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Informal influence in the Asian Development Bank

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Abstract:

Through case studies and empirical analysis, scholars have uncovered convincing evidence that individual donors influence lending decisions of international financial institutions (IFIs) such as the World Bank and the Asian Development Bank. Less clear are the mechanisms by which donors exert influence. Potential mechanisms are either formal or informal. Formal influence is through official decisions of the board of executive directors while informal influence covers all other channels. This paper explores the role of informal influence at the Asian Development Bank by examining the flow of funds after loans are approved. Controlling for commitments (loan approvals), are subsequent disbursements linked to the interests of the key shareholders, Japan and the U.S.? I compare these findings with results for the World Bank and consider implications for institutional reforms.

Key words: Asian Development Bank; Donor Influence; Japan; United States; UN voting; World Bank.

JEL codes: F35, F53, F55, O19

I. Introduction

Recent years have seen a rising chorus of calls for the reform of international financial institutions (IFIs). With major shifts in the world economy–chiefly, the rise of the BRIC economies–the main focus of reform has been changing the governance structure of IFIs to reflect the new economic reality. The notion that the G7 (and especially the U.S.) exert too much control has been reenforced by a wave of studies demonstrating systematic donor influence over IFIs (Dreher *et al*., 2009A,B; Dreher and Jensen, 2007; Stone, 2002, 2004; Thacker, 1999). These studies document behavior that violates the IFIs' apolitical charters and substantiate a perceived lack of independence that undermines IFI effectiveness (Rodrik, 1995).

Less attention has been given to the pathways through which donors exert influence over IFIs. The focus on voting shares emphasizes the importance of formal governance structures and there is some work corroborating this view. Stone (2004), for example, illustrates the workings of donor influence through formal channels in the case of IMF program interruptions. Yet there is also ample evidence of informal influence such as bargains struck during periodic financial negotiations, e.g., International Development Association (IDA) replenishments in the case of the World Bank and Asian Development Fund (ADF) replenishments in the case of the Asian Development Bank (ADB). Most of the empirical research on the political economy of IFIs examines outcomes (commitments, disbursements, the probability of loan approval, the number of loans) that could reflect a combination of formal and informal influence.

Understanding the mechanisms through which donors exert influence is critical for effective institutional reform. To examine these mechanisms, Kilby (2010) attempts to isolate the impact of informal influence in the disbursement of World Bank loans. In the World Bank (as in other multilateral development banks), the board of directors approves new loans and credits

("commitments") but the decision to disburse committed funds officially rests with operational staff. Exploiting this feature, Kilby explores whether measures of donor interests correlate with disbursements to a recipient country–after controlling for the size of that country's loan portfolio (i.e., the cumulative commitments for all active projects). Donors have formal influence over commitments (since commitments reflect board loan approval decisions) but, conditional on these commitments, have only informal influence over subsequent disbursement decisions. In the case of the World Bank, Kilby finds substantial post-approval informal donor influence. This suggests that reforms focused exclusively on formal governance structures may well have limited impact on the actual behavior of the World Bank and that deeper changes, such as moving the location of headquarters and radically revising staff incentive systems, may be necessary.

Regional development banks are by-and-large modeled on the World Bank but with important differences, differences that may alter the role of informal influence and possibly shed light on how donors exert control in IFIs. The World Bank and the ADB differ in a number of important respects. In the World Bank, the U.S. has more formal power than any other country with 16.36 percent of the overall vote in the IBRD; Japan is second with 7.85 percent of the vote. In contrast, Japan and the U.S. by design are tied for the top spot in the ADB with 12.756 percent of the vote each. Voting itself differs between the institutions. In the World Bank, executive directors representing more than one member country must cast their votes as a bloc while ADB executive directors are free to apportion their votes according to the wishes of the individual countries they represent. The president of the World Bank has always been American while the president of the ADB has always been Japanese. Finally, the World Bank is headquartered in the U.S., some two blocks from the White House while the ADB is headquartered in Manilla, 3000 kilometers from Tokyo and 14,000 kilometers from Washington, DC. Not surprisingly, past research has found that

the U.S. plays a unique role within the World Bank (Gwin, 1997; Woods, 2003) while Japan and the U.S. share the spotlight within the ADB (Kilby, 2006).

There is also important case study evidence of differences in donor influence between the institutions. As Anwar (2006, 16) points out: "In the case of Pakistan, anecdotal evidence shows differences in institutional lending behavior over time. For example, the ADB continued its lending to Pakistan throughout the 1990s even as the World Bank and IMF disengaged their lending operations due to the US-led sanctions that had been imposed on the country, and had made it difficult for these institutions to gain clearance from their boards." Anwar also finds that the ADB did not raise its lending to Pakistan after 9-11 while the concessional window of the World Bank did.

The goal of this study is to examine the informal influence of Japan and the U.S. in the ADB. Section II reviews the relevant literature on Japan, the U.S., and the ADB. Section III develops a framework for examining the influence of donors on post-approval disbursement decisions. Section IV presents and describes the data used in the analysis. Section V discusses the estimation procedure and results. Section VI is a brief conclusion.

II. Background

At its founding in 1966, the ADB was consciously modeled on the World Bank. While the U.S. had dominated the World Bank in a number of ways (Andersen, Hansen, and Markussen, 2006; Fleck and Kilby, 2006; Kilby 2009A), in the ADB the role of dominate donor is shared by Japan and the United States. There is substantial anecdotal evidence of influence over lending, policy, and staffing decisions (Krasner, 1981; Upton, 2000; Wihtol, 1988) and empirical evidence of influence over lending (Kilby, 2006).

In the broader aid allocation literature, researchers have found geopolitical and commercial

interests particularly important for the U.S. (Alesina and Dollar, 2000), commercial interests central for Japan (Alesina and Dollar, 2000; Dippel, 2009; Schraeder et al., 1998; Tuman and Ayoub, 2004; Tuman et al., 2001; Tuman and Strand, 2006) and humanitarian concerns foremost for the "like-minded" donor countries, Canada, Denmark, the Netherlands, Norway and Sweden (Alesina and Dollar, 2000; Stokke, 1989). One strand of the literature on Japanese bilateral aid explores Japanese policy as a reaction to U.S. pressure (*gaiatsu*). Hickman (1993) and Tuman and Ayoub (2004) find evidence of *gaiