# Eenie, Meenie, Miney, Moe?
# Institutional Portfolios and Delegation to Multilateral Aid Institutions*

Christina Schneider
*University of California, San Diego*
*cjschneider@ucsd.edu*

Jennifer Tobin
*Georgetown University*
*jlt58@georgetown.edu*

*Abstract*

We develop a theory of governments' strategic choice in delegating aid to multiple multilateral aid institutions (MAIs). Although delegation of aid to MAIs increases the overall value of development aid, governments do not benefit from this efficiency if the de facto MAI development strategies do not fall in line with the government's own allocation interests. We argue that governments can mitigate this problem by building an institutional portfolio of aid. They exploit the existence of various, oftentimes overlapping, aid institutions and contribute varying amounts to these institutions such as to maximize efficiency and similarity of allocation policies between government and the MAI. The closer the MAI's aid allocation reflects the development goals of the donor and the greater the MAI's efficiency, the more likely it will delegate more aid to that MAI. We use data on financial contributions of 23 OECD countries to MAIs from 1970 to 2008 to analyze a donor government's strategic choice. The empirical analysis robustly supports the main theoretical claim. Governments make strategic choices and build institutional portfolios that aim at mitigating the problem of power diffusion in MAIs.

* For helpful comments on the paper we would like to thank Mark Busch, Simone Dietrich, Axel Dreher, Tobias Heinrich, Chris Humphrey, Alessia Isopi, Johannes Kleibl, Timothy McKeown, Dan Nielson, Mike Tierney, Matt Winters, and the panel participants at the annual meetings of the American Political Science Association (2010), International Political Economy Society (2010), Midwest Political Science Association (2010), and Political Economy of International Organizations (2011).

# I. INTRODUCTION

Governments increasingly rely on international institutions to govern state relations and to pursue collective action in policy fields ranging from international trade and finance to environmental and cultural issues. The extent of delegation to these institutions has varied significantly across countries and over time, and much effort has gone into analyzing the conditions under which states delegate decision-making power to international institutions.[1] The provision of foreign aid through multilateral aid institutions (MAIs) is a particularly interesting case of delegation. Governments, whose bilateral aid allocations largely focus on their economic, military, or geo-political foreign policy goals, contribute financial resources to MAIs whose official goals are to promote sustainable economic growth. Policy diffusion – one of the major costs of delegation – is not just a chance event but an institutionalized feature of the delegation process in foreign aid. In the case of MAIs, the potential benefits of delegation (pooling of resources, burden-sharing, and greater expertise of aid-giving tends to ensure greater efficiency of multilateral aid giving) are reduced because the interests of governments and the goals of MAIs are likely to diverge.[2]

The costs of policy diffusion combined with the fact that governments continue to delegate a great portion of their foreign aid to MAIs is an interesting conundrum. Scholars have examined

1 Pollack (1997); Abbott and Snidal (1998); Nielson and Tierney (2003); Hawkins et al. (2006); Milner and Tingley (2010b); McLean (2011).

2 This assumes, in line with most of the other literature on this topic, that governments pursue similar goals with multilateral aid. A possible alternative explanation is that governments give multilateral aid in order to pursue different goals with multilateral aid. We discuss and test this alternative argument below but find no evidence for it. See Hicks et al. (2008) and Milner and Tingley (2010b) for a discussion of the benefits of delegation.

both domestic and international factors to provide a solution to this puzzle.[3] For example, they find that during intergovernmental negotiations to determine distribution policies, donors try to shift MAI policies away from the official goals of the MAI towards their own domestic interests in order to minimize policy diffusion.

Beyond the costs of policy diffusion, the decision to delegate is not a simple one. The International Development Agency (IDA) used to be the major institution for multilateral cooperation on developmental questions, but governments now delegate to over 50 MAIs around the world. And while the actual amount that donors delegate has not increased substantially (donors have consistently spent around 30% of their overall aid budgets multilaterally), there is a great deal of variation in how much governments delegate across MAIs and over time. Germany, as one example, has shifted its multilateral aid policies from providing much of its multilateral aid through the IDA and the United Nations Development Program (UNDP) to providing much of its multilateral aid through the European Commission (EC) and the European Development Fund (EDF).

We exploit this observed variation to suggest a new way of thinking about the decision to delegate. We argue that governments can, at least at times, do better with their scarce aid resources by delegating to a multitude of MAIs that vary in their policy goals and in the efficiency with which they provide foreign aid. The ability to provide different amounts of resources to each of them allows governments not only to maximize the benefits arising from greater efficiency of aid giving, but also to minimize the costs of policy diffusion. Although the major donors tend to be members of most MAIs, and therefore must contribute at least some resources to each institution, they are able to choose the overall size of their financial contributions to each

[3] Milner (2006); Milner and Tingley (2010a,b); Lyne et al (2010); Nielson and Tierney (2010); McLean (2011); Schneider and Tobin (2013).

institution. That is, they can build an institutional portfolio that combines the strengths and weaknesses of the various MAIs.[4] We argue that institutional portfolio building is not a random process, but a result of the strategic behavior of governments who want to maximize their gains from delegation. Specifically, to mitigate the costs of delegation, governments choose the size of their contributions to each MAI based on the similarity between their own and the MAI's allocation policies (we will call this *preference similarity*) as well as the MAI's relative efficiency.[5] For example, whereas Germany remained a member of the IDA and the UNDP, the shift of multilateral aid policies towards European institutions can be explained by its greater influence in the EU in terms of intergovernmental bargaining informal and influence on the European Commission.[6]

To test the empirical implications of our argument we use data on governments' financial contributions to MAIs over the period 1970-2008. We measure preference similarity as the degree to which the MAI's allocation policies reflect a government's bilateral allocation policies on who gets aid and what sector the aid is spent on. Using a measure that relies on allocation outcomes (who gets aid) rather than input (how powerful is the member state) allows us to take into

[4] The term "institutional portfolio" mainly helps to distinguish delegation to MAIs, where governments provide different amounts of resources to a variety of organization, to forum shopping where governments delegate to one or another organization. We thank Mark Busch for providing his insights on the difference between forum shopping and institutional portfolio building.

[5] While a government's bargaining power in the MAI strongly influences the degree of preference similarity across MAIs, we also acknowledge the importance of bureaucratic politics within the MAIs and its potential impact on the government's ability to ensure this preference similarity.

[6] We must make clear that we do not attempt to explain why governments tend to be members of most MAIs. Indeed, this is an important and fascinating question for future study.

account the influence of power in the intergovernmental bargaining process and the influence of organizational characteristics and bureaucratic politics. We then use data envelopment analysis (DEA), a well-established technique from the field of management science, to assess the *efficiency* of MAIs in relation to their competitors. Our analysis provides strong support for our theory of strategic institutional portfolio building: that is, donor-governments care both about how similar their preferences are to MAIs and how efficient MAIs are—and their delegation decisions reflect both of these factors.

The findings have important implications for the question of delegation to multilateral aid institutions. Most importantly, the decision of governments to delegate large amounts of financial resources to MAIs is less puzzling when analyzed through the lenses of institutional portfolio building. The costs of policy diffusion, which may loom large if one analyzes a specific organization, are much smaller if one analyzes delegation to a multitude of organizations, which vary in their extent of policy diffusion of a particular country's interests.

