

Agency and Autonomy in International Organizations: Political Control and the Effectiveness of Multilateral Aid*

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Abstract

How does autonomy impact the ability of international organizations to achieve positive results? While past research has demonstrated that international organizations can be highly effective in contributing to the provision of global public goods, another strand of research focuses on how states can reign in undesirable behavior by these actors. These studies argue that international organizations, much like public bureaucracies, must be controlled and monitored in order to diminish potential delegation losses, which are costly to states. I argue, however, that the political control of international organizations is detrimental for their overall effectiveness. Specifically, agencies that have low levels of autonomy are expected to be more susceptible to unproductive political influences from their principals. On the other hand, agencies that have high levels of autonomy are expected to be able to resist such erosion and adhere to their initial mandates and goals. I test my argument by creating an original dataset capturing five characteristics of multilateral aid agencies that affect agency autonomy. I then use this information to conduct a GMM estimation of aid and economic growth rates in 122 developing countries from 1977-2012. The results strongly support my argument that agency autonomy is of critical importance for the performance of international organizations. The implications of my results suggest that more, rather than less, control should be delegated to these actors in the future.

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1 Introduction

While once staunchly debated and criticized, the presence of international organizations in global politics is now commonly accepted. Although criticisms persist, the initial controversy over the very existence of these agencies has long since abated. Recognizing the potential benefits that international organizations provide by contributing to public goods, states have embraced these new types of actors as important partners in pursuing international goals, as well as in creating and enforcing international laws and norms. Despite good reports on the ability of these organizations to deliver positive results, there remains a reluctance among states to cede significant amounts of power to them. Debates over the U.S. joining the Kyoto Protocol or International Criminal Court, for instance, are largely centered on issues of sovereignty and concerns that these organizations may have too much power that they can potentially wield over states. Such concerns are grounded in principal-agent models, which discuss how mechanisms of principal control can diminish the delegation losses that principals must bear due to issues of agency slack. This argument, however, is founded on the assumption that the agent has an incentive to pursue selfish and unproductive behavior. In this paper, I question this assumption and instead argue that in many cases it is principal, rather than the agent, who is undermining the principal-agent relationship; thereby contributing to an inability of international organizations to effectively achieve their goals. Much as a central bank is only able to contribute to a stable macroeconomic climate when it is sufficiently insulated from the influence of government officials, international organizations are similarly at risk of eroding their *raison d'être* and undermining their mission when they are susceptible to the political demands of their principals. I therefore argue that only when international organizations are autonomous from their principals will they achieve their goals.

To demonstrate this argument, I examine how differences in the autonomy of multilateral aid agencies impacts their effectiveness in promoting development in the Third World. While most studies of foreign aid are focused on bilateral aid effectiveness, multilateral aid is of rising salience. Although data from the OECD suggests that multilateral aid constitutes approximately one-third of all aid flows (see Figure 1), new information presented by AidData suggests that this figure is substantially underestimated. According to their more expansive dataset, the figures from AidData indicate that multilateral aid constitutes at least half of all aid flows (see Figure 2). As the aid community continues to search for effective aid policies, a more detailed examination of these agencies is warranted.

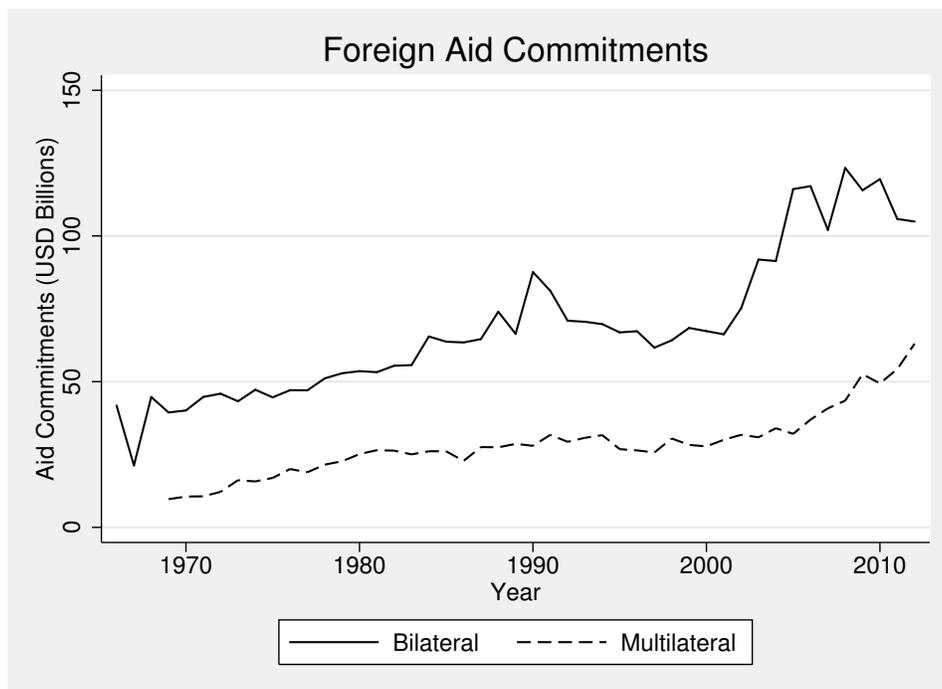


Figure 1: OECD ODA Data: Bilateral versus Multilateral Aid Donations

To test my argument, I collect an original dataset of organizational characteristics on agency autonomy for forty multilateral aid agencies. As agency autonomy is a multifaceted

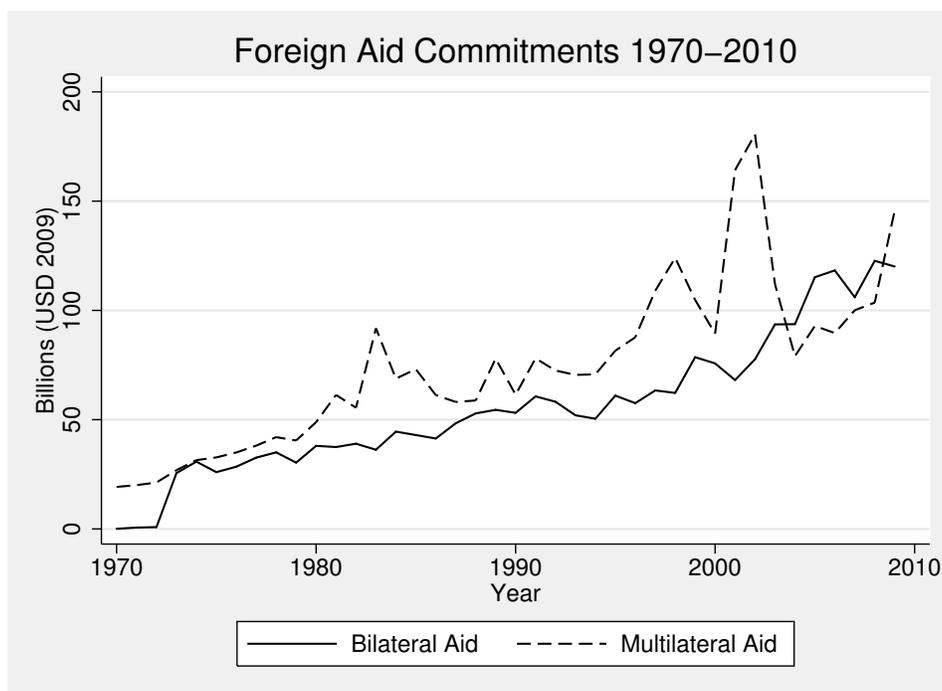


Figure 2: AidData: Bilateral versus Multilateral Aid Donations

concept, measuring it accurately is subjective. I therefore focus on variables from which we are able to infer information about autonomy levels. The dataset focuses on two main sources of autonomy: voting procedures and funding patterns. While voting procedures capture the formal influence that organizational rules can have on agency autonomy, funding patterns allow me to consider the presence of informal influences through budgetary support. After discussing this new information on agency characteristics, I then test my argument by examining economic growth rates in 122 developing countries from 1977-2012. I use GMM estimation methods that are robust to issues of endogeneity and instrumentation that have plagued past studies of aid effectiveness. My results indicate that principal control of international organizations can substantially undermine the provision of public goods that these organizations are designed to provide. Thus, it is not only important for

researchers to consider the impact that international organizations can have, but also to consider how the effectiveness of these entities can be undermined by political forces.

The remainder of this paper proceeds as follows. First, I review the relatively few studies that have examined multilateral aid effectiveness. Second, I present my theoretical argument detailing how autonomy can impede organizational effectiveness. Third, I discuss proximate sources of agency autonomy, highlighting how the presence of multiple principals increases autonomy levels. I then derive five testable hypotheses that focus on agency voting procedures and funding patterns. Fourth, I conclude by discussing the implications of my findings for the aid community, as well as its broader implications on the design and effectiveness of international organizations more generally. I then present my data and methodological approach in sections 5 and 6, respectively. In section 7, I conduct a GMM analysis and discuss my findings. I conclude by highlighting how agent control can undermine organizational effectiveness and by discussing the implications of my findings for the aid community.

