, and then to estimate how USAID funding may contribute to democratic outcomes at particular points in time, controlling for the country's general trends in democratic growth. These effects will be estimated while also controlling for the effects of other variables that may also influence the process, variables related to a country's prior experience with democracy, its socio-economic development, ethnic

composition, colonial legacies, non-U.S. economic and political assistance, and other factors derived from previous research and from the scholarly literature on democratization.

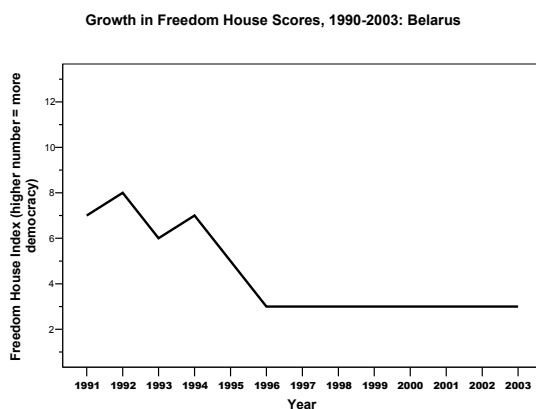
As an example, consider the graphs of four countries' average combined Freedom House scores from 1990-2003 in Figures 12-15 below. It can be seen that Venezuela began the period with a relatively high democratic value of just over 11 on the 13 point scale (again, using the reversed Freedom House scale, so that the highest values indicate the highest level of democracy), and declined in a more or less steady way until leveling off at approximately 8 in the post-2000 period. Mali, in contrast, started the period as highly undemocratic (value of 3.7), and increased relatively steadily to a democratic score just over 10 by the end of the period. Thus Mali's growth trajectory *intercept* (starting point) was considerably lower than Venezuela's, but its growth trajectory *slope* (rate of change per year) was strongly positive compared to a *negative* or decreasing value for Venezuela. The graphs of Belarus and Mexico's trajectories show similar intercepts, or starting point, of approximately 7, though Belarus' *slope* is strongly negative until leveling off as highly undemocratic by the year 1997, while Mexico makes steady upward progress on the democracy scale until reaching a value of about 10.5 by 2004.



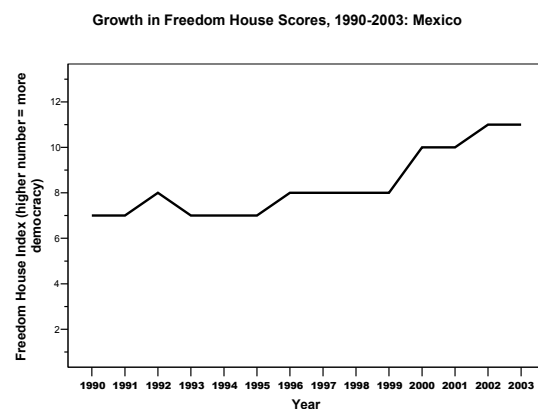
**Figure 12. Growth in Freedom House Scores, 1990-2003: Venezuela**



**Figure 13. Growth in Freedom House Scores, 1990-2003, Mali**



**Figure 14. Growth in Freedom House Scores, 1990-2003: Belarus**



**Figure 15. Growth in Freedom House Scores, 1990-2003: Mexico**

These graphs illustrate the fact that countries *vary* in both their initial “starting points” and in the “rates of change” of their democratic trajectories over time. The goals of latent growth analysis are to model countries’ democratic outcomes through the estimation of their country-specific growth trajectories, and then to specify the variables that explain the country-level variation in the growth trajectory starting points and rates of change. That is, it seeks to explain the level of a democratic outcome in a given country by appealing to the country’s growth trajectory, as well as to other variables --- such as USAID funding --- that add or detract from the growth process at a given time, and then to explain why some countries begin the period either higher or lower on some democratic outcome and why countries exhibit either a positive or negative rate of change over time.

More formally, growth modeling proceeds by specifying processes that take place at two different “levels” -- one corresponding to (“Level 1”) *intra-country* growth over time, and the other corresponding to (“Level 2”) *inter-country* differences in the Level 1 growth parameters. At Level 1, we specify the general type of change --- linear, quadratic, log-linear, etc. --- that we expect countries *in general* to exhibit in a particular democratic outcome, along with a series of variables that we also expect to influence the value of the given democratic outcome at each specific time point. We begin with a linear growth model taking the form:

#### Level 1: Intra-country Growth

$$(1) \quad y_{it} = \pi_{0i} + \pi_{1i}a_{it} + \pi_{ki}v_{kti} + \varepsilon_{it}$$

where  $a$  is a time-related variable, in this case the year of observation (1990, 1991, 1992...2003),  $\varepsilon_{it}$  is a random error term, and  $\pi_{0i}$  and  $\pi_{1i}$  are regression coefficients that represent the individual country's (linear) growth trajectory.<sup>5</sup> Specifically,  $\pi_{0i}$  is the “intercept” of the growth model, that is, individual country  $i$ 's “starting point” on, for example, the Freedom House Index at the first wave of data collection (1990), and  $\pi_{1i}$  is the linear slope of the growth trajectory, such that the individual country changes by  $\pi_{1i}$  units on the Freedom House Index for every change in one unit of  $a$ , in this case one year. So we may say that  $\pi_{1i}$  signifies the *change* in  $y$  for a given time change of one year for individual country  $i$ . In terms of the four countries shown in the figures, Mali would have the lowest intercept ( $\pi_0$ ), corresponding to its low value on Freedom House in 1990, with the Mexico and Belarus  $\pi_0$  being larger, and the Venezuelan  $\pi_0$  larger still. Mali's  $\pi_1$  value, or its rate of democratic change, however, would be the largest (i.e. most strongly positive) of the four countries, followed by Mexico's somewhat flatter positive  $\pi_1$ , Venezuela's relatively negative  $\pi_1$ , and Belarus' strongly negative  $\pi_1$ , signifying its steep downward (anti-democratic) trajectory during the 1990-2003 time period.

The  $v_{kti}$  represent additional time-varying “covariates,” i.e., factors that have potentially different values for a given country at each year, and which may influence the given democratic outcome at a specific time. The  $\pi_{ki}$  then represent regression coefficients linking the  $k^{th}$  time-varying covariate to  $y_{it}$ . Importantly, *all AID-related variables, including U.S. Democracy and Governance (DG) obligations, non-DG obligations, regional and sub-regional DG and non-DG obligations, and non-U.S. donor obligations are all treated in this study as “time-varying covariates.”* These variables take on different values at different points in time for different countries; hence we seek to model how they impact the country's democratic outcomes, *over and above the value predicted by the country's general growth trajectory intercept and slope*. The set of time-varying covariates also includes other time-specific control variables such as economic performance, regional democratic diffusion, extent of political violence, and the like. All of these variables may take on different values at each point in time, and they may then influence the country's democratic outcomes over and above the country's long-run democratic trajectory. Thus, in statistical terms, the study's primary goal is to estimate the precise value of the  $\pi_{ki}$  coefficients that correspond to the effect of USAID Democracy and Governance (DG) obligations as well as other AID obligations on a series of  $y$  democratic outcomes, controlling for

<sup>5</sup> Other growth-related terms such as quadratic and cubic ( $a_{it}^2$  and  $a_{it}^3$ ) were tested as well, with their effects being insignificant.

all other time-varying factors and controlling for the country's overall democratic "starting point" and its "rate of change."

The second portion of the growth model attempts to explain *why* certain countries have higher or lower  $\pi_k$  coefficients, i.e., why some countries begin the period at higher or lower levels of democratization, why some countries change more rapidly than others, and why some countries may have higher or lower effects on democratic outcomes from particular time-varying covariates. In equation form, we estimate:

Level 2: Inter-Country Differences

$$(2a) \quad \pi_{0i} = B_{00} + B_{0m}X_{mi} + r_{0i}$$

$$(2b) \quad \pi_{1i} = B_{10} + B_{1m}X_{mi} + r_{1i}$$

$$(2c) \quad \pi_{ki} = B_{k00}$$

where

$B_{00}$  is the average ("fixed") population intercept or starting point for the growth trajectory;

$B_{10}$  is the average ("fixed") population slope;

$B_{0m}$  is the average ("fixed") effect of some country characteristic  $X_m$  on the country's growth trajectory intercept;

$B_{1m}$  is the average ("fixed") effect of some country characteristic  $X_m$  on the country's growth trajectory slope;

$B_{k00}$  is the average ("fixed") population slope for the  $k^{th}$  time-varying covariate  $v$ ;

$r_{0i}$  is the deviation, or residual, of country  $i$ 's growth trajectory intercept from the value predicted by the population average  $B_{00}$  and all of the  $B_{0m}X_m$ ; and

$r_{1i}$  is the deviation, or residual, of country  $i$ 's growth trajectory slope from the population average  $B_{10}$  and all of the  $B_{1m}X_m$ ;

Equations (2a) to (2c) thus predict the *magnitude* of the Level 1 coefficients in equation (1) with country-level characteristics, which include relatively stable factors such as level of economic development, past political and democratic history, colonial experiences, and the like. Equations (2a) and (2b) express the growth curve intercepts and slopes as random coefficients, predicted imperfectly from the stable country-level characteristics with residual random variation captured in the  $r$  disturbances. Equation (2c) predicts the effects of the  $k$  time-varying covariates as fixed across countries; this is the normal specification for time-varying covariates in the absence of strong expectations to the contrary, or concerns that there might be significant unit-level variation around the coefficient's fixed population mean. As will be discussed, however, in some of the models with AID expenditures as a time-varying covariate, we will treat the  $\pi_{ki}$  as varying, predicted by country-level variables such as region, economic development, past history, and so forth.

The model of equations (1) and (2) can be seen as a *hierarchical*, or a *multilevel* model where Level 1 (equation 1) represents intra-country differences in initial levels of democratic outcomes and growth over time, and Level 2 (equation 2) models the level and growth rates as functions of individual-level differences on important explanatory variables. The model is also called a "mixed" model that contains both "fixed" and "random" effects --- in this case the  $B$  coefficients are fixed, either at the level of the overall population of countries ( $B_{00}$ ,  $B_{10}$ , and  $B_{k00}$ )

or as deviations from the population averages that are determined by Level-2 explanatory variables ( $B_{0m}$ , and  $B_{1m}$ ), while the  $r_{0i}$ ,  $r_{1i}$ , and  $\varepsilon_{it}$  terms are random disturbances. Because of the complex nature of the model's error term (in this case  $r_{0i} + r_{1i} a_{it} + \varepsilon_{it}$ ), the assumptions necessary for ordinary least squares (OLS) estimation --- errors that are independent, normally distributed and with constant variance --- are inherently inappropriate.<sup>6</sup> In order to cope with this problem, the model is estimated instead via iterative maximum likelihood procedures, which are implemented in statistical software packages designed for estimating hierarchical linear models. The baseline model includes both *heteroskedastic* error variances, whereby the residual democracy score may vary more at some time periods than others, as well as *autocorrelated* disturbances, which allow for the error term  $\varepsilon_{(t-1)i}$  to influence its successive value  $\varepsilon_{it}$ , as is commonly the case in longitudinal data. The model thus captures the key features of intra-country longitudinal growth, inter-country differences in the growth coefficients, as well as estimating the form of the error term variances and covariances that is most likely to obtain with over-time data on democratic outcomes.<sup>7</sup>

The interpretation of the effects in hierarchical models is as follows. Significant and positive  $B_{00}$  and  $B_{10}$  coefficients would mean that the fixed population intercept and slope, respectively, differ from zero; in this case that countries on average begin the period at some positive value on the Freedom House scale, and that countries on average exhibit some significant positive growth in democracy per year. Significant and positive  $B_{0m}$  and  $B_{1m}$  coefficients would mean that each unit change in a given Level 2  $m$  control variable produces a  $B_m$  unit positive change in the country's growth trajectory intercept and slope. For example, a value of .05 for the  $B_{0m}$  corresponding to Country Population (measured in millions) would indicate that for every increase of 10 million persons, countries would be predicted to begin the period .5 units higher on the Freedom House Index. A value of .02 for the  $B_{1m}$  of Country Population would indicate that an increase of every 10 million persons is associated with a .2 increase in the rate of democratic growth per year. Finally, significant positive values for the  $B_{k00}$  would indicate that, for every unit increase in the value of the  $k^{th}$  time-varying covariate, the value of the Freedom House Index would increase by  $B_{k00}$  units. For example, a  $B_{k00}$  of .05 for U.S. Democracy and Governance (DG) obligations (measured in millions of constant U.S. dollars ) would indicate that the Freedom House index would be predicted to be .05 units higher for every additional million dollars of DG assistance, or one-half a unit (.5) higher for every additional 10 million dollars. This .05  $B_{k00}$  value is assumed initially in our analysis to hold across all countries in the population at all times, and thus gives us the ability to draw a generalized conclusion about the impact of DG assistance; subsequent, more refined models relax this restriction and attempt to determine when, and under what conditions, the impact of AID DG may be more or less pronounced (i.e., whether additional variables significantly add to, or detract from, the overall "fixed"  $B_{k00}$  value).

<sup>6</sup> In this case the errors are dependent because  $r_{0i}$  and  $r_{1i}$  are common to each individual, and they have unequal variances because  $r_{0i}$  and  $r_{1i}$  vary across individuals and  $r_{1i} a_{it}$  varies across occasions of measurement.

<sup>7</sup> We estimated the models using HLM 6.0, and SPSS 13.0. In the latter's MIXED module, we specified the error term structure to be (ARH1) in order to model both the heteroskedastic and autocorrelated nature of the disturbances. The Polity IV model, though, attained the best fit through an autocorrelation-only specification (i.e. without the heteroskedasticity option).

### ***Variables Included in the Analyses***

In the analysis that follows, we estimated multiple models following the basic form of equations (1) and (2) as stated above. What distinguishes the different models presented below, however, is: a) the inclusion of overall measures of Democracy and Governance aid, or the use of specific sub-sectoral expenditures (e.g., electoral assistance) as independent variables; b) the use of the Freedom House index or the Polity IV score as global measure of democracy, or the use of measures for specific democratic dimensions (e.g., free and fair elections) as dependent variables; c) whether the coefficients on AID effects were treated as fixed or as varying non-randomly due to other explanatory variables. We also estimated a variety of models that deal with several potentially serious threats to causal inference, ranging from omitted variable bias to the potential “endogeneity” of AID obligations. In the latter case, it may be that democratic outcomes *determine* the amount of money that AID obligates to DG programs in a given time period, in which case the direction of causality flows from democracy to AID and not the reverse. We discuss these more complex models in the results section below; for now we outline briefly the AID, democracy and control variables that we included in the core models.

### ***AID-related variables***

For AID obligations, the primary variables were general summary measures of DG and non-DG obligations expenditures in the country, along with the summary measures of the “available” DG and non-DG funding from regional programs for the average country in the region and sub-region (see Appendix 3). Based on our understanding of the nature of the AID obligation and expenditure process, we believe that the most accurate value of AID activity in a given year is a two-year rolling average of the expenditures in that calendar year and the previous year (i.e., times  $t$  and  $t-1$ ). Thus, AID activity for 1994 would be the average of 1993 and 1994 obligations, activity for 1998 would be the average of 1997 and 1998 obligations, and so forth. We arrived at this decision based on our discussions with AID personnel, where it was suggested that obligations in one year may sometimes be spent in that year and sometimes up to one year later. Similarly, it was suggested that, for some countries in some years, AID expenditures drops to zero, not because of a termination of funding but because obligations in the previous year were high and had not yet been fully expended. Thus the AID reading in any given year may be unreliable, and a two-year average will provide more accurate information on what AID is actually doing in a given country at a given point in time. The names of these variables are:

|          |   |
|----------|---|
| AID100   | Total USAID Democracy and Governance                                    |
| AID000   | Total USAID Investment in Other Sectors                                 |
| RSAID100 | USAID Regional and Sub-Regional Funding “Available” for DG Programs     |
| RSAID000 | USAID Regional and Sub-Regional Funding “Available” for Non-DG Programs |
| AID_2    | U.S. Development Assistance not channeled through USAID                 |



All of these variables were standardized to constant 1995 millions of U.S. dollars, using the GDP deflator employed by the World Bank. In previous research, two other methods of standardization have been tested as well, aid per some dollar measure of GDP, and aid per capita (Burnside and Dollar 2000; Knack 2004; Paxton and Morishima 2005). These methods correspond to alternative ways of conceptualizing the impact of a given amount of AID expenditure; in the former it is assumed that the same absolute amount of AID obligations would have larger effects in smaller national economies, in the latter the same absolute amount of AID would have larger effects in countries with smaller populations. We explore each of these possibilities in the analyses to follow.

In subsequent models we disaggregated the AID expenditure variables so that the effects of obligations corresponding to different DG sub-sectors could be estimated separately:

|        |                                      |
|--------|--------------------------------------|
| AID110 | DG-Elections and Political Processes |
| AID120 | DG-Rule of Law                       |
| AID130 | DG-Civil Society                     |
| AID140 | DG-Governance                        |

As with AID100 and AID000, all of these variables represent two-year rolling averages for obligations, scaled in millions of 1995 constant dollars. Following AID's specific interest in human rights compliance and the promotion of free and independent mass media, we finally disaggregated two specific activity areas within the sub-sectoral analyses:

|        |                 |
|--------|-----------------|
| AID121 | DG-Human Rights |
| AID131 | DG-Mass Media   |

These disaggregated variables represent, respectively, the amount of Rule of Law obligations (AID120) devoted to strengthening awareness and compliance with human rights, and the amount of Civil Society obligations (AID130) devoted to strengthening the independent mass media. In these models, we controlled for the non-Human Rights Rule of Law obligations (denoted as AID122) and the non-Mass Media Civil Society obligations (denoted as AID132). These subsectoral obligations will be examined in models predicting countries' overall levels of democracy, as well as democratic outcomes in specific areas relating to elections, civil society, rule of law, and governance.

### ***Democracy Outcomes***

We estimated the impact of AID obligations on a variety of democratic outcomes. We focused first on the *Freedom House Index*, a summary scale ranging from 1-13 that represents the extent of political rights and civil liberties in a given country.<sup>8</sup> This measure is widely used

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<sup>8</sup> The original Freedom House indices (measuring Political Rights and Civil Liberties) range from 1 to 7, with 7 being the least democratic outcome. Following the conventional procedure, we added the two

in the literature as a general indicator of the extent to which the country is characterized by a free, fair and competitive electoral process, along with protections for the freedom of expression, individual rights, personal autonomy and the presence of a “generally equitable” rule of law (Freedom House 2004). We also estimate initial models with the Polity IV measure of overall democracy described in (Marshall and Jaggers 2002). These scores range from -10 on the low side to +10 on the high side, and reflect the competitiveness and openness of executive recruitment, the competitiveness and regulation of political participation, and the constraints on the chief executive. It is also widely used in the democratization literature and has been employed in other recent tests of the impact of foreign assistance (Knack 2004; Paxton and Morishima 2005).

We utilized six different measures to correspond to the USAID DG sub-sectors mentioned above. Four of them were obtained through the statistical procedure known as “factor analysis,” which extracts (when possible) a common latent factor, or dimension, from disparate variables that are presumed to represent imperfect indicators of the overall latent construct. The procedure we utilized was to conduct an *exploratory factor analysis* on the variables that comprised each set of sub-sectoral outcomes (Elections, Rule of Law, Civil Society, etc.). We then constructed an overall factor score from the variables that “loaded” most strongly on the given factor, and finally standardized the scale of the factor to run from 0 to 100, with the “average” country constrained to have a value of 50. Lower values on these factors mean *less* of the democratic outcome in question, and higher values mean *more*. Here we list the variables that comprised each of the democratic “factors” and the source of information for each variable; we show the full results of the factor analyses in Appendix 6. Appendix 6 also contains information about the “reliability,” or the proportion of “true score” variation in each of the summary scales that were constructed from the factor analyses. Reliabilities of .8 or more (indicating 80% “true score” versus 20% “error” variation in the scale) are considered desirable; all of our scales register values of at least .845.

EL15 Factor Corresponding to *Free and Fair Elections*, comprised of:

- EL01 Freedom House Political Rights Component
- EL02 Index of Electoral Competition (Vanhanen 2003)
- EL08 Women’s Political Rights (Cingranelli and Richards 2004)
- EL12 Competitiveness of Participation (Marshall, Jaggers and Gurr 2004; Marshall, Jaggers and Gurr 2005)

CS08 Factor Corresponding to *Conditions for Civil Society*, comprised of:

- CS01 Restrictions on the Organization of Minorities (Minorities at Risk Project 2004)
- CS02 Freedom of Assembly and Association (Cingranelli and Richards 2004)
- CS03 Favorable Conditions for Non-Profit Sector (Green 2004)
- CS04 Religious Freedom (Cingranelli and Richards 2004)
- CS05 Respect for Worker’s Rights (Cingranelli and Richards 2004)
- CS06 Freedom of Movement (Cingranelli and Richards 2004)

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scores, modified the scale to obtain a range between 1 and 13 (rather than between 2 and 14), and inverted the scores so that highest values would correspond to the most democratic cases.

## CS07 Respect for Women's Economic Rights (Cingranelli and Richards 2004)

- RL15 Factor Corresponding to *Respect for Human Integrity* (Human Rights), comprised of:
- RL08 Political or Extrajudicial Killings (Cingranelli and Richards 2004)
  - RL09 Disappearances (Cingranelli and Richards 2004)
  - RL10 Torture or Other Cruel or Degrading Treatment (Cingranelli and Richards 2004)
  - RL11 Political Imprisonment (Cingranelli and Richards 2004)
  - RL12 Political Terror Scale (Gibney 2004)
- RL16 Factor Corresponding to *Free Media*, comprised of:
- RL02 Freedom of the Press (Freedom House 2004) (1990-1992 values, ordinal scale)
  - RL03 Freedom of the Press (Freedom House 2004) (1993-2003 values, interval scale)
  - RL04 Freedom of Speech and Press (Cingranelli and Richards 2004)
  - RL14 Restrictions on Freedom of Expression (Minorities at Risk Project 2004)

It is important to emphasize that we were unable to create aggregate indices of general rule of law (given the lack of systematic information on aspects other than human rights violations) and of governance. The large number of missing values for most indicators related to the Governance sub-sector prevented the use of factor analysis (see discussion of missing data below). As an imperfect alternative, we utilized an index of *Government Effectiveness* developed by the World Bank Institute (Kaufmann, Kraay and Mastruzzi 2005).

The World Bank Government Effectiveness measure is an index combining some 37 different sources of information to reflect “the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitment to policies” (Kaufmann, *et al.* 2005). The measure is scored on a Z-Score scale, with z-scores representing the number of standard deviations a country ranks above or below the population average. Thus a score of -2 would represent a country whose overall government effectiveness rating is 2 standard deviations below average, while a score of +1 would represent a country whose government effectiveness rating is 1 standard deviation above average. Although this index has a very broad geographic coverage, we could not eliminate the problem of missing data for the governance indicators because the series do not include the full range of years we are covering in our study. The problem is discussed in more detail in the following section.