## II. The Delegation Puzzle and Donor Choice

The delegation of foreign aid to multilateral aid agencies has been a consistent part of OECD countries' foreign aid budgets. Between 1970 and 2008, the amount of foreign aid spent through these MAIs more than tripled to over one trillion U.S. dollars and has made up about 35% of OECD countries' foreign aid budget (data from OECD).[7] The delegation of foreign aid appears puzzling because multilateral aid allocation often diverges from the goals that governments pur-

7 The data includes all information available from the OECD aid statistics. Unfortunately the data base does not provide information on all existing multilateral aid agencies, but it is the only currently existing data base that provides data on delegation across MAIs (AidData generally provides better data but has no information on financial contributions to MAIs).

sue with bilateral aid. Researchers have consistently found that most governments prefer to allocate their aid to countries in which they have a strategic-military, geo-political, or economic interest.[8] These basic strategic goals are jeopardized when delegating aid to multilateral institutions. Decision-making is delegated to an intergovernmental body where member states with varying decision-making powers decide by some form of majority voting who gets what and when. The implementation of these decisions is then delegated to the multilateral agent. Diffusion of preferences can occur on both levels. First, if a government is not powerful enough to assert itself in the decision-making process, its interests might be underrepresented in allocation decisions. Second, the multilateral aid agent may exploit its information advantages to bias the allocation process according to its own interests (which typically implies an increase in the overall aid budget and the provision of aid in accordance with the official goals of the organization).[9]

If MAIs by their nature diffuse government interests in how multilateral aid is allocated, why do governments delegate foreign aid to MAIs? Surprisingly little research has been conducted to explain this conundrum. The main arguments build on the general delegation literature and refer to the gains from pooling resources and increased efficiency of multilateral aid giving, which, in turn, increases the overall value of development aid (the so-called multiplier effect).[10] MAIs are able to attract additional private funding and to lower administrative costs. In addition, they allow individual donors to share the burden of development. Milner and Tingley (2011), for exam-

8 For a summary of that literature see Wright and Winters (2010).

9 Vaubel (1996, 2006); Frey (1997); Barnett and Finnemore (1999); Hawkins et al. (2006); Copelovitch (2010); Schneider and Tobin (2013).

10 Hicks et al. (2008); Milner and Tingley (2010b). In addition, Milner (2006) argues that increased domestic interest in economic development leads governments to delegate to MAIs.

ple, show that burden sharing plays an important role for domestic support of multilateralism in the United States.

However, the costs of policy diffusion are paramount when governments decide to delegate to multilateral aid institutions. The importance of any efficiency gain depends on whether multilateral allocation is in line with a government's allocation preferences. McLean (2011) shows that European governments have little to gain from delegation to MAIs if governmental preferences about foreign policies are largely heterogeneous. This explains why MAI members try to bias multilateral aid allocation in favor of their national interests (whether they are strategic or developmental) during the intergovernmental bargaining process (see FN 3). But the lower the government's influence on the multilateral aid allocation policies, the less important the gains from burden sharing, and consequently the less attractive is delegation.

In the next section of this paper, we will suggest a new way of thinking about the puzzle of delegation by relaxing the implicit assumption that governments decide simply whether or not to delegate multilaterally, and instead analyze the choice of how much to contribute to multiple MAIs. In a recent effort to collect a comprehensive database on bilateral and multilateral aid allocations, the AidData group has counted approximately 50 multilateral development institutions across the world. Many of these MAIs have overlapping, but still varying, memberships, similar goals, and varying levels of efficiency, so that governments have a choice among various MAIs when they decide how much to contribute to any particular MAI.

[Figure 1 about here]

Figure 1 illustrates these choices and the existing variation by graphing U.S. and German delegation decisions to major MAIs between 1970 and 2008. It demonstrates the great variation in the extent of delegation not only across MAIs, but also across time. Figure 1(a) shows that the

U.S. has consistently preferred to delegate aid to the IDA. And although contributions to the Inter-American Development Bank (IADB) and the UNDP have declined over time, the World Food Program (WFP) has become a more important recipient of U.S. aid over time. Figure 1(b), on the other hand, shows that Germany's IDA contributions have crowded out somewhat since the 1990s in favor of contributions to European aid agencies such as the EC and the EDF.

In sum, the data on delegation suggest that governments delegate resources to various MAIs and that they differ in their choices. But what is the impact of choice on delegation decisions? In principle, choice could just be a random, or functional, process made by the domestic bureaucratic apparatus. In his work on forum shopping in international economic institutions Busch (2007) demonstrates that the existence of a multitude of international institutions enables governments to choose a forum in which to further their goals. We extend this work by adding the notion of *strategic institutional portfolio building*. When delegating aid to MAIs, governments usually do not pick one or the other forum. Instead they tend to delegate to a large number of these institutions but vary their contributions across institutions and over time. Although we will not apply the terminology, one may think of this in terms of financial portfolios where the expected return (as argued below) is the amount of financial resources spent by the MAI according to the government's interest as well as efficiency gains from delegation. The risk is that the MAI dilutes the interests of the government (either because of intergovernmental bargaining or bureaucratic politics) or does not provide the aid more efficiently than the government could by itself.[11]

One important implication of this view is that compared to a setting in which only one institution exists, the incentives to delegate should be much greater (thus providing a more accurate theoretical account of the empirical observations) because governments now decide where to

[11] See Conybeare (1992) for an application of portfolio analysis to military alliances.

delegate how much instead of whether or how much to delegate. Delegation choices increase the likelihood that governments exert greater influence on allocation decisions and it increases the likelihood that these institutions give aid more efficiently than if the government gave aid bilaterally. In other words, the government would get more of what it actually wants.

## III. A THEORY OF INSTITUTIONAL PORTFOLIO BUILDING

This section develops a theory of delegation to a multitude of overlapping multilateral aid institutions. In a nutshell, we argue that governments maximize the possible benefits of delegation by strategically channeling more aid through efficient MAIs whose policies mirror the government's own national aid allocation policies.

Our theory is based on the assumption that governments act opportunistically when deciding on their foreign aid policies. They must balance three different sources of interests. First, governments use foreign aid allocation to satisfy their own foreign policy interests. Most likely this implies allocating aid in order to achieve economic, military, or geo-political goals, but it may also imply allocating aid to further economic development in recipient countries. Second, governments are influenced by organized interest groups that might lobby for aid allocation strategies that increase the economic (or other) benefits from aid giving. Finally, governments strive to satisfy their constituencies, who may have varying interests in how aid should be allocated. The priority of one over the other depends on variations in the distributional effects of aid, the relative strength of interest groups, and the importance of aid as a foreign policy instrument.

Based on these interests, governments maximize their expected value from aid provision by allocating aid both bilaterally and multilaterally. On the multilateral level, governments can delegate resources to multiple multilateral aid institutions – in other words, they can build an institutional portfolio. We assume that governments have a basic incentive to diversify their financial

resources across MAIs rather than spending all resources on a single institution for several reasons. First, as we will discuss below, governments face a complex cost-benefit calculus when making delegation decisions. Accordingly, one MAI may maximize a government's benefits on one dimension (say a desire to fight HIV/AIDS), but is inferior to another MAI regarding a different dimension (say efficiency of aid allocation). A government can therefore increase its expected returns from delegation by diversification. Second, particularly in MAIs such as the World Bank, governments face international pressure to provide some basic financial resources. The United States has been heavily criticized by other governments for not living up to its commitments to the World Bank in many years. Relinquishing membership seems unlikely for any of the developed member states.

However, even if they have to provide some contributions to most MAIs, governments can vary the amount of their contributions to these institutions. We argue that the amount of delegation to each institution depends on the government's relative expected costs and benefits. By and large, MAIs share the basic goal of providing aid to countries which are the least developed and that are the most effective in utilizing aid to promote sustainable development. However, MAIs are not substitutes for one another. They differ in membership as well as the focus of their development policies. For example, although major multilateral aid and financial institutions, such as the IDA and UNDP, have almost universal membership, over the last few decades we have experienced a trend towards regional development banks, which often differ in their membership and goals. The European Bank for Reconstruction and Development (EBRD), for example, focuses development policies on central Europe to central Asia. Most regional development banks in the Middle East restrict membership to countries of that region. In addition, these institutions vary in

terms of the degree of autonomy granted to the multilateral agency to manage and implement development projects.

This variation in membership (regional and substantive) and focus of development policies increases the opportunities for governments to make strategic decisions about aid delegation, and thereby to maximize the net gains of delegation. In other words, governments are able to base their delegation decisions on whether and how much to delegate to any MAI on two factors: 1) the degree of similarity between their allocation preferences and the MAI's aid allocation policies (we call this preference similarity) and 2) the efficiency of the MAI.