2 Past Studies on Multilateral Aid Effectiveness

Studies devoted solely to the effectiveness of multilateral aid agencies remain quite rare. A large share of those studies that have been conducted usually focus on total levels of aid, or will briefly compare bilateral aid and multilateral aid. Rajan and Subramanian (2008), for example, conclude that neither bilateral nor multilateral aid has a significant relationship with economic growth. Studies by Ram (2003, 2004) reach a much more negative conclusion in regards to multilateral aid effectiveness. In both studies, the author finds that bilateral aid is substantially more effective than multilateral aid. He attributes this to the conditionality measures, such as structural adjustment, that multilateral agencies attach to their aid. Ram (2004) tests the same argument examining the good policy argument

presented by Burnside and Dollar (2000), and again finds that even in good policy environments, multilateral aid does not promote economic growth. In contrast, Headey (2008) finds that multilateral aid has had quite a substantial effect on economic growth, while bilateral aid has had a positive effect only in the post-Cold War period. Minoiu and Reddy (2010) distinguish between multilateral and bilateral aid flows, and expect multilateral aid to be spent more on development activities as opposed to non-development activities. In an analysis of growth in developing countries from 1960-2000, the authors find a positive but insignificant relationship between multilateral aid and economic growth. The authors further find that donor characteristics have an effect on growth. While they measure these in the case of bilateral aid donors, they do not do the same for multilateral aid donors.

Studies comparing multilateral and bilateral have also addressed issues beyond economic growth. Studying the effect of legal origin on aid effectiveness, Wamboye, Adekola and Sergi (2014) analyze 32 African countries from 1975-2010 and find that multilateral aid contributes to growth only in countries with British legal origins. Terrorism has also been studied in relation to foreign aid. Bandyopadhyay, Sandler and Younas (2014) argue that multilateral aid and bilateral aid will reduce incidents of terrorism, but in different ways. Bilateral aid will reduce transnational terrorism, as it will be used in counterterrorism efforts. Multilateral aid, on the other hand, will reduce domestic incidences of terrorism because it can improve economic conditions and living standards in recipient countries. Using a generalized method of moments (GMM) estimation method, the authors find support for their argument. In the health sector, Nunnenkamp and Öhler (2011) study the relationship between aid and alleviating HIV/AIDS. Using a difference-in-difference-in-difference approach and examining the Global Fund, they find that aid from multilateral organizations has surprisingly not been effective in reducing the number of AIDS related deaths, but that bilateral aid from the U.S. has actually helped in this area. The reasoning behind

this, they suggest, is that multilateral aid organizations spread their funds out quite substantially, which limits the amount of impact they are able to have in a single country. The U.S. and other bilateral aid donors, on the other hand, focus their funding on countries with severe HIV/AIDS epidemics, and are therefore able to make a more sizable impact. Lancaster (1999) offers a promising study of aid agencies in her book, *Aid to Africa*. However, she too focuses mainly on bilateral donor agencies, with the exception of the World Bank and the EC.

Other studies have focused exclusively on multilateral aid agencies. Vreeland (2003) argues that the IMF actually hurts economic growth in recipient countries, and that IMF programs exacerbate income inequality due the conditionality constraints that they impose on recipients. Another study by Winters (2013) examines World Bank projects from 1996-2005. He argues that projects that are more precisely targeted will be more effective, as they are less likely to be fungible and subject to corruption. By more precisely targeting the geographic area to which a project will operate, government accountability is enhanced, and the project is more likely to achieve its goal. Examining the Implementation Completion Reports of 600 World Bank projects, Winters (2013) finds that those projects targeted to single cities or regions, or specific industries or businesses are less likely to be captured than national level projects, and are thus more effective.

Another study focusing on multilateral aid in the environmental sector by McLean (2015) examines how strategic interactions between multilateral aid organizations and recipient governments can promote environmentally favorable outcomes. Using a formal model, McLean (2015) argues that multilateral aid provided for environmental purposes can successfully attract the support of recipient governments and ultimately be successful, but only when they use aid as a carrot to induce recipients to cooperate with projects rather than through capacity building. Essentially, her model shows that multilateral aid

agencies that attract government co-financing will be more successful in reaching project goals. Simply providing more aid money, however, will actually reduce the likelihood of a successful project because the donor has a much higher standard for success than a less developed country will be less likely to be able to achieve. Her empirical study of 177 projects issued by the GEF between 1991 and 2007 demonstrates that the agency is able to induce recipient governments to make environmental improvements. Her results demonstrate how the conflicting interests and motivations of donor agencies and recipient governments create strategic interactions that can inhibit environmental protection.

Although the majority of these studies acknowledge the substantial amount of variation that exists within multilateral aid agencies, this heterogeneity is rarely addressed. I address this gap in my analysis below.

3 Autonomy and Organizational Effectiveness

Autonomy is a multifaceted concept that is a key factor in studies of principal-agent theory. In a principal-agent model, the principal delegates authority to an agent with the expectation that the agent will pursue the principal's interests. However, as the agent also has their own preferences, the principal must find ways to entice the agent to act in such a way that maximizes the utility of the principal. Ross (1973) describes this relationship in his seminal study applying agency theory to the design of contracts in economics, while Mitnick (1973) provides a similarly groundbreaking study in political science. In each of these studies, the authors describe the principal's problem as one of motivating the agent to act in a manner that the principal prefers. The agent, on the other hand, faces a decision of pursuing their own self-interests versus those of their principal. It is at this point that agent autonomy becomes a crucial factor. Offering a broad definition in their study of delegation to international organizations, Hawkins et al. (2006) define autonomy as, "the

range of potential independent action available to an agent after the principal has established mechanisms of control” (p. 8). There are two key components of this definition that it is important to highlight. The first is that autonomy determines the agent’s “range of potential independent action.” If the agent has sufficient levels of autonomy, they are able to pursue their own interests above those of their principal. Principals, on the other hand, want to delegate to an agent that shares their preferences in order to maximize their own utility. When the preferences of the principal and agent diverge, delegation can be costly, as the agent may not pursue policies that are preferred by the principal. As discussed by Jensen and Meckling (1976), the magnitude of these costs depends upon the divergence between the principal’s and the agent’s preferences, as well as the effort that the principal exerts in order to control agent behavior. However, the ability of a principal to delegate to an agent that perfectly reflects their preferences can only be achieved under conditions of complete information. In reality, this is unlikely to occur, as agents can engage in “hidden action”, or can disguise their actions through “hidden information” (Arrow, 1985). Thus, due to asymmetric information, the principal can rarely be certain that the agent fully shares its preferences.

Because principals can never be certain that they are delegating to an agent that truly shares their preferences, they can attempt to mitigate the potential losses of delegation by limiting agent autonomy. This leads to the second key component of the definition provided by Hawkins et al. (2003), which is that autonomy is dependent upon the principal’s “established mechanisms of control.” As detailed in studies of congressional delegation, principals often restrict the actions of their agents because of concerns of adverse selection and moral hazard, whereby the agent pursues policies that diminish the potential gains of the principal (Pollack, 2003). Carpenter (2001) succinctly describes this problem, known as agency slack, as when, “bureaucrats take actions consistent with their own wishes, actions

to which politicians and organized interests defer even though they would prefer that other actions (or no action at all) be taken” (p. 4). Agency slack can manifest itself in two ways: shirking and slippage (McCubbins and Page, 1987). Shirking occurs when agents engage in limited efforts on behalf of the principal. Slippage occurs when agents shift their preferences away from those of the principal (McCubbins and Page, 1987). Both can diminish the utility of the principal while increasing the utility of the agent. Thus, while principals are eager to benefit from delegation, they are simultaneously wary of agents slacking, as it is costly for them.

When applying this logic to foreign aid, the expectation is that agencies will only be effective donors when they have autonomy from their managers, in this case donor governments. The problem that arises is that while aid agencies are created to address development issues, at the same time, donor governments can obtain short term domestic gains by using foreign aid funds to further their own geopolitical interests. Therefore, a time-inconsistency issue arises, much the same as that faced by national governments in setting monetary policy (Kydland and Prescott, 1977; Barro and Gordon, 1983). While donor governments may at times be motivated to address development concerns, they are also prone to trying to use multilateral aid funds to secure geopolitical and commercial interests. Multilateral agencies, on the other hand, are strongly oriented towards development, as indicated by their mission statements, as well as past studies on multilateral aid allocation citepBurnsideDollar2000,AlesinaWeder2002. The resulting disjuncture between the government’s stated preferences for development and its actual behavior is problematic because it sends a mixed message to the agency as to what types of policies it should pursue. This is true even if the donor government wants to use multilateral aid for dual purposes, since the stated mandates of the agencies do not include references to the domestic political goals of their donors. Essentially, there exists no *internal* incentive for the

agency to pursue policies that do not directly contribute to their mission. As a result, the expectations of the donor government and the actions of the multilateral agency will be incongruent.

While most of the literature on aligning principal-agent preferences focuses on issues of agency slippage, whereby the agent is diverging from its mandates and the stated preferences of its principals (McCubbins and Page, 1987), the exact opposite is happening here. In this case, it is the principal, not the agent, who is *ex post* deviating from the initial contract, a concept I refer to as *principal slippage*. Although donor governments establish aid agencies with the express purpose of addressing development concerns, their actual preferences, whether altered over time by changing political environments, or having been contrary to agency goals in the first place, do not reflect those that they embedded in the agencies. By informally altering the agent's mandate in this way, it is the donor government who has created drift.¹ Gutner (2005) voices this concern in his study of environmental aid, asking, "Yet what if the problem comes from the delegation side, in the sense that the principals are delegating tasks that do not easily conform to the institution's mission and internal incentive systems...?" (pp.20-21). A similar issue of *principal slippage* underlies the relationship between governments and central banks. Although the bank is initially created to help stabilize monetary policy, in times of economic downturn, the government would prefer that the bank pursue policies that directly counter its original mandate (Rogoff, 1985). The trade-off is essentially one of short, versus long term gains, much the same as that faced by donor governments in setting aid policy.