### ***Control Variables***

All models incorporated the same set of control variables, i.e., the variables aside from foreign expenditures/investment and other donor assistance included as competing explanations of democratic outcomes. Some of these variables displayed change over time, in which case they will be included as  $\nu$  variables in equation (1), while others were (relatively) stable country characteristics which were included as  $X$  variables in equations (2a-2b). We included variables related to each of the key categories represented in the codebook: economic development (DEV), economic performance (PRF), economic dependence (DEP), social indicators and population (SOC), political history and institutions (POL), state failure indicators (STF), and democratic diffusion (DIF). We also developed, in consultation with the AID research team,

measures of the foreign policy priority (FPP) that the U.S. assigns to each country. These variables were difficult to measure, and should therefore be seen as tentative indicators. The specific controls were:

*Time Varying Covariates: V variables in equation (1)*

1. **Economic Growth (PRF01).** Yearly change in per capita GDP. Data collected from the World Development Indicators, WDI (World Bank 2005).
2. **Inflation (PRF02).** Annual percentage change in the consumer price index (World Bank 2005).
3. **Unemployment (SOC07).** Percentage of the labor force without work but seeking employment (World Bank 2005).
4. **Exports (DEP01).** Value of goods (FOB) exported to the rest of the world valued in current U.S. dollars (World Bank 2005).
5. **Regional Democratic Diffusion (DIF02).** Average Freedom House score for all countries in the same geographic region (excluding the country in question) during the previous year. Regions were defined followed the classification of the USAID database.
6. **U.S. Military Assistance Priority (FPP01).** Percentage of total U.S. security assistance (military and counter-narcotics grants) allocated to a particular country during the fiscal year.
7. **Non-U.S. Total Donor Assistance (ODA999).** Official development assistance and official aid supplied to the country by governments other than the United States, in constant 1995 dollars (OECD 2005).
8. **Political Conflict and Violence (POL05).** Index summarizing eight forms of conflict: political assassinations, general strikes, guerrilla warfare, government crises, purges, riots, revolutions, and anti-government demonstrations. The Banks dataset codes each form of conflict as a yearly event count (based on The New York Times) and weights each form of conflict before computing an average.

*(Relatively) Stable Country Characteristics: X Variables in equations (2a-b)*

1. **Years of Democratic Experience, pre-1990 (L203).** Number of years between 1972 and 1989 that the country was rated as “Free” by Freedom House.
2. **Average GDP per Capita (L221).** GDP on a purchasing power parity basis divided by total population. Values reflect average of data points collected by the *CIA Factbook* for 2000-2005. This indicator correlates at .95 with the World Bank data but it offers broader coverage (195 countries vs. 177 in WDI).
3. **Per Cent Urban, 1990-2003 (L226).** Percentage of the population living in urban centers (World Bank 2005).

4. **Population (L220).** Average Population for the period 1990-2003, in thousands (World Bank 2005). The figure reflects the average yearly population (all age groups) over the 14-year period.
5. **Country Size (L223).** Land area of the country measured in squared kilometers (Banks 2004).
6. **Income Distribution/Inequality (L222).** Percentage share of income received the top 20 percent of the population. Values reflect average of data points collected by the World Development Indicators for 2000-2003 (World Bank 2005).
7. **Summary Measure of State Failure, pre-1990 (L212).** Number of years between 1960 and 1989 that the country suffered political anarchy or foreign intervention (coding based on Marshall, *et al.* 2004)
8. **Ethnic Fragmentation (L225).** Average index of ethno-linguistic fractionalization for 1960-2003. Our measure is the mean of the Annett and the Fearon indices of ethnolinguistic fractionalization, both measured between 0 (perfect homogeneity) and 1 (extreme ethnic fractionalization) (Annett 2001; Fearon 2003; Fearon and Laitin 2003).
9. **British colonial experience (L213).** A dichotomous indicator coded 1 if the country was a British colony (Bernhard, Reenock and Nordstrom 2004; Teorell and Hadenius 2004).
10. **Prior AID Presence, Pre-1990 (L2999B).** A dichotomous variable indicating any U.S. official development assistance or official aid during 1960-1989.

### **Missing Data**

Some of those sources contained incomplete information; we were thus forced to deal with the problem of missing values. Listwise deletion (i.e., dropping cases with missing information on any variable) resulted in a poor solution because it reduced the geographic coverage of the analysis significantly (see also King, *et al.* 2001). In order to address this problem we decided to impute missing values for the key variables in the study. Whenever possible, we used alternative sources of information to estimate missing data. For instance, if GDP data from the World Bank database (WDI) was not available for a particular observation, we estimated the missing values using GDP data from the Penn World Tables and the CIA Factbook. In other cases, although a second measure of the same concept was not readily available, the high correlation among some variables in the dataset (e.g., between the Freedom House and the Polity indices) facilitated the imputation process.

We adopted an expectation-maximization (EM) procedure for the estimation of missing data (McLachlan and Krishnan 1997; Allison 2001).<sup>9</sup> Appendix 7 summarizes the variables that

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<sup>9</sup> EM is a maximum-likelihood procedure that uses the information available on other variables to estimate missing data points: “In simple cases, this involves running regressions to estimate  $\beta$ , imputing the missing values with a predicted value, reestimating  $\beta$ , and iterating until convergence” (King, *et al.*

required imputation, the percentage of missing values, and the variables used to obtain the EM estimates. When variables presented a very large number of missing values and there were no alternative measures, we preferred to work with an incomplete dataset (adopted listwise deletion). This problem was characteristic of the governance indicators. For instance, the World Bank government effectiveness indicator (GV07) presented valid information for just 27 percent of the observations (73% missing) because data is available only for 1996, 1998, 2000, and 2002 (2004 is covered by the last release of the data but our study ends in 2003) (Kaufmann, *et al.* 2005). In those situations we deemed EM imputation as an unreliable strategy.<sup>10</sup>

### ***Plan of Analysis***

We begin by first estimating a general “baseline” model that assesses the impact of AID obligations on overall democratic outcomes over time. This model has the Freedom House and Polity IV scales of political rights and civil liberties as the dependent variables, and the aggregate AID DG and non-DG indices, AID100 and AID000, as the primary independent variables of interest. We then explore numerous variants of this model to assess its robustness to different standardizations of the AID variables’ scale (e.g. per capita and relative to GDP), different lag specifications of the impact of AID variables, and different models that attempt to control for the most serious threats to causal inference mentioned above.

We then introduce the disaggregated sub-sectoral AID obligations into the analyses, first in predicting the overall Freedom House and Polity IV measures to determine which (if any) AID sub-sectoral obligations are most effectiveness in producing democratic change. We then use the AID sub-sectoral obligation variables to predict five different democratic outcomes (Free and Fair Elections, Conditions for Civil Society, Free Media, Respect for Human Integrity, and Government Effectiveness), to determine the extent to which specific AID sub-sectoral and sub-sub-sectoral activity is effective in bringing about change *on the specific democratic dimensions* in questions. That is, we model whether AID civil society activity have its largest effect on the democratic factor related to Civil Society, AID media activity have its largest effect on the Free

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2001). We considered the option of multiple imputation (i.e., creating multiple datasets with different estimates drawn and combined for future analysis). However, practical reasons (the need to impute at multiple stages of the analysis—measurement and causal modeling—and the difficulty to implement multiple imputation with some of the hierarchical models we estimated) led us to adopt a more parsimonious EM procedure (Allison 2001; King, *et al.* 2001).

<sup>10</sup> The only case in which we imputed a vast majority of the observations was for the creation of the Civil Society Index (see Appendix 7, A2). Green’s measure of the Non-Profit Sector only covers Eastern Europe and Newly Independent States, therefore about 90 percent of the observations present missing values. Given this limitation, we could not use the raw index as an item for the exploratory factor analysis including all countries; at the same time, ignoring this measure would throw away valuable information on Eastern Europe and the NIS. To overcome this problem, we used all other measures of civil society (which had broad geographic coverage) to impute missing values for the Green Index, and then conducted the factor analysis on the full matrix of imputed scores. Imputed values for the Green Index had no substantive informational value; they just reflected how the other items mapped into the Green scores. But in this way we were able to improve the estimates for the former Soviet Bloc.

Media factor, and so on. When appropriate, we explore variants of these models to assess their statistical robustness as well.

## Results

### *The “Baseline” Freedom House and Polity IV Models*

We present first the results of the estimation of the “baseline” Freedom House and Polity IV models in Table 4. The top panel in the table shows the impact of time-varying covariates (level 1 variables) on the level of democracy achieved during specific years, given the initial level of democracy and the overall democratization trajectory (or growth curve) determined by the country’s characteristics. The middle panel displays the effect of fixed country attributes (level 2 variables) on the initial level of democracy (Intercept) and on the rate of democratization during the period 1990-2004 (Slope). This model therefore includes the effects of the two-year rolling average of AID Democracy and Governance obligations, other AID and non-U.S. obligations, time-varying covariates such as economic performance and U.S. foreign policy priorities, and the country-level control variables discussed in the previous section as predictors of the “intercepts” and “slopes” in countries’ democratic growth trajectories. Coefficients in boldfaced red (marked with two stars) indicate that they are statistically significant at the .05 level, and coefficients in non-boldfaced red (one star) indicate statistical significance at the .10 level.<sup>11</sup>

Model (1) in the first two columns of the table shows the results of the estimation of the Freedom House Index model including all variables just discussed except for inflation, unemployment, exports, urbanization, and British colonial experience, which were statistically irrelevant in every model estimated and so dropped from further consideration. The results show, first, that there are significant effects of several variables on the “intercepts” of countries’ growth trajectories. Countries on average start the period with a Freedom House value of approximately 6.67, with an additional increment of .30 for every year of previous democratic experience between 1972 and 1989.<sup>12</sup> Wealthier countries are predicted to start the period at higher democratic levels than poorer countries, as are, somewhat anomalously, countries with higher levels of income inequality.<sup>13</sup> Indicators of prior AID presence before 1990, state failure between 1960-1989, population, country size, and ethnic fractionalization all have insignificant growth trajectory intercept effects.

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<sup>11</sup> In the former case, this means that the effects could have come about through random chance less than 5 times out of 100, while the latter means that chance processes would have produced the effect less than 10 times out of 100. These are conventional levels in the social sciences for assessing statistical significance.

<sup>12</sup> The “average” country in this context means countries with mean levels of all covariates, including AID obligations, time-varying covariates, and country-level predictors.

<sup>13</sup> The scholarly literature suggests that high levels of income inequality are negatively related to democracy, though it may be the case that in some areas (e.g. post-communist Eastern Europe), there were initially low levels of both income inequality and democracy.

The results also indicate that countries, on average, experience a positive rate of change in the Freedom House index over time. Confirming what Figure 1 had shown previously, the average country increases about .05 points on the 13 point scale each year, such that, by the end of the 14 year period, the average Freedom House score was predicted to be about .7 units higher. The only variable that predicts difference in this “average” rate of change is prior democratic experience, such that countries that began the period at higher democratic levels showed less positive rates of change, while countries at lower levels showed greater rates of positive change. This reflects to a great extent the familiar “floor and ceiling” effects in assessing change over time, that is, countries that are already high on Freedom House have less room to “grow” while countries already low on Freedom House have less room to “fall.” More substantively, the pattern indicates that the 1990-2003 period was not simply one where the “rich got richer,” that is, where formerly democratic countries were the ones that experienced the greatest amounts of positive democratic change. On the contrary, countries with lower levels of prior democracy had greater rates of change over time. The effects of all other variables on countries’ growth trajectory slopes were insignificant.<sup>14</sup>

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<sup>14</sup> We note that, controlling for all variables predicting the growth trajectory intercept and slope, there is still significant variation in those parameters in the overall sample of countries. This is shown in the statistically significant “random intercept” and “random slope” estimates at the bottom of the table. Some countries have higher or lower values than the average starting point of 6.67, and some countries have higher or lower values than the average rate of change of .05, and these deviations are not completely accounted for by the Level 2 variables in our model. Nevertheless, including these random effects allows us to estimate the impact of AID and other time-varying factors, over and above each country’s specific democratic growth trajectory.



**Table 4. The Growth Model for Freedom House and Polity IV Democracy Scores**

|   | Freedom House Model |            | Polity IV Model         |                       |
|---|---------------------|------------|-------------------------|-----------------------|
|   | Coefficient         | Std. Error | Coefficient             | Std. Error            |
| <b>Level 1 Covariates</b>                       |                     |            |                         |                       |
| <b>Democracy and Other Assistance</b>           |                     |            |                         |                       |
| <i>USAID DG</i>                                 | <b>.025**</b>       | .01        | <b>.044**</b>           | .016                  |
| <i>USAID Non-DG</i>                             | .000                | .00        | -.00008                 | .001                  |
| <i>Non-USAID US</i>                             | -.000               | -.00       | -.001                   | .001                  |
| <i>Regional-Subregional DG</i>                  | -.084               | .14        | .051                    | .309                  |
| <i>Regional-Subregional Non-DG</i>              | -.006               | .01        | .035                    | .025                  |
| <i>Other Donor Assistance</i>                   | 5.760E-005          | 5.62E-005  | -.00005                 | .0001                 |
| <b>Economic and Political Factors</b>           |                     |            |                         |                       |
| <i>GDP Growth Per Capita</i>                    | <b>.014**</b>       | .00        | .001                    | .006                  |
| <i>Regional Democracy</i>                       | <b>.302**</b>       | .06        | <b>.929**</b>           | .110                  |
| <i>U.S. Military Assistance Priority</i>        | -.015               | .01        | .008                    | .036                  |
| <i>Extent of Political Violence</i>             | <b>-.001**</b>      | .00        | -.001                   | .007                  |
| <b>Level 2 Variables</b>                        |                     |            |                         |                       |
| <b>Effect on (Level-1) Intercept</b>            |                     |            |                         |                       |
| <i>Average Intercept</i>                        | <b>6.667**</b>      | .23        | <b>.656*</b>            | .40                   |
| <i>Prior Democracy</i>                          | <b>.296**</b>       | .05        | <b>.519**</b>           | .08                   |
| <i>Pre-1990 USAID</i>                           | -.801               | .58        | -1.178                  | 1.00                  |
| <i>Population</i>                               | -2.52E-006          | 2.21E-006  | -5.7 x 10 <sup>-7</sup> | -3.7x10 <sup>-6</sup> |
| <i>Size in Squared Km</i>                       | -2.59E-005          | .00        | 3.22x10 <sup>-5</sup>   | .0003                 |
| <i>Income Per Capita</i>                        | <b>.096*</b>        | .05        | .089                    | .08                   |
| <i>Ethnic Fractionalization</i>                 | -1.473              | 1.05       | -2.101                  | 1.81                  |
| <i>Income Inequality</i>                        | <b>.064*</b>        | .03        | <b>.095*</b>            | .06                   |
| <i>State Failure, Pre-1990</i>                  | -.144               | .13        | -.079                   | .22                   |
| <b>Effect on (Level-1) Slope</b>                |                     |            |                         |                       |
| <i>Average Slope for Growth Curve</i>           | <b>.050**</b>       | .01        | <b>.134**</b>           | .03                   |
| <i>Prior Democracy</i>                          | <b>-.005**</b>      | .00        | <b>-.013**</b>          | .006                  |
| <i>Pre-1990 USAID</i>                           | -.037               | .04        | .065                    | .076                  |
| <i>Population</i>                               | 1.520E-007          | 1.36E-007  | -1.3x10 <sup>-7</sup>   | 2.9x10 <sup>-7</sup>  |
| <i>Size in Squared Km</i>                       | -1.775E-005         | 9.67E-006  | 4.2x10 <sup>-6</sup>    | 2.07x10 <sup>-5</sup> |
| <i>Income Per Capita</i>                        | .002                | .00        | -.003                   | .01                   |
| <i>Ethnic Fractionalization</i>                 | .089                | .06        | .151                    | .14                   |
| <i>Income Inequality</i>                        | .002                | .00        | .002                    | .005                  |
| <i>State Failure, Pre-1990</i>                  | -.004               | .01        | -.016                   | .017                  |
| <b>Model Statistics and Variance Parameters</b> |                     |            |                         |                       |
| <i>Approx. Level 1 R-squared</i>                | .38                 |            | .45                     |                       |
| <i>Random Variance (Intercept)</i>              | <b>5.082**</b>      | .85        | <b>10.04**</b>          | 2.99                  |
| <i>Random Variance (Slope)</i>                  | <b>.011**</b>       | .00        | .017                    | .016                  |
| <i>Autocorrelation (rho)</i>                    | <b>.806**</b>       |            | <b>.874**</b>           |                       |
| <i>Model Deviance/AIC</i>                       | 6281.55             | 6315.554   | 9549.01                 | 9557.01               |

Note: \*\* coefficients (in bold red) are significant at p<.05 (two-tailed); \* coefficients (in red) significant at p<.10 (two-tailed). (See footnote 10 for clarification.)

The results for the group of AID-related variables show two clear findings: *AID Democracy and Governance obligations have a significant impact on Freedom House scores, while all other U.S. and non-U.S. assistance variables are statistically insignificant.* The effect of .025 for USAID Democracy and Governance obligations indicates that, for every 10 million additional dollars of U.S. democracy assistance, a country is predicted to be .25 units, or one-quarter of a point higher on the Freedom House general democracy index in a given year. This effect occurs, again, over and above the democratization dynamics of the country as reflected by its growth parameter intercept and slope, and occurs controlling for a host of time-varying and country-level invariant economic, social and political attributes. This is a strong initial affirmative answer to the study's core research question.

Interestingly, no other assistance variable is shown to have a direct statistically significant impact. The amount of USAID non-democracy obligations are irrelevant, as are regional and subregional pools of democracy and non-democracy assistance, as are the amounts of U.S. aid that flow through non-USAID sources. Finally, the aggregate level of non-U.S. foreign assistance is statistically insignificant as well. Thus, the only effect that matters for a country's level of democracy, as measured by the Freedom House index, is the amount of U.S. funding specifically targeted for democracy assistance.

Though the effects of non-democracy assistance variables are found to be insignificant, we caution against interpreting these factors as being completely irrelevant to the dynamics of democratic growth. First, it may be the case that such variables have effects on a country's level of democracy through other economic or other factors such as GDP growth or regional democratic diffusion that we address below. To the extent that, for example, U.S. non-democracy assistance successfully improves economic performance, such assistance may then affect levels of democracy indirectly. The results in Table 4 show only that these variables do not exhibit direct effects on Freedom House ratings in a given year, and we leave to future research the task of sorting out the possible effects of AID obligations on economic or other factors that may in turn affect democracy. Second, the results for the non-U.S. variables are drawn from the OECD data base, which, as we suggested above, contains a reasonable amount of measurement error that limits the usefulness of these indicators. It was for this reason that we combined foreign "democracy" and "non-democracy" obligations into a single variable, as the activity codes in the OECD database were not able to discriminate democracy programs from other obligations with near the amount of precision that the Green-Richter data allow for the United States. It may be the case, then, that better measures of non-U.S. *democracy* assistance would show similar impact as AID obligations, and that the non-effect of our foreign assistance variable reflects mainly the non-effect of foreign economic and development assistance. We therefore make no strong claim about the effects of non-U.S. democracy assistance, and urge that greater attention be paid in the future to measuring these kinds of obligations more precisely, as the Green-Richter data have done for the United States.<sup>15</sup>

<sup>15</sup> This same criticism applies to the Knack (2004) article described above, which argues for an insignificant impact of U.S. assistance on democratic growth over time. The OECD data on U.S. democracy assistance during the 1990-2003 time period correlates with the Green-Richter data that we use in this project at only the .62 level, thus indicating that, at least in the U.S. context, the OECD

Finally, the results show that three time-varying covariates are also significant predictors of a country's Freedom House level, over and above the country's growth trajectory and over and above U.S. AID democracy obligations. Growth in the country's GDP over the past year has a clear positive effect on the level of democracy, as does the extent of regional democracy in the previous year. These findings reflect long-standing results in the literature, such that short-term economic performance and diffusion processes from neighboring states both contribute to democratic development. The effect of our summary measure of political conflict and violence is significantly negative, indicating that social and political strife exerts a negative short-term impact on the country's level of democracy as well.

We present the corresponding results for the Polity IV measure on the right side of Table 4. The results very closely parallel those seen for the Freedom House variable, and this congruence of results for the two variables gives us much confidence in the robustness of the statistical findings. There are significant differences in countries' democratic starting points and rates of change in democratic growth over time, with country intercepts being influenced by prior levels of democracy, higher levels of income inequality, though in this model income per capita is not statistically significant. The country growth trajectory slopes are also influenced negatively only by prior levels of democracy. Controlling for these country-specific growth processes, the two-year rolling average of AID democracy and governance obligations exerts positive short-term impact on the Polity measure, confirming the main finding from the Freedom House model. In fact, the size of the effect (.044) is *almost exactly the same magnitude*, relative to the length of the scale, as that found in the Freedom House model.<sup>16</sup> Moreover, as in the Freedom House model, none of the other aid-related variables exert significant impact on democratic outcomes indicating that *only* obligations relating to democracy appear to matter for producing democratic change. In this model, however, the only other covariate that exerts impact on overall democracy is the extent of prior levels of regional democracy, while GDP growth, U.S. foreign policy priority and the measure of political and social conflict all have insignificant effects in this model.

U.S. DG assistance is thus shown to have a consistently, and remarkably similar, positive and significant effect on the study's two overall measures of democracy, and it does so in the context of models that are otherwise very similar in terms of the impact of other explanatory variables. This is strong early evidence that U.S. DG assistance contributes positively, at least in the short term, on countries' overall level of democratic development.

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measure is inherently flawed. If, as seems likely, the same problems beset the indicator in other country settings, the non-finding here should be viewed with caution.

<sup>16</sup> That is, .044 is about .002 units on the 21 point Polity scale, while .025 is .0019 units in the 13 point Freedom House scale. So \$1 million (1995) dollars in AID DG obligations moves the overall democracy score by almost exactly the same magnitude, on average, in both models.

### ***The Strength of the AID Democracy Effect***

How strong is the impact of AID DG obligations on a country's level of democracy? It is one thing to say that the effect is statistically significant, that is, that it was unlikely to come about by chance, but another to claim that the effect is strong, either in a statistical sense or in a substantive sense that would have important policy implications. We can assess the strength of the effect in a number of ways, by probing in greater detail what a coefficient of .025 on the Freedom House scale, or .044 on the Polity IV scale in Table 4 means, by comparing the AID DG effect to the effects of other independent variables, and by examining the importance of all of the variables in the model, including AID DG obligations, in explaining variation in countries' level of democracy.