*Preference Similarity.* Governments care about how well the MAI's aid allocation policies reflect the government's allocation preferences (may these be needs-based or strategic). Specifically, we argue that domestic policy preferences are a good indicator of a government's preferences about how multilateral aid should be spent. Preference similarity is defined as the similarity between the national allocation policies of the country and the MAI's actual aid allocation policies (how much they spend on which recipient or in which sector). The degree of preference similarity depends on several factors such as the development goals of the MAI, the government's influence in the decision-making process, and the preferences and power of the multilateral agency. Perhaps most obvious, variation in membership and institutional rules implies disparity in the government's influence on collective allocation decisions. For example, France will have much more leverage in an MAI in which the U.S. is not a member. Governments will naturally prefer to allocate to MAIs in which the membership constellation maximizes their leverage over decision-making. Influence over allocation decisions allows governments to cater to domestic public, economic, and geo-political interests thereby minimizing the costs of diffusion in the intergovernmental bargaining process.

Bargaining power is not the only factor that explains multilateral aid allocation. We address at least two additional factors that are important. First, the variation in the MAI's development policies implies that countries can delegate to MAIs that focus on development policies or regions that are in line with their interests. For example, if a government wants to provide most of its aid to Sub Saharan Africa, donating resources to the African Development Bank will ensure such a focus. Second, the principal-agent literature demonstrates a trade-off between the efficiency of the multilateral agency and opportunities for agency slippage. Multilateral agents are self-interested actors who want to maximize the likelihood of the organization's (and therefore their own) survival. Accordingly, they have strong incentives to protect the legitimacy of the institution by implementing the official aid goals of the organization and they aim to increase the depth and scope of the MAI by, for example, providing more aid to more regions. If governments have allocation preferences that are different from the agents' preferences and if agency slippage occurs, then delegation to such an institution diffuses the government's interest through agency slippage. If the preferences of the agent and the government are similar, however, then individual government's can gain from agency slippage.

Governments have to take into account all these factors when deciding where to delegate. They can do so by observing how the MAI *de facto* allocates its aid. This leads to our first empirically testable implication:

*Hypothesis 1: When choosing among MAIs, governments provide more funds to institutions where multilateral aid allocation reflects the domestic (strategic or non-strategic) foreign aid preferences of the country, ceteris paribus.*

*MAI efficiency.* One of the main advantages to providing aid through multilateral aid institutions is the ability to pool resources. When deciding where to delegate their resources from

among myriad MAIs, coordination and efficiency gains will be a fundamental factor to insure that their resources are used to their fullest. On one hand, governments gain from the coordination of development efforts through MAIs through burden sharing. In many cases, governments are neither willing nor able to individually solve more complex problems such as the HIV/AIDS epidemic. When pooling resources, governments can lower their individual costs of providing public goods without having to compromise on their overall goals. In addition to its direct benefits, burden sharing also provides opportunities to influence the aid allocation decisions of other member states through the intergovernmental process. Thus, the more powerful the government is in asserting its position in the MAI, the greater the expected gains from burden sharing.

On the other hand, MAIs control budgets which are often much larger than the donations of their members. A great deal of funding comes from capital markets and the reputation of MAIs for giving aid to promote sustainable development leads to donations from the public and private sector, thus multiplying the operational budgets that members are able to control. Many MAIs also engage in co-financing with both public and private donors thereby channeling more resources for similar development purposes. For example, Collier et al. (2001) show that every development dollar channeled through the IDA creates almost two additional private investment dollars for a recipient country. At the same time, by pooling the administrative apparatus, MAIs significantly decrease administrative and organizational costs. Overall, the provision of aid dollars through MAIs increases the amount of resources that can actually be spent on development directly—"the whole is greater than the sum of its parts." By delegating, governments can increase the value of development aid that would have been given bilaterally: they can do more with less.

Conditional on their ability to attract further funding or to minimize administrative costs, some MAIs may be more efficient than others. We define MAI efficiency therefore in relative terms. MAIs are relatively efficient if they can provide more development aid (output) than other MAIs with similar inputs (in terms of resources or staff expertise). Whereas some institutions will be very efficient in multiplying existing funds or collecting private funds, others are riddled with, for example, functional inefficiency, bureaucratic politics, or coordination problems, which limit their efficiency. This leads to our second testable hypothesis:

*Hypothesis 2: When choosing among different MAIs, governments provide more funds to the multilateral aid institutions that are relatively efficient, ceteris paribus.*

Thus, the decision to delegate foreign aid, given the high costs of delegation is not necessarily puzzling. The existence of a multitude of overlapping MAIs may actually increase the attractiveness of delegation because donors can build a portfolio of institutions that together offer varying levels of policy similarity and efficiency gains. The following section empirically tests our hypotheses.

## IV. Empirical Analysis

In this section, we describe our econometric models for analyzing governments' strategic choices when delegating to overlapping MAIs. To test the empirical implications of our model we compiled a data set with observations on 22 OECD governments' financial contributions to 18 MAIs from 1970 to 2008.[12] Our unit of analysis is the government-MAI-year. The 18 MAIs include a variety of institutions, such as institutions that provide non-concessional loans (e.g., IBRD,

12 See Appendix A for a list of governments and MAIs included in the analysis. Any country or MAI excluded from the analysis is due only to data constraints. All data from the OECD's CRS Aid activity database.

AfDB), concessional loans and grants (e.g., IDA, AfDF), or technical assistance (e.g. UN development institutions).

## DEPENDENT VARIABLE

Our main dependent variable is the amount of financial contributions to each MAI. We measure *Financial Contributions* as the log of a government's average total commitments to a given MAI (in constant 2007 dollars) in five-year periods. Data comes from the OECD's International Development Statistics. We use the log of commitments rather than commitments as a percentage of all commitments because it is unlikely that governments have a set amount of funding to allocate multilaterally in a given year. Nevertheless, in the robustness section we use commitments as a percentage of total commitments and find minimal differences in the results.

In addition, we use average contributions over five-year periods instead of annual contributions. One could argue that member states can vary their contributions on an annual basis because the commitments made by the member governments have to be approved in the domestic political arena and annual variations occur as a result of this process. For example, the U.S. Congress often refuses to appropriate the full amount committed to by the U.S. government. Appropriations to the IDA, for example, average at only 70 percent of commitments since its formation. However, in most parliamentary systems approval is automatic (because the government usually has the majority in the legislature as well). In addition, replenishment negotiations are usually conducted every three to five years (negotiations regarding capital increases in non-concessional lending institutions occur even less frequently). These commitments typically fix annual contributions for member states until the next multi-annual negotiations. To take this into account, we average our data over five-year periods so that our analysis focuses on average financial contributions over a time period that roughly conforms to the actual time frame.

Finally, we focus on commitments rather than disbursements (but show that the results hold for disbursements in the robustness section), because commitments take into account the overall domestic decision-making process that allows us to fully understand delegation decisions.

## INDEPENDENT VARIABLES

*Preference Similarity*. Hypothesis 1 states that governments, when choosing how much to delegate, provide more contributions to institutions where the aid allocation reflects the government's domestic (strategic or non-strategic) allocation policies, *ceteris paribus*. To measure preference similarity, we proceed in three steps.