Given this disjuncture between the preferences of donor governments and multilateral agencies, the actions that a multilateral agency should take become unclear, as they face competing directives from their principals. On the one hand, they can choose to disregard

¹Note here that I am not addressing instances of re-contracting (which happen quite rarely), but instead instances of informal contract revision.

the principal's altered preferences and adhere their original mandate. On the other, they can adapt to the principal's revised preferences and alter their spending patterns accordingly. It is at this point that agency autonomy becomes critical. When autonomy is low, it is easier for donor governments to pressure multilateral aid agencies to alter their behavior. As a result, they are more likely to succumb to these pressures and ultimately alter their spending to reflect the geopolitical concerns of their donors. This is a suboptimal outcome for both parties. For the agency, their credibility as a development organization is undermined. For the donor governments, although they are able to realize the short term gains of promoting their geopolitical interests, they are also sacrificing the long term gains that reducing poverty can provide on issues such the likelihood of conflict, terrorism, and autocracy (Collier, 2003; Piazza, 2011; Barro, 1999). Therefore, while states may be achieving short term gains, they are potentially sacrificing their own long term security.

If, however, autonomy levels are high, multilateral aid agencies will be able to resist *principal slippage*, and can continue to spend their aid in a manner that enhances development. Multilateral aid agencies can offer positive benefits to donor governments as well, and provide a potential solution to their time-inconsistent preferences, so long as they have sufficient autonomy required to do so. In this case, agency autonomy is beneficial for donor governments, as it allows them to pursue their initial long term goals of development, goals that they otherwise would have sacrificed for the sake of domestic interests. A similar result is expected with regard to independent central banks. Cukierman, Webb and Neyapti (1992) in particular note that, "...central bank independence and an explicit mandate to pursue price stability are generally regarded as important institutional devices for ensuring price stability" (p. 354). In this way, the autonomy of the bank is directly contributing to the government's welfare, just not in the way that the government would prefer given their short time horizon. Moreover, it is also arguable that the bank's actions are actually

providing a greater benefit to the government than they would have received had they realized their preference of raising inflation rates.

For both multilateral aid agencies and central banks then, the principal is altering their incentive structure, and thereby attempting to undermine the purpose of the agency. Only when the bank or agency is autonomous is it able to resist these attempts and implement its preferred policies, policies that are ultimately more optimal than those which their principals would have them pursue. This argument becomes particularly important when we consider the fact that many studies have documented instances of *quid pro quo* behavior in multilateral aid agencies, especially with regard to the ability of strong states to manipulate aid agencies into pursuing political objectives. Stone (2004, 2008) and Vreeland (2007), for instance, describe how the U.S. is able to manipulate IMF policies. This may seem to suggest that multilateral aid policies can simply be overhauled by a single powerful donor, making them little better than bilateral aid agencies. However, this conclusion is unwarranted for two main reasons. The first is that agency autonomy can mitigate this potentiality. That is, when multilateral agencies have a sufficient degree of independence from donor governments, such instances are much less likely to occur. Second, even when autonomy levels are low, it will be more difficult and time consuming for a donor government to pressure and influence a multilateral aid agency in comparison to their ability to direct their bilateral aid flows. In attempting to alter multilateral aid policies, donor governments must convince the agency's managers, and deal with additional input and pressure stemming from other donor governments. Thus, while multilateral aid agencies may at times be "captured," the ability of a single donor to utilize an agency to secure their own political goals will be much less pronounced compared to bilateral aid, due simply to the costs of attempting to influence agency behavior.

The ultimate impact of the discrepancy between donor and aid agency preferences is that the benefits that stem from other positive organizational characteristics are less likely to have a positive impact. Consider, for example, an ideal aid agency. That is, one that is motivated to promote development, has strong leadership, a good supply of knowledgeable and committed employees, and is specialized. If the agency is autonomous, it is more likely to be effective because it will capitalize on all of these positive traits. However, if autonomy is lacking, these can be negatively influenced by the principal. Donor governments may pressure the agency to alter their aid policies in order to promote goals and interests that conflict with the goals of development. Therefore while the autonomy of the aid agency does not make aid more effective directly, its indirect effects are just as important.

4 Multiple Principals and Agency Control

The argument that autonomy is critical for aid effectiveness begs the question of when agencies can act autonomously and where this autonomy comes from. One possible source is indifference of the principal (Hammond and Knot, 1996). For multilateral aid agencies, I argue that it is unlikely. If donor governments were indeed indifferent, we would not observe efforts by donor governments to alter agency behavior, or to match their preferences to those various agencies. However, both of these behaviors have been well documented (Nielson and Tierney, 2003; Buntaine, 2014; Vreeland, 2007). A second potential source is the presence of asymmetric information regarding the agency's policies. Agencies can engage in "hidden action" or can disguise their actions through "hidden information" (Arrow, 1985). In order to avoid this, principals can monitor their agents and attempt to avoid issues of asymmetric information through police patrol and fire alarm mechanisms (Epstein and O'Halloran, 1999; McCubbins and Schwartz, 1984). Nielson and Tierney (2003), for example, describe how donor governments were able to enact environmental reform at the

World Bank through methods such as screening and selection, oversight, checks and balances, as well as creating new contracts. While similar police patrol mechanisms may be difficult and costly for donor governments to pursue, there are many useful third parties which donors can rely on to help them evaluate the actions of multilateral aid agencies. For example, the World Bank Inspection Panel investigates claims of World Bank policies being disregarded during policy implementation, and the International Finance Corporation (IFC) offers civil society groups the opportunity to file complaints when one of their projects has a negative environmental or social consequence. A study by Buntaine (2014) also describes how states can work with civil society groups to monitor and sanction the World Bank in order to constrain undesirable behavior. Through these monitoring activities, donors are able to check the actions of multilateral aid agencies. The rise of third party NGOs that work with and monitor multilateral aid agencies, as well as the increasing emphasis on transparency and accountability among aid donors, therefore makes the argument that asymmetric information leads to increased levels of agency autonomy less persuasive, as it is has become more difficult for agencies to hide their actions from donor governments.

A third potential source of agency autonomy, and the argument I focus on here, is that agents are responsible to multiple principals. As each principal has their own distinct interests, the agent is able to balance and maneuver around these divergent preferences in order to pursue their own policies (Bryner, 1987; Dahl and Lindblom, 1953; Wilson, 1989). As there is weak evidence that multilateral agency autonomy stems from either donor indifference or asymmetric information, I argue that it is the presence of multiple principals—in this case multiple donor governments—and their ability to control agency behavior that is truly responsible for agency autonomy. The logic of this argument stems from the liter-

ature on congressional oversight and control of bureaucratic agencies.² When an agent is responsible to multiple principals, it is more difficult for each principal to effectively influence agency behavior, as these actors must coordinate their actions in order to sanction undesirable agent behavior. As the group of principals grows larger, so do problems of collective action. McCubbins, Noll and Weingast (1989) succinctly describe this problem in that as long as one of the principals benefits from agency shirking, they have an incentive to block attempts to sanction the agency. Furthermore, the agent can also observe situations in which the principals have conflicting preferences and exploit them in order to avoid sanctions (Pollack, 1997). As described in studies of congressional delegation, when bureaucracies are responsible to multiple principals, they are able to pursue independent action by balancing the diverse preferences of their principals against each other and maneuvering among them (Bryner, 1987; Dahl and Lindblom, 1953; Wilson, 1989). Therefore when the principals do not share the same preferences, it is easier for the agent to engage in autonomous behavior, as it is more difficult for their principals to effectively coordinate their actions and impose sanctions. A similar logic can be applied to multilateral aid agencies. When an agency is responsible to a greater number of donor governments, the amount of influence each single donor government has over agency behavior will diminish. Additionally, when the preferences of the donor governments diverge, the more difficult it will be for them to coordinate their actions and attempt to sanction agency behavior. As a result, the agency will have greater levels of autonomy when it is responsible to a greater number of donor governments.

²The literature also highlights three other reasons why bureaucratic control can be difficult. First, sanctioning is costly to the principal (Kiewiet and McCubbins, 1991; Hawkins et al., 2003). As a result, principals are often tolerant of a certain amount of agency slack, knowing that it would often be more costly for them to try and reign in the agent. Second, informational asymmetries within the principal-agent model often strongly benefit the agent, and make evaluation and control by the principal difficult (Pollack, 2003). Third, principal threats may not be credible, due to the fact that the implementing agency is the only available option outside of creating a completely new agency.