As noted above, the coefficient of .025 on DG AID obligations in the Freedom House model means that, for every additional million dollars that AID obligates to a country per year, that country's Freedom House score is predicted to be .025 higher, on average. Put another way, ten million dollars in DG obligations raises the Freedom House index by about .25, or one-quarter of a point. In the Polity IV model, ten million dollars in DG obligations raises the index by about 4/10 to 5/10 of a point. How large are such increases? To put this value in better perspective, consider that the slope of an average country's democratic growth trajectory in the Freedom House model is predicted to be .05, meaning that the average country increases on the index by about 5 one-hundredths of a point per year. This is, of course, a relatively small amount of "baseline" growth for the average country, yet it does reflect the slow but rather steady increase in democratization among the eligible countries in our analysis that was depicted in Figure 2 at the outset of this study. Nevertheless, the AID coefficient indicates that each million additional (1995) dollars in democracy assistance obligations would increase that value by .025, or 50%. Or in other words, ten million additional dollars would produce -- by itself -- about a five-fold increase in the amount of democratic change that the average country would be expected to achieve, *ceteris paribus*, in any given year. The corresponding value in the Polity IV model is about a 33% increase in change over the "otherwise average" amount of yearly democratic growth for each one million dollars of assistance.<sup>17</sup>

Consider also that the average observed change on the Freedom House score over the entire 14 year period is 1.1 units.<sup>18</sup> This means that the one-year increment in Freedom House ratings from 10 million dollars of DG assistance (.25 of a point) would represent a change that is nearly 23% as large as the *total* changes that the average country achieved between 1990 and 2003. The corresponding figure for the Polity IV scale is 14%, with a predicted change of .44 from 10 million dollars of DG investment and an observed average amount of total 1990-2003 change of 3.17 units. We consider these figures as indicating a very strong *potential* impact of

<sup>17</sup> Again, the average country changes by a small amount per year, .134 units on the 21 point Polity IV scale.

<sup>18</sup> Due to the complex nature of the model, the amount of average observed change will not necessarily equal the amount of predicted change for the average country (.7 units, or 14 years multiplied by .05 units of change per year).

AID DG obligations.<sup>19</sup> Even stronger impacts are predicted if average AID DG obligations were raised to levels such as those seen for the most heavily funded countries in the sample, for example Serbia and Montenegro's 2003 value of \$79.8 million, the Russian Federation's 1995 value of \$51.0 million, or Egypt's 1998 value of \$52.6 million.<sup>20</sup> At the same time, these *potential* impacts must be viewed in the context of the *actual* current outlays for democracy assistance. The average eligible country received only \$2.07 million per year during the time period, and this figure reached only \$3.66 million in 2003. This latter figure translated into a "total effect" on world-wide Freedom House scores of approximately .09 of a point, or a "total effect" of .16 of a point on the Freedom House scale among the 93 countries that received *any* DG assistance during that year.<sup>21</sup> These are certainly modest amounts of absolute democratic change that can be attributed to current DG outlays.

Given the average amount of 2003 DG assistance, an increase to 10 million a year, then, would represent something on the order of a three-fold increase in the overall amount of democracy aid, and this aid would need to be sustained at reasonably similar levels each year in order to achieve the impacts we have described above. Our point is simply that there is a gap between the potential level of DG impact and its actual effects on world-wide democracy, and that closing this gap would require substantially greater outlays than are currently the case. These levels of outlays may or may not be possible for USAID, and of course this is a policy issue, and not an empirical or statistical one. We note, though, that as Figure 4 demonstrated above, U.S. democracy assistance has increased sharply since 1990 to levels that we suspect would have been unthinkable in 1990. In addition, Figure 5 showed that DG assistance is still only a small portion of total USAID assistance, and still only a relatively small proportion of

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<sup>19</sup> These figures must be interpreted in view of AID DG's role as a *time-varying covariate* in the statistical model, that is, as a factor that adds (or subtracts) from the value of the Freedom House index that is predicted by the country's own growth trajectory. While 10 million dollars of DG assistance produces a .25 unit change in any given year, it is *not* the case that 10 years of 10 million dollars would produce a 2.5 unit change for that period. Rather, each year of \$10 million dollars of DG assistance yields a predicted Freedom House rating that is .25 above whatever value is predicted by the country's growth trajectory for that year. If the growth trajectory predicts that a country's 1995 rating will be 7, then 10 million dollars in 1995 DG obligations will raise that value to 7.25. But 10 million additional dollars in 1996 will not raise the value further to 7.5; rather the value will again be .25 over and above whatever value is predicted by the country's growth trajectory for 1996. For this reason the effects over time of DG obligations (or any other time-varying covariate) in this model are not cumulative. We consider models with longer-term lag effects on democratic outcomes from AID obligations in subsequent analyses below.

<sup>20</sup> We note that there are few countries in the sample with DG obligations at such high levels. There are only 8 cases (from 5 countries) of DG obligations of 40 million dollars or more, and only 15 cases (from 8 countries) that received 30 million or more. It may be the case that the impact of DG assistance would diminish at these higher levels, and, though we find no evidence of diminishing returns of DG obligations in our initial analyses below, the relative paucity of cases at these high levels of funding renders this conclusion a tentative one. We also note that sudden, large increases in DG assistance over previous levels may not produce the same amount of change as slower and steadier increments in funding. We did not explore these possibilities in the analyses.

<sup>21</sup> These figures were calculated as: 3.66 (million dollars on average for all countries) multiplied by .025 (the effect per million) = .09, and 6.45 (million dollars on average for the 93 countries that had non-zero obligations in 2003) multiplied by .025 = .16).

overall GNP, especially when compared to the assistance given by a number of Northern European donor countries. From these perspectives, higher levels of DG spending may be justifiable, and the results here can serve to guide policy makers regarding what would be needed to achieve even larger impacts of overall democracy growth.

We may also assess the importance of the AID DG assistance variable in relative terms, that is, in comparison with the effects of other variables in the model. We note first, as discussed above, that the DG variable is the *only* assistance variable from U.S. or non-U.S. sources that matters for predicting a country's Freedom House score. That alone indicates some relative "importance" of the DG variable. However, in comparison to other time-varying factors such as GDP growth and especially regional democratic diffusion, the impact of AID DG assistance is somewhat more moderate in magnitude. The best way to assess the relative impact of variables that are measured on completely different scales (i.e. AID obligations is measured in dollars, regional democracy in Freedom House "units," and GDP growth in percentage points) is to recalculate the regression coefficients to reflect the impact of the variables as measured in standard deviation terms, that is, as if each variable had a mean of 0 and a standard deviation of 1. In this way the interpretation of the coefficients is the amount of *standard deviation* change in Freedom House scores that is produced by a *standard deviation* change in AID obligations, regional democracy, etc. The standardized coefficients for all of the time-varying covariates are presented in Table 5.

Table 5. The Relative Importance of AID DG Obligations and other Time-Varying Covariates

|  | <b>Standard<br/>Deviation of<br/>the Variable</b> | <b>Unstandardized<br/>Regression<br/>Coefficient</b> | <b>Standardized<br/>Regression<br/>Coefficient</b> |
|--|---|--|--|
| <b>AID DG<br/>Obligations</b>                          | 5.51  | 0.025  | 0.04   |
| <b>GDP Growth</b>                                      | 6.95  | 0.014  | 0.03   |
| <b>Regional<br/>Democracy in<br/>Previous Year</b>     | 2.62  | 0.302  | 0.21   |
| <b>Extent of<br/>Political and<br/>Social Conflict</b> | 56.04   | -0.001   | -0.01  |

By this measure, a standard deviation change in the AID variable produces only a .04 standard deviation change in democracy, which reflects that fact that one standard deviation of AID assistance (5.5 million dollars) produces a .138 unit change in Freedom House, representing only 4 one-hundredths of Freedom House's standard deviation of 3.7 across the entire sample. This corresponding value for GDP growth is only .03, and for political and social conflict -.015, both lower than the impact of DG assistance. Much has been made in the literature, ever since Lipset's pioneering work on the subject, that economic development and democracy are closely tied. Our results reaffirm the link, but show that it is overshadowed, if even slightly, by USAID

DG assistance. On the other hand, the standard deviation change attributable to democratic diffusion in our model is .21, which is significantly higher than the AID variable. Thus a standard deviation change in regional democracy (corresponding to an average regional change of 2.6 Freedom House units) is predicted to produce over a one-fifth standard deviation change in a country's Freedom House score, by far the largest impact of any time-varying covariate. The evidence suggests, then, that AID DG obligations has a modest impact on levels of democracy in standard deviation terms; it produces changes in democracy that are significantly weaker than those produced through regional democratic diffusion, but somewhat higher than GDP growth and more consequential than the negative impact on democracy that results from higher levels of political and social strife. Yet, if USAID assistance helps raise the level of democracy for individual countries within a region, then the diffusion effect in our model can be thought of as spilling over to neighboring countries, and thus the DG aid might be having a small indirect impact on other countries through regional diffusion.<sup>22</sup>

Finally, we note that all of the results shown here must be viewed in the context of an overall model that performs modestly in terms of explaining the variation in countries' year-by-year levels of democracy. We assess this "R-squared" value by first allowing each country to have its own intercept, or level of Freedom House or Polity IV democracy, that is assumed not to change over time. The amount of error produced in Freedom House predictions in this model of country-level differences and no longitudinal change is then compared to the errors produced by our full model, which includes country-level growth over time, the explanatory variables that account for growth, and the time-varying covariates such as AID obligations, regional democratic diffusion, and the like. The reduction in our errors in predicting Freedom House scores by using the baseline as opposed to a default "country intercept" model is approximately .38.<sup>23</sup> The corresponding value for the Polity IV measure is .45. This indicates that our model as a whole explains roughly one-third to one-half more of the variation in Freedom House or Polity scores, across the entire sample and across all time periods, than simply using the country's own average scores for the period. These values indicate that much variation in levels of democracy remains unexplained by our model. Though we have included nearly all variables suggested from the literature as potential explanatory factors, it is nevertheless the case that DG democracy assistance, in combination with all other variables, does not account for the lion's share of variation in country-year Freedom House and Polity IV scores. This result is perhaps not surprising. Early studies of regime transitions emphasized that much of the democratization process in the short run is explained by contingent choices made by social and political elites (as well as by citizens) in contexts of high uncertainty (Rustow 1970; O'Donnell and Schmitter

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<sup>22</sup> This will likely be a relatively small effect, as the USAID-induced increase in each country's democratic level are averaged with all other countries in the region to produce at most modest changes in overall regional democracy, which then feeds back to produce modest changes in the democracy levels of the individual countries in the region.

<sup>23</sup> This value is approximate because we have assumed constant variance over time for the residuals in both the default model and in our full model in order to calculate a single "proportional reduction of error" statistic. The actual Freedom House model, as noted above, (realistically) allows the variance of the disturbances to have different values in 1990 from 1995, 2000, and so on, which makes it difficult to conduct the kind of calculation that we have done here.

1986; Karl 1990). This is precisely the type of variance captured by the error term. The conclusion we draw from this exercise is that there is much that social scientists do not yet know about how democracy grows or is eroded. Further, it is only in recent years that data sets on institutions and culture have emerged that are large enough to enable us to test hypotheses with some degree of confidence. Unlike disciplines such as public health, where the effect on life expectancy, for example, of providing clean drinking water have been studied for over a century, political science is just at the beginning stages of understanding democratic growth and decline.

All of this information leads us to conclude that USAID DG assistance has played a positive, albeit limited, role in promoting democracy among the eligible countries world-wide in the period 1990-2003. The AID democracy effect is noteworthy insofar as *no* other AID-related variable has any effects on Freedom House or Polity scores; moreover the DG effects are relatively large in terms of their potential to influence levels of democracy if the values of AID democracy assistance were increased substantially. The effects, however, are more modest in terms of their *actual* impact on democracy among the sample of eligible countries and also modest in terms of accounting for variation in democratic levels across countries and across time.

### ***Variations of the Baseline Model and Robustness of the AID DG Effect***

The baseline model estimated thus far indicates that USAID Democracy and Governance assistance, as measured by the two-year rolling average of DG obligations, has a statistically significant effect on a country's overall Freedom House and Polity IV scores, controlling for the country's specific democratic growth dynamics and a series of time-varying and time-invariant control variables. There are, however, other possible ways to conceptualize and specify the AID DG effect on democratic outcomes, including the possibility of lagged effects of DG and other assistance variables, non-linear effects of AID, and the possibility that AID variables have different effects when standardized on a per capita basis, or to a given country's level of economic development. In this section, we explore these possibilities in order to determine the robustness of the AID DG effect to alternative specifications, and to explore ways of refining the initial conclusion in the baseline model that AID DG obligations mattered for a country's level of democratic development. We focus hereafter on the Freedom House index only for ease of presentation.

Table 6 shows the estimated effect of AID DG obligations under a variety of different specifications.<sup>24</sup> In model 6-A, we include AID DG obligations, lagged by one time period, in addition to the contemporaneous level of AID DG assistance. This model thus includes both the rolling average of the current (t) and previous year's (t-1) DG obligations, as well as the prior rolling average (of t-1 and t-2) as time-varying covariates. The reasoning here is that the impact

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<sup>24</sup> For ease of presentation, we do not show the estimated effects for each and every variable that was included in these models, focusing instead on the effects of our primary variables of interest, AID DG obligations. The full results from each of these models, however, are available on request.



of AID DG expenditures on democracy may be felt at some distance in the future and not immediately, or over the course of a two-year obligation cycle, as the baseline model specified. The results of this re-estimation indicate that, indeed, DG obligations appear to have both contemporaneous and lagged effects on Freedom House scores, with both values being of identical size (.017). Both variables are statistically significant, and taken together, indicate that if AID DG obligations were to increase on average by 10 million dollars over a *three year* obligation period, the total impact on democratic growth would be over one-third of a unit on the Freedom House scale, as opposed to the one-quarter unit estimated in the baseline model. This result suggests that AID DG obligations have a modest impact in the very short-term and an additional impact some two years in the future. The impact of all other U.S. AID and non-U.S. donor variables, lagged by one time period, was still insignificant in this re-estimated model. We further tested for the effect of USAID obligations lagged twice, and found no significant impact, controlling for the contemporaneous and one-year lag specifications. These findings suggest first, that democracy and governance programs may often take several years to “mature” to generate outcomes, and second, that the effects of DG assistance to some degree are cumulative, with the immediate impact augmented by an additional increment on the country’s level of democracy the following year.

The remaining models in Table 6 show the effects of AID DG obligations under a variety of assumptions about the nature of its effect. In model 6-B, we include the squared value of AID DG obligations in order to test for non-linear impact, such that AID obligations may have diminishing or even negative marginal returns after they reach a certain level.<sup>25</sup> The results indicate that the non-squared AID DG effect is exactly equal to its value in the baseline model, with the squared term being statistically irrelevant. We note that the effect of none of the other AID variables appear to follow the curvilinear pattern either, aside from non-U.S. total assistance, where there is suggestive evidence of a very small positive effect with diminishing returns until a negative effect is achieved reach the level of some \$2.3 billion in aid, which occurs at approximately the 99<sup>th</sup> percentile of the sample data.

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<sup>25</sup> Logarithmic models are often used to test non-linearities of the sort that we are interested in here, but we chose the AID DG and AID DG-squared specification because of the large number of zero values for AID DG and other assistance variables (nearly ½ the sample). In such case the natural logarithm is undefined, and the customary practice of adding some constant value to AID produces widely diverging results depending on what constant is chosen. Given these difficulties, we test the non-linearity hypothesis with the imperfect assumption in the squared model that AID DG obligations will reach some peak impact and then possibly *decline*, as opposed to leveling off but not actually declining in a logarithmic specification.

**Table 6. Alternative Models of the Impact of AID DG Obligations**

|  | Coefficient    | Standard Error |
|--|----------------|----------------|
| <b>Baseline Model</b> <i>USAID-DG</i>        | <b>.025**</b>  | .007           |
| <b>A. Lag Effects</b>                        |                |                |
| <i>USAID-DG</i>                              | <b>.017**</b>  | .007           |
| <i>USAID-DG Lagged</i>                       | <b>.017**</b>  | .008           |
| <b>B. Diminishing Returns Model</b>          |                |                |
| <i>USAID-DG</i>                              | <b>.028**</b>  | .013           |
| <i>USAID-DG Squared</i>                      | -.00005        | .0002          |
| <b>C. Per Capita</b>                         |                |                |
| <i>USAID-DG Per Capita</i>                   | <b>.100**</b>  | .04            |
| <b>D. Aid dollars per GDP dollars</b>        |                |                |
| <i>USAID-DG over GDP</i>                     | 8.43           | 13.80          |
| <i>USAID-Non DG over GDP</i>                 | <b>12.19**</b> | 5.32           |
| <b>E. DG in Raw Dollars, Non-DG over GDP</b> |                |                |
| <i>USAID-DG, Raw Dollars</i>                 | <b>.026**</b>  | .006           |
| <i>USAID-Non DG over GDP</i>                 | 7.35           | 5.08           |

Note: \*\* coefficients (in bold red) are significant at  $p < .05$  (two-tailed); \* coefficients (in red) significant at  $p < .10$  (two-tailed).

In Models 6-C and 6-D, we examine whether the AID DG effect depends on the way that the variable is standardized. The baseline model included AID assistance in raw millions of dollars, with the assumption that the same amount of democracy assistance in a large or relatively wealthy country would have the same impact as that amount provided to a small or relatively poor country. In the aid and economic growth literature, as we have noted, the effects of aid are often standardized on a per capita, or per capita GDP basis, in order to account for the possible differences in how similar amounts of money may influence growth depending on country population or relative wealth. At this point in democratization theory, however, we cannot know which specification is the more accurate one since there are no real models that help us understand how the “democratic seed” grows. A single free and fair election could help start a larger movement toward democracy, independent of the per-capita effect or independent of the size of the economy in which the election occurs. Since we do not know, we replicated the tests using alternative measures.

In Model 6-C, we substitute AID per capita for raw AID dollar obligations, and we do the same for all the DG, non-DG, and non-U.S. assistance variables. The results show that AID DG obligations per capita has a slightly smaller effect on Freedom House scores than it did in the baseline model; for every dollar spent *per capita* in a given country, Freedom House scores are predicted to increase by .1 units. Given that the average AID DG assistance is some .30 dollars

per capita, this translates into an “average” country increase effect of .03 on the Freedom House scale. This compares to an “average” country effect of .05 in the baseline model (coefficient of .025 multiplied by the average AID DG obligations of \$2 million). Nevertheless, AID DG obligations are significant, regardless of whether they are treated in raw or per capita terms. None of the other AID-related variables are significant on a per capita basis. We leave to future research a fuller understanding of the attenuation of the impact of DG assistance when the data are treated on a per capita basis.

The same conclusion is not the case if AID DG obligations are standardized by the size of the country’s GDP. In Model 6-D, it can be seen that the AID over GDP variable is no longer statistically significant, indicating that if the size of the country’s GDP is built into the AID measure, there appears to be no effect of AID DG obligations on Freedom House ratings. We believe that this standardization is the least defensible of the three considered thus far (raw, per capita, per GDP), for the simple reason that democracy assistance, unlike economic development assistance, is not designed in terms of economic investment, nor in terms of influencing macro-economic outcomes or the like. Indicative of that reasoning, we find that in this formulation, *non-democracy* USAID obligations do have a significant impact on Freedom House ratings. As AID non-democracy assistance increase by 1 dollar per unit of GDP, Freedom House ratings increase by 12 points, which translates into an effect on Freedom House scores of approximately .03 units for the “average” country. Thus our earlier conclusion that non-democracy obligations have no effect on overall levels of democracy needs to be tempered somewhat, as economic and other assistance may matter, depending on the size of the contribution relative to the size of the country’s economy. We do not wish to make too strong a claim on this point, as Model 6-E shows that the impact of non-democracy assistance per unit GDP fails to achieve statistical significance in a model with DG assistance in raw terms as controls. The results are suggestive, though, that the proper way to conceptualize the impact of non-democracy assistance may be in terms of GDP units, while this is definitely not the case in the context of democracy assistance.

### ***Controls for the Endogeneity of DG Assistance and Omitted Variables***

We have shown that the AID DG effect found in the baseline model holds under a variety of alternative assumptions about how the effect may operate (linear vs. non-linear), how the AID variables should be standardized (raw dollars versus per capita dollars), and whether AID variables have only contemporaneous effects or both contemporaneous and lagged effects on countries’ level of (Freedom House) democracy. We are still some ways, though, from accepting the hypothesis that “DG assistance positively affects democracy,” as there are plausible alternative processes that may be responsible for the significant DG obligations-democracy relationship that we have observed thus far. One possibility is that “democracy causes DG obligations,” that is, that AID DG obligations are themselves determined by the country’s level of democracy or “expected” level of democracy in that time period. Another is that both DG assistance and democracy are determined by some other unobserved factor(s), thus producing a spurious relationship between the two variables. In this section, we explore these possibilities by first estimating models that control for the possible “endogeneity” of DG obligations, whereby they are assumed to be potentially the *result* and not the cause of a

country's level of democracy, and then estimating models that control in different ways for possible biases due to omitted variables that may cause both DG obligations and Freedom House levels of democracy. To anticipate our results, in every case we find that the effects of DG obligations on Freedom House democracy remain statistically significant and of equal or greater magnitude to the effect found in the baseline model.

### ***Endogeneity of DG Assistance***

We begin with the possibility that a country's level of democracy may cause AID DG obligations and not the reverse. How could such a process operate? Several plausible hypotheses exist. It may be the case, for example, that countries such as North Korea receive no AID funding precisely *because* they score at the lowest level of Freedom House's democracy scale. Knack (2004, 259) claims in this regard that "AID currently has an explicit policy of directing more aid to countries that appear to be making greater progress towards democratization." Leaving aside the factual veracity of this claim, and whether it applies equally to democracy and governance as to economic assistance, it is true that if this process were operating, then as AID spends less on the least democratic countries and more on those countries "trending" democratic, this would produce the appearance of a spurious positive relationship between DG assistance and democracy. On the other hand, there is ample evidence to suggest that, at times, AID provides assistance to the especially "tough cases" regarding democracy; Haiti, for example, received some \$25-30 million more than the average country in the mid-90s, Egypt consistently receives democracy assistance in the range of \$30-50 million dollars despite Freedom House ratings that hover around 3, and the Russian Federation has received similar amounts in recent years despite consistently declining Freedom House scores. Moreover, countries that reach a certain level of democracy often "graduate" from AID DG assistance or have their AID missions closed altogether, as was the case in countries such as Botswana, Costa Rica, Poland and others in Eastern Europe during the time period under study. In these cases there is a *negative* relationship between democracy and DG assistance, and if this is generally the case, then the potential effect of DG assistance on subsequent levels of democracy may have been *underestimated* in the models thus far.

To some degree, our models may not be as susceptible to these problems as it would appear at first glance. For one thing, we have already shown in Model 6-A that DG assistance *lagged* by one time period has an effect on democracy levels some two years later. While it is possible to explain these results in terms of an endogeneity process, such a finding is *prima facie* evidence that prior levels of DG assistance have some effect on subsequent levels of democracy. Moreover, the variables that we have already included in the baseline model may be able to control for some of the potential effects of democracy on DG assistance. For example, Years of Democratic Experience, pre-1990, and Prior Aid Presence, pre-1990, can control for non-democratic countries such as North Korea and Saudi Arabia, and regional democratic diffusion, a time-varying covariate in the model, may control for a good deal of the "expected trend" thinking of AID in so far as regional developments affect how AID views the likely direction of change in given countries in the region. And finally, given the discussion above, it is not altogether clear *how* the democracy-to-AID linkage will present itself in a given country in any case -- it may be that some AID missions are prone to take on the "tough cases" with increased

DG funds while others wish to reinforce what they perceive as a more facilitative democratic environment. And it may be the case that these decisions change over time and across countries as well in idiosyncratic ways. All of this is to suggest that systematic biases from a reciprocal causal process whereby democratic levels or growth *cause* current AID expenditures, over and above the models that we have already estimated and the controls that we already have in place, may not be as severe as anticipated.