First, we derive the basic aid allocation interests of any government. We thereby rely on well-documented research that shows that bilateral foreign aid flows reflect a government's interest in how multilateral aid should be distributed (see discussion above). The government's allocation preference is calculated as the bilateral aid of each government *i* to a recipient country *k*, as a percentage of that government's overall bilateral aid, in each year *t*:

$$Government's\ Allocation\ Preferences_{i,k,t} = \frac{Bilateral\ Aid_{i,k,t}}{Bilateral\ Aid_{i,t}} \quad (1)$$

Greater values for a *Government's Allocation Preferences* imply that a member has increasingly salient interests in providing aid to a particular recipient. Second, we measure the allocation preferences of each MAI *j* in any given recipient *k* by taking each MAI's aid to the recipient as a percentage of that MAI's aid for each year *t*:

$$MAI's\ Allocation\ Preferences_{j,k,t} = \frac{Bilateral\ Aid_{j,k,t}}{Bilateral\ Aid_{j,t}} \quad (2)$$

Third, to measure the difference in preferences we take the absolute value of the difference between these two values:

$$Preference\ Similarity = \left| Government's\ Allocation\ Preferences_{i,k,t} - MAI's\ Allocation\ Preferences_{j,k,t} \right| \quad (3)$$

We multiply this measure by negative one so that higher numbers imply greater preference similarity and average it over five-year periods. Thus, the greater the *value for Preference Similarity* the more the MAI's aid allocation policies are in line with the government's preferences about aid allocation. Due to the large number of government-MAI pairs it is difficult to demonstrate the variation in this variable (beyond basic descriptive statistics). However, to give some examples, the pairs with the most *dissimilar* preferences overall in the dataset are Germany, Norway, Austria, and France with the Caribbean Development Bank (CDB). This is not surprising, as Northern European countries should have little interest in the regions that the CDB is interested in. In the most recent period, the pairs with the most dissimilar preferences are Japan with the European Investment Bank, and Ireland and Sweden with the CDB. The government-MAI pairs with the most *similar* preferences are the Netherlands, Portugal and Denmark with the EC. And, in the most recent period, the pairs with the most *similar* preferences are Australia with the Asian Development Fund, Luxembourg with UNICEF, and Japan with three different UN agencies: IFAD, UNICEF, and WFP.

The main advantage of our approach is that actual bilateral and multilateral aid allocations account for all dimensions of government preferences and, therefore, we do not have to account for the specific preferences of individual governments. For example, regardless of whether a government is more interested in economic development or geo-political factors, the constellation of countries it is interested in will be evident in the pattern of their bilateral aid giving. In addition, whether multilateral aid giving is a function of formal or informal bargaining power or agency slippage in the MAI, the vector of these preferences is captured by the pattern of multilateral aid giving. In contrast to measuring preference similarity just by analyzing decision-

making *input*, such as the formal voting power of a member state – the traditional approach – we reduce possible bias introduced by organizational characteristics and bureaucratic politics by examining directly at the decision-making *output*.

So far, our measure of preference similarity focuses on preferences over *who gets aid*. In addition, governments may be interested in *what aid is spent on* (i.e. building a well or providing budget support). To examine this possibility we construct an alternative measure of preference similarity focusing on both the recipient *and* the sector within which aid is given.[13] To get information on sectoral aid, we rely on the OECD's Aid Activity database's classifications. The OECD classifies all aid within one of 12 sectors (see Appendix B). With this information we calculate the basic aid allocation interests of any government *i* in any given recipient country *k* in a given sector *s*, by taking each government's bilateral aid to the recipient by sector, as a percentage of that government's overall bilateral aid for year t:

$$Government's\ Allocation\ Preferences_{i,k,t} = \frac{Bilateral\ Aid_{i,k,s,t}}{Bilateral\ Aid_{i,t}} \quad (4)$$

Similar to our original measure of salience, we repeat this for each MAI, and take the absolute value of the difference to determine the proximity of each government-MAI pair. Again, we examine some examples of similar and dissimilar government-MAI pairs in the data to ensure that this approach tracks with what we would expect theoretically. The pairs that have the most *similar* preferences overall are Finland, Belgium, Italy and Austria with the IBRD, and in the most recent period the most similar pairs are Luxembourg, Denmark and Greece with the EC. Similarly, the most *dissimilar* pairs overall in the dataset were Austria, Canada and Australia

[13] Even though this approach provides us with a more fine-grained measure of preference similarity, we do not use this as our main measure because the amount of missing data increases dramatically if we account for sectoral aid. Using a measure that focuses only on sectoral aid does not change the empirical findings.

with the IMF while in the most recent period, Portugal, the UK, and France were the most dissimilar with the IMF.

Our measurement relies on the assumption that governments pursue similar goals when providing bilateral and multilateral aid. One could potentially criticize this. An alternative explanation would be that governments actually delegate aid to MAIs in order to pursue goals that are different from the goals they pursue through bilateral aid. For example, bilaterally a country could focus on developing countries that are of geo-strategic importance, but multilaterally the country wants to provide aid in order to support sustainable economic development. Our analysis directly tests for this. We would expect an insignificant or even negative relationship between the variable *Preference Similarity* and a government's financial contributions if governments pursued complementary goals in multilateral institutions. A positive and significant relationship, on the other hand, would support our theory that they want to delegate aid to pursue their domestic allocation preferences but with greater efficiency.

*Efficiency.*[14] Hypothesis 2 states that when choosing between different MAIs, governments provide greater financial resources to institutions where aid allocation is more efficient, *ceteris paribus*. In the literature, efficiency is usually defined as whether the same level of output could be achieved with less input—or, equivalently, whether more output could be generated with the same level of input. For example, scholars in finance are interested in the level of efficiency of the firm—that is, its ability to maximize production from a given set of inputs. They compare the inputs and outputs of firms to establish the production efficiency of the firm of interest. For

[14] It is important to note that while a few policy analysts and academics have attempted to rank MAIs, they have done so with a view towards effectiveness, rather than efficiency. Further, these rankings tend to exist only for a few years and only recently (Easterly and Pfutze 2008; Easterly and Williamson forthcoming).

MAIs, organizational efficiency can be defined in very similar terms: we are interested in the MAI's ability to maximize its output (the amount of aid provided) relative to its available inputs, in comparison to similar MAIs. Importantly, the notion of MAI efficiency is different from the notion of MAI's effectiveness in that it does not measure whether the MAI actually achieves its goals.

For our measurement we rely on the well-established techniques developed by the management science literature to assess the relative efficiency of firms and government agencies. Specifically, we use data envelopment analysis (DEA), a linear programming technique that evaluates the *relative efficiency* of similar decision-making units (DMUs). DMUs can be firms, governments departments, or in our case, MAIs.[15] DEA takes a set of inputs and outputs from among a set of DMUs and defines a benchmark production frontier composed of those DMUs that are best practice performers in terms of their inputs and outputs in that time period. The relative efficiency frontier is the point where no producer could get more output for any lower level of input. DEA then calculates the level of efficiency of each remaining DMU relative to that benchmark frontier. Important for our analysis, DEA does not compare MAIs of different sizes or MAIs that raise/do not raise funds on the capital markets (indeed, this would bias efficiency towards larger MAIs or MAIs that raise additional funds on capital markets). Instead, by weighting the inputs of each MAI, DEA enables us to compare outputs that would be possible from organizations with similar resources or inputs. The calculation weights each DMU's inputs to maximize its weighted input to output ratio. Thus, each DMU's efficiency is judged according to its own standards—but the DMU and its peers set the maximum possible efficiency. Figure 2 gives a

15 DEA analysis was developed by Charnes et at (1994). Countless papers use the DEA technique to measure the efficiency of DMUs.

simple graphical example of a calculation based on two inputs and four MAIs. In this example, all four MAIs help to define the efficiency frontier. MAI-A and MAI-B are on the efficiency frontier and would receive a score of 1. MAIs C and D lie below that frontier, and their score is the distance between where they lie in the multi-dimensional space and the efficiency frontier (less than 1). No firm is able to lie beyond the efficiency frontier.

[Figure 2 about here]

To derive MAI efficiency mathematically, we solve for the efficiency frontier with the following objective function:

$$Max\ \xi_0 = \sum_{i=1}^{n} \omega_r y_{ij0}$$

$$Subject\ to = \sum_{i=1}^{n} v_i x_{ij0} = 1\ and\ \sum_{i=1}^{s} \omega_i y_{ij} - \sum_{i=1}^{m} v_i x_{ij} \geq 0$$

where $\xi$ is equal to the efficiency score for MAI $j_0$, $\omega$ and $v$ are weights, and $x$ and $y$ are inputs and outputs respectively.