A potential counterargument to this is that having a single, dominant donor government may actually enhance agency effectiveness. Rather than enhancing an agency's ability to pursue independent policies, more members voicing their opinion could actually constrain their activities. For instance, in the context of economic reform, Haggard and Kaufman (1995) argue that the greater amount of fractionalization there is within the party system, the less likely it is that economic reform will take place. However, this argument has been challenged by several recent works. Gehlback and Malesky (2010) in particular present a formal model and empirical evidence on how more veto players can enable economic reform by weakening the power of special interest groups. Other research on market reform in Latin America by Murillo and Martinez-Gallardo (2007), and on policy adjustments by Tommasi, Scartascini and Stein (2010), also find beneficial effects on having more veto players. In the context of foreign aid, the consequences of having multiple member preferences within an agency is demonstrated by Schneider and Tobin (2013), who find that the more donors a multilateral agency has, the greater autonomy they have in their aid distribution decisions. Because the members are focused on solving collective action problems, they are unable to effectively control the actions of the agency itself. Thus, the agency benefits by being able to pursue policies based on its own criteria, rather than those of its members. Below, I focus on two mechanisms through which agency autonomy is affected by the presence of multiple principals: voting procedures and funding patterns.

4.1 Voting Procedures

Voting procedures are formal mechanisms of control established through *ex ante* decisions of donor governments, which can restrict the amount of discretion an agency has (Epstein and O'Halloran, 1999), and provide principals with greater control over the agency (Kiewiet and McCubbins, 1991). In this way, agency autonomy can be restricted at the very be-

ginning due to *ex ante* decisions related to institutional design. Voting procedures are a key characteristic for multilateral aid agencies because they must have their aid projects approved by a supervisory entity. Generally, this approval comes from a Board of Directors or Executive Board, who are themselves acting on behalf of a higher entity.³ For example, in the Asian Development Bank, the Board of Governors is the highest organizational body, but only meets once a year. In order to supervise the daily functioning of the Bank, authority is delegated to a Board of Directors, which has the authority to, "...supervise ADB's financial statements, approve its administrative budget, and review and approve all policy documents and all loan, equity, and technical assistance operations."⁴ These Boards have a strong role within the agency, and can use their power to strongly guide and even alter agency policies (Bøås and McNeill, 2003).

Generally, I expect that the greater the ability of more donor governments to influence agency policy will decrease the autonomy of the agency. increase the agency's autonomy. To clarify this argument, consider the process of passing an aid policy as a strategic game between the agency and their Board of Directors. The multilateral agency makes the first move and proposes an aid policy reflecting its preferences of promoting development. The Board of Directors must then approve the aid policy or coordinate their actions to reject it. When there are a large number of Board members, it is more difficult for them to agree as to the types of policies that the agency should pursue. Each member has their own domestic interests, and reaching an agreement as to how the multilateral aid agency should distribute their aid will thus be difficult to achieve when more members are involved (McCubbins, Noll and Weingast, 1989; Nielson and Tierney, 2003). As a result, because the Board members are unable to coordinate their preferences, the agency's proposed policy is

³Throughout the remainder of this study I refer to such entities generally as Boards of Directors or Boards, but acknowledge that within each official aid agency their actual title may differ slightly.

⁴Source: Asian Development Bank.

passed. Lyne, Nielson and Tierney (2003) describe this quite succinctly in the context of international organizations more generally, stating that, "...conflict among the principals allows the agents to pursue their independent preferences much more than if they had been accountable to a single principals or multiple principals that had similar preferences" (p. 50). Applying the same logic here, when the agency is accountable to a greater number of Board members, the more difficult it is for them to coordinate their action and restrict the actions of the multilateral agency. This leads to my first hypothesis:

Hypothesis 1 *Multilateral agencies with larger Boards of Directors will be more effective at promoting development than agencies with smaller Boards of Directors.*

I examine two other voting characteristics as they relate to agency autonomy. The first is whether the agency approves aid policies by a majority or supermajority vote. I expect that agencies will have more autonomy when fewer votes are needed to pass an aid policy. That is, I expect agencies with majority voting systems to have more autonomy than agencies with supermajority systems. When agencies require a supermajority, it is easier for the policy to be blocked, as it takes fewer Board members voting against the policy for it to fail. For example in a majority vote system, more than half of all Board members would have to vote against the proposed policy. On the other hand, in an agency requiring a three-fourths majority, only little more than a quarter of the Board members would have to coordinate in order to successfully block the aid policy.

Hypothesis 2 *Multilateral agencies with majority vote systems will be more effective at promoting development than agencies with supermajority vote systems.*

The final voting characteristic I examine is the distribution of voting power within the agency. That is, whether agencies use a one-member-one-vote system or a proportional vote system. I expect that agencies with proportional voting systems will have less autonomy compared to agencies with one-member-one-vote systems. Proportional systems

allow Board members the possibility of increasing their voting power, and therefore their influence over multilateral agencies. One-member-one-vote systems, on the other hand, maintain a limited range of influence for each Board member. Thus, there is a greater likelihood that Board members can use their vote share to influence agency policies in a proportional voting system.

Hypothesis 3 *Multilateral agencies with one-member-one-vote systems will be more effective at promoting development than agencies with proportional vote systems.*

4.2 Funding Patterns

The actual influence of agency voting procedures may at times, however, be quite small. It is not uncommon, for instance, for much of the debate and negotiation of multilateral aid policies to be concluded long before they are formally voted on. In this way, focusing solely on voting procedures may be capturing largely *pro forma* activities. In consideration of this, I examine informal sources of autonomy as well in the form of agency funding.⁵ Unlike voting procedures, agency funding is a form of *ex post* autonomy. This can vary over time depending on the amount of funding the agency receives, as well as the number of sources it receives funding from. As the agency is dependent upon donor governments for funding, cutting funds is a key way in which they can sanction agency behavior (Christiansen, 1999; Pollack, 2003; Verhoest et al., 2004).⁶ A prime example is the influence of the U.S. in World Bank environmental reform as described by Hicks et al. (2010): “As the largest shareholder, the US government learned very quickly that the most effective way to influence the Bank’s behavior is to threaten the flow of its money” (p. 194). When the World Bank did not acquiesce to U.S. demands regarding access to GEF project documents, \$30 million of

⁵The importance of informal influences on agency behavior is also reflected in studies of central bank independence by Cukierman, Webb and Neyapti (1992).

⁶Other potential sanctions include dismissing personnel, overruling the agency, refusing to comply with agency decisions, or dissolving the agency (Pollack, 2003, p. 45).

funding was redirected to USAID (Hicks et al., 2010). Moreover, funding is likely to be particularly effective when the agency is highly dependent on a small group of donor governments. I therefore expect that the effectiveness of the agency to increase as their number of donors increases.

Hypothesis 4 *Multilateral agencies which receive funding from a greater number of donor governments will be more effective at promoting development than agencies which receive funding from fewer donor governments.*

In addition to the number of donors that an agency receives funding from, it is also important to consider the distribution of this funding across donor governments. If a multilateral agency receives a majority of its funding from a single or small group of donor governments, there is a greater possibility that the agency will have lower autonomy. When agency funding is concentrated, the agency is more likely to alter their policies to fall in line with those donor governments providing the majority of their funding. When agency funding is more equally dispersed among donors, the agency is less beholden to each government, and can pursue autonomous aid policies. Consider, for example, an agency that receives 90% of its funding from a single donor government, while another ten donor governments provide 1% each. The agency will clearly value the large donor the most, giving it a strong degree of influence over agency policies. Thus, I also expect funding concentration to significantly influence organizational performance.

Hypothesis 5 *Multilateral agencies whose funding is dispersed across donor governments will be more effective at promoting development than agencies whose funding is more concentrated.*

I test these hypotheses below.

5 Data Description

The unit of observation is recipient-year. The dataset covers 128 low and middle income countries from 1973-2012. In order to account for the cyclical nature of both aid allocations and business cycles, the unit of analysis is four-year averages of all variables, except the initial level of GDP per capita, which is specific to year one of each panel. The resulting dataset covers ten time periods ranging from 1973-1977 to 2009-2012. This use of four year averages is standard in the aid literature.

The dependent variable is economic growth. This is measured as the real growth rate of per capita GDP and is obtained from the World Bank. I also include control variables that are standard in empirical growth models and past studies of foreign aid and growth. First, I include the initial level of GDP per capita for each period in order to capture convergence effects. I include bilateral aid measured relative to GDP. All aid data is obtained from the OECD and is measured in constant 2012 U.S. dollars. Logged inflation is included to address monetary policy, while government consumption is included to account for fiscal policy. To account for the effects of global trade, I include measures of imports, exports, and foreign direct investment. Following past models, I also include a lagged measure of broad money (M2) relative to GDP, in order to control for the development of a recipient country's financial system.

Various political variables that may affect a country's growth rate are also included. I use Polity IV to capture political institutions, with negative scores indicating more autocratic regimes while positive variables indicate more democratic regimes. The number of assassinations are included to capture civil unrest. War and civil war are included to account for the negative impact that conflict can have on a country's economic system. Logged population is included to control for country size. I also include several time invariant measures, including a measure of ethnolinguistic fractionalization, and dummy

variables for the regions of East Asia and Sub-Saharan Africa. Summary statistics for these variables can be found in the Appendix.

5.1 Independent Variables

In order to test my hypotheses, I collect data on forty multilateral aid agencies. The first variable is the number of members on an agency's Board of Directors.⁷ Generally, agencies with smaller Boards are regional development banks, whereas agencies with larger Boards include the World Bank and UN agencies. The agency with the largest Board is the Office of the UN High Commissioner for Refugees (UNHCR), which is governed by the UN's Economic and Social Council (UNESCO). This implies that autonomy levels within World Bank and UN agencies should generally be higher compared to those of regional development banks.