Nevertheless, if there are effects from democracy “causing” AID expenditures, the statistical consequence is that the DG assistance variable at a given time point will be correlated with the error term of the Freedom House equation, leading to the inability to estimate the “pure” effect of AID on democracy in the growth model without bias. The solution to this problem is to construct a proxy variable for DG assistance in a given year that is *not* related to the growth equation’s error term. The standard approach to this problem in longitudinal data is to utilize a statistical procedure known as Two-Stage Least Squares, whereby in the “first stage” the proxy variable is created by regressing DG assistance in a given year on a series of other variables (called “instrumental variables”), each of which are assumed a) to have no direct effect on the Freedom House scores in that year, and b) to have some significant influence on the DG assistance variable. The resulting “predicted” value of DG assistance at time  $t$  is our “best guess” of that portion of the variable that is purged of its contemporaneous relationship with the Freedom House error term; hence the effects of the DG proxy on Freedom House can be estimated in the “second stage” without bias.

Following previous work in the aid-economic growth literature, we utilize lagged values of the DG assistance variable as instruments in the first stage equation; in this case we use DG assistance at lag two (i.e. at time  $t-2$ ) because we have already shown that DG assistance at lag one ( $t-1$ ) may have a direct causal impact on Freedom House scores, thus violating the assumptions of the two stage least squares/instrumental variables procedure. We also include as instruments in the first stage the country’s current and lagged inflation and unemployment rates, two variables that have no direct effect on Freedom House scores but may influence AID obligations for the country in a given year. Thus, aside from the “exogenous” country-level variables in the baseline model which are always included in the first stage regression, our proxy for current AID DG obligations is predicted from the twice-lagged AID DG variable and from the country’s current and lagged inflation and unemployment rates.

We show the results of the “endogeneity” model in Table 7 below. The effect of the DG proxy variable on Freedom House scores is .082, significantly larger than its value in the baseline model. This indicates that controlling for the potential reciprocal causal effects of democracy on DG obligations, the impact of DG obligations on Freedom House remains significant, with an effect of substantially larger magnitude. All other variables in the model show effects of approximate size to the baseline model.<sup>26</sup> Thus treating DG assistance as

<sup>26</sup> This model was estimated with Stata 8.0’s “XTIVREG” routine, as the growth modeling packages in HLM and SPSS do not contain modules for instrumental variables/two-stage least squares estimation. Consequently, the model here is not precisely the same as the baseline model because, by necessity, it omits the random effect for the slope of the growth trajectory that is present in the baseline model.

potentially endogenous does *not* eliminate the effect found in the study thus far; on the contrary, the finding is strengthened.<sup>27</sup> Alternative specifications of the DG proxy that include AID DG lagged by three time periods, or that included lag versions of other time-varying covariates such as foreign policy priority variables or GDP growth per capita, produced essentially similar results.

Table 7. Controls for the Endogeneity of DG Assistance and for Omitted Variable Biases

|  | Coefficient   | Standard Error |
|--|---------------|----------------|
| <b>Baseline Model</b> <i>USAID-DG</i>  | <b>.025**</b> | .007           |
| <b>A. Endogeneity Model</b>  |               |                |
| <i>USAID-DG Proxy</i>  | <b>.082**</b> | .014           |
| <i>(from Twice-Lagged DG, Current and Lagged Unemployment, Inflation, and other Country-Level Factors Described in Text)</i> |               |                |
|  |               |                |
| <b>B. “Fixed Effects” Model (Controls for Stable Unobserved Country-Level Variables)</b>                                     |               |                |
| <i>USAID-DG</i>  | <b>.031**</b> | .008           |
|  |               |                |
| <b>C. “Obligated” Country-Years Only Model</b>   |               |                |
| <i>USAID-DG</i>  | <b>.029**</b> | .009           |
|  |               |                |

\*\* Coefficients significant at the .05 level.

### ***Biases Due to Country-Level “Fixed Effects” and Omitted Variables***

Another threat to causal inference is the possibility that the relationship between DG assistance and democracy is due to their joint relationship to variables that we were unable to include in the analyses. For example, countries with a higher proportion of women in the labor

<sup>27</sup> The fact that the coefficient in the endogeneity model is larger than in the baseline model suggests that, on balance, the likely effect of contemporaneous Freedom House scores on DG obligations is negative, that is, that AID tends to fund the “tough cases” more than those “trending democratic.” This is an exceedingly complex issue, however, and there is some counter-evidence that lagged Freedom House scores, e.g. have a positive impact on AID obligations. We leave to future research to disentangle the exact nature of the causal relationship between the two factors, and note simply that, taking into account the myriad possible effects from democracy to DG assistance, the effect from DG assistance to subsequent democracy is strengthened from the value estimated in the baseline formulation.

force may have a greater likelihood of receiving USAID DG funding, and more women in the labor force may also produce pressure for greater political rights and hence higher levels of overall democracy. As another example, following (Paxton and Morishima 2005), countries that are more peripheral than others in the global economic system may have a lower likelihood of receiving AID funding compared to more integrated countries, and peripheral/integrated status may then lead to different levels of democracy. In both of these cases, the variable in question is *not* included in the observed data set, and thus they represent unmeasured influences on both the receipt of DG assistance and the level of a country's democratic attainment.

If we can assume that these unobserved country-level factors are stable over time, we may control for their potential biasing effect by estimating what is known as a “fixed effects” regression model on Freedom House scores. The fixed effects formulation allows each country to have its own unique intercept in an equation predicting the Freedom House index, much like the growth model's unique “starting point” for democratic trajectories. The difference here is that the unobserved country-specific factors that make up the intercept term (or rather, determine its level relative to the average intercept of all countries) are allowed to covary with the observed independent variables, while in the growth model all of the unobserved country-specific factors are assumed to be unrelated to the other variables in the model. The “fixed effects” procedure estimates the unique country-level intercept from the repeated observations of each country over time, and the effects of DG assistance and all other time-varying covariates are estimated after taking into account even these unobserved country-level stable attributes.<sup>28</sup> This specification results in an even more conservative test of the relationship between DG assistance and Freedom House scores, controlling for unobserved country-level factors that are stable over time. Following this formulation, we again find that the impact of DG assistance is greater than in the baseline model; the fixed effect estimate of DG assistance on Freedom House scores is .031, compared with the .025 value in the baseline model.<sup>29</sup>

Finally, there may be unobserved *time-varying* factors that determine DG assistance at a given time. If so, then the unobserved factors that are leading to the DG “treatment” -- and not the “treatment” itself -- may be the same factors that determine the Freedom House democracy scale. This kind of “selection bias” is typically handled via Two-Stage Least Squares procedures, and thus our earlier endogeneity model serves as a control for both the potential causal effect from democracy to DG assistance and for these kinds of possible selection effects. But we may also gain some additional insights into the selection biases that may be present by simply examining the effect of DG assistance in those years and for those countries where *any* assistance was granted. In this way, we eliminate from consideration countries and years where there was no AID DG effort at all, reasoning that if what really matters for democracy are the

<sup>28</sup> The fixed effects model cannot estimate the impact of *observed* country-level stable attributes, as they are perfectly correlated with the unique component of the country intercept. Hence *all* fixed country-level variables, observed and unobserved, are controlled simultaneously but cannot be disentangled by this procedure.

<sup>29</sup> This model was estimated using Stata 8.0's XTREGAR module, which estimates the fixed effect model along with the first-order autocorrelated disturbances that were also included in the growth model. The estimated autocorrelation parameter for the Freedom House disturbances in the fixed effects model was .68.

unknown factors that lead AID to provide DG assistance, we should see a significant diminution of the DG effect once we consider *only* countries that reached the threshold necessary on these unknown factors to receive AID assistance.

We re-estimated the baseline model for only those 1018 country-years among the 121 countries which received some AID DG assistance during the 1990-2003 period. The resulting .029 coefficient on AID DG assistance was again statistically significant and again slightly larger in magnitude than in the baseline model. We conclude that, even among only those countries that received any DG assistance, the greater the obligations in a two-year period, the greater the level of Freedom House democracy. Thus there may be unmeasured variables that lead to both DG assistance and Freedom House democracy levels, but they do not appear to account for the observed positive relationship we have estimated in the study so far. All of the models that we have estimated to control for both omitted variable bias as well as for the potential endogeneity of AID obligations have only strengthened the original finding.

### ***The Effects of DG Sectoral Obligations***

We have shown that the aggregate two-year rolling average of AID DG obligations has a significant impact on both Freedom House and Polity IV democracy measures, and this effect appears to hold under a variety of alternative specifications designed to test the robustness of the findings. In this section, we extend these analyses by examining the impact of specific AID DG sub-sectors (obligations targeted for elections and political processes, rule of law, civil society, and governance programs) on democratic outcomes, first by estimating their effects on countries' overall Freedom House and Polity IV scores, and then on the specific factor scales and indicators that we developed to measure different aspects of democratic development. As discussed in the methods section previously, we include as independent variables the four main sub-sectors of DG assistance: Elections and Political Processes, Rule of Law, Civil Society, and Governance, with certain models including the sub-sub-sectors of Human Rights, and Mass Media obligations within the Rule of Law and Civil Society sub-sectors, respectively. Following the results from Table 6 above, we include in all models the *current* and the *lagged* (i.e., previous year) values for all of these variables in order to capture the potential longer-term effects on democracy of each of these sub-sectors beyond the current year. We show the results for the Freedom House and Polity IV models in Table 8 below.<sup>30</sup>

The results are again remarkably consistent across the two democracy variables. In both the Freedom House and Polity IV models, three of the four DG sub-sector variables have significant effects on the democracy scores, with Elections and Political Processes and Civil Society obligations exerting primarily contemporaneous effects, while Rule of Law exerts a lagged effect on overall democracy. Elections and Political Processes obligations have a strong contemporaneous effect at .046 for Freedom House and .282 for Polity IV, and, in the Freedom

<sup>30</sup> The models also tests for lagged effects from non-DG USAID obligations and lagged effects from non-U.S. donor expenditures. Neither variable was close to significant in either model, with coefficients very nearly equal to zero in absolute terms (e.g. -.0008 for lagged non-DG obligations in the Polity model).



House model, a nearly identical lag effect of .042 that does not quite reach conventional statistical significance levels. There is some suggestive evidence, then, of a cumulative impact of obligations in this sector over a two year lag period. Civil Society obligations show only the contemporaneous effect on the Freedom House index of .040 with no lag effect, and a value of .076 on the Polity IV index. For Rule of Law obligations, the effects are seen for the lagged variable only, as the contemporaneous variable is not significant in either model, while the lag effect is significant in both, reaching a level of .040 in the Freedom House and .175 in the Polity model. In addition, the lagged Rule of Law effects are of sizeable magnitude, smaller than that found for Elections and Political Processes in both models, but at least as large or larger than that for contemporaneous Civil Society obligations. Only Governance obligations are seen to have neither current nor lagged impact on Freedom House or Polity IV scores. This may reflect the lack of a true substantive relationship, or that the Freedom House and Polity democracy measures have the weakest theoretical relationship with those aspects of the political system that USAID Governance programs are designed to change.

The pattern of results is consistent with that reported earlier in Table 6 (panel A), where total DG obligations were found generally to have *both* contemporaneous and lagged effects on the Freedom House index. This table extends that result with the finding that the contemporaneous DG effects on democracy stem mainly from the Elections and Civil Society sectors, while the lag DG effects stem mainly from Rule of Law and, to a lesser extent, Elections and Political Processes. In addition, the model as a whole explains a significantly greater amount of variation in Freedom House scores (.45) and Polity IV scores (.47) compared to the baseline model, suggesting that the inclusion of the specific sectoral spending patterns and the lagged values of spending do enhance our ability to account for differences in democratic growth over time. And, as in the overall DG analyses presented in Table 4, the strong similarities in the results across the Freedom House and Polity IV models gives us much confidence in the robustness of the findings.

The results of models that predict measures of separate democratic sub-sector outcomes provide a more complete picture of the effects of U.S. DG assistance. We show the results for five outcomes corresponding to different dimensions of democratic development in Tables 9 to 13. In Tables 9-12 we use the summary factor measures, described in the methods section, that correspond to *Free and Competitive Elections*, *Conditions for Civil Society*, *Free Media*, *Respect for Human Integrity*; each of these variables is measured on a standardized 0-100 scale with average value of 50. In Table 13, we estimate a model for the World Bank *Governance Effectiveness* Scale, measured with the “Z-score” procedure described earlier. As in the Freedom House models, we include both current and lagged values for each of the DG assistance variables in order to test for possible cumulative or lagged impact. In Table 14, we provide a summary of the results of all of these models.

We note at the outset of these analyses that these dependent variables are of varying quality in terms of their ability to capture the dimensions of democracy that the DG sub-sectoral and sub-sub-sectoral obligations are designed to affect. There is excellent correspondence between the Elections and the Civil Society factors and their respective DG sub-sectors. Similarly, there is excellent correspondence between the Human Rights and Mass Media factors and their respective DG *sub-sub-sectors*. However, we have no adequate measure to capture

*overall* (non-Human Rights) Rule of Law outcomes, nor is the World Bank Governance Index necessarily an adequate measure to capture the kinds of outcomes that DG governance programs are designed to affect. In addition, the WB index is measured in only 4 years of our study, thus limiting its utility in the assessment of the impact of Governance obligations over the entire 1990-2003 period. Thus, our results should be interpreted cautiously, particularly for those areas where no good dependent variables were available for analysis.

Table 9 shows that, for the *Free and Competitive Elections* factor, DG obligations for Elections and Political Process have the strongest effects of all AID-related variables, exhibiting a significant contemporaneous on the dependent variable. This is strong evidence that AID obligations in this area are affecting precisely the dimension of democracy for which they are targeted. Lagged Rule of Law obligations also exert an effect of reasonable magnitude on this dimension as well. In terms of the overall size of the effect, the impact of \$1 million dollars in current Elections obligations is .22, roughly equal to the amount that an “average” country is expected to change on this dimension per year.

**Table 8. Growth Model Predicting Freedom House and Polity IV Scores,  
All DG Sub-Sectors Included**

|   | FREEDOM HOUSE                  |                       | POLITY IV             |                      |
|---|--------------------------------|-----------------------|-----------------------|----------------------|
|   | Coefficient                    | Standard Error        | Coefficient           | Standard Error       |
| <b>Level 1 Covariates</b>                         |                                |                       |                       |                      |
| <b>Democracy and Other Foreign Assistance</b>     |                                |                       |                       |                      |
| <i>DG Elections and Political Processes</i>       | <b>.046*</b>                   | .03                   | <b>.282**</b>         | .06                  |
| <i>Elections and Political Processes (Lagged)</i> | .042                           | .03                   | .075                  | .06                  |
| <i>DG Rule of Law</i>                             | -.016                          | .02                   | -.023                 | .05                  |
| <i>Rule of Law (Lagged)</i>                       | <b>.040**</b>                  | .02                   | <b>.175**</b>         | .05                  |
| <i>DG Civil Society</i>                           | <b>.040**</b>                  | .01                   | <b>.076**</b>         | .03                  |
| <i>Civil Society (Lagged)</i>                     | .011                           | .02                   | -.055                 | .04                  |
| <i>DG: Governance</i>                             | -.006                          | .01                   | -.043                 | .03                  |
| <i>Governance (Lagged)</i>                        | .013                           | .01                   | .027                  | .03                  |
| <i>USAID Non-DG</i>                               | .001                           | .00                   | .0003                 | .001                 |
| <i>Regional-Subregional DG</i>                    | -.052                          | .15                   | .222                  | .31                  |
| <i>Regional-Subregional Non-DG</i>                | -.007                          | .02                   | .015                  | .04                  |
| <i>Non-USAID US</i>                               | -.002                          | .01                   | -.0004                | .001                 |
| <i>Other Donor Assistance</i>                     | .08x10 <sup>-3</sup>           | .06x10 <sup>-3</sup>  | -4*10 <sup>-5</sup>   | .0001                |
| <b>Economic and Political Factors</b>             |                                |                       |                       |                      |
| <i>GDP Growth Per Capita</i>                      | <b>.014**</b>                  | .00                   | -.001                 | .01                  |
| <i>Regional Democracy</i>                         | <b>.222**</b>                  | .06                   | <b>.746**</b>         | .11                  |
| <i>U.S. Military Assistance Priority</i>          | -.010                          | .01                   | .012                  | .04                  |
| <i>Extent of Political Violence</i>               | <b>-.001**</b>                 | .00                   | <b>-.002**</b>        | .001                 |
| <b>Level 2 Variables</b>                          |                                |                       |                       |                      |
| <b>Effect on (Level-1) Intercept</b>              |                                |                       |                       |                      |
| <i>Average Intercept</i>                          | <b>6.778**</b>                 | .23                   | <b>.972**</b>         | .43                  |
| <i>Prior Democracy</i>                            | <b>.312**</b>                  | .05                   | <b>.543**</b>         | .09                  |
| <i>Pre-1990 USAID</i>                             | -1.057*                        | .60                   | -1.29                 | 1.09                 |
| <i>Population</i>                                 | <b>.040*10<sup>-4</sup>*</b>   | .023*10 <sup>-4</sup> | 1.5*10 <sup>-7</sup>  | 4.1*10 <sup>-6</sup> |
| <i>Size in Squared Km</i>                         | .072*10 <sup>-3</sup>          | .0001                 | -5.0*10 <sup>-5</sup> | .0003                |
| <i>Income Per Capita</i>                          | .075                           | .05                   | .029                  | .09                  |
| <i>Ethnic Fractionalization</i>                   | -1.834*                        | 1.09                  | -1.83                 | 1.95                 |
| <i>Income Inequality</i>                          | <b>.068**</b>                  | .03                   | .086                  | .063                 |
| <i>State Failure, Pre-1990</i>                    | -.140                          | .13                   | -.094                 | .24                  |
| <b>Effect on (Level-1) Slope</b>                  |                                |                       |                       |                      |
| <i>Average Slope for Growth Curve</i>             | <b>.044**</b>                  | .02                   | <b>.109**</b>         | .03                  |
| <i>Prior Democracy</i>                            | <b>-.005*</b>                  | .002                  | <b>-.012**</b>        | .006                 |
| <i>Pre-1990 USAID</i>                             | -.025                          | .04                   | .048                  | .076                 |
| <i>Population</i>                                 | .026*10 <sup>-6</sup>          | .01*10 <sup>-5</sup>  | 1.0*10 <sup>-7</sup>  | 2.9*10 <sup>-7</sup> |
| <i>Size in Squared Km</i>                         | <b>-.027*10<sup>-3</sup>**</b> | .01*10 <sup>-3</sup>  | 7.8*10 <sup>-6</sup>  | 2.1*10 <sup>-5</sup> |
| <i>Income Per Capita</i>                          | .003                           | .003                  | .002                  | .006                 |
| <i>Ethnic Fractionalization</i>                   | .098                           | .07                   | .087                  | .138                 |
| <i>Income Inequality</i>                          | .002                           | .002                  | .003                  | .005                 |
| <i>State Failure, Pre-1990</i>                    | -.005                          | .008                  | -.017                 | .017                 |
| <b>Model Statistics and Variance Parameters</b>   |                                |                       |                       |                      |
| <i>Approx. Level 1 R-squared</i>                  | .45                            |                       | .47                   |                      |
| <i>Random Variance (Intercept)</i>                | <b>5.26**</b>                  | .89                   | 12.95**               | 3.44                 |
| <i>Random Variance (Slope)</i>                    | <b>.011**</b>                  | .03                   | .007                  | .016                 |
| <i>Autocorrelation (rho)</i>                      | <b>.83**</b>                   | .02                   | <b>.89**</b>          | .029                 |
| <i>Model Deviance/AIC</i>                         | 5683.1                         | 5715.1                | 8713.9                | 8721.9               |

\* \*Two-tailed tests significant at p&lt;.05 (bold red); \*significant at p&lt;.10 (in red).

**Table 9. Growth Model Predicting *Free and Competitive Elections***

|   | Coefficient           | Standard Error       |
|---|-----------------------|----------------------|
| <b>Level 1 Covariates</b>                       |                       |                      |
| <b>Democracy and Other Foreign Assistance</b>   |                       |                      |
| <i>DG Elections and Pol. Processes</i>          | <b>.220**</b>         | .09                  |
| <i>Elections and Pol. Processes (Lagged)</i>    | .101                  | .09                  |
| <i>DG Rule of Law</i>                           | -.024                 | .07                  |
| <i>Rule of Law (Lagged)</i>                     | <b>.167**</b>         | .07                  |
| <i>DG Civil Society</i>                         | .030                  | .05                  |
| <i>Civil Society (Lagged)</i>                   | .003                  | .05                  |
| <i>DG: Governance</i>                           | .032                  | .05                  |
| <i>Governance (Lagged)</i>                      | -.028                 | .05                  |
| <i>USAID Non-DG</i>                             | .002                  | .001                 |
| <i>Regional-Subregional DG</i>                  | .454                  | .45                  |
| <i>Regional-Subregional Non-DG</i>              | -.040                 | .05                  |
| <i>Non-USAID US</i>                             | -.002                 | .002                 |
| <i>Other Donor Assistance</i>                   | $7.59 \times 10^{-5}$ | .0002                |
| <b>Economic and Political Factors</b>           |                       |                      |
| <i>GDP Growth Per Capita</i>                    | <b>.031**</b>         | .01                  |
| <i>Regional Democracy</i>                       | <b>1.03**</b>         | .16                  |
| <i>U.S. Military Assistance Priority</i>        | .058                  | .05                  |
| <i>Extent of Political Violence</i>             | -.004                 | .001                 |
| <b>Level 2 Variables</b>                        |                       |                      |
| <b>Effect on (Level-1) Intercept</b>            |                       |                      |
| <i>Average Intercept</i>                        | <b>46.029**</b>       | .59                  |
| <i>Prior Democracy</i>                          | <b>.720**</b>         | .12                  |
| <i>Pre-1990 USAID</i>                           | -1.623                | 1.52                 |
| <i>Population</i>                               | $-1.4 \times 10^{-6}$ | $.05 \times 10^{-4}$ |
| <i>Size in Squared Km</i>                       | $6.22 \times 10^{-5}$ | .0004                |
| <i>Income Per Capita</i>                        | .072                  | .13                  |
| <i>Ethnic Fractionalization</i>                 | -3.481                | 2.72                 |
| <i>Income Inequality</i>                        | .072                  | .13                  |
| <i>State Failure, Pre-1990</i>                  | .076                  | .33                  |
| <b>Effect on (Level-1) Slope</b>                |                       |                      |
| <i>Average Growth Curve Slope</i>               | <b>.208**</b>         | .04                  |
| <i>Prior Democracy</i>                          | <b>-.020**</b>        | .01                  |
| <i>Pre-1990 USAID</i>                           | -.015                 | .09                  |
| <i>Population</i>                               | $-1.1 \times 10^{-7}$ | $.04 \times 10^{-5}$ |
| <i>Size in Squared Km</i>                       | $-6.9 \times 10^{-6}$ | $.03 \times 10^{-3}$ |
| <i>Income Per Capita</i>                        | .008                  | .01                  |
| <i>Ethnic Fractionalization</i>                 | <b>.354**</b>         | .17                  |
| <i>Income Inequality</i>                        | .002                  | .01                  |
| <i>State Failure, Pre-1990</i>                  | -.032                 | .02                  |
| <b>Model Statistics and Variance Parameters</b> |                       |                      |
| <i>Approx. Level 1 R-squared</i>                | .51                   |                      |
| <i>Random Variance (Intercept)</i>              | <b>34.15**</b>        | 5.10                 |
| <i>Random Variance (Slope)</i>                  | .00                   | .00                  |
| <i>Autocorrelation (rho)</i>                    | <b>.82**</b>          | .03                  |
| <i>Model Deviance/AIC</i>                       | 10190.62              | 10198.62             |

\* \*Two-tailed tests significant at  $p < .05$  (bold red); \*significant at  $p < .10$  (in red)

The same pattern of DG obligation impact is seen in Table 10 for the *Conditions for Civil Society* factor. Here the *only* DG assistance variables that matter are those in the Civil Society sector, which exhibit both contemporaneous and lagged effects that are statistically significant and of reasonable magnitude. The cumulative effect is about .36, indicating that an additional \$1 million dollars in current and lagged Civil Society obligations “buys” a similar increase in the Civil Society democratic outcome as changing the country’s regional level of democracy by roughly half a point on the Freedom House scale.