One of the difficulties in measuring MAI efficiency is the nature of inputs and outputs. For the most part, MAIs receive funds from governments and combine this with funds raised on the capital markets (although many MAIs, including the UN organizations, are not able to raise additional funding through capital markets), the knowledge and expertise of their staff, and their time in the field to produce loan capital and funding for development programs. Thus, our measurement of output is simply aid disbursements[16] by an individual MAI in a given year. Our measurement of inputs includes governments' financial contributions, whether or not they are allowed

[16] Very little data exists on commitments from governments to MAIs in a standardized format, so to calculate our efficiency scores we use data on actual delegation rather than commitments.

to raise funds on capital markets, the number of members, and the age of the MAI.[17] We use the STATA program DEA developed by Lee and Ji to calculate the efficiency scores of each MAI on a yearly basis. Finally, we calculate five-year averages of the measure and standardize it to ease interpretation.

[Figure 3 about here]

To give the reader some idea of the outcome of these efficiency scores, Figure 3 shows the efficiency score of the African AfDF (Figure 3a) and UNICEF (Figure 3b) over time. Similar to most of the other MAIs in our data set, both institutions have experienced great variation of efficiency over time. Whereas the AfDF has become generally more efficient (with a decline of efficiency in the more current period), UNICEF has experienced several ups and downs in its efficiency in providing foreign aid.

## CONTROL VARIABLES

In addition to our main variables of interest, *Preference Similarity* and *MAI Efficiency*, we include a set of control variables. First, we account for the economic climate in a country with the *Unemployment Rate* (as a percentage of overall employment), *Economic Growth (GDP per capita growth)*, and *Per Capita GDP* (in constant (2000) US dollars). Data are from the OECD. We expect higher economic growth and per capita income to increase financial contributions, while higher unemployment will decrease financial contributions. Following Milner (2006), we also

[17] There are many more inputs we would like to use, such as size/education of staff, but data availability is unfortunately very low. It might be problematic to use financial contributions as an input for a measure which is then used to explain financial contributions. However, financial contributions are only one of a series of inputs important for determining efficiency, in fact, the correlation of MAI efficiency with total financial contributions to the MAI is only 0.33.

include *Government Expenditure,* which controls for overall government spending as a proportion of GNP. Data are from the World Development Indicators.

Second, we measure a government's relative influence within the MAI. Measures of formal influence, such as voting power, are hard to come by for all MAIs and years, so we rely on a country's wealth *relative to all other countries*. In addition, we control for the number of major powers within the MAI and whether or not the US is a member. Data are from the Correlates of War Project (2008). To account for the experience of the MAI and its potential beneficial effects we include a measure for the age of the MAI.

A government's financial contributions to an MAI should also depend on the climate in the world more generally. First, aid strategies changed drastically during and after the Cold War. The Post Cold War variable is equal to 0 prior to 1989 and 1 in 1989 and after.[18] Second, governments should be more willing to delegate following major natural disasters. Although data on numbers of major natural disasters are not available across time, the overall numbers of deaths due to natural disasters serves as a proxy for the depth of disasters in a given year. Data are from the Emergency Disasters Data Base.

Finally, in some models we include a linear time trend to account for common shocks and trends in financial contributions to MAIs. Because financial contributions can respond to the global environment we also employ a model that includes time fixed effects and a time trend together (because of collinearity we cannot include the dummy variable for the cold war in this model).

## MODEL SPECIFICATION

18 One could also use 1991 without changing the substantive results.

Our econometric model employs the following generalized least squares specification: government *i*'s financial contributions to MAI *j* in each five-year period *p* depends on *Preference Similarity*, *MAI Efficiency*, control variables, a time trend τ, and an error term μ:

$$\begin{aligned} Financial\ Contributions_{j,k,p} = \gamma_t + \beta_1 Similarity_{j,k,p-1} + \beta_2 Efficiency_{k,p-1} \\ + \beta_3 Control_{j,k,p} + \tau + \mu_{j,k,p} \end{aligned} \quad (5)$$

We present feasible generalized least squares (FGLS) regression estimates with a Prais-Winsten transformation of all of our models accounting for an autoregressive (AR1) error process and report panel corrected standard errors to account for panel-level heteroskedasticity. Because we have an unbalanced panel, we assume that the error variances are constant within each directed-dyad, but heteroskedastic across dyads.

We lag our measures of similarity and efficiency by one period (five years) to deal with the possibility of reverse causality. An MAI's aid allocation could reflect a specific government's interest *because* that government has contributed a substantial amount to the MAI.[19] Similarly, an MAI could be relatively more efficient *because* of higher financial contributions. Either of these relationships would bias our estimates in a positive direction, leading us to overestimate the effect of preference similarity and efficiency on financial contributions. A Durbin-Wu-Hausman test of endogeneity on the lags of both measures indicates that the estimates are consistent and endogeneity is not a problem with the lagged variables.

We do not include a lagged dependent variable (LDV) because, theoretically, there is little reason to include a LDV, and empirically, including a LDV in an FGLS model results in upward

[19] Whereas contributions and the number of votes are usually correlated in MAIs, they are not perfectly so. In addition, bureaucratic politics oftentimes diffuses some of the existing correlation.

biases when using FGLS and downward biases when using fixed effects techniques. Nevertheless, we include a LDV in our robustness checks below.

## RESULTS

The empirical findings lend considerable support to our main hypotheses. Specifically, we find that the greater the similarity of preferences between a government and the MAI, and the greater the MAI's efficiency, the more financial resources are contributed to that MAI.

[Tables 1-2 about here]

Tables 1 and 2 report the main results of our hypotheses regarding the strategic delegation of government aid to MAIs. Table 1 examines Equation 5 using our first measure of preference similarity, which accounts for similarity by recipient. Table 2 replicates these findings using our second measure of preference similarity, which accounts for similarity by recipient and sector. In all tables we standardize our two main variables to have a mean of zero and a standard deviation of one, for ease of interpretation. Models 1 and 2 in each table report the independent impact of *Preference Similarity* and *MAI efficiency* without including the other variable. Models 3 and 4 of each table include both variables in the regression. Models 1-3 in each table include a time trend and a dummy variable for the Cold War, while Model 4 in each table includes fixed period effects rather than a time trend (we exclude the coefficient estimates on each period to save space).

The estimates in each of our tables are consistent with a substantively and statistically significant positive effect of both preference similarity and MAI efficiency on financial contributions to multilateral aid institutions. Turning to Model 3, which reports estimates of our main model, we find that a one standard deviation increase in the similarity of preferences between a government and an MAI equates to, on average, a three percent increase in financial contributions. When accounting for sectoral preferences, a one standard deviation increase equates to a 24 per-

cent increase in financial contributions. Similarly, a one standard deviation increase in efficiency equates to a ten percent increase in financial contributions when sectoral preferences are not accounted for and a 28 percent increase when sectoral preferences are accounted for. These results imply that government's indeed have similar interests about how bilateral and multilateral aid should be distributed (otherwise, we would have observed a negative or no effect).

The Caribbean Development Bank (CDB) may serve to put these results in perspective. In the most recent period, the CDB increased its efficiency score by one standard deviation. In addition, it increased its preference similarity with Germany and Italy by one standard deviation. Statements by the Italian and German governments at recent CDB Board of Governor's meetings illustrate the importance of this increase in efficiency and preference similarity for their decisions to delegate more resources to the CDB. According to the Italian government's statement, the CDB recently moved to place environmental sustainability and disaster risk management at the forefront of their policy goals, something that both Italy and Germany had been pushing them to do in recent years. Further, the German delegate to the board of governor's specifically points to the process of institutional reform that the CDB has undergone as one of the main reasons for their increasing funding to the CDB by 30% in their latest contribution.[20]

Additionally, our control variables, for the most part, have the anticipated signs and significance. GDP per capital has a small, but positive effect on delegation, indicating that wealthier countries give slightly more to MAIs. Government expenditures, relative income, and the number of major powers that are members of the MAI, the age of the MAI and the period during the Cold War also have a positive impact on delegation. Finally, unemployment, GDP growth, US membership and Natural Disaster Deaths have no significant impact on the results.