The second aid variable is a dummy variable indicated whether an agency requires a majority or supermajority vote in order to approve an aid project.⁸ Of the forty aid agencies that I examine, approximately half of them require a simple majority to pass their aid policies. These agencies include a number of development banks, as well as most of the UN agencies. Fifteen agencies, however, require more than a simple majority. The Caribbean Development Bank, for instance, requires a two-thirds majority, the UNECE requires a three-fourths majority, while the Nordic Development Fund, UNICEF, and the UN Peacebuilding Fund (UNPBF) require a consensus. For coding purposes, any agency requiring more than a simple majority vote is categorized as a supermajority vote system.

The third variable related to agency voting patterns is whether the agency has a one-member-one-vote system or a proportional voting system. This is a dummy variable coded as one for agencies with a one-member-one-vote system and zero for agencies with a propor-

⁷Information on agency Boards of Directors can be found in the Appendix.

⁸More details on agencies which require supermajority voting systems can be found in the Appendix.

tional voting system.⁹ Most agencies with one-member-one-vote systems are UN agencies, or other issue specific aid agencies, such as the GAVI or the Global Fund, whereas most agencies with proportional systems are development banks or other financial funds.

In order to test Hypotheses 4 and 5, I also collect information related to agency funding. For Hypothesis 4, I simply calculate the number of donors contributing to an agency in a given year. An average of this variable for all aid agencies is presented in Figure 3. For Hypothesis 5, I calculate funding concentration using the Herfindahl Index, which is commonly used in economics to calculate market share. The variable is calculated as follows:

$$Funding\ Concentration_{it} = \sum_{d=1}^n a_{dt}^2$$

where i represents each multilateral aid agency, d represents each donor government, and t represents each year. The value a_{dt} indicates the proportion of aid a donor government provides to an agency in a given year compared to total of contributions to the agency in that year. The variable *Funding Concentration* can be interpreted as the probability that two randomly selected aid dollars being given to an agency are from the same donor government. Higher values indicate that the agency's funding is concentrated among fewer donor governments, while lower values indicate that the agency's funding is more equally distributed.

As each of these variables is observed at the agency or agency-year level (in the case of funding information), in order to utilize this information in my analysis, I group the agencies into two types: high autonomy and low autonomy groups. For agency voting power and approval, this is very straightforward as the variables are simple dummies. For the continuous variables (board size, number of donors, and donor concentration) I use

⁹A summary of this variable and agencies with a majority or supermajority vote system can be found in the Appendix.

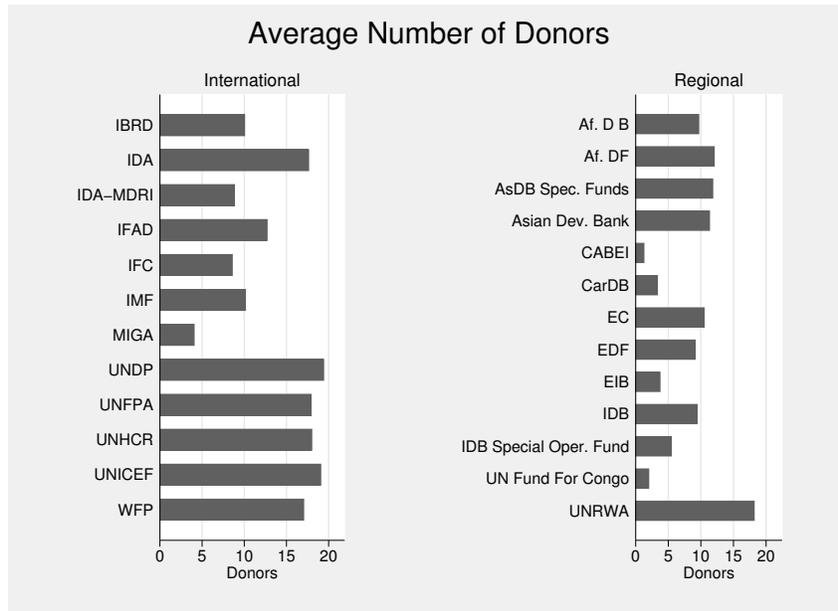


Figure 3: Average Number of Donors by Agency

a percentile ranking system to create the high and low groups. I do this by calculating the percentile rank of the variables, where higher percentile ranks indicate higher levels of autonomy. I then separate agencies using the median percentile rank for each variable. Using these groups as a guideline, I then calculate the total amount of aid that each group of agencies contributes to an aid recipient in a given year. A summary of the groups I create and my expectations on their impact is presented in Table 1.

I also create two sub-indices for both voting procedures and funding patterns. In order to create the voting sub-index, I calculate the percentile rank of the variables *Board Members*, *Majority Rule*, *Categorical*, and *Vote System*, where higher percentile ranks indicate higher levels of autonomy. I then average these three variables to create a subindex

Table 1: Summary of Expectations for Agency Autonomy Based on Organizational Characteristics

	<i>High Autonomy</i>	<i>Low Autonomy</i>
Board Size	Large	Small
Voting Power	One-member-one-vote	Proportional
Approval	Majority	Supermajority
Number of Donors	Large	Small
Distribution of Donations	Diffuse	Concentrated

of the agency’s overall level of voting procedure autonomy.¹⁰ For the funding pattern variables, I create an additional sub-index in the same manner.

6 Methodology

The base model of economic growth I use draws largely from Hansen and Tarp (2001), and is shown below.

$$g_{i,t} = \beta_y y_{i,t_0} + \beta_a a_{i,t} + \sum_{j=1}^k \beta_j x_{j,i,t} + \omega_t + u_{i,t}. \quad (1)$$

In Equation 1, i indicates recipient countries and t denotes four year time periods. The dependent variable, $g_{i,t}$, is the average growth rate of real GDP per capita. The initial level of GDP per capita in the country during the four year panel is captured in y_{i,t_0} , while $a_{i,t}$ captures the aid variable, and other regressors are indicated by k . The error term is indicated by $u_{i,t}$.

¹⁰This method of using percentile rankings is also used by Easterly and Pfutze (2008) and Easterly and Williamson (2011) in their ranking of aid agency practices.

The first problem with this approach is that the error term encompasses country fixed effects in addition to random noise, as shown in Equation 2:

$$u_{i,t} = v_i + \epsilon_{i,t} \quad (2)$$

This results in inconsistent estimates due to the fact that the error term and the initial level of GDP per capita y_{i,t_0} are correlated. The second problem is that this model does not address the potential endogeneity that exists between aid flows and economic growth. Rather than aid driving growth, aid may in fact be given as a result of growth, with donors targeting their aid to faster or slower growing economies. This implies that many of the same control variables that drive growth may also be driving aid allocation. If this is the case, then Equation 1 suffers from simultaneity bias. In order to address this, a common strategy has been to use an instrumental variables approach, or two-stage least squares (2SLS). In this case, aid is first estimated using variables that are expected to be exogenous to growth. Burnside and Dollar (2000), for instance, instrument for aid using initial income levels, population, arms imports, economic policy, and dummy variables for Sub-Saharan Africa, the Franc zone, Egypt, and Central America. The resulting estimates of aid are then stored and used in the growth equation.

While such estimation strategies are beneficial in that they address the endogeneity of aid and growth, they are problematic for two main reasons. The first is that it is difficult to find appropriate instruments for the aid equation. As discussed by Clemens et al. (2012), many of the instruments used by past studies are quite weak. The authors demonstrate that aside from population, the instruments used in studies by Boone (1996), Burnside and Dollar (2000), and Rajan and Subramanian (2008) are quite weak. Dalgaard, Hansen and Tarp (2000) also discuss the difficulty of instrumenting for aid, as economic factors

determining aid allocation are also likely driving growth rates, and therefore cannot be used as valid instruments.

The GMM estimation methods developed by Arellano and Bond (1991) and Blundell and Bond (1998) provide a solution to both of these issues. First, the issue of country fixed effects is solved by using the Anderson and Hsiao (1981) transformation for dynamic panel models. Using this approach, Equation 1 is transformed through first differences. This results in Equation 3:

$$g_{i,t} - g_{i,t-1} = \beta_y(y_{i,t_0} - y_{i,t-1_0}) + \beta_a(a_{i,t} - a_{i,t-1}) + \sum_{j=1}^k \beta_j(x_{j,i,t} - x_{j,i,t-1}) + (\omega_t - \omega_{t-1}) + (\epsilon_{i,t} - \epsilon_{i,t-1}). \quad (3)$$

While this transformation solves the issue of correlation between the country fixed effects and lagged dependent variable, the issue of endogeneity remains. Specifically, we can expect that $y_{i,t-1_0}$ and $x_{i,j,t-1}$ will be correlated with $\epsilon_{i,t-1}$. However, this can be remedied by recognizing the fact that lagged observations of the regressors can be used as valid instruments. This is true for both exogenous and endogenous variables, we simply must use different lag lengths. For instance, if $x_{i,j,t}$ is exogenous, then $x_{i,j,t-1}$ is a valid instrument. If $x_{i,j,t}$ is endogenous, $x_{i,j,t-2}$ is a valid instrument. GMM estimation methods take advantage of this.¹¹ In difference GMM, developed by Arellano and Bond (1991), lagged levels of the variables are used as instruments for the differenced equation. The Blundell and Bond (1998) approach, known as system GMM, takes this a step further by creating a level equation as well by using lagged differences as instruments. The level equation is then used in conjunction with the lagged levels to instrument for the endogenous variables. In this way, both difference and system GMM are able to address issues of unobserved

¹¹For a more technical explanation of GMM estimation, see Roodman (2006).

country heterogeneity and ensure that the regressors are exogenous. It is important to note, however, that GMM tests for instrumentation are quite weak.