Somewhat remarkably, almost the same pattern is seen in Table 11 for predicting the *Free Media* factor. DG obligations in the media area have a strong significant lagged effect of .506, and a contemporaneous effect of almost equal magnitude that does not quite reach the level of statistical significance. The cumulative impact of \$1 million dollars in Media assistance over two obligation periods is nearly 1 point on the Media Freedom factor, which is about the same size as the diffusion effects of moving the country’s region by a full point on the Freedom House scale. There is an additional effect from non-media Civil Society obligations as well. Few other variables matter for predicting trends in *Free Media*, and on this dimension we see even a general *decrease* in the extent of media freedom across all countries over time. Somewhat anomalously, we also see a significant negative effect of Regional and Subregional DG obligations on this variable, but, as this is the only example of such a finding in the study thus far, we tend to minimize its substantive importance.

**Table 10. Growth Model Predicting *Conditions for Civil Society* Factor**

|  | Coefficient                                | Standard Error        |
|--|--|-----------------------|
| <b>Level 1 Covariates</b>                        |  |                       |
| <b>Democracy and Other Foreign Assistance</b>    |  |                       |
| <i>DG Elections and Political Processes</i>      | -.011                                      | .12                   |
| <i>Elections and Political Processes(Lagged)</i> | -.075                                      | .12                   |
| <i>DG Rule of Law</i>                            | -.031                                      | .09                   |
| <i>Rule of Law (Lagged)</i>                      | .080                                       | .08                   |
| <i>DG Civil Society</i>                          | <b>.204**</b>                              | .06                   |
| <i>Civil Society (Lagged)</i>                    | <b>.169**</b>                              | .07                   |
| <i>DG: Governance</i>                            | .060                                       | .06                   |
| <i>Governance (Lagged)</i>                       | .005                                       | .07                   |
| <i>USAID Non-DG</i>                              | -.003                                      | .002                  |
| <i>Regional-Subregional DG</i>                   | -.226                                      | .57                   |
| <i>Regional-Subregional Non-DG</i>               | .043                                       | .07                   |
| <i>Non-USAID US</i>                              | -.003                                      | .002                  |
| <i>Other Donor Assistance</i>                    | .0002                                      | .0002                 |
| <b>Economic and Political Factors</b>            |  |                       |
| <i>GDP Growth Per Capita</i>                     | <b>.026**</b>                              | .01                   |
| <i>Regional Democracy</i>                        | <b>.776**</b>                              | .20                   |
| <i>U.S. Military Assistance Priority</i>         | .040                                       | .06                   |
| <i>Extent of Political Violence</i>              | -.001                                      | .00                   |
| <b>Level 2 Variables</b>                         |  |                       |
| <b>Effect on (Level-1) Intercept</b>             |  |                       |
| <i>Average Intercept</i>                         | <b>48.912**</b>                            | .65                   |
| <i>Prior Democracy</i>                           | <b>.617**</b>                              | .13                   |
| <i>Pre-1990 USAID</i>                            | -.350                                      | 1.67                  |
| <i>Population</i>                                | $-0.12 \times 10^{-4}$                     | $.6 \times 10^{-5}$   |
| <i>Size in Squared Km</i>                        | $1.3 \times 10^{-5}$                       | .0004                 |
| <i>Income Per Capita</i>                         | .053                                       | .14                   |
| <i>Ethnic Fractionalization</i>                  | 3.353                                      | 2.99                  |
| <i>Income Inequality</i>                         | .121                                       | .10                   |
| <i>State Failure, Pre-1990</i>                   | -.215                                      | .37                   |
| <b>Effect on (Level-1) Slope</b>                 |  |                       |
| <i>Average Growth Curve Slope</i>                | <b>-.103**</b>                             | .04                   |
| <i>Prior Democracy</i>                           | <b>-.001**</b>                             | .01                   |
| <i>Pre-1990 USAID</i>                            | -.093                                      | .09                   |
| <i>Population</i>                                | <b><math>7.0 \times 10^{-7}</math>**</b>   | $3.45 \times 10^{-7}$ |
| <i>Size in Squared Km</i>                        | <b><math>-.085 \times 10^{-3}</math>**</b> | $2.5 \times 10^{-3}$  |
| <i>Income Per Capita</i>                         | -.015                                      | .02                   |
| <i>Ethnic Fractionalization</i>                  | -.215                                      | .16                   |
| <i>Income Inequality</i>                         | <b>.018*</b>                               | .01                   |
| <i>State Failure, Pre-1990</i>                   | -.010                                      | .007                  |
| <b>Model Statistics and Variance Parameters</b>  |  |                       |
| <i>Approx. Level 1 R-squared</i>                 | .37  |                       |
| <i>Random Variance (Intercept)</i>               | <b>51.06**</b>                             | 6.59                  |
| <i>Random Variance (Slope)</i>                   | .018                                       | .02                   |
| <i>Autocorrelation (rho)</i>                     | <b>.64**</b>                               | .03                   |
| <i>Model Deviance/AIC</i>                        | 11155.05                                   | 11163.05              |

\*\*Two-tailed tests significant at  $p < .05$  (bold red); \*significant at  $p < .10$  (in red)

**Table 11. Growth Model Predicting *Free Media* Factor**

|   | Coefficient            | Standard Error       |
|---|------------------------|----------------------|
| <b>Level 1 Covariates</b>                         |                        |                      |
| <b>Democracy and Other Foreign Assistance</b>     |                        |                      |
| <i>DG Elections and Political Processes</i>       | .117                   | .10                  |
| <i>Elections and Political Processes (Lagged)</i> | .002                   | .10                  |
| <i>DG Rule of Law</i>                             | -.024                  | .07                  |
| <i>Rule of Law (Lagged)</i>                       | .074                   | .07                  |
| <i>DG Civil Society: Mass Media</i>               | .413                   | .29                  |
| <i>Mass Media (Lagged)</i>                        | .506*                  | .30                  |
| <i>DG Civil Society(Non- Mass Media)</i>          | .133**                 | .05                  |
| <i>Civil Society, Non- Mass Media (Lagged)</i>    | -.035                  | .06                  |
| <i>DG Governance</i>                              | .022                   | .05                  |
| <i>Governance (Lagged)</i>                        | .051                   | .05                  |
| <i>USAID Non-DG</i>                               | -.002                  | .00                  |
| <i>Regional-Subregional DG</i>                    | -1.083**               | .50                  |
| <i>Regional-Subregional Non-DG</i>                | .002                   | .06                  |
| <i>Non-USAID US</i>                               | .001                   | .00                  |
| <i>Other Donor Assistance</i>                     | .000                   | .00                  |
| <b>Economic and Political Factors</b>             |                        |                      |
| <i>GDP Growth Per Capita</i>                      | .009                   | .01                  |
| <i>Regional Democracy</i>                         | .925**                 | .18                  |
| <i>U.S. Military Assistance Priority</i>          | .016                   | .05                  |
| <i>Extent of Political Violence</i>               | -.003                  | .00                  |
| <b>Level 2 Variables</b>                          |                        |                      |
| <b>Effects on (Level-1) Intercept</b>             |                        |                      |
| <i>Average Intercept</i>                          | 48.913**               | .54                  |
| <i>Prior Democracy</i>                            | .664**                 | .11                  |
| <i>Pre-1990 USAID</i>                             | -1.234                 | 1.41                 |
| <i>Population</i>                                 | -.009*10 <sup>-4</sup> | .05*10 <sup>-4</sup> |
| <i>Size in Squared Km</i>                         | .053*10 <sup>-3</sup>  | .00                  |
| <i>Income Per Capita</i>                          | .125                   | .12                  |
| <i>Ethnic Fractionalization</i>                   | .387                   | 2.51                 |
| <i>Income Inequality</i>                          | .240**                 | .08                  |
| <i>State Failure, Pre-1990</i>                    | .054                   | .31                  |
| <b>Effects on (Level-1) Slope</b>                 |                        |                      |
| <i>Average Slope for Growth Curve</i>             | -.123**                | .04                  |
| <i>Prior Democracy</i>                            | -.009                  | .01                  |
| <i>Pre-1990 USAID</i>                             | -.023                  | .10                  |
| <i>Population</i>                                 | .035*10 <sup>-5</sup>  | .04*10 <sup>-5</sup> |
| <i>Size in Squared Km</i>                         | -.068*10 <sup>-3</sup> | .03*10 <sup>-3</sup> |
| <i>Income Per Capita</i>                          | .014*                  | .01                  |
| <i>Ethnic Fractionalization</i>                   | .035                   | .18                  |
| <i>Income Inequality</i>                          | -.002                  | .01                  |
| <i>State Failure, Pre-1990</i>                    | -.022                  | .02                  |
| <b>Model Statistics and Variance Parameters</b>   |                        |                      |
| <i>Approx. Level 1 R-squared</i>                  | .42                    |                      |
| <i>Random Variance (Intercept)</i>                | 35.330**               | 4.98                 |
| <i>Random Variance (Slope)</i>                    | .119**                 | .03                  |
| <i>Autocorrelation (rho)</i>                      | .530**                 | .04                  |
| <i>Model Deviance/AIC</i>                         | 10650.916              | 10682.916            |

\* \*Two-tailed tests significant at p<.05 (bold red); \*significant at p<.10 (in red)

The results for our human rights factor, *Respect for Human Integrity*, however, show a strong negative effect of contemporaneous DG obligations in this area (Table 12). That is, for every \$1 million dollars obligated in the specific area of Human Rights, the country's value on the *Respect for Human Integrity* dimension is predicted to be .85 points *lower*. This finding represents the only strong apparently detrimental effect of AID DG obligations found in the entire study.

How can this effect be understood and explained? We cannot be certain, but there are three plausible explanations for the negative correlation of human rights obligations and respect for human rights. First, it is possible that the contemporaneous relationship between DG Human Rights obligations and the *Respect* factor reflects the same kinds of reciprocal effects causal processes examined earlier, such that AID allocates more assistance to countries that are facing a human rights crisis or that are trending downward on the *Respect* dimension. That is, in this area, perhaps more than with general DG assistance, AID obligates monies to the "tough cases." Some support for this notion is seen from the significant negative effect of "pre-1990 USAID" in the Table, indicating that AID historically has funded countries with weaker human rights records. In addition, the presence of a contemporaneous negative effect but no negative effect for the lagged variable also suggests the possibility of reverse causality. We had to reject this explanation, however, since the result holds *controlling* for negative effect of pre-1990 assistance, and subsequent Two-Stage Least Squares analyses showed that the strong contemporaneous negative impact was not altered in a model that attempted to deal with the potential endogeneity problems. Second, it is possible that more AID obligations in the area of human rights strengthen the human rights NGOs and other organizations in a particular country, emboldening them to report or publicize the extent of the human rights-related problems in that country to a greater extent. Thus the negative effect seen in the table may be partly an artifact of the measurement process, whereby more DG assistance leads to higher levels of *revealed* human rights abuses, but not necessarily higher levels of actual abuse. Third, there may indeed be a true negative causal effect, such that authoritarian regimes, when they see that the international community is increasing pressures on them, become more zealous in defending their regimes from perceived opponents -- and as a result they increase their efforts against the opposition. Thus, although human rights expenditures probably do worsen *reported* and possibly actual human rights violations, the process is a complex one. We leave to future work to help confirm our thesis; for now we report that it may not be the case that human rights assistance will always lead to positive outcomes in the short run.



**Table 12. Growth Model Predicting Respect for Human Integrity Factor**

|   | Coefficient            | Standard Error       |
|---|------------------------|----------------------|
| <b>Level 1 Covariates</b>                         |                        |                      |
| <b>Democracy and Other Foreign Assistance</b>     |                        |                      |
| <i>DG Elections and Political Processes</i>       | .111                   | .16                  |
| <i>Elections and Political Processes (Lagged)</i> | .071                   | .16                  |
| <i>DG Human Rights</i>                            | <b>-.850**</b>         | .33                  |
| <i>Human Rights (Lagged)</i>                      | .191                   | .31                  |
| <i>DG Rule of Law (Non-Human Rights)</i>          | .030                   | .13                  |
| <i>Rule of Law, Non-Human Rights (Lagged)</i>     | .168                   | .12                  |
| <i>DG Civil Society</i>                           | .070                   | .08                  |
| <i>Civil Society (Lagged)</i>                     | -.042                  | .09                  |
| <i>DG Governance</i>                              | -.021                  | .08                  |
| <i>Governance (Lagged)</i>                        | <b>.006*</b>           | .09                  |
| <i>USAID Non-DG</i>                               | -.001                  | .00                  |
| <i>Regional-Subregional DG</i>                    | -1.021                 | .77                  |
| <i>Regional-Subregional Non-DG</i>                | .007                   | .09                  |
| <i>Non-USAID US</i>                               | -.001                  | .00                  |
| <i>Other Donor Assistance</i>                     | .000                   | .00                  |
| <b>Economic and Political Factors</b>             |                        |                      |
| <i>GDP Growth Per Capita</i>                      | <b>.073**</b>          | .016                 |
| <i>Regional Democracy</i>                         | <b>.544**</b>          | .24                  |
| <i>U.S. Military Assistance Priority</i>          | -.075                  | .08                  |
| <i>Extent of Political Violence</i>               | -.006                  | .00                  |
| <b>Level-2 Variables</b>                          |                        |                      |
| <b>Effects on (Level-1) Intercept</b>             |                        |                      |
| <i>Average Intercept</i>                          | <b>48.502**</b>        | .66                  |
| <i>Prior Democracy</i>                            | .112                   | .14                  |
| <i>Pre-1990 USAID</i>                             | <b>-2.960*</b>         | 1.74                 |
| <i>Population</i>                                 | $-.013 \times 10^{-3}$ | $.06 \times 10^{-4}$ |
| <i>Size in Squared Km</i>                         | -.000                  | .00                  |
| <i>Income Per Capita</i>                          | <b>.460*</b>           | .14                  |
| <i>Ethnic Fractionalization</i>                   | -2.667                 | 3.06                 |
| <i>Income Inequality</i>                          | .023                   | .10                  |
| <i>State Failure, Pre-1990</i>                    | -.089                  | .37                  |
| <b>Effects on (Level-1) Slope</b>                 |                        |                      |
| <i>Average Slope for Growth Curve</i>             | -.035                  | .05                  |
| <i>Prior Democracy</i>                            | -.009                  | .01                  |
| <i>Pre-1990 USAID</i>                             | -.018                  | .11                  |
| <i>Population</i>                                 | $.025 \times 10^{-5}$  | $.04 \times 10^{-5}$ |
| <i>Size in Squared Km</i>                         | $-.072 \times 10^{-3}$ | $.03 \times 10^{-3}$ |
| <i>Income Per Capita</i>                          | .011                   | .01                  |
| <i>Ethnic Fractionalization</i>                   | .008                   | .20                  |
| <i>Income Inequality</i>                          | <b>.011*</b>           | .01                  |
| <i>State Failure, Pre-1990</i>                    | -.011                  | .02                  |
| <b>Model Statistics and Variance Parameters</b>   |                        |                      |
| <i>Approx. Level 1 R-squared</i>                  | .32                    |                      |
| <i>Random Variance (Intercept)</i>                | 49.832                 | 7.69                 |
| <i>Random Variance (Slope)</i>                    | .088                   | .04                  |
| <i>Autocorrelation (rho)</i>                      | .426                   | .04                  |
| <i>Model Deviance/AIC</i>                         | 12478.670              | 12510.670            |

\* \*Two-tailed tests significant at p&lt;.05 (bold red); \* significant at p&lt;.10 (in red)

The model in Table 13 estimates the impact of DG obligations on the *Government Effectiveness* variable constructed by the World Bank. The results are ambiguous. On the one hand, there is a positive effect of lagged DG Governance obligations, indicating some success in targeted democracy outcomes similar to those found for other subsectors. On the other hand, this impact is more than offset by the anomalous negative effects of contemporaneous obligations in the area of Elections and Political Processes and a lagged negative effect of Civil Society obligations. We have no clear explanation for this pattern. However, as noted above, we have less confidence in this model, as the indicator itself is available for only 4 years in the entire 1990-2003 period. The model is thus intrinsically less reliable than those estimated for the other sub-sectors. We conclude that DG Governance obligations *may* be effective in bringing about change on its respective democracy dimension, but the evidence is not conclusive due to relatively fewer data points and several anomalous results found for obligations in other democracy sub-sectors. Further research using better indicators of the Governance dimension that cover more time periods is needed to determine the exact nature of DG effects on this outcome.

**Table 13. Growth Model for Predicting Government Effectiveness (World Bank)**

|   | Coefficient           | Standard Error       |
|---|-----------------------|----------------------|
| <b>Level 1 Covariates</b>                         |                       |                      |
| <b>Democracy and Other Foreign Assistance</b>     |                       |                      |
| <i>DG Elections and Political Processes</i>       | <b>-.048**</b>        | .02                  |
| <i>Elections and Political Processes (Lagged)</i> | .013                  | .02                  |
| <i>DG Rule of Law</i>                             | .001                  | .01                  |
| <i>Rule of Law (Lagged)</i>                       | -.0001                | .02                  |
| <i>DG Civil Society</i>                           | .011                  | .01                  |
| <i>Civil Society (Lagged)</i>                     | <b>-.020*</b>         | .01                  |
| <i>DG: Governance</i>                             | -.002                 | .01                  |
| <i>Governance (Lagged)</i>                        | <b>.017**</b>         | .01                  |
| <i>USAID Non-DG</i>                               | .0002                 | .0003                |
| <i>Regional-Subregional DG</i>                    | -.083                 | .10                  |
| <i>Regional-Subregional Non-DG</i>                | -.012                 | .01                  |
| <i>Non-USAID US</i>                               | -.001                 | .0003                |
| <i>Other Donor Assistance</i>                     | .0002                 | 6.3*10 <sup>-3</sup> |
| <b>Economic and Political Factors</b>             |                       |                      |
| <i>GDP Growth Per Capita</i>                      | <b>.006**</b>         | .002                 |
| <i>Regional Democracy</i>                         | <b>.027*</b>          | .02                  |
| <i>U.S. Military Assistance Priority</i>          | -6.0*10 <sup>-5</sup> | .01                  |
| <i>Extent of Political Violence</i>               | <b>-.001**</b>        | .000                 |
| <b>Level 2 Variables</b>                          |                       |                      |
| <b>Effect on (Level-1) Intercept</b>              |                       |                      |
| <i>Average Intercept</i>                          | <b>-.298**</b>        | .06                  |
| <i>Prior Democracy</i>                            | -.003                 | .01                  |
| <i>Pre-1990 USAID</i>                             | -.174                 | .17                  |
| <i>Population</i>                                 | -1.0*10 <sup>-7</sup> | 6.6*10 <sup>-7</sup> |
| <i>Size in Squared Km</i>                         | -2.0*10 <sup>-3</sup> | 4.5*10 <sup>-3</sup> |
| <i>Income Per Capita</i>                          | <b>.098**</b>         | .01                  |
| <i>Ethnic Fractionalization</i>                   | -.148                 | .27                  |
| <i>Income Inequality</i>                          | .011                  | .01                  |
| <i>State Failure, Pre-1990</i>                    | .045                  | .03                  |
| <b>Effect on (Level-1) Slope</b>                  |                       |                      |
| <i>Average Growth Curve Slope</i>                 | -.002                 | .005                 |
| <i>Prior Democracy</i>                            | .001                  | .0001                |
| <i>Pre-1990 USAID</i>                             | .016                  | .01                  |
| <i>Population</i>                                 | 4.8*10 <sup>-8</sup>  | 4.9*10 <sup>-8</sup> |
| <i>Size in Squared Km</i>                         | -1.0*10 <sup>-6</sup> | 3.6*10 <sup>-6</sup> |
| <i>Income Per Capita</i>                          | .0001                 | .0001                |
| <i>Ethnic Fractionalization</i>                   | .017                  | .02                  |
| <i>Income Inequality</i>                          | -.001                 | .0001                |
| <i>State Failure, Pre-1990</i>                    | -.003                 | .003                 |
| <b>Model Statistics and Variance Parameters</b>   |                       |                      |
| <i>Approx. Level 1 R-squared</i>                  | .01                   |                      |
| <i>Random Variance (Intercept)</i>                | <b>.09**</b>          | .03                  |
| <i>Random Variance (Slope)</i>                    | <b>.001**</b>         | .0002                |
| <i>Autocorrelation (rho)</i>                      | <b>.57**</b>          | .07                  |
| <i>Model Deviance/AIC</i>                         | 795.52                | 809.52               |

\* \*\*Two-tailed tests significant at p<.05 (bold red); \*significant at p<.10 (in red)

**Table 14. Summary of Effects from Sub-Sector and Sub-Sub-Sector Analyses**

| Democracy Assistance          | Elections     | Civil Society | Free Media    | Human Rights   | WB Governance  |
|-------------------------------|---------------|---------------|---------------|----------------|----------------|
| <b>DG Elections</b>           | <b>.220**</b> | n.s.          | n.s.          | n.s.           | <b>-.048**</b> |
| <b>Elections (Lagged)</b>     | n.s.          | n.s.          | n.s.          | n.s.           | n.s.           |
| <b>DG Rule of Law</b>         | n.s.          | n.s.          | n.s.          | n.s.           | n.s.           |
| <b>Rule of Law (Lagged)</b>   | <b>.167**</b> | n.s.          | n.s.          | n.s.           | n.s.           |
| <b>DG Human Rights</b>        | ---           | ---           | ---           | <b>-.850**</b> | ---            |
| <b>Human Rights (Lagged)</b>  | ---           | ---           | ---           | .191           | ---            |
| <b>DG Civil Society</b>       | n.s.          | <b>.204**</b> | <b>.133**</b> | n.s.           | <b>-.020*</b>  |
| <b>Civil Society (Lagged)</b> | n.s.          | <b>.169**</b> | n.s.          | n.s.           | n.s.           |
| <b>DG Mass Media</b>          | ---           | ---           | .413          | ---            | ---            |
| <b>Mass Media (Lagged)</b>    | ---           | ---           | <b>.506**</b> | ---            | ---            |
| <b>DG Governance</b>          | n.s.          | n.s.          | n.s.          | n.s.           | -.001          |
| <b>Governance (Lagged)</b>    | n.s.          | n.s.          | n.s.          | <b>.006**</b>  | <b>.017**</b>  |

\* \*\*Two-tailed tests significant at  $p < .05$  (bold red); \*significant at  $p < .10$  (in red)

We show the summary of all effects from the sub-sectoral and sub-sub-sectoral democratic outcome models in Table 14. As can be seen, the results indicate generally positive relationships when examining the impact of DG obligations on their “targeted” democratic outcomes. For Elections, Civil Society, and Mass Media outcomes, DG assistance in precisely those areas matters the most, often exhibiting effects that are substantively meaningful in size and that operate both in the short run and one or two years into the future. For Governance, the evidence is ambiguous, most likely due to potential problems with data availability and the indicator used in the analyses. For Human Rights, the evidence suggests a negative short-term impact of AID obligations. The alternative possible explanations for this finding require greater research in the future.