[20] Statement by Germany at 39th BOG (2009) and Statement by Italy at 40th BOG (2010).

## ROBUSTNESS CHECKS

To insure that our results are robust to possible measurement and specification issues, we run a series of checks on our main econometric model. All tables are in appendix C.

First, we tested for the robustness of out choice in model specification. The results are presented in Table 3. Model 1 includes GLS estimates with a LDV. Model 2 includes government fixed effects. Model 3 includes fixed effects and a LDV. Because of the small number of time periods in our model, including both a lagged dependent variable and fixed effects in our model would result in biased estimates (Nickell 1981). The Arellano and Bond generalized method of moments (GMM) system estimator was specifically designed to deal with panel data that exhibits autocorrelation (Arellano and Bond 1991). Model 4 reports our main model using the system GMM estimator. [21] Model 5 estimates our main model using a Cragg Double-Hurdle model to account for estimation problems that may result from the large number of government-MAI-years with no financial contributions. [22] The main results are robust to all five specifications, with both preference similarity and efficiency having a positive and significant impact on donor funding to MAIs, which increases our confidence in the empirical findings.

Second, we tested whether differences across the regulations of MAIs may affect our findings. The results are presented in Table 4. For example, non-concessional lending institutions

[21] The system estimator restricts the correlation between the error term and all explanatory variables to zero, dealing with any possible bias from the inclusion of a LDV.

[22] Hurdle models estimate the specification in a two-step process. In the first step, a binomial probability model determines the outcome of whether the dependent variable has a value of zero or any positive value. If the "hurdle" is overcome (i.e., the dependent variable is greater than 0), the value enters the second stage of the estimation where it is estimated as a model truncated at zero.

generally require smaller contributions than concessional lending institutions because these MAIs draw most of their resources from capital markets (only about five percent of funds are paid-in capital from member governments) whereas concessional lending institutions draw most of their resources from paid-in capital contributions. Delegation to non-concessional lending institutions is thus less costly (in terms of financial contributions) than delegation to concessional institutions. In addition, technical lending institutions typically require smaller funds than other lending institutions because they focus on technical assistance. To account for these differences, we estimated our main model with a sample restricted to MAIs that provide non-concessional loans and grants (Model 1), with institutional fixed effects (Model 2), and with dummy variables for the four types of institutions (Model 3). None of these estimations change our empirical findings.

Third, we tested whether our results are sensitive to the operationalization of the dependent variable. The results are presented in Table 5. Model 1 uses financial contributions to an MAI as a percent of total financial contributions to MAIs. Model 2 uses a dependent variable that was calculated with disbursement rather than commitment data. Model 3 uses annual data instead of five-year periods. None of these changes affect our main results.

Fourth, we tested for the robustness of our results to the inclusion of further control variables. Results are presented in Table 6. Model 1 includes a variable that measures the membership size of the MAI. Model 2 includes a dummy variable equal to 1 for regional MAIs and equal to 0 for non-regional MAIs. Again, our main results to do change due to the inclusion of either of these control variables. The size of the MAI does not have a statistically significant impact on financial contributions. Adding a dummy variable for regional development banks to our specifications results in a negative, significant impact on aid disbursements to MAIs. This indicates that

governments are less likely to give to regional than non-regional development banks, holding all else constant.

## V. Conclusion

This paper develops a theory of strategic institutional portfolio building in the multilateral aid context. We argued that governments are more likely to delegate to an MAI that minimizes the costs of delegating resources spent in the government's interest while at the same time maximizing gains from efficiency. The empirical analysis provides support for the strategic choice of governments when delegating aid to MAIs. Governments' choice between MAIs has been mainly influenced by their desire to retain leverage over allocation decisions. At the same time, they exerted a bias for more efficient MAIs.

Our findings have important implications for the underlying puzzle of why states delegate to MAIs instead of allocating aid bilaterally. We argue that the decision to delegate is in fact quite rational. Governments can increase the impact of their aid by delegating strategically across a multitude of MAIs. By choosing how much to allocate to each of these MAIs they gain from existing multiplier effects in MAIs *and* they minimize losses from the potential diffusion of interests. As a result, the decision to delegate is not puzzling from a theoretical standpoint. If a country can make its aid more efficient while maintaining relatively great control over allocation decisions, then at times multilateral aid is a better choice than bilateral aid.

On a broader level, our findings may help to explain questions of aid effectiveness among MAIs. Our findings indicate that multilateral agents should have incentives to alter their allocation policies in order to attract more funds. If MAIs are allocating significant portions of their funds to meet the geo-strategic interests of their principals, this could easily have a negative im-

pact on aid effectiveness. On the other hand, if agents have the means to increase the efficiency of their organization to attract funds, this would have a beneficial impact on the effectiveness of multilateral aid. Thus, there may be two trade-offs at hand: one facing governments and another facing the multilateral aid institutions.

# BIBLIOGRAPHY


Abbott, Kenneth and Duncan Snidal, 1998: Why States Act Trough Formal International Organizations, in: Journal of Conflict Resolution 42(1): 3-32.

Barnett, Michael N. and Martha Finnemore, 1999: The Politics, Power, and Pathologies of International Organizations, in: International Organization 53(4): 699-732.

Busch, Marc, 2007: Overlapping Institutions, Forum Shopping, and Dispute Settlement in International Trade, in: International Organization 61 (4): 735–761.

Charnes A, W. Cooper, AY Lewin, and LW Seiford, 1994: Data Envelopment Analysis: Theory. Methodology and Applications. Kluwer.

Collier, Paul, Shantayanan Devarajan, and David N. Dollar, 2001: Measuring IDA's Effectivness, World Bank Board Report No. 26469, Washington, D.C: World Bank.

Conybeare, John A. C., 1992: A Portfolio Diversification Model of Alliances: The Triple Alliance and Triple Entente, 1879-1914, in: Journal of Conflict Resolution 36(1): 53-85.

Copelovitch, Mark S., 2010: Master or Servant? Common Agency and the Political Economy of IMF Lending, International Studies Quarterly 54(1): 49-77.

Correlates of War Project. 2008. "State System Membership List, v2008.1." Online, http://correlatesofwar.org

Easterly, William and Tobias Pfutze (2008). "Where Does the Money Go? Best and Worst Practices in Foreign Aid." *Journal of Economic Perspectives* 22 2: 29-52.

Easterly, William and Claudia Williamson (forthcoming), *Rhetoric versus Reality: The Best and Worst of Aid Agency Practices*, World Development, forthcoming.

Hawkins, Darren G., David A. Lake, Daniel L. Nielson, and Michael J. Tierney, 2006: Delegation and Agency in International Organizations. Cambridge: Cambridge University Press.

Hicks, Robert L., Bradley C. Parks, J. Timmons Roberts, and Michael J. Tierney, 2008: Greening Aid? Understanding the Environmental Impact of Development Assistance. Oxford: Oxford University Press.

Lyne, Mona M., Daniel L. Nielson, and Michael J. Tierney, 2009: Controlling Coalitions: Social Lending at Multilateral Development Banks, in: The Review of International Organizations 4(4): 407-433.

McLean, Elena V., 2011: Donors' Preferences and Agent Choice: Delegation of European Development Aid, in: International Studies Quarterly (forthcoming).

Milner, Helen V., 2006: Why Multilateralism? Foreign Aid and Domestic Principal-Agent Problems, in: Hawkins, Darren G., David A. Lake, Daniel L. Nielson, and Michael J. Tierney (eds.) Delegation and Agency in International Organizations. Cambridge: Cambridge University Press, p107-139.