It is also worthwhile briefly addressing why I do not conduct a 2SLS analysis, which is also common in the aid and growth literature. Mainly, I choose to bypass this method because of the problem of weak or invalid instruments that has been demonstrated by past work. Compounding this fact is the nature of my research. I am interested in disaggregating aid based on agency characteristics, implying that different types of aid are driven by different factors. This suggests that the instrumentation of aid in past work is inappropriate due to the large heterogeneity of aid flows. Rather than attempting to predict aid levels with weak, and potentially incorrect variables, I restrict my analysis to GMM estimation.

7 Analysis: Autonomous Multilateral Agencies

In the sections below, I test the effects of my hypotheses on the rates of economic growth in developing countries using both difference and system level GMM. Overall, the results provide strong support for my hypotheses, suggesting that the most effective multilateral aid agencies are those that are able to operate independently of donor states.

7.1 Agency Voting Procedures

The results in Tables 2 and 3 use difference and system GMM estimation, respectively, and examine how agency voting procedures impact multilateral aid effectiveness. In each of the GMM regressions, economic growth, initial income levels, aid, as well as the economic and political variables are treated as being endogenous. The exogenous variables used to determine the levels equation in system GMM are population, ethnic fractionalization, the East Asia and Sub-Saharan Africa dummy variables, and the time period dummy variables. Due to gaps in the panel, I use orthogonal deviations rather than first differences, although

my results are robust to using first differences instead. In terms of lag length, the convention in GMM estimation is to use lags two and above to instrument for the endogenous variables Roodman (2007). This, however, assumes that the error term is not serially correlated. If it is, then the instruments are no longer valid and deeper lags must be used. To check this, I use the Arrellano Bond test for second order serial correlation. The null hypothesis is that there is no serial correlation in the residuals. If this null hypothesis is rejected, I use lags three and above, which in all cases solves the problem of autocorrelation. I report the number of lags used, as well as the p-values of the Arrellano Bond test in each regression.

The other diagnostic test I perform is the Hansen test for over identifying restrictions. A critical assumption for GMM models is that the instruments used are exogenous (Roodman, 2007). Using a Wald test, the Hansen J test statistic examines the null hypothesis that the regressors in the model are jointly exogenous. The problem with the Hansen test is that it is weak in the presence of too many instruments. Therefore, unusually high p-values indicate an underlying problem with the model. I report the number of instruments used, as well as the p-values for the Hansen test in my results.

In each of the Tables, agencies with large Boards, one-member-one-vote systems, and majority voting rules have a positive and significant effect on development, lending strong support to my hypotheses. Meanwhile, aid from agencies with small boards, proportional voting systems, and majority voting rules have no significant impact, with the exception of supermajority agencies in system GMM. However, the coefficient equality tests do not find a statistical difference between these two groups in any of the regressions. This suggests that while these voting procedure characteristics are important for multilateral aid effectiveness, they do not appear to make an agency any more effective than they may be otherwise.

The results for the sub-index of agency voting procedures are mixed. While difference GMM finds that agencies with higher autonomy matter more for effective development,

this result disappears when using system GMM. This result is quite interesting, given the fact that each of the components of the sub-index are positive and significant when expected. Overall, the evidence suggests some weak support for Hypotheses 1-3, and for the importance of agency voting procedures more generally.

7.2 Agency Funding

In this section, I use the identical estimation approach to examine how agency funding patterns influence multilateral aid effectiveness. While voting procedures constitute formal *ex ante* ways in which donor governments can influence the autonomy of multilateral agencies, funding patterns are informal *ex post* mechanisms of control. The results presented in Tables 4 and 5, however, are quite positive. Using difference and system GMM estimation respectively, the results here indicate that funding patterns have a strong influence on aid effectiveness. Aid from agencies who receive funding from a larger group of donor governments, and agencies whose funding is more equally distributed among their donors has a positive and significant effect on economic growth. Additionally, the funding sub-index performs well in both estimation methods. Aid from agencies with higher autonomy as determined by funding patterns has a strong positive impact, while aid from less autonomous agencies has no significant impact. These differences are also supported by the coefficient equality tests, which find a statistical difference between agency types in five of the six regressions. Overall, the GMM estimation results indicate that agency funding patterns have a strong influence on agency autonomy levels and their ability to promote positive results for development. These results are robust to the GMM model assumptions of no serial correlation and exogeneity of instruments.

Table 2: Agency Voting and Aid Effectiveness: Difference GMM Estimation

	<i>Large/ Small Board</i> (1)	<i>Members/ Prop. System</i> (2)	<i>Majority/ Supermajority</i> (3)	<i>Voting Index</i> (4)
Initial GDP PC	-2.065 (1.782)	-5.572*** (1.894)	-1.126 (1.978)	-3.822** (1.874)
Bilateral Aid	-0.005 (0.069)	-0.012 (0.085)	-0.126** (0.058)	-0.018 (0.068)
Large Board	0.377* (0.221)			
Small Board	-0.109 (0.183)			
Members		0.583* (0.306)		
Proportional		0.062 (0.125)		
Majority			0.406*** (0.120)	
Supermajority			0.207 (0.175)	
High Autonomy				0.244 (0.204)
Low Autonomy				-0.257 (0.229)
M2	-0.054** (0.027)	-0.043 (0.043)	-0.044 (0.034)	0.002 (0.031)
Population	-1.669 (4.477)	-7.777* (4.502)	-3.071 (3.913)	-1.541 (4.578)
Inflation	-0.490 (0.434)	0.417 (0.418)	-0.675** (0.276)	-0.551 (0.403)
Gov. Consumption	-0.040 (0.077)	-0.018 (0.074)	-0.061 (0.072)	-0.046 (0.067)
FDI	0.649** (0.263)	0.292 (0.235)	0.902*** (0.294)	0.613** (0.272)
Democracy	-0.037 (0.078)	-0.093 (0.084)	-0.009 (0.057)	-0.014 (0.077)
Assassinations	-0.086 (0.247)	-0.001 (0.221)	-0.004 (0.205)	0.069 (0.298)
Observations	298	266	347	319
Number of Countries	87	80	90	83
Hansen Test†	0.492	0.742	0.295	0.716
AB Test‡	0.308	0.292	0.163	0.346
Number of Lags	3	2	2	3
Number of Instruments	78	87	88	78
<i>Coefficient Equality Tests for Voting Autonomy Variables</i>				
$H_0 : \beta_{HighAutonomy} = \beta_{LowAutonomy}$				
$H_a : \beta_{HighAutonomy} \neq \beta_{LowAutonomy}$				
	$\chi^2 = 1.97$	$\chi^2 = 2.24$	$\chi^2 = 0.75$	$\chi^2 = 2.49$
	$p = 0.161$	$p = 0.134$	$p = 0.387$	$p = 0.115$

Notes: Robust standard errors in parentheses. Time period dummies omitted.

*** p<0.01, ** p<0.05, * p<0.1

† This is the p-value for the Hansen J Test statistic of overidentifying restrictions. The null hypothesis is that the instruments are jointly exogenous.

‡ This is the p-value for the Arrellano-Bond Test for second or third level autocorrelation in first differences. The null hypothesis is that there is no serial correlation. If only two lags are used, I report the AR(2) p-values. If three lags are used, I report the AR(3) p-values.