### ***Testing for the “Conditional” Effects of DG Obligations***

Finally, we examine the potentially *conditional* nature of the impact of DG Obligations. We have assumed thus far that the effect of DG obligations, whether aggregated or in different sectors, has similar impact on all countries at all points in time. It may be the case, however, that DG assistance has stronger effects in certain contexts than others, for example in richer countries, in countries with less ethnic and political conflict, or in countries with a longer history of democratic government. In addition, there may be regional differences in the effectiveness of AID, due either to “fixed effects” at the regional level, differences in the particular AID missions in the area, or other unobserved factors. Such an investigation parallels those in the aid-growth literature, where it is sometimes claimed that foreign economic assistance has its strongest impact in democratized settings, settings with more effective and transparent government, and the like.

We re-estimated the growth model for Freedom House scores, and included possible effects of each of the independent variables in the model on the *magnitude* of the AID DG aggregate effect. In other words, we tested whether the overall AID DG effect of .025 changed in countries with longer histories of democracy, with more income inequality, population, level of GDP, prior AID presence, and so forth. In only one case did these tests reveal that the AID effect was different than the overall population average: as a country's degree of ethnic polarization increased, the effectiveness of AID DG assistance increased as well. The effect is relatively large (.09), indicating that as ethnic polarization in the country reaches its mean value of .46, the effect of AID is more than double its value in the least ethnically polarized settings. Nevertheless, this is the only case seen in the analyses and we caution against drawing too firm a conclusion about the robustness of this finding. In general, then, we find that the AID effect is not found to differ much across country contexts, with the sole exception being one where AID DG obligations appear to "work" better in more difficult political and social settings.

We also examined differences in the effectiveness of AID among the different regions. These findings are summarized in Table 15 below. We treat Europe and Oceania as a combined baseline category, as these two areas have the highest average Freedom House ratings. We estimated the differences of each of the other regions -- Africa, Asia, Eurasia, Latin America, and the Middle East -- from the baseline category in terms of its average growth trajectory intercept, slope, and the effect of contemporaneous AID DG obligations. The results suggest that there are several important differences in how region affects the democratic growth process. First, it is clear that Africa, Asia and the Middle East generally started the period at lower levels of democracy than Europe and Oceania, and at somewhat lower levels than Latin America and Eurasia. The rate of growth in Freedom House scores over time appears to be generally similar across regions, with the exception of Eurasia, which increased at a slower rate than other regions. The Middle East also has a negative slope coefficient but this effect is not statistically significant. Most importantly, the impact of AID DG obligations appears to differ somewhat across regional contexts. The effect of DG assistance is strongest in Asia, with African countries also exhibiting DG impacts that are substantially greater than those seen for the baseline regions. The size of the coefficients for Asia and Africa indicates that the effect of DG obligations increases roughly by a factor of two in those regions. The DG effect for Latin America is somewhat lower than that seen in Europe/Oceania, with Eurasia and the Middle East showing effects that are statistically indistinguishable from the baseline categories. The results suggest that, to the extent that country or regional differences exist, AID DG effects again seem to matter more in more "difficult" contexts, with the Middle East being an exception to this general pattern.

Table 15. Regional Differences in Democratic Growth Trajectories and the Impact of DG Obligations

| Effect of Region on:                      | Growth Trajectory Intercept <sup>a</sup> | Growth Trajectory Slope <sup>a</sup> | Impact of USAID-DG Obligations <sup>a</sup> |
|---|--|--------------------------------------|---|
| <i>Africa</i>                             | <b>-4.81**</b>                           | .08                                  | .05*  |
| <i>Asia</i>                               | <b>-4.57**</b>                           | -.003                                | .06*  |
| <i>Latin America</i>                      | -1.89*                                   | .03                                  | -.04*                                       |
| <i>Eurasia</i>                            | <b>-2.33**</b>                           | <b>-.25**</b>                        | -.03  |
| <i>Middle East</i>                        | <b>-6.22**</b>                           | -.06                                 | -.02  |
| <i>Europe/Oceania (Baseline Category)</i> | ----                                     | ----                                 | ----  |

\*\* \*Two-tailed tests significant at  $p < .05$  (bold red); \*significant at  $p < .10$  (in red)

<sup>a</sup> Note: These effects are *relative* to the baseline category. Insignificant coefficients mean that the region's effects are indistinguishable from the Europe/Oceania baseline, *not* that the region's effects are statistically indistinguishable from zero. Negative coefficients mean that the region's effects are less than the baseline region, *not* that the region's effects are less than zero.

## **Conclusions**

This research project has attempted to advance our understanding of the impact of U.S. foreign assistance on promoting democracy around the world. It has done so in a field in which the research carried out to date has been largely qualitative in nature, and often limited to case studies in selected regions. Much of that scholarship has provided what can be characterized as a skeptical and in many cases negative appraisal. Quantitative research has been more limited, but the handful of studies that have been conducted have arrived at contradictory conclusions, with some demonstrating a positive impact of foreign assistance on democracy, while others have found either no impact or a negative impact.

Our contribution to this body of research has been to raise the bar, so to speak, by carrying out a study that we believe is both more comprehensive, systematic and methodologically defensible than prior work. Our approach has been quantitative rather than qualitative, which in itself is not necessarily a virtue, but it does allow others to replicate our work in every detail and to take issue with us if they think we have erred. We have also gone considerably beyond most prior studies by covering virtually the entire universe of nations eligible for foreign assistance, and thus our conclusions are not confined to one world region. But perhaps our two major contributions rest on the data set that we have created and the analytical tools we have used. Unlike all prior published research, our data set is based upon an exhaustive survey of the entire democracy portfolio of the United States Agency for International Development. Moreover, we cover the entire post Cold War period, beginning in 1990 and continue up through 2003, the most recent year for which data are available. Prior published quantitative research has been based on data sets that were far more limited, either by restricting the analysis to fewer countries, fewer years and, perhaps most importantly, by not cleanly separating democracy assistance from other forms of assistance. In our view, this last limitation is the one that potentially is the most serious problem with prior research, since by not separating democracy assistance from other forms of assistance, the authors made the untenable assumption that all forms of foreign assistance, even those without any apparent connection to the democratization process, should be expected nonetheless to promote democracy.

Our second key advance over prior work is in the statistical model we employed to analyze our data. Our approach is based on our fundamental assumption that an accurate assessment of the impact of U.S. foreign democracy assistance on democratization must begin by determining, in the first instance, what a given country's "normal" growth (or decline) of democracy has been in the period being studied (i.e., 1990-2003). We do that, as we explain in the text, with "growth models" that we believe are especially appropriate for this kind of problem. Our analysis pays special attention to controlling for a very wide range of alternative explanations in democracy growth trends by including an important number of control variables. It also uses techniques to minimize the possibility that our findings are an artifact of "selection bias," that is, that U.S. aid somehow is channeled more intensively to the countries that were likely to have been "winners" and restricted to those that were likely to have been "losers" in the "democracy game."

What did we find? First, our descriptive review determined first, that among eligible countries, democracy has been increasing steadily since 1990, but that the gap between the advanced democracies and the developing democracies is still large. Second, U.S. foreign assistance in the area of democracy has also been increasing. Third, the total portfolio of democracy assistance, despite its growth, remains a relatively small proportion of total U.S. development assistance, which in turn is a relatively small portion of its GNP when compared to almost all other advanced industrial democracies.

How much of this growth in democracy world-wide has been the result of U.S. foreign assistance? We found consistent and clear positive impacts of foreign assistance on democratization. Using the most widely used measures of democracy (Freedom House and Polity IV), we determined that *USAID Democracy and Governance obligations have a significant positive impact on democracy, while all other U.S. and non-U.S. assistance variables are statistically insignificant*. Specifically, for every 10 million additional dollars of U.S. democracy assistance in 1995 dollars (roughly the equivalent of 11.8 million in 2004 dollars), a country is predicted to be .25 units, or one-quarter of a point higher on the Freedom House general democracy index in a given year. In the Polity IV model, ten million dollars in DG obligations raises the index by about 4/10 of a point. This effect occurs over and above the “normal” pattern of democratization dynamics of the country, and occurs controlling for a host of time-varying and country-level invariant economic, social and political attributes. This is a strong initial affirmative answer to the study’s core research question.

Our statistical tests attempted to challenge this initial finding in many ways. But what we found is that AID DG obligations are significant, regardless of whether they are treated in raw or per capita terms. We also found significant lagged effects of DG obligations, suggesting first, that democracy and governance programs may often take several years to “mature” to generate full outcomes, and second, that the effects of DG assistance to some degree are cumulative, with the immediate impact augmented by an additional increment on the country’s level of democracy the following year. Moreover, when we treat DG assistance as potentially endogenous (i.e., that democracy “causes” great DG assistance rather than the other way around) it does *not* eliminate the effect found in the study; on the contrary, the finding is strengthened. Furthermore, although there may be unmeasured variables that lead to both DG assistance *and* Freedom House democracy levels, our tests show that they do not appear to account for the observed positive relationship we have estimated in the study. All of the models that we have estimated to control for both omitted variable bias as well as for the potential endogeneity of AID obligations only strengthened the original finding.

How large are such increases? To put this value in better perspective, consider that the slope of an average country’s democratic growth trajectory in the Freedom House model is predicted to be .05, meaning that the average country increases on the index by about 5 one-hundredths of a point per year. The AID coefficient indicates that each million additional dollars in democracy assistance obligations would increase that value by 50%, or in other words, ten million additional dollars would produce — by itself — about a five-fold increase in the amount of democratic change that the average country would be expected to achieve, *ceteris paribus*, in any given year. The corresponding value in the Polity IV model is about a 33% increase in change over the “otherwise average” amount of yearly democratic growth for each \$1 million



dollars of assistance. Consider also that the average observed change on the Freedom House score over the entire 14 year period is 1.1 units. This means that a one-year increment in Freedom House ratings from 10 million dollars of DG assistance (.25 of a point) would produce a change that is nearly 23% as large as the *total* changes that the average country achieved between 1990 and 2003. The corresponding figure for Polity IV is an additional 14% growth in the average level of democracy. We consider these figures as indicating a very strong *potential* impact of AID DG obligations, with even stronger impacts predicted if average AID DG obligations were raised to levels such as those seen for the most heavily funded countries in our sample, for example Serbia and Montenegro's 2003 value of \$79.8 million, the Russian Federation's 1995 value of \$51.0 million, or Egypt's 1998 value of \$52.6 million.

At the same time, these potential impacts must be viewed in the context of the *actual* current outlays for democracy assistance. The average country during the time period received only \$2.07 million per year, and even in 2003 the figure reached only \$3.66 million. This latter figure translated into a "total effect" on world-wide Freedom House scores of approximately .09 of a point, or a "total effect" of .16 of a point on the Freedom House scale among the 93 countries that received *any* DG assistance during that year. These are certainly modest amounts of absolute democratic change that can be attributed to current DG outlays.

We also assess the importance of the AID DG assistance variable in relative terms, that is, in comparison with the effects of other variables in the model. We note first, that the DG variable is the *only* assistance variable from U.S. or non-U.S. sources that matters for predicting a country's Freedom House score. That alone indicates some relative "importance" of the DG variable. However, in comparison to other time-varying factors such as GDP growth and especially regional democratic diffusion, the impact of AID DG assistance is somewhat more moderate in magnitude: it produces changes in democracy that are significantly weaker than those produced through regional democratic diffusion, but somewhat higher than GDP growth and more consequential than the negative impact on democracy that results from higher levels of political and social strife. Yet, if USAID assistance helps raise the level of democracy for individual countries within a region, then the diffusion effect in our model can be thought of as spilling over to neighboring countries, and thus the DG aid might be having a small indirect impact on other countries through regional diffusion.

Our model as a whole explains roughly one-third to one-half more of the variation in Freedom House or Polity scores, across the entire sample and across all time periods, than simply using the country's own average scores for the period. This value also indicates that much variation in levels of democracy remains unexplained by our model. Though we have included virtually all variables suggested from the literature as potential explanatory factors, it is nevertheless the case that DG democracy assistance, in combination with all other variables, does not account for the lion's share of variation in country-year Freedom House and Polity IV scores. This result is perhaps not surprising. Early studies of regime transitions emphasized that much of the democratization process in the short run is explained by contingent choices made by social and political elites in contexts of high uncertainty (Rustow 1970; O'Donnell and Schmitter 1986; Karl 1990). This is precisely the type of variance captured by the error term. The conclusion we draw from this exercise is that there is much that social scientists do not yet know about how democracy grows or is eroded.

Interestingly, no other assistance variable is shown to have a direct statistically significant impact. The amount of USAID non-democracy obligations are irrelevant, as are regional and subregional pools of democracy and non-democracy assistance, as are the amounts of U.S. aid that flow through non-USAID sources. Finally, the aggregate level of non-U.S. foreign assistance is statistically insignificant as well. Thus, the only effect that matters for a country's level of democracy, as measured by the Freedom House or Polity indexes, is the amount of U.S. money specifically targeted for democracy assistance.

Though the effects of non-democracy assistance variables are found to be insignificant, we caution against interpreting these factors as being completely irrelevant to the dynamics of democratic growth. First, it may be the case that such variables have effects on a country's level of democracy through other economic or other factors such as GDP growth or regional democratic diffusion. Second, the results for the non-U.S. variables are drawn from the OECD data base, which, as we explain in the body of this study, contains a reasonable amount of measurement error that limits the usefulness of these indicators. We therefore make no strong claim about the effects of non-U.S. democracy assistance, and urge that greater attention be paid in the future to measuring these kinds of obligations more precisely, as the Green-Richter data have done for the United States.

The research also disaggregated DG assistance into four main sub-sectors: Elections and Political Processes, Rule of Law, Civil Society, and Governance, with certain models including the sub-sub-sectors of Human Rights, and Mass Media obligations within the Rule of Law and Civil Society sectors, respectively. In both the Freedom House and Polity IV models, three of the four DG sub-sector variables had significant effects on the democracy scores, with Elections and Political Processes and Civil Society obligations exerting primarily contemporaneous effects, while Rule of Law exerted a lagged effect on overall democracy. Only Governance obligations were seen to have neither current nor lagged impact on Freedom House or Polity IV scores. Moreover, when examining dependent variables related to *Free and Fair Elections*, *Civil Society*, and *Free Media*, we found that the amount of DG assistance obligated to those areas were precisely the variables that had statistically significant effects, and these effects were often of reasonable magnitude. Thus we find that AID DG assistance in general matters for overall levels of democratization, and that sub-sectoral and sub-sub-sectoral obligations are also effective, generally on exactly the dimension of democracy for which they are targeted.

The results for our human rights factor, *Respect for Human Integrity*, however, show a strong negative effect of contemporaneous DG obligations in this area. That is, for every \$1 million dollars obligated in the specific area of Human Rights, the country's value on the *Respect for Human Integrity* dimension is predicted to be .85 points *lower*. This finding represents the only strong apparently detrimental effect of AID DG obligations found in the entire study. How can this effect be explained? We cannot be certain, but there are several plausible explanations for the negative correlation of human rights obligations and respect for human rights. It is possible that more AID obligations in the area of human rights strengthen the human rights NGOs and other organizations in a particular country, emboldening them to report or publicize the extent of the human rights-related problems in that country to a greater extent. Thus the negative effect may be partly an artifact of the measurement process, whereby more DG

assistance leads to higher levels of *revealed* human rights abuses, but not necessarily higher levels of actual abuse. It is also possible that there may indeed be a true negative causal effect, such that authoritarian regimes, when they see that the international community is increasing pressures on them, become more zealous in defending their regimes from perceived opponents -- and as a result they increase their efforts against the opposition. Thus, although human rights expenditures probably do worsen *reported* and possibly actual human rights violations, the process is a complex one. We leave to future work to help confirm our thesis; for now we report that it may not be the case that human rights assistance will always lead to positive outcomes in the short run.

Finally, we also examined differences in the effectiveness of AID among different world regions. The size of the coefficients indicates that the effect of DG obligations are largest in Asia and Africa, two regions that started the period at relatively lower levels of democratic development. The findings indicate that, to the extent that country or regional differences exist, AID DG effects appear to matter more in more “difficult” contexts, with the Middle East being the exception to this general pattern.

We conclude this analysis with the sense that in the area of democracy and governance assistance, U.S. foreign policy matters. Spending on the promotion of democracy, in the period 1990-2003, helped to increase democracy above the levels that would have been achieved based on all other factors that could reasonably be expected to have mattered. The increases occur both on countries’ overall level of democracy, and on measures of sectoral democratic development; moreover, the increases are seen generally among the sample of eligible countries at the global level, though there are some degrees of impact for each region. We did find that in one important area, human rights, democracy assistance appears to have worsened the situation rather than to have improved it, yet that may be an artifact of the assistance both stimulating greater reporting of human rights violations, while at the same time making authoritarian regimes more likely to commit abuses in the hope of stamping out nascent pro-democracy forces that might ultimately challenge their hegemony.

We also need to emphasize that the positive impact of increases in democratization, while robust to our attempts to undermine it with a wide variety of statistical tests, was of a very modest nature. But then again, perhaps one could not reasonably expect more than a modest result, when the inputs themselves, by any comparative standard, have been so modest. U.S. levels of democracy assistance pales in comparison relative to other U.S. development assistance, relative to per capita development assistance provided by many other advanced industrial nations, and relative to the sums expended on the U.S. military to enable it cope with challenges from countries where democracies do not govern. Only when viewed from that relative perspective, and when considering the potentially stark consequences when democracy fails to emerge and take hold in foreign lands, can the gains achieved by USAID’s democracy assistance programs be appropriately evaluated.

In terms of recommendations for future work, we have several. With respect to the measurement of democracy assistance, we have the following suggestions:

- USAID should continue exploring these issues, in particular through regional-level **quantitative** studies that can provide explanations at the regional level.
- Qualitative studies that can provide complementary explanations should be encouraged.
- More in-depth quantitative analysis is needed on the conditions under which AID DG has stronger or weaker effects, in particular the impact of different *patterns* and *sequences* over time of AID DG funding in terms of overall level of obligations and sub-sectoral priorities.
- More in-depth quantitative and qualitative analyses of the impact of sub-sectoral democracy assistance (civil society, elections, human rights, etc.) should be encouraged.
- Other international donors should undertake studies similar to this one, isolating democracy-building assistance from other types of assistance in order to evaluate the real impact of the aid provided.

In terms of democracy assistance per se, we have the following suggestions:

- In light of the positive results of this study, USAID's democracy assistance should be increased.
- USAID should reconsider its standard practice of withdrawing democracy assistance from countries that have apparently reached a certain level of democratization. As the experience of many countries shows, there can be reversals of democracy. In those cases in which USAID considers that the country has reached a satisfactory level of democratization, new programs and ideas to continue the growth of democracy should be implemented. Democratization is an ongoing, protracted process.
- Attention must be paid to the type of democracy assistance that is provided and the timing of the assistance, in particular in the area of human rights, where apparently the initial effects may not have been positive.