Milner, Helen V. and Dustin Tingley, 2010a: The Political Economy of U.S. Foreign Aid: American Legislators and the Domestic Politics of Aid, in: Economics and Politics 22(2): 200-232.

Milner, Helen V. and Dustin Tingley, 2010b: The Choice for Multilateralism. Foreign Aid and American Foreign Policy. Unpublished Working Paper.

Milner, Helen V. and Dustin Tingley, 2011: Who Supports Global Economic Engagement? The Sources of Preferences in American Foreign Economic Policy, in: International Organization 65 (Winter): 37-68.

Nielson, Daniel L. and Michael J. Tierney, 2003: Delegation to International Organizations: Agency Theory and World Bank Environmental Reform, in: International Organization 57(2): 241-276.

Nielson, Daniel L. and Michael J. Tierney, 2010: Principals and Interests: Common Agency and Multilateral Development Bank Lending. Unpublished Working Paper.

Pollack, Mark A., 1997: Delegation, Agency, and Agenda Setting in the European Community, in: International Organization 51(1): 99-134.

Schneider, Christina J. and Jennifer L. Tobin, 2013: Tying the Hands of its Masters? Interest Coalitions and Multilteral Aid Allocation in the European Union, International Studies Quarterly (forthcoming).

Vaubel, Roland, 1996: Bureaucracy at the IMF and the World Bank, in: The World Economy 19(2): 195-210.

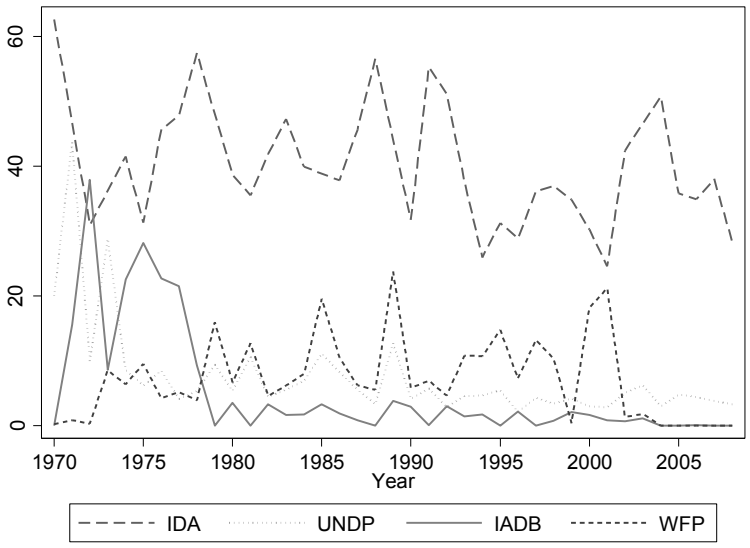
Vaubel, Roland, 2006: Principal-Agent Problems in International Organizations, in: Review of International Organizations 1: 125-138.

Wright, Joseph and Matthew Winters, 2010: The Politics of Effective Foreign Aid, in: Annual Review of Political Science 13: 61-80.

# FIGURES

Figure 1: Financial Contributions (in % of Total Contributions to MAIs)

*(a) United States*




*(b) Germany*

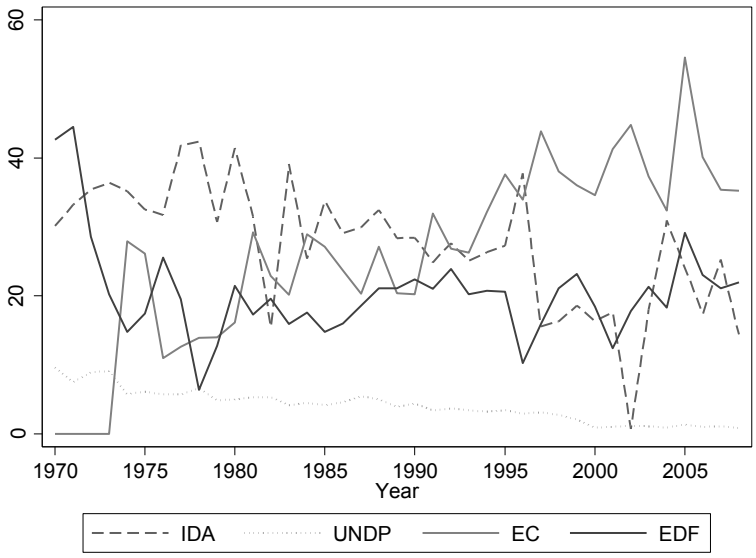


Figure 2: Data Envelopment Analysis

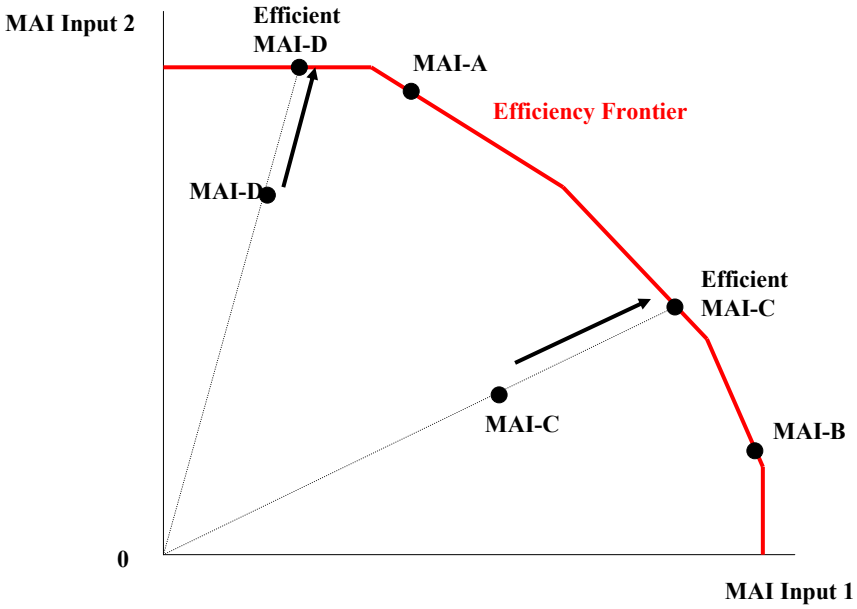
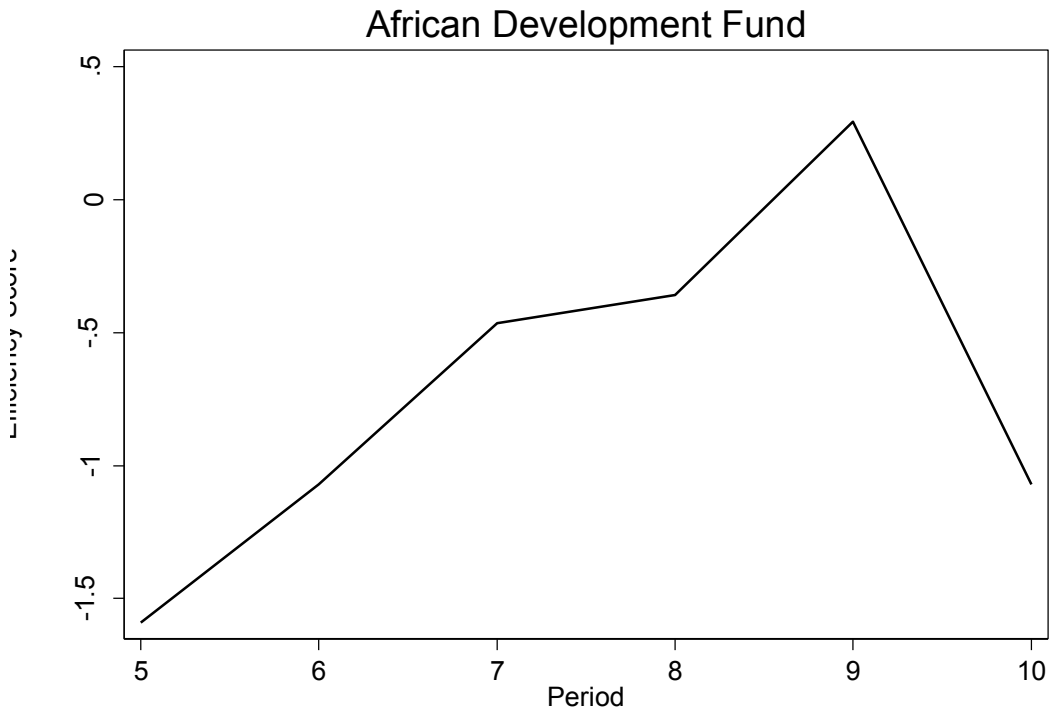