Table 3: Agency Voting and Aid Effectiveness: System GMM Estimation

	<i>Large/ Small Board</i> (1)	<i>Members/ Prop. System</i> (2)	<i>Majority/ Supermajority</i> (3)	<i>Voting Index</i> (4)
Initial GDP PC	-0.313 (0.733)	0.749 (1.004)	0.752 (0.891)	-1.246 (0.829)
Bilateral Aid	-0.032 (0.068)	-0.088 (0.145)	-0.149*** (0.047)	-0.100 (0.090)
Large Board	0.293* (0.173)			
Small Board	-0.032 (0.210)			
Members		0.874* (0.463)		
Proportional		0.277 (0.253)		
Majority			0.438*** (0.090)	
Supermajority			0.343* (0.190)	
High Autonomy				0.043 (0.206)
Low Autonomy				-0.072 (0.336)
M2	0.008 (0.011)	0.018 (0.021)	0.027 (0.018)	0.020 (0.013)
Population	0.499** (0.225)	0.751** (0.351)	0.576** (0.245)	0.020 (0.307)
Inflation	-0.258 (0.508)	-0.274 (0.380)	-0.249 (0.290)	-0.539 (0.452)
Gov. Consumption	0.051 (0.068)	-0.004 (0.096)	-0.033 (0.065)	0.024 (0.060)
FDI	0.567* (0.304)	1.020*** (0.383)	0.816*** (0.251)	0.535* (0.299)
Democracy	-0.031 (0.064)	-0.121 (0.093)	-0.043 (0.063)	-0.077 (0.093)
Sub-Saharan Africa	-1.657** (0.796)	-0.670 (1.281)	-0.308 (0.877)	-1.618** (0.815)
East Asia	-0.084 (0.765)	-0.824 (1.428)	-1.703* (0.982)	0.108 (0.912)
Ethnic Frac.	-1.183 (1.012)	-1.805 (1.235)	-1.007 (1.312)	-0.976 (1.009)
Assassinations	-0.096 (0.225)	-0.585 (0.359)	-0.420 (0.258)	0.067 (0.365)
Observations	420	400	489	446
Number of Countries	98	93	98	95
Hansen Test†	0.408	0.522	0.886	0.656
AB Test‡	0.435	0.133	0.127	0.798
Number of Lags	3	2	2	3
Number of Instruments	92	101	102	92
<i>Coefficient Equality Tests for Voting Autonomy Variables</i>				
$H_0 : \beta_{HighAutonomy} = \beta_{LowAutonomy}$				
$H_a : \beta_{HighAutonomy} \neq \beta_{LowAutonomy}$				
	$\chi^2 = 0.84$ $p = 0.358$	$\chi^2 = 0.81$ $p = 0.367$	$\chi^2 = 0.20$ $p = 0.659$	$\chi^2 = 0.06$ $p = 0.802$

Notes: Robust standard errors in parentheses. Time period dummies omitted. *** p<0.01, ** p<0.05, * p<0.1

† This is the p-value for the Hansen J Test statistic of 33 identifying restrictions. The null hypothesis is that the instruments are jointly exogenous.

‡ This is the p-value for the Arellano-Bond Test for second or third level autocorrelation in first differences. The null hypothesis is that there is no serial correlation. If only two lags are used, I report the AR(2) p-values. If three lags are used, I report the AR(3) p-values.

Table 4: Agency Funding and Aid Effectiveness: Difference GMM Estimation

	<i>Donor Count</i> (1)	<i>Donor Concentration</i> (2)	<i>Funding Sub-Index</i> (3)
Initial GDP Per Capita	-3.925* (2.117)	-4.539** (2.050)	-2.336 (1.991)
Bilateral Aid	-0.095 (0.064)	-0.067 (0.050)	-0.085 (0.058)
Large Donor Count	0.508*** (0.164)		
Small Donor Count	0.051 (0.143)		
Diffuse Aid Donations		0.689*** (0.117)	
Concentrated Aid Donations		-0.300 (0.200)	
High Autonomy			0.564*** (0.176)
Low Autonomy			-0.402** (0.164)
M2	-0.035 (0.030)	-0.083* (0.043)	-0.039 (0.036)
Population	-4.069 (4.529)	-8.384** (4.074)	-0.441 (4.396)
Inflation	-0.656* (0.347)	0.119 (0.396)	-0.507 (0.347)
Gov. Consumption	-0.098 (0.077)	-0.130 (0.096)	0.048 (0.096)
FDI	0.832*** (0.273)	0.851*** (0.254)	0.762*** (0.274)
Democracy	0.021 (0.058)	-0.116 (0.089)	-0.012 (0.090)
Assassinations	-0.145 (0.194)	0.221 (0.240)	-0.035 (0.192)
Observations	277	212	245
Number of Countries	77	68	73
Hansen Test†	0.670	0.923	0.678
AB Test‡	0.449	0.402	0.677
Number of Lags	2	2	2
Number of Instruments	88	88	88
<i>Coefficient Equality Tests for Funding Autonomy Variables</i>			
$H_0 : \beta_{HighAutonomy} = \beta_{LowAutonomy}$			
$H_a : \beta_{HighAutonomy} \neq \beta_{LowAutonomy}$			
	$\chi^2 = 3.41$	$\chi^2 = 17.08$	$\chi^2 = 12.23$
	$p = 0.065$	$p = 0.000$	$p = 0.001$

Robust standard errors in parentheses. Time dummies omitted.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

† This is the p-value for the Hansen J Test statistic of overidentifying restrictions. The null hypothesis is that the instruments are jointly exogenous.

‡ This is the p-value for the Arellano-Bond Test for second or third level autocorrelation in first differences. The null hypothesis is that there is no serial correlation. If only two lags are used, I report the AR(2) p-values. If three lags are used, I report the AR(3) p-values.

Table 5: Agency Funding and Aid Effectiveness: System GMM Estimation

	<i>Donor Count</i> (1)	<i>Donor Concentration</i> (2)	<i>Funding Sub-Index</i> (3)
Initial GDP Per Capita	-0.230 (1.035)	0.006 (0.839)	-0.651 (0.923)
Bilateral Aid	-0.144** (0.067)	-0.052 (0.058)	-0.101** (0.050)
Large Donor Count	0.402** (0.182)		
Small Donor Count	0.315 (0.200)		
Diffuse Aid Donations		0.798*** (0.198)	
Concentrated Aid Donations		-0.273 (0.177)	
High Autonomy			0.731*** (0.173)
Low Autonomy			-0.151 (0.192)
M2	0.005 (0.020)	-0.001 (0.020)	-0.002 (0.029)
Population	0.608 (0.384)	0.340 (0.282)	0.494* (0.286)
Inflation	-0.450 (0.279)	-0.230 (0.274)	-0.162 (0.290)
Gov. Consumption	-0.067 (0.086)	-0.170 (0.108)	0.006 (0.098)
FDI	0.996** (0.399)	1.165*** (0.307)	1.199*** (0.321)
Democracy	-0.036 (0.063)	-0.138** (0.061)	-0.123* (0.066)
Sub-Saharan Africa	-0.990 (1.270)	-2.371** (1.076)	-3.357*** (1.166)
East Asia	-0.966 (1.768)	0.630 (1.395)	0.585 (1.255)
Ethnic	-2.740*** (0.982)	-2.013* (1.165)	-1.566 (1.084)
Assassinations	-0.516 (0.423)	-0.159 (0.231)	-0.183 (0.253)
Observations	415	373	388
Number of Countries	89	94	87
Hansen Test†	0.740	0.872	0.782
AB Test‡	0.308	0.438	0.878
Number of Lags	2	2	2
Number of Instruments	102	102	102
<i>Coefficient Equality Tests for Funding Autonomy Variables</i>			
$H_0 : \beta_{HighAutonomy} = \beta_{LowAutonomy}$			
$H_a : \beta_{HighAutonomy} \neq \beta_{LowAutonomy}$			
	$\chi^2 = 0.07$	$\chi^2 = 10.08$	$\chi^2 = 7.84$
	$p = 0.788$	$p = 0.002$	$p = 0.005$

Notes: Robust standard errors in parentheses. Time dummies omitted.

*** p<0.01, ** p<0.05, * p<0.1

† This is the p-value for the Hansen J Test statistic of overidentifying restrictions. The null hypothesis is that the instruments are jointly exogenous.

‡ This is the p-value for the Arellano-Bond Test for second or third level autocorrelation in first differences. The null hypothesis is that there is no serial correlation. If only two lags are used, I report the AR(2) p-values. If three lags are used, I report the AR(3) p-values.

7.3 Composite Autonomy Index

The results presented in the two sections above show that agency voting procedures and funding patterns are important factors driving multilateral aid effectiveness. Each of the five variables that are argued to increase agency autonomy were found to contribute to more effective multilateral agencies. In this section, I use a composite index of agency autonomy whereby I combine these two sub-indices into a final autonomy index. The composite index is created by simply averaging the voting and funding sub-indices and ranking agencies accordingly. For robustness, I create two composite autonomy indices. The first allows for missing values to be present when creating the composite index. In this case, if data is unavailable for either agency voting procedures or funding patterns, the sub-index for which data is available is used alone. The second requires complete data for both sub-indices. Thus, the first has more observations than the second, but the second conveys more complete information. I present results using both in the regressions below.