## **Appendices**

## Appendix 1. Countries in the Analysis

### 1.1. Countries Included in the Analysis

(Potentially “Eligible” for USAID DG Programs)

| Region –Subregion              |             | Numeric Code (ID) |       |                 |                |                    |
|--------------------------------|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country                        | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| <b>Africa – Central Africa</b> |             |                   |       |                 |                |                    |
| 1. Burundi                     | BDI         | 516               | 150   | 108             | 2              | 14                 |
| 2. Cameroon                    | CMR         | 471               | 170   | 120             | 2              | 17                 |
| 3. Central African Republic    | CAF         | 482               | 190   | 140             | 2              | 17                 |
| 4. Gabon                       | GAB         | 481               | 400   | 266             | 2              | 17                 |
| 5. Sao Tome and Principe       | STP         |                   | 985   | 678             | 2              | 17                 |
| 6. Sudan                       | SDN         | 625               | 1070  | 736             | 2              | 15                 |
| <b>Africa – East Africa</b>    |             |                   |       |                 |                |                    |
| 7. Djibouti                    | DJI         | 522               | 325   | 262             | 2              | 14                 |
| 8. Eritrea                     | ERI         | 531               | 375   | 232             | 2              | 14                 |
| 9. Ethiopia                    | ETH         | 530               | 370   | 230             | 2              | 14                 |
| 10. Kenya                      | KEN         | 501               | 620   | 404             | 2              | 14                 |
| 11. Rwanda                     | RWA         | 517               | 980   | 646             | 2              | 14                 |
| 12. Seychelles                 | SYC         |                   | 1005  | 690             | 2              | 14                 |
| 13. Somalia                    | SOM         | 520               | 1030  | 706             | 2              | 14                 |
| 14. Tanzania                   | TZA         | 510               | 1120  | 834             | 2              | 14                 |
| 15. Uganda                     | UGA         | 500               | 1180  | 800             | 2              | 14                 |
| <b>Africa – South Africa</b>   |             |                   |       |                 |                |                    |
| 16. Angola                     | AGO         | 540               | 35    | 24              | 2              | 17                 |
| 17. Botswana                   | BWA         | 571               | 110   | 72              | 2              | 18                 |
| 18. Comoros                    | COM         | 581               | 245   | 174             | 2              | 14                 |
| 19. Congo, Republic of the     | COG         | 484               | 250   | 178             | 2              | 17                 |
| 20. Lesotho                    | LSO         | 570               | 680   | 426             | 2              | 18                 |
| 21. Madagascar                 | MDG         | 580               | 730   | 450             | 2              | 14                 |
| 22. Malawi                     | MWI         | 553               | 740   | 454             | 2              | 14                 |
| 23. Mauritius                  | MUS         | 590               | 800   | 480             | 2              | 14                 |
| 24. Mozambique                 | MOZ         | 541               | 835   | 508             | 2              | 14                 |
| 25. Namibia                    | NAM         | 565               | 837   | 516             | 2              | 18                 |
| 26. South Africa               | ZAF         | 560               | 1040  | 710             | 2              | 18                 |
| 27. Swaziland                  | SWZ         | 572               | 1080  | 748             | 2              | 18                 |
| 28. Zaire / Congo              | ZAR         | 490               | 260   | 180             | 2              | 17                 |
| 29. Zambia                     | ZMB         | 551               | 1300  | 894             | 2              | 14                 |
| 30. Zimbabwe                   | ZWE         | 552               | 1214  | 716             | 2              | 14                 |
| <b>Africa – West Africa</b>    |             |                   |       |                 |                |                    |
| 31. Benin                      | BEN         | 434               | 310   | 204             | 2              | 11                 |
| 32. Burkina Faso               | BFA         | 439               | 1230  | 854             | 2              | 11                 |

| Region –Subregion                           |             | Numeric Code (ID) |       |                 |                |                    |
|---|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country                                     | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| 33. Cape Verde                              | CPV         |                   | 185   | 132             | 2              | 11                 |
| 34. Chad                                    | TCD         | 483               | 210   | 148             | 2              | 17                 |
| 35. Cote d'Ivoire                           | CIV         | 437               | 580   | 384             | 2              | 11                 |
| 36. Equatorial Guinea                       | GNQ         | 411               | 355   | 226             | 2              | 17                 |
| 37. Gambia                                  | GMB         | 420               | 410   | 270             | 2              | 11                 |
| 38. Ghana                                   | GHA         | 452               | 440   | 288             | 2              | 11                 |
| 39. Guinea                                  | GIN         | 438               | 470   | 324             | 2              | 11                 |
| 40. Guinea-Bissau                           | GNB         | 404               | 475   | 624             | 2              | 11                 |
| 41. Liberia                                 | LBR         | 450               | 690   | 430             | 2              | 11                 |
| 42. Mali                                    | MLI         | 432               | 770   | 466             | 2              | 11                 |
| 43. Mauritania                              | MRT         | 435               | 790   | 478             | 2              | 11                 |
| 44. Niger                                   | NER         | 436               | 880   | 562             | 2              | 11                 |
| 45. Nigeria                                 | NGA         | 475               | 890   | 566             | 2              | 11                 |
| 46. Senegal                                 | SEN         | 433               | 1000  | 686             | 2              | 11                 |
| 47. Sierra Leone                            | SLE         | 451               | 1010  | 694             | 2              | 11                 |
| 48. Togo                                    | TGO         | 461               | 1140  | 768             | 2              | 11                 |
| <b>Asia – East and Southeast Asia</b>       |             |                   |       |                 |                |                    |
| 49. Brunei Darussalam                       | BRN         |                   | 125   | 96              | 142            | 35                 |
| 50. Cambodia                                | KHM         | 811               | 160   | 116             | 142            | 35                 |
| 51. China                                   | CHN         | 710               | 230   | 156             | 142            | 30                 |
| 52. Indonesia                               | IDN         | 850               | 530   | 360             | 142            | 35                 |
| 53. Korea, Democratic People's Rep (N)      | PRK         | 731               | 631   | 408             | 142            | 30                 |
| 54. Korea, Republic of (S)                  | KOR         | 732               | 632   | 410             | 142            | 30                 |
| 55. Laos                                    | LAO         | 812               | 650   | 418             | 142            | 35                 |
| 56. Malaysia                                | MYS         | 820               | 750   | 458             | 142            | 35                 |
| 57. Mongolia                                | MNG         | 712               | 820   | 496             | 142            | 30                 |
| 58. Myanmar (Burma)                         | MMR         | 775               | 140   | 104             | 142            | 35                 |
| 59. Philippines                             | PHL         | 840               | 940   | 608             | 142            | 35                 |
| 60. Singapore                               | SGP         | 830               | 1020  | 702             | 142            | 35                 |
| 61. Taiwan                                  | TWN         | 713               | 231   | 158             | 142            | 30                 |
| 62. Thailand                                | THA         | 800               | 1130  | 764             | 142            | 35                 |
| 63. Timor Leste                             | TMP         | 860               | 335   | 626             | 142            | 35                 |
| 64. Vietnam                                 | VNM         | 816               | 1260  | 704             | 142            | 35                 |
| <b>Asia – South Asia and Afghanistan</b>    |             |                   |       |                 |                |                    |
| 65. Afghanistan                             | AFG         | 700               | 10    | 4               | 142            | 62                 |
| 66. Bangladesh                              | BGD         | 771               | 901   | 50              | 142            | 62                 |
| 67. Bhutan                                  | BTN         | 760               | 66    | 64              | 142            | 62                 |
| 68. India                                   | IND         | 750               | 520   | 356             | 142            | 62                 |
| 69. Iran                                    | IRN         | 630               | 540   | 364             | 142            | 62                 |
| 70. Maldives                                | MDV         |                   | 760   | 462             | 142            | 62                 |
| 71. Nepal                                   | NPL         | 790               | 840   | 524             | 142            | 62                 |
| 72. Pakistan                                | PAK         | 770               | 900   | 586             | 142            | 62                 |
| 73. Sri Lanka                               | LKA         | 780               | 200   | 144             | 142            | 62                 |
| <b>Eurasia – Caucasus/ Slavic Republics</b> |             |                   |       |                 |                |                    |

| Region –Subregion                                  |             | Numeric Code (ID) |       |                 |                |                    |
|--|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country  | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| 74. Armenia  | ARM         | 371               | 45    | 51              | 142            | 145                |
| 75. Azerbaijan                                     | AZE         | 373               | 64    | 31              | 142            | 145                |
| 76. Belarus  | BLR         | 370               | 75    | 112             | 150            | 151                |
| 77. Georgia  | GEO         | 372               | 415   | 268             | 142            | 145                |
| 78. Moldova  | MDA         | 359               | 813   | 498             | 150            | 151                |
| 79. Soviet Union/ Russian Federation*              | RUS         | 365               | 975   | 810             | 150            | 151                |
| 80. Ukraine  | UKR         | 369               | 1183  | 804             | 150            | 151                |
| <b>Eurasia – Central Asia</b>                      |             |                   |       |                 |                |                    |
| 81. Kazakhstan                                     | KAZ         | 705               | 615   | 398             | 142            | 62                 |
| 82. Kyrgyzstan                                     | KGZ         | 703               | 645   | 417             | 142            | 62                 |
| 83. Tajikistan                                     | TJK         | 702               | 1115  | 762             | 142            | 62                 |
| 84. Turkmenistan                                   | TKM         | 701               | 1172  | 795             | 142            | 62                 |
| 85. Uzbekistan                                     | UZB         | 704               | 1241  | 860             | 142            | 62                 |
| <b>Europe – Eastern Europe</b>                     |             |                   |       |                 |                |                    |
| 86. Albania  | ALB         | 339               | 20    | 8               | 150            | 39                 |
| 87. Bosnia-Herzegovina                             | BIH         | 346               | 107   | 70              | 150            | 39                 |
| 88. Bulgaria                                       | BGR         | 355               | 130   | 100             | 150            | 151                |
| 89. Croatia  | HRV         | 344               | 275   | 191             | 150            | 39                 |
| 90. Czech Republic                                 | CZE         | 316               | 301   | 203             | 150            | 151                |
| 91. Czechoslovakia                                 | CSK         | 315               | 300   | 200             | 150            | 151                |
| 92. Estonia  | EST         | 366               | 360   | 233             | 150            | 154                |
| 93. Hungary  | HUN         | 310               | 62    | 348             | 150            | 151                |
| 94. Latvia   | LVA         | 367               | 660   | 428             | 150            | 154                |
| 95. Lithuania                                      | LTU         | 368               | 710   | 440             | 150            | 154                |
| 96. Macedonia                                      | MKD         | 343               | 725   | 807             | 150            | 39                 |
| 97. Poland   | POL         | 290               | 950   | 616             | 150            | 151                |
| 98. Romania  | ROM         | 360               | 970   | 642             | 150            | 151                |
| 99. Slovakia                                       | SVK         | 317               | 302   | 703             | 150            | 151                |
| 100. Slovenia                                      | SVN         | 349               | 1023  | 705             | 150            | 39                 |
| 101. Yugoslavia/ Serbia-Montenegro                 | YUG         | 345               | 1290  | 890             | 150            | 39                 |
| <b>Europe – Southern Europe</b>                    |             |                   |       |                 |                |                    |
| 102. Portugal                                      | PRT         | 235               | 960   | 620             | 150            | 39                 |
| <b>Europe – Western and Northern Europe</b>        |             |                   |       |                 |                |                    |
| 103. Ireland                                       | IRL         | 205               | 1212  | 372             | 150            | 154                |
| <b>Latin America and the Caribbean – Caribbean</b> |             |                   |       |                 |                |                    |
| 104. Antigua and Barbuda                           | ATG         |                   | 37    | 28              | 419            | 29                 |
| 105. Cuba  | CUB         | 40                | 280   | 192             | 419            | 29                 |
| 106. Dominica                                      | DMA         |                   | 327   | 212             | 419            | 29                 |
| 107. Dominican Republic                            | DOM         | 42                | 330   | 214             | 419            | 29                 |
| 108. Grenada                                       | GRD         |                   | 455   | 308             | 419            | 29                 |
| 109. Haiti   | HTI         | 41                | 490   | 332             | 419            | 29                 |
| 110. Jamaica                                       | JAM         | 51                | 590   | 388             | 419            | 29                 |
| 111. Saint Lucia                                   | LCA         |                   | 981   | 662             | 419            | 29                 |
| 112. St. Kitts and Nevis                           | KNA         |                   | 1063  | 659             | 419            | 29                 |



| Region –Subregion  |             | Numeric Code (ID) |       |                 |                |                    |
|--|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country  | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| 113. St. Vincent and the Grenadines                                  | VCT         |                   | 1065  | 670             | 419            | 29                 |
| 114. Trinidad and Tobago   | TTO         | 52                | 1150  | 780             | 419            | 29                 |
| <b>Latin America and the Caribbean – Central America</b>             |             |                   |       |                 |                |                    |
| 115. Belize  | BLZ         |                   | 90    | 84              | 419            | 13                 |
| 116. Costa Rica  | CRI         | 94                | 270   | 188             | 419            | 13                 |
| 117. El Salvador   | SLV         | 92                | 350   | 222             | 419            | 13                 |
| 118. Guatemala   | GTM         | 90                | 460   | 320             | 419            | 13                 |
| 119. Honduras  | HND         | 91                | 500   | 340             | 419            | 13                 |
| 120. Mexico  | MEX         | 70                | 810   | 484             | 419            | 13                 |
| 121. Nicaragua   | NIC         | 93                | 870   | 558             | 419            | 13                 |
| 122. Panama  | PAN         | 95                | 910   | 590             | 419            | 13                 |
| <b>Latin America and the Caribbean – South America</b>               |             |                   |       |                 |                |                    |
| 123. Argentina   | ARG         | 160               | 40    | 32              | 419            | 5                  |
| 124. Bolivia   | BOL         | 145               | 100   | 68              | 419            | 5                  |
| 125. Brazil  | BRA         | 140               | 120   | 76              | 419            | 5                  |
| 126. Chile   | CHL         | 155               | 220   | 152             | 419            | 5                  |
| 127. Colombia  | COL         | 100               | 240   | 170             | 419            | 5                  |
| 128. Ecuador   | ECU         | 130               | 340   | 218             | 419            | 5                  |
| 129. Guyana  | GUY         | 110               | 480   | 328             | 419            | 5                  |
| 130. Paraguay  | PRY         | 150               | 920   | 600             | 419            | 5                  |
| 131. Peru  | PER         | 135               | 930   | 604             | 419            | 5                  |
| 132. Suriname  | SUR         |                   | 1075  | 740             | 419            | 5                  |
| 133. Uruguay   | URY         | 165               | 1240  | 858             | 419            | 5                  |
| 134. Venezuela   | VEN         | 101               | 1250  | 862             | 419            | 5                  |
| <b>Middle East and the Mediterranean – Eastern Mediterranean</b>     |             |                   |       |                 |                |                    |
| 135. Israel  | ISR         | 666               | 560   | 376             | 142            | 145                |
| 136. Turkey  | TUR         | 640               | 1170  | 792             | 142            | 145                |
| 137. West Bank and Gaza  | WBG         |                   |       |                 | 142            | 145                |
| <b>Middle East and the Mediterranean – Middle East and N. Africa</b> |             |                   |       |                 |                |                    |
| 138. Algeria   | DZA         | 615               | 30    | 12              | 2              | 15                 |
| 139. Bahrain   | BHR         | 692               | 65    | 48              | 142            | 145                |
| 140. Egypt   | EGY         | 651               | 1200  | 818             | 142            | 145                |
| 141. Iraq  | IRQ         | 645               | 550   | 368             | 142            | 145                |
| 142. Jordan  | JOR         | 663               | 610   | 400             | 142            | 145                |
| 143. Kuwait  | KWT         | 690               | 640   | 414             | 142            | 145                |
| 144. Lebanon   | LBN         | 660               | 670   | 422             | 142            | 145                |
| 145. Libya   | LBY         | 620               | 700   | 434             | 2              | 15                 |
| 146. Morocco   | MAR         | 600               | 830   | 504             | 2              | 15                 |
| 147. Oman  | OMN         | 698               | 895   | 512             | 142            | 145                |
| 148. Qatar   | QAT         | 694               | 965   | 634             | 142            | 145                |
| 149. Saudi Arabia  | SAU         | 670               | 990   | 682             | 142            | 145                |
| 150. Syria   | SYR         | 652               | 1110  | 760             | 142            | 145                |
| 151. Tunisia   | TUN         | 616               | 1160  | 788             | 2              | 15                 |
| 152. United Arab Emirates  | ARE         | 696               | 1185  | 784             | 142            | 145                |

| Region –Subregion                 |             | Numeric Code (ID) |       |                 |                |                    |
|-----------------------------------|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country                           | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| 153. Yemen                        | YEM         | 679               | 1285  | 887             | 142            | 145                |
| <b>Oceania – South Pacific</b>    |             |                   |       |                 |                |                    |
| 154. Fiji                         | FJI         | 950               | 1216  | 242             | 9              | 54                 |
| 155. Kiribati                     | KIR         |                   | 625   | 296             | 9              | 57                 |
| 156. Marshall Islands             | MHL         |                   | 785   | 584             | 9              | 57                 |
| 157. Micronesia, Federated States | FSM         |                   | 812   | 583             | 9              | 57                 |
| 158. Nauru                        | NRU         |                   | 51    | 520             | 9              | 57                 |
| 159. Palau                        | PLW         |                   | 905   | 585             | 9              | 57                 |
| 160. Papua New Guinea             | PNG         | 910               | 915   | 598             | 9              | 54                 |
| 161. Solomon Islands              | SLB         |                   | 1025  | 90              | 9              | 54                 |
| 162. Tonga                        | TON         |                   | 1215  | 776             | 9              | 61                 |
| 163. Tuvalu                       | TUV         |                   | 1175  | 798             | 9              | 61                 |
| 164. Vanuatu                      | VUT         |                   | 1243  | 548             | 9              | 54                 |
| 165. Samoa/ Western Samoa         | WSM         |                   | 1270  | 882             | 9              | 61                 |

\* Russian Federation was treated as continuation of the former Soviet Union.

## 1.2. Countries Not Included in the Analysis (“Non-Eligible”)

| Region –Subregion                           |             | Numeric Code (ID) |       |                 |                |                    |
|---|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country                                     | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| <b>Asia - East and Southeast Asia</b>       |             |                   |       |                 |                |                    |
| 166. Japan                                  | JPN         | 740               | 600   | 392             | 142            | 30                 |
| <b>Europe - Southern Europe</b>             |             |                   |       |                 |                |                    |
| 167. Andorra                                | ADO         |                   | 32    | 20              | 150            | 39                 |
| 168. Greece                                 | GRC         | 350               | 450   | 300             | 150            | 39                 |
| 169. Holy See (Vatican City)                | VAT         |                   | 1245  | 336             | 150            | 39                 |
| 170. Italy                                  | ITA         | 325               | 570   | 380             | 150            | 39                 |
| 171. Malta                                  | MLT         |                   | 780   | 470             | 150            | 39                 |
| 172. San Marino                             | SMR         |                   | 982   | 674             | 150            | 39                 |
| 173. Spain                                  | ESP         | 230               | 1060  | 724             | 150            | 39                 |
| <b>Europe - Western and Northern Europe</b> |             |                   |       |                 |                |                    |
| 174. Austria                                | AUT         | 305               | 61    | 40              | 150            | 155                |
| 175. Belgium                                | BEL         | 211               | 80    | 56              | 150            | 155                |
| 176. Denmark                                | DNK         | 390               | 320   | 208             | 150            | 154                |
| 177. Finland                                | FIN         | 375               | 380   | 246             | 150            | 154                |
| 178. France                                 | FRA         | 220               | 390   | 250             | 150            | 155                |
| 179. Germany                                | DEU         | 255               | 420   | 276             | 150            | 155                |
| 180. Iceland                                | ISL         |                   | 510   | 352             | 150            | 154                |
| 181. Liechtenstein                          | LIE         |                   | 705   | 438             | 150            | 155                |
| 182. Luxembourg                             | LUX         |                   | 720   | 442             | 150            | 155                |
| 183. Monaco                                 | MCO         |                   | 815   | 492             | 150            | 155                |

| Region –Subregion  |             | Numeric Code (ID) |       |                 |                |                    |
|--|-------------|-------------------|-------|-----------------|----------------|--------------------|
| Country  | ISO Alpha 3 | Correlates of War | Banks | UN Country code | UN Region code | UN Sub-Region code |
| 184. Netherlands   | NLD         | 210               | 850   | 528             | 150            | 155                |
| 185. Norway  | NOR         | 385               | 1091  | 578             | 150            | 154                |
| 186. Sweden  | SWE         | 380               | 1092  | 752             | 150            | 154                |
| 187. Switzerland   | CHE         | 225               | 1100  | 756             | 150            | 155                |
| 188. United Kingdom**  | GBR         | 200               | 1210  | 826             | 150            | 154                |
| <b>Latin America and the Caribbean - Caribbean</b>               |             |                   |       |                 |                |                    |
| 189. Bahamas   | BHS         |                   | 69    | 44              | 419            | 29                 |
| 190. Barbados  | BRB         |                   | 70    | 52              | 419            | 29                 |
| <b>North America</b>   |             |                   |       |                 |                |                    |
| 191. Canada  | CAN         | 20                | 180   | 124             | 21             | 21                 |
| 192. <i>United States</i> (excluded by definition)               | USA         | 2                 | 1220  | 840             | 21             | 21                 |
| <b>Middle East and the Mediterranean – Eastern Mediterranean</b> |             |                   |       |                 |                |                    |
| 193. Cyprus**  | CYP         | 352               | 290   | 196             | 142            | 145                |
| <b>Oceania - Australia and New Zealand</b>                       |             |                   |       |                 |                |                    |
| 194. Australia   | AUS         | 900               | 50    | 36              | 9              | 53                 |
| 195. New Zealand   | NZL         | 920               | 860   | 554             | 9              | 53                 |

\*\* Included as recipient in the USAID database, but programs not administered by USAID (i.e., Agency coded as “us\_dst” or “us\_xfi” in the database).

## Appendix 2. Indicators of Democratic Development

| <i>Democratic Outcome</i>                   | <i>Variable</i> | <i>Item</i>   |
|---|-----------------|---|
| <b>1. General DG</b>                        |                 |   |
|   | DG01            | Combined Polity IV Score (Revised version)                          |
|   | DG02            | Freedom House Index   |
|   | DG03            | Vanhanen Index  |
|   | DG04            | “Free” Status (Freedom House)                                       |
|   | DG05            | Democracy Status (Polity)   |
| <b>2. Elections and Electoral Processes</b> |                 |   |
| 2.1. Voting Rights                          | EL01            | Political Rights (Freedom House)                                    |
|   | EL05            | Electoral Fraud and Intimidation (DPI)                              |
|   | EL06            | Political Discrimination of Minorities (MAR)                        |
|   | EL07            | Restrictions on Voting Rights for Minorities (MAR)                  |
|   | EL08            | Women’s Political Rights (CIRI)                                     |
|   | EL11            | Right of Suffrage (Paxton, Bollen, Lee, and Kim)                    |
| 2.2. Participation                          | EL03            | Index of Participation (Vanhanen)                                   |
|   | EL09            | Registered Voters as Percentage of VAP (IDEA)                       |
|   | EL10            | Voter Turnout as Percentage of VAP (IDEA)                           |
|   | EL11            | Right of Suffrage (Paxton, Bollen, Lee, and Kim)                    |
| 2.3. Competitiveness                        | EL02            | Index of Electoral Competition (Vanhanen)                           |
|   | EL04            | Legislative Index of Electoral Competitiveness (DPI)                |
|   | EL12            | Competitiveness of Participation (Polity IV)                        |
|   | EL13            | Legislative Weight of the Opposition Parties (DPI)                  |
|   | EL14            | Legislative Effectiveness (Banks)                                   |
|   | EL15*           | Index of Free and Fair Elections (EL01, EL02, EL08, EL12)           |
| <b>3. Rule of Law</b>                       |                 |   |
| 3.1. Human Rights                           | RL08            | Political or Extrajudicial Killings (CIRI)                          |
|   | RL09            | Disappearances (CIRI)   |
|   | RL10            | Torture and Cruel, Inhumane, or Degrading Treatment (CIRI)          |
|   | RL11            | Political Imprisonment (CIRI)                                       |
|   | RL12            | Political Terror Scale (Gibney)                                     |
|   | RL12A           | Political Terror Scale (Gibney; Amnesty)                            |
|   | RL12S           | Political Terror Scale (Gibney; State Department)                   |
|   | RL15*           | Index of Respect for Human Integrity (RL08, RL09, RL10, RL11, RL12) |
| 3.2. Civil Liberties                        | RL01            | Civil Liberties (Freedom House)                                     |
|   | RL02            | Freedom of the Press (Ordinal, Freedom House)                       |
|   | RL03            | Freedom of the Press (Interval, Freedom House)                      |
|   | RL04            | Freedom of Speech and Press (CIRI)                                  |
|   | RL05            | Respect for Women’s Social Rights (CIRI)                            |
|   | RL06            | Equal Legal Protection for Minorities (MAR)                         |
|   | RL07            | Rights in Judicial Proceedings for Minorities (MAR)                 |
|   | RL13            | Rule of Law (World Bank)  |
|   | RL14            | Freedom of Expression (MAR)   |
|   | RL16*           | Index of Freedom of the Press (RL02, RL03, RL04, RL14)              |
| <b>4. Civil Society</b>                     |                 |   |
|   | RL01            | Civil Liberties (Freedom House)                                     |
|   | CS01            | Restrictions on the Organization of Minorities (MAR)                |
|   | CS02            | Freedom of Assembly and Association (CIRI)                          |
|   | CS03            | Green’s Index of Non-Profit Sector                                  |
|   | CS04            | Religious Freedom (CIRI)  |
|   | CS05            | Respect for Workers’ Rights (CIRI)                                  |
|   | CS06            | Freedom of Movement (CIRI)  |
|   | CS07            | Respect for Women’s Economic Rights (CIRI)                          |
|   | CS08*           | Conditions for Civil Society (CS01, CS02, CS03, CS04, CS05, CS06,   |

| <i>Democratic Outcome</i> | <i>Variable</i> | <i>Item</i>   |
|---------------------------|-----------------|---|
|                           | CS07)           |   |
| <b>5. Governance</b>      |                 |   |
| 5.1. Decentralization     | GV02            | Election of Municipal Governments (DPI)                   |
|                           | GV03            | Election of State/Provincial Governments (DPI)            |
|                           | GV04            | Sub-National Expenditures as Percentage of Total (WB)     |
|                           | GV05            | Sub-National Expenditures Financed by Transfers (WB)      |
|                           | GV06            | Sub-National Revenues as Percentage of GDP (WB)           |
| 5.2. Governance           | GV01            | Corruption Perceptions Index (Transparency International) |
|                           | GV07            | Government Effectiveness (World Bank)                     |
|                           | GV08            | Regulatory Quality (World Bank)                           |
|                           | GV09            | Control of Corruption (World Bank)                        |

\* Aggregate indices.