Figure 3: Standardized Efficiency Scores for AfDF and UNICEF



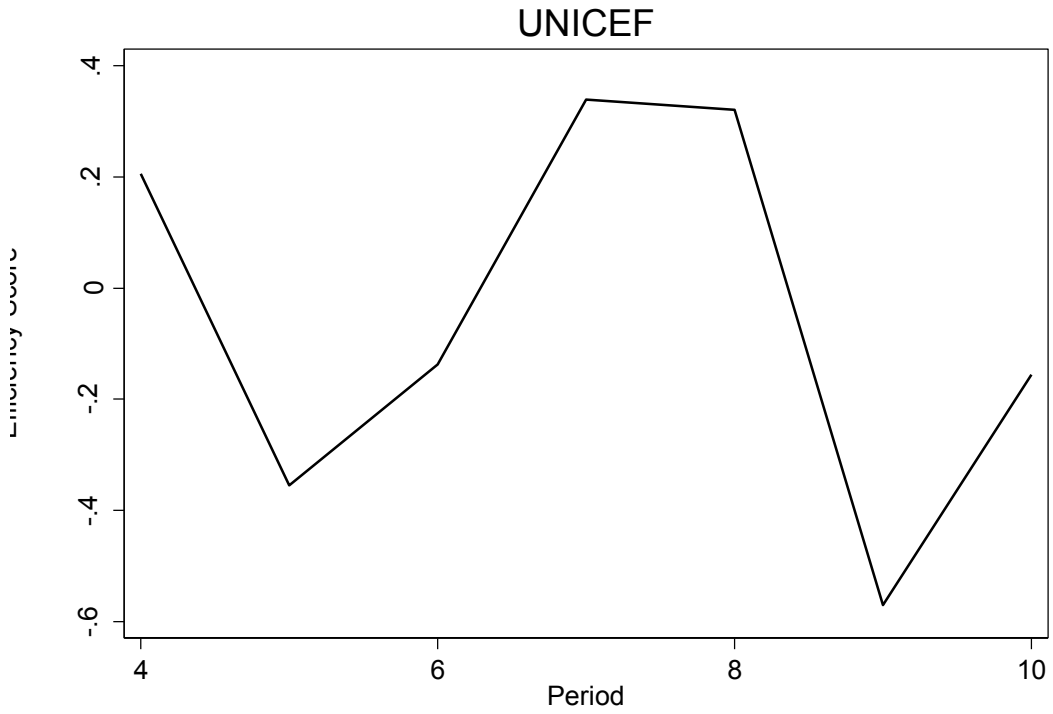



Table 1: Strategic Delegation of Government Aid: Five-Year Periods

| Model | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Preference Similarity | 0.029* | | 0.029* | 0.031* |
| | (0.017) | | (0.017) | (0.017) |
| Efficiency | | 0.079** | 0.101** | 0.105** |
| | | (0.033) | (0.040) | (0.043) |
| Unemployment | 0.008 | -0.005 | -0.001 | -0.002 |
| | (0.012) | (0.010) | (0.013) | (0.014) |
| GDP Growth | -0.006 | 0.011 | 0.005 | 0.014 |
| | (0.016) | (0.013) | (0.018) | (0.021) |
| GDP Per Capita | 0.0001*** | 0.0001*** | 0.0001*** | 0.0001*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Govt. Expenditure | 0.115*** | 0.144*** | 0.134*** | 0.133*** |
| | (0.013) | (0.013) | (0.014) | (0.014) |
| Relative Income | 1.735*** | 2.121*** | 1.986*** | 1.984*** |
| | (0.311) | (0.369) | (0.350) | (0.351) |
| # Major Powers | 0.233*** | 0.208*** | 0.232*** | 0.243*** |
| | (0.028) | (0.033) | (0.032) | (0.033) |
| US Member | 0.194 | -0.139 | -0.219 | -0.256 |
| | (0.164) | (0.187) | (0.192) | (0.194) |
| Multilateral Age | -0.000 | 0.012** | 0.015** | 0.015*** |
| | (0.005) | (0.006) | (0.006) | (0.006) |
| Cold War | 0.873*** | 0.656*** | 0.827*** | |
| | (0.110) | (0.109) | (0.133) | |
| Disaster Deaths | 0.000 | 0.000 | 0.000 | -0.000*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Period | 0.003 | -0.066* | -0.076* | |
| | (0.038) | (0.038) | (0.042) | |
| Constant | -3.047*** | -3.097*** | -2.911*** | 0.000 |
| | (0.359) | (0.348) | (0.442) | (0.000) |
| Period Fixed Effects | N | N | N | Y |
| Observations | 1972 | 1961 | 1659 | 1659 |
| Donor-MAI-N | 368 | 308 | 303 | 303 |

Dependent Variable: Log of Financial Contributions
FGLS models with robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2: Strategic Delegation of Government Aid: Preference Similarity By Sector

| Model | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Preference Similarity | 0.194*** | | 0.243*** | 0.229*** |
| (Sector) | (0.046) | | (0.070) | (0.072) |
| Efficiency | | 0.079** | 0.284*** | 0.300*** |
| | | (0.033) | (0.063) | (0.063) |
| Unemployment | 0.008 | -0.005 | 0.037 | 0.055** |
| | (0.016) | (0.010) | (0.025) | (0.027) |
| GDP Growth | -0.010 | 0.011 | -0.008 | 0.009 |
| | (0.024) | (0.013) | (0.037) | (0.039) |
| GDP Per Capita | 0.0001* | 0.0001*** | 0.0001* | 0.0001* |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Govt. Expenditure | 0.084*** | 0.144*** | 0.128*** | 0.128*** |
| | (0.015) | (0.013) | (0.021) | (0.022) |
| Relative Income | 1.645*** | 2.121*** | 1.656*** | 1.648*** |
| | (0.311) | (0.369) | (0.390) | (0.393) |
| # Major Powers | 0.197*** | 0.208*** | 0.090 | 0.032 |
| | (0.037) | (0.033) | (0.096) | (0.099) |
| US Member | 0.023 | -0.139 | 0.552 | 0.767** |
| | (0.169) | (0.187) | (0.375) | (0.381) |
| Multilateral Age | -0.001 | 0.012** | 0.047*** | 0.046*** |
| | (0.006) | (0.006) | (0.009) | (0.009) |
| Cold War | 0.829*** | 0.656*** | 0.995*** | |
| | (0.152) | (0.109) | (0.258) | |
| Disaster Deaths | 0.000 | 0.000 | 0.000 | -0.000*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Period | -0.007 | -0.066* | -0.134* | |
| | (0.046) | (0.038) | (0.070) | |
| Constant | -1.746*** | -3.097*** | -2.702*** | 0.000 |
| | (0.438) | (0.348) | (0.654) | (0.000) |
| Period Fixed Effects | N | N | N | Y |
| Observations | 1529 | 1961 | 770 | 770 |
| Donor-MAI-N | 352 | 308 | 216 | 216 |

Dependent Variable: Log of Financial Contributions
FGLS models with robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%