Table 6 uses difference and system GMM estimation to examine the impact of the final autonomy index. Columns 1-2 allow for missing values when calculating the composite autonomy index, while columns 3-4 require complete information. In each model, multilateral aid agencies with high autonomy have a strong positive effect on economic growth. This finding holds across both difference and system GMM estimation methods, and the test statistics indicate that each model satisfies the Hansen test for over identifying restrictions and the Arrellano Bond test for serial correlation of the residuals. Furthermore, the impact of agencies with low autonomy is consistently negative. The difference between the impact of high autonomy and low autonomy groups is confirmed by the coefficient equality tests, which in three of the four regressions reject the null hypothesis. Thus, the results of Table 6 provide strong support for my argument regarding the importance of agency autonomy. Not only are autonomous agencies able to have a larger impact on economic growth rates,

Table 6: Autonomy Index and Aid Effectiveness: GMM Estimation

	<i>Missing Values Allowed</i>		<i>No Missing Values</i>	
	<i>Difference GMM</i> (1)	<i>System GMM</i> (2)	<i>Difference GMM</i> (3)	<i>System GMM</i> (4)
Initial GDP PC	-2.474 (1.669)	0.562 (1.257)	-3.079* (1.866)	0.509 (0.830)
Bilateral Aid	-0.064 (0.060)	-0.050 (0.062)	-0.073 (0.049)	-0.048 (0.086)
High Autonomy	0.536*** (0.179)	0.505** (0.200)	0.801*** (0.247)	0.799** (0.315)
Low Autonomy	-0.352* (0.205)	-0.028 (0.225)	-0.612* (0.327)	-0.182 (0.255)
M2	-0.018 (0.041)	0.016 (0.024)	-0.040 (0.042)	0.006 (0.031)
Population	-1.341 (4.107)	0.527** (0.252)	-6.377 (4.192)	0.269 (0.269)
Inflation	-0.431 (0.401)	-0.169 (0.288)	-0.501 (0.312)	-0.476 (0.298)
Gov. Consumption	0.019 (0.069)	-0.065 (0.065)	-0.074 (0.088)	-0.204* (0.105)
FDI	0.455** (0.225)	0.868*** (0.319)	0.948*** (0.215)	1.087*** (0.289)
Democracy	0.046 (0.083)	-0.051 (0.062)	-0.063 (0.069)	-0.124 (0.085)
Sub-Saharan Africa		-0.952 (0.857)		-1.608 (1.132)
East Asia		0.347 (1.339)		0.090 (1.360)
Ethnic Frac.		-1.680 (1.163)		-1.713 (1.067)
Assassinations	0.056 (0.223)	-0.377 (0.311)	-0.052 (0.167)	-0.351 (0.304)
Observations	315	464	193	319
Number of Countries	84	94	68	85
Hansen Test†	0.489	0.232	0.545	0.836
AB Test‡	0.267	0.608	0.976	0.922
Number of Lags	2	2	2	2
Number of Instruments	88	102	88	102
<i>Coefficient Equality Tests for Composite Autonomy Scores</i>				
$H_0 : \beta_{HighAutonomy} = \beta_{LowAutonomy}$				
$H_a : \beta_{HighAutonomy} \neq \beta_{LowAutonomy}$				
	$\chi^2 = 7.55$	$\chi^2 = 1.81$	$\chi^2 = 10.56$	$\chi^2 = 3.70$
	$p = 0.006$	$p = 0.178$	$p = 0.001$	$p = 0.055$

Notes: Robust standard errors in parentheses. Time dummies omitted.

*** p<0.01, ** p<0.05, * p<0.1

† This is the p-value for the Hansen J Test statistic of overidentifying restrictions. The null hypothesis is that the instruments are jointly exogenous.

‡ This is the p-value for the Arrellano-Bond Test for second or third level autocorrelation in first differences. The null hypothesis is that there is no serial correlation. If only two lags are used, I report the AR(2) p-values. If three lags are used, I report the AR(3) p-values.

but the potentially negative influence of less autonomous aid agencies is readily apparent. This is compounded by the fact that bilateral aid continues to have a negative and statistically insignificant impact on economic growth. My results suggest that the lack of a positive finding regarding aid's effectiveness in the broader aid literature may be attributable to both a failure to distinguish between aid types, and a failure to identify the potentially negative influence that donor countries may have within multilateral agencies. When multilateral aid agencies are able to operate independently, however, the results here indicate that they have a strong ability to promote economic growth.

8 Conclusion

The empirical results presented above have strong implications for the foreign aid community. Namely, that autonomous multilateral aid agencies are expected to be more effective at promoting economic growth in developing countries compared to less autonomous agencies. This implies that if donor governments truly want to improve development, they should relax their influence over these agencies and simply let them do their job. This analysis contributes to a growing trend of disaggregation in the aid effectiveness literature. However, rather than examining aid recipients in a more micro-analysis, instead I turn the microscope in the opposite direction and ask how heterogeneity within the donating agencies can impact development results.

My results also provide strong support for the argument that political control of international organizations can have potentially detrimental effects. By subjecting these organizations to their own domestic political agendas, states are undermining their ability to produce positive results. Thus, while traditional studies of principal-agent relationships are primarily concerned with deviate behavior on the part of the agent, my conclusions suggest that in many cases it is the principal who is deviated from productive behavior.

While my analysis here focused on foreign aid, this argument is applicable to other issue areas as well. However, applying this finding to other types of international organizations may be much more controversial depending on the political salience of the issue area. Increased development is generally accepted as being a positive thing. Therefore increasing the power of development agencies may not be viewed as too radical. Other global issues such as environmental regulation, trade policy, and security issues are more controversial, and likely to warrant significantly more resistance. However, while not suggesting that the UN Security Council should be freed of any political oversight by sovereign states, I believe my argument does have important lessons that can be drawn upon to make international organizations more effective in the future. If the agency is established to pursue a global public good, one that states have an incentive to deviate from, only by being somewhat independent of political influences will these organizations be able to achieve their goals. Thus, if we are truly to capitalize on the benefits that international organizations can provide, it may be best for us to simply step back and let them.

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Appendix

Table 7: Summary Statistics: Base Variables

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min.</i>	<i>Max.</i>
Growth	2.19	3.15	-10.51	22.56
Initial GDP Per Capita	6.95	0.98	4.82	9.27
Total Aid	10.26	12.38	0.03	120.31
Bilateral Aid	6.38	8.04	0.02	72.46
M2	39.46	26.88	7.82	239.49
Population	16.22	1.60	12.82	21.02
Inflation	2.12	1.08	-1.60	8.01
FDI	0.34	1.61	-8.37	3.74
Consumption n	14.23	7.14	2.80	93.69
Imports	41.23	23.05	0.00	143.94
Exports	32.53	19.29	4.09	112.54
Polity	1.34	6.25	-10.00	10.00
Ethnic	0.50	0.26	0.00	0.93
Assassinations	0.30	0.99	0.00	11.50
War	0.05	0.21	0.00	1.00
Civil War	0.27	0.44	0.00	1.00
East Asia	0.04	0.20	0.00	1.00
Sub Saharan Africa	0.36	0.48	0.00	1.00

Table 8: Multilateral Aid Agency Board Members

<i>Agency</i>	<i>Board Members</i>
African Development Bank	20
African Development Fund	14
Arab Bank for Economic Development in Africa	11
Arab Fund (Arab Fund for Economic and Social Development)	8
Asian Development Bank	10
Asian Development Bank Special Funds	10
Caribbean Development Bank	18
Central American Bank for Economic Integration	9
EU Institutions	–
European Bank for Reconstruction and Development	23
European Commission	–
European Development Fund	–
European Investment Bank	29
Global Alliance for Vaccines and Immunizations	10
Global Environment Facility	32
Global Fund	15
IDB Special Fund	14
Inter-American Development Bank	14
International Fund for Agricultural Development	18
International Bank for Reconstruction and Development	25
International Development Association	25
International Development Association - Multilateral Debt Relief Initiative	25
International Finance Corporation	25
International Monetary Fund (Concessional Trust Funds)	20
Islamic Development Bank	10
Joint United Nations Programme on HIV/AIDS	22
Multilateral Investment Guarantee Agency	25
Nordic Development Fund	8
OPEC Fund for International Development	–
Office of the United Nations High Commissioner for Refugees	54
Organization for Security and Cooperation in Europe	14
United Nations Democratic Republic of Congo Pooled Fund	–
United Nations Development Program	36
United Nations Economic Commission for Europe	–
United Nations International Children’s Emergency Fund	36
United Nations Peacebuilding Fund	31
United Nations Population Fund	36
United Nations Relief and Works Agency for Palestine Refugees in the Near East	27
World Food Programme	36
World Health Organization	34

Notes: I only include Board Members who represent states. For example, GAVI has 18 Board Members, but only 10 of them are states.

Table 9: Multilateral Aid Agencies Requiring a Supermajority

<i>Agency</i>	<i>Majority Required</i>
Global Environment Facility	Sixty percent
African Development Bank	Two-thirds
Asian Development Bank	Two-thirds
Asian Development Bank Special Funds	Two-thirds
Caribbean Development Bank	Two-thirds
Global Alliance for Vaccines and Immunizations	Two-thirds
OPEC Fund for International Development	Two-thirds
Organization for Security and Cooperation in Europe	Two-thirds
African Development Fund	Three-fourths
IDB Special Fund	Three-fourths
Inter-American Development Bank	Three-fourths
United Nations Economic Commission for Europe	Three-fourths
Nordic Development Fund	Consensus
United Nations International Children's Emergency Fund	Consensus
United Nations Peacebuilding Fund	Consensus

Table 10: Summary of Agency Voting Procedures

One-Member-One-Vote	Proportional Voting
<i>Majority</i>	<i>Majority</i>
UNAIDS	AFESD
UNDP	BADEA
UNFPA	CABEI
UNHCR	EBRD
UNRWA	EIB
WFP	IBRD
WHO	IDA
	IDA-MDRI
	IFAD
	IFC
	IMF (Concessional Trust Funds)
	Isl. Dev Bank
	MIGA
<i>Supermajority</i>	<i>Supermajority</i>
GAVI	AfDB
GEF*	AfDF
Nordic Dev. Fund	AsDB Special Fund
OFID	Asian Dev. Bank
OSCE	CarDB
UNECE	GEF*
UNICEF	IDB
UNPBF	IDB Sp. Funds

*In the GEF, votes are based on membership and funding.

Notes: The Global Fund is a one-member-one-vote system but is missing data on vote majorities needed.

Information is fully missing for the EC, EDF, EU Institutions, and UN Fund for Congo.