### Appendix 3. Measures of USAID Democracy and Governance Funding

| <i>Variable</i> | <i>Description</i>   |
|-----------------|--|
| AID             | Total USAID investment (all sectors)                           |
| OBL             | New USAID Obligations (all sectors)                            |
| <b>1</b>        | <b>Democracy and Governance Assistance</b>                     |
| AID100          | Total Democracy and Governance (DG)                            |
| OBL100          | New Democracy and Governance Obligations                       |
| AID110          | DG - Elections and Political Processes                         |
| AID120          | DG - Rule of Law   |
| AID121          | DG - RL - Human Rights   |
| AID122          | DG - RL (other)  |
| AID130          | DG - Civil Society   |
| AID131          | DG - Civil Society – Mass media                                |
| AID132          | DG - Civil Society (other)                                     |
| AID140          | DG - Governance  |
| <b>2</b>        | <b>Other (Non-DG) Sectors</b>                                  |
| AID000          | Total Investment in Other Sectors (Non-DG)                     |
| OBL000          | New Obligations in Other Sectors (Non-DG)                      |
| AID200          | Non-DG - Agriculture and Economic Growth                       |
| AID300          | Non-DG - Education   |
| AID400          | Non-DG - Environment   |
| AID500          | Non-DG - Health  |
| AID600          | Non-DG - Humanitarian Assistance                               |
| AID700          | Non-DG - Human Rights  |
| AID800          | Non-DG - Conflict Management and Mitigation                    |
| <b>3</b>        | <b>Sources and Composition of Funding</b>                      |
| PDAAID          | Development Assistance as Percentage of total USAID investment |
| PDADG           | Development Assistance as Percentage of total DG funds         |
| PDANDG          | Development Assistance as Percentage of Non-DG funds           |
| PDGAID          | DG Programs as Percentage of total USAID investment            |
| AID_2           | U.S. Assistance not channeled through USAID (Greenbook)        |
| <b>4</b>        | <b>Regional Programs</b>                                       |
| RAID100         | Regional Programs in Democracy and Governance (DG)             |
| RAID110         | Regional DG - Elections and Political Processes                |
| RAID120         | Regional DG - Rule of Law                                      |
| RAID121         | Regional DG - RL - Human Rights                                |
| RAID130         | Regional DG - Civil Society                                    |
| RAID140         | Regional DG – Governance                                       |
| RAID000         | Total Regional Investment in Other Sectors (Non-DG)            |
| RAID200         | Regional Non-DG - Agriculture and Economic Growth              |
| RAID300         | Regional Non-DG - Education                                    |
| RAID400         | Regional Non-DG - Environment                                  |
| RAID500         | Regional Non-DG - Health                                       |
| RAID600         | Regional Non-DG - Humanitarian Assistance                      |
| RAID700         | Regional Non-DG - Human Rights                                 |
| RAID800         | Regional Non-DG - Conflict Management and Mitigation           |
| <b>5</b>        | <b>Sub-Regional Programs</b>                                   |
| SAID100         | Subregional Programs in Democracy and Governance (DG)          |
| SAID110         | Subregional DG - Elections and Political Processes             |
| SAID120         | Subregional DG - Rule of Law                                   |
| SAID121         | Subregional DG - RL - Human Rights                             |
| SAID130         | Subregional DG - Civil Society                                 |
| SAID140         | Subregional DG – Governance                                    |

| <i>Variable</i> | <i>Description</i>   |
|-----------------|--|
| SAID000         | Total Subregional Investment in Other Sectors (Non-DG)             |
| SAID200         | Subregional Non-DG - Agriculture and Economic Growth               |
| SAID300         | Subregional Non-DG - Education                                     |
| SAID400         | Subregional Non-DG - Environment                                   |
| SAID500         | Subregional Non-DG - Health  |
| SAID600         | Subregional Non-DG - Humanitarian Assistance                       |
| SAID700         | Subregional Non-DG - Human Rights                                  |
| SAID800         | Subregional Non-DG - Conflict Management and Mitigation            |
| RSAID100        | Regional and Sub-Regional Funding “Available” for DG Programs.     |
| RSAID000        | Regional and Sub-Regional Funding “Available” for Non-DG Programs. |

## ***Appendix 4. Independent Variables (Level 1: Pooled Time-Series)***

| <i>Variable</i> | <i>Description</i>  |
|-----------------|---|
| <b>1</b>        | <b>International Factors and Diffusion</b>                                    |
| DIF01           | Average DG02 in the International System (t-1)                                |
| DIF02           | Average DG02 in the Region (t-1)  |
| DIF03           | Application for European Union Membership Pending (dummy)                     |
| FPP01           | % of Security Assistance for All Countries in Year                            |
| FPP02           | U.S. Foreign Policy Priority  |
| FPP03           | USAID Mission Closed in the 1990s   |
| <b>2</b>        | <b>Official Development Assistance (Non-U.S. Sources)</b>                     |
| ODA01           | Official development assistance and official aid (net, millions current US\$) |
| ODA02           | Aid (% of central government expenditures)                                    |
| ODA100          | Non-U.S. DG Programs (M 1995 dollars)   |
| ODA000          | Non-U.S. DG Programs (M 1995 dollars)   |
| <b>3</b>        | <b>Domestic Political Conditions</b>  |
| POL01           | Number of coups d'état (last three decades)                                   |
| POL02           | Number of legislative elections (last three decades)                          |
| POL03           | Effective Executive (Banks)   |
| POL04           | Presence of Guerrilla Warfare (Banks)   |
| POL05           | Index of Social and Political Conflict (Banks)                                |
| <b>4</b>        | <b>Economic Development</b>   |
| DEV01           | GDP (millions current US\$)   |
| DEV02           | GDP (millions of 1995 US\$)   |
| DEV03           | GDP per capita (thousands of 1995 US\$)                                       |
| DEV04           | PPP per capita (thousands of 1995 US\$)                                       |
| DEV05           | Telephones PTI  |
| DEV06           | Radios PTI  |
| DEV07           | TV Sets PTI   |
| <b>5</b>        | <b>Economic Performance</b>   |
| PRF01           | Growth (Per capita GDP)   |
| PRF02           | Inflation (CPI)   |
| PRF03           | GDP Deflator  |
| PRF04           | Inflation (Deflator)  |
| PRF05           | Private Capital Flows (% GDP)   |
| <b>6</b>        | <b>Social Characteristics</b>   |
| SOC01           | Population (Thousands)  |
| SOC02           | Rural Population (%)  |
| SOC03           | Literacy Rate   |
| SOC04           | Female Literacy   |
| SOC05           | Infant Mortality  |
| SOC06           | Income Share Top 20%  |
| SOC07           | Unemployment  |
| SOC08           | Military (% labor force)  |
| SOC09           | Religious Fractionalization (Annett, Fearon)                                  |
| SOC10           | Ethnic Fractionalization (Annett, Fearon)                                     |
| <b>7</b>        | <b>Economic Dependence</b>  |
| DEP01           | Merchandise Exports (millions current US\$)                                   |



| <i>Variable</i> | <i>Description</i>             |
|-----------------|--------------------------------|
| DEP02           | Exports/GDP                    |
| DEP03           | Agricultural Exports (% total) |
| DEP04           | Fuel Exports (% total)         |
| DEP05           | Metals Exports (% total)       |

## ***Appendix 5. Independent Variables (Level 2: Cross-National)***

| <i>Variable</i>                       | <i>Description</i>   |
|---------------------------------------|--|
| <b>Past Experience with Democracy</b> |  |
| L201                                  | Average FH score 1972-2004   |
| L202                                  | Proportion years coded by FH as "F" (1972-2004)                    |
| L203                                  | Years Rated Free, 1972-1989  |
| L204                                  | Average Polity Score, 1900-1989                                    |
| L205                                  | Average Vanhanen Score, 1900-1989                                  |
| <b>Record of Political Stability</b>  |  |
| L210                                  | Years under foreign intervention, 1960-1989                        |
| L211                                  | Years of political anarchy, 1960-1989                              |
| L212                                  | Years of State Failure, 1960-1989                                  |
| <b>Culture and Colonial Legacies</b>  |  |
| L213                                  | Former British Colony  |
| L224                                  | Religious Fractionalization (1960-2003)                            |
| L225                                  | Ethnic Fractionalization (1960-2003)                               |
| <b>Foreign Policy</b>                 |  |
| L214                                  | Applicant to EU Membership (1990-2003)                             |
| L230                                  | Proximity to U.S. Foreign Policy, 1946-89 (Gartzke)                |
| L231                                  | Proximity to U.S. Foreign Policy, 1989-92 (Gartzke)                |
| L232                                  | Proximity to U.S. Foreign Policy, 1993-96 (Gartzke)                |
| L233                                  | Proximity to U.S. Foreign Policy, 1990-96 (Gartzke)                |
| L234                                  | Military Assistance Priority (% of Total U.S. Security Assistance) |
| <b>Socio-Economic Structure</b>       |  |
| L221                                  | Income per capita (PPP, thousands - CIA)                           |
| L220                                  | Average Population, 1990-2003 (thousands)                          |
| L222                                  | Income share of top 20% (1990s)                                    |
| L223                                  | Size of the Country, thousands of square km (Banks)                |
| L226                                  | Percentage of Urban Population (World Bank)                        |
| L227                                  | Mean GDP per capita 1990-2003 (thousands 1995 US\$)                |
| <b>Cumulative Aid</b>                 |  |
| L2100                                 | Total DG Aid, 1990-2003  |
| L2000                                 | Total Non-DG Aid, 1990-2003  |
| L2100a                                | Total DG Aid, 1990-92  |
| L2000a                                | Total Non-DG Aid, 1990-92  |
| L2100b                                | Total DG Aid, 1993-96  |
| L2000b                                | Total Non-DG Aid, 1993-96  |
| L2100c                                | Total DG Aid, 1997-2000  |
| L2000c                                | Total Non-DG Aid, 1997-2000  |
| L2100d                                | Total DG Aid, 1990-1996  |
| L2000d                                | Total Non-DG Aid, 1990-1996  |
| L2PDA                                 | % DA funds for all spending (average 1990-2003)                    |
| L2999a                                | Total U.S. Aid, 1960-89 (M 1995 dollars)                           |
| L2999b                                | Prior U.S. Aid, 1960-89 (dummy variable)                           |

## ***Appendix 6. Construction of Aggregate Indices of Democratic Outcomes***

In cases where we had multiple measures of the same dependent variable, we decided to construct aggregate indices. We developed four indices measuring the presence of free and fair elections (EL15), the conditions for the operation of civil society (CS08), respects for human rights (RL15), and the presence of free media (RL16). Aggregate measures were developed to summarize information supplied by multiple sources rather than to identify the underlying dimensions of democracy. We remain agnostic on whether these measures reflect different dimensions or whether they capture overlapping aspects of the democratization process. The indices were created to capture, within limitations imposed by the existing data, the democratic outcomes specifically targeted by the USAID DG sub-sectors, and it is not implausible that these sub-sectors will tap on overlapping aspects of the democratic process. Following this logic, we selected component items that claimed to measure the same (or closely related) theoretical constructs, to the extent that those constructs were of particular relevance for USAID funding priorities. For instance, we combined four different items (RL02, RL03, RL04, RL14) into a single index of free media because the content of all the four items was supposed to reflect freedom of the press or freedom of expression, an important area for USAID programs.

The creation of aggregate indices followed three steps: 1) we minimized missing values by conducting EM imputation among the components (for a description of this procedure see the section on missing data and Appendix 7); 2) we performed an exploratory factor analysis to extract the common factor; 3) for presentation purposes we changed the scale of the aggregate indices to have a mean of 50 and a standard deviation of 10.

Appendix 6.1 presents the factor loadings for the four aggregate indices. Appendix 6.2 displays the values for the Cronbach's alpha for the standardized, unweighted items and the communalities for the component items.

**Appendix 6.1. Components of the Factor Analysis for the Aggregate Indices of Democracy**

| <i>Item</i> | <i>Description</i>  | <i>Factor Loadings</i> |
|-------------|---|------------------------|
| <b>EL15</b> | <b>Free and Fair Elections</b>  |                        |
| EL01        | Political Rights (Freedom House)  | -.940                  |
| EL02        | Index of Electoral Competition (Vanhanen 2003)                            | .906                   |
| EL08        | Women's Political Rights (Cingranelli and Richards 2004b)                 | .631                   |
| EL12        | Competitiveness of Participation (Polity IV 2004)                         | .947                   |
| <b>CS08</b> | <b>Conditions for Civil Society</b>                                       |                        |
| CS01        | Restrictions on the Organization of Minorities (Minorities at Risk, 2004) | -.558                  |
| CS02        | Freedom of Assembly and Association (Cingranelli and Richards 2004b)      | .843                   |
| CS03        | Favorable Conditions for Non-Profit Sector (Green 2004)                   | .779                   |
| CS04        | Religious Freedom (Cingranelli and Richards 2004b)                        | .758                   |
| CS05        | Respect for Worker's Rights (Cingranelli and Richards 2004b)              | .781                   |
| CS06        | Freedom of Movement (Cingranelli and Richards 2004b)                      | .746                   |
| CS07        | Respect for Women's Economic Rights (Cingranelli and Richards 2004b)      | .572                   |
| <b>RL15</b> | <b>Respect for Human Integrity (Human Rights)</b>                         |                        |
| RL08        | Political or Extrajudicial Killings (Cingranelli and Richards 2004b)      | .856                   |
| RL09        | Disappearances (Cingranelli and Richards 2004b)                           | .781                   |
| RL10        | Torture (Cingranelli and Richards 2004b)                                  | .775                   |
| RL11        | Political Imprisonment (Cingranelli and Richards 2004b)                   | .750                   |
| RL12        | Political Terror Scale (Gibney 2004)                                      | -.925                  |
| <b>RL16</b> | <b>Free Media</b>   |                        |
| RL02        | Freedom of the Press (Freedom House 2004c; three-point scale)             | .928                   |
| RL03        | Freedom of the Press (Freedom House 2004c; 100-point scale)               | -.955                  |
| RL04        | Freedom of Speech and Press (Cingranelli and Richards 2004b)              | .871                   |
| RL14        | Restrictions on Freedom of Expression (Minorities at Risk, 2004)          | -.635                  |

*Note:* EFA conducted for complete sample (eligible and non-eligible countries). N= 2672. Extraction method was principal component analysis.

## Appendix 6.2. Components of the Factor Analysis for the Aggregate Indices of Democracy

### 6.2.1. Cronbach's Alpha for Standardized, Non-Weighted Items

| Index                | Items | Non-Imputed | Imputed |
|----------------------|-------|-------------|---------|
| EL15 – Elections     | 4     | 0.880       | 0.881   |
| CS08 - Civil Society | 7     | 0.648       | 0.846   |
| RL15 - Human Rights  | 5     | 0.854       | 0.876   |
| RL16 - Free Media    | 4     | 0.845       | 0.871   |

*Note:* some items were inverted to preserve consistency in the direction of the scaling.

### 6.2.2. Communalities

|  |             |
|--|-------------|
| EL15 – Elections                                 |             |
| Political Rights (Freedom House)                 | .884        |
| Index of Competition (Vanhnen)                   | .821        |
| Women's Political Rights (CIRI)                  | .398        |
| Competitiveness of Participation (Polity)        | .896        |
| <b>Total variance explained (%)</b>              | <b>75.0</b> |
| CS08 – Civil Society                             |             |
| Restrictions on Organization of Minorities (MAR) | .312        |
| Freedom of Assembly And Association (CIRI)       | .710        |
| Non-Profit Sector (Green)                        | .607        |
| Freedom of Religion (CIRI)                       | .575        |
| Worker Rights (CIRI)                             | .611        |
| Freedom of Movement (CIRI)                       | .556        |
| Women's Economic Rights (CIRI)                   | .327        |
| <b>Total variance explained (%)</b>              | <b>52.8</b> |
| RL15 – Human Rights                              |             |
| Disappearances (CIRI)                            | .610        |
| Political / Extrajudicial Killings (CIRI)        | .732        |
| Political Imprisonment (CIRI)                    | .563        |
| Torture (CIRI)                                   | .600        |
| Political Terror Scale (Gibney, Average)         | .856        |
| <b>Total variance explained (%)</b>              | <b>67.2</b> |
| RL16 - Free Media                                |             |
| Freedom of the Press (FH, 3-point)               | .861        |
| Freedom of the Press (FH, 100-point)             | .912        |
| Freedom of Speech & Press (CIRI)                 | .758        |
| Freedom of Expression for Minorities (MAR)       | .403        |
| <b>Total variance explained (%)</b>              | <b>73.3</b> |

## Appendix 7. Missing Values Imputation: Target Variables and Predictors

| <i>Variable</i>                             | <i>Missing<br/>(% all)</i> | <i>EM Predictors</i>                        |
|---|----------------------------|---|
| <b>A. Imputation for Measurement Models</b> |                            |   |
| <b>A.1. Free and Fair Elections (EL15)</b>  |                            |   |
| Political Rights (EL01)                     | 1.2                        | Political Rights (EL01)                     |
| Index of Competition (EL02)                 | 11.1                       | Index of Competition (EL02)                 |
| Women's Political Rights (EL08)             | 21.1                       | Women's Political Rights (EL08)             |
| Competitive Participation (EL12)            | 22.6                       | Competitive Participation (EL12)            |
|   |                            | Sub-regional dummies                        |
| <b>A.2. Civil Society Index (CS08)</b>      |                            |   |
| Restrictions Org. Minorities (CS01)         | 42.1                       | Freedom House Index (DG02)                  |
| Freedom of Association (CS02)               | 18.5                       | Restrictions Org. Minorities (CS01)         |
| Non-Profit Sector (CS03)                    | 89.7                       | Freedom of Association (CS02)               |
| Freedom of Religion (CS04)                  | 20.7                       | Non-Profit Sector (CS03)                    |
| Worker Rights (CS05)                        | 20.7                       | Freedom of Religion (CS04)                  |
| Freedom of Movement (CS06)                  | 20.7                       | Worker Rights (CS05)                        |
| Women's Economic Rights (CS07)              | 21.7                       | Freedom of Movement (CS06)                  |
|   |                            | Women's Economic Rights (CS07)              |
|   |                            | Sub-regional dummies                        |
| <b>A.3. Human Rights Index (RL15)</b>       |                            |   |
| Extrajudicial Killings (RL08)               | 20.7                       | Freedom House Index (DG02)                  |
| Disappearances (RL09)                       | 20.9                       | Political / Extrajudicial Killings (RL08)   |
| Torture (RL10)                              | 20.7                       | Disappearances (RL09)                       |
| Political Imprisonment (RL11)               | 20.8                       | Torture (RL10)                              |
| Political Terror Scale (RL12)               | 10.3                       | Political Imprisonment (RL11)               |
|   |                            | Political Terror Scale (RL12)               |
|   |                            | Sub-regional dummies                        |
| <b>A.4. Free Media Index (RL16)</b>         |                            |   |
| Freedom of the Press (RL02)                 | 4.6                        | Freedom House Index (DG02)                  |
| Freedom of the Press (RL03)                 | 23.2                       | Freedom of the Press (RL02)                 |
| Freedom of Speech & Press (RL04)            | 20.7                       | Freedom of the Press, 3-point (RL03)        |
| Freedom for Minorities (RL14)               | 42.3                       | Freedom of Speech & Press (RL04)            |
|   |                            | Freedom of Expression for Minorities (RL14) |
|   |                            | Sub-regional dummies                        |

| <i>Variable</i>                       | <i>Missing<br/>(% all)</i> | <i>EM Predictors</i>  |
|---------------------------------------|----------------------------|---|
| <b>B. Imputation for Causal Model</b> |                            |   |
| Polity IV Score (DG01I)               | 18.4                       | Polity IV Score (DG01)  |
| Freedom House Index (DG02I)           | 1.2                        | Freedom House Index (DG02)  |
| GDP Growth (PRF01I)                   | 10.4                       | Coups D'Etat (POL01) T  |
| Inflation (PRF02I)                    | 22.2                       | Number of Legislative Elections (POL02)                             |
| Income Share Top 20% (SOC06I)         | 35.4                       | Religious Fragmentation (SOC09)                                     |
| Unemployment (SOC07I)                 | 59.5                       | Ethnolinguistic Fractionalization (SOC10)                           |
| Merchandise Exports (DEP01I)          | 6.8                        | GDP, current U.S. dollars (DEV01) T                                 |
| Exports as % GDP (DEP02I)             | 11.3                       | GDP per capita, 1995 U.S. dollars (DEV03) T                         |
|                                       |                            | GDP per capita, 1995 U.S. dollars (sub-regional mean DEV03)         |
|                                       |                            | GDP per capita, 1996 U.S. dollars (PWT) S                           |
|                                       |                            | GDP per capita, PPP (DEV04) T                                       |
|                                       |                            | GDP per capita, PPP (sub-regional mean DEV04)                       |
|                                       |                            | Telephone Lines PTI (DEV05) T                                       |
|                                       |                            | Annual Growth in GDP Per Capita (PRF01)                             |
|                                       |                            | Annual Growth in GDP Per Capita (yearly, sub-regional mean PRF01)   |
|                                       |                            | Annual Growth in GDP Per Capita (PWT) S                             |
|                                       |                            | Inflation, Consumer Prices (PRF02) T                                |
|                                       |                            | Inflation, based on GDP Deflator (PRF04) T                          |
|                                       |                            | Inflation, based on GDP Deflator (yearly, sub-regional mean PRF04)  |
|                                       |                            | Income Distribution, Share of top 20% (SOC06) T                     |
|                                       |                            | Unemployment (SOC07) T  |
|                                       |                            | Unemployment (sub-regional mean SOC07)                              |
|                                       |                            | Merchandise Exports (DEP01) T                                       |
|                                       |                            | Merchandise Exports as Percentage of GDP (sub-regional mean, DEP02) |
|                                       |                            | Population (SOC01)  |
|                                       |                            | Non-U.S. DG Assistance (ODA100)                                     |
|                                       |                            | Non-US, Non-DG Assistance (ODA000)                                  |
|                                       |                            | Democracy in the International System (DIF01)                       |
|                                       |                            | Democracy in the Region (DIF02)                                     |
|                                       |                            | Pending Application for European Union Membership (DIF03)           |
|                                       |                            | Military Assistance Priority (FPP01)                                |
|                                       |                            | DG Aid – Elections (AID110)   |
|                                       |                            | DG Aid – Rule of Law (AID120)                                       |
|                                       |                            | DG Aid – Civil Society (AID130)                                     |
|                                       |                            | DG Aid – Governance (AID140)  |
|                                       |                            | Non DG Aid (AID000)   |
|                                       |                            | Non USAID Assistance (AID_2)  |
|                                       |                            | Regional DG Aid (RSAID100)  |
|                                       |                            | Time trend (YEARNUM)  |

*Note:* Imputation conducted for complete sample (eligible and non-eligible countries). N= 2672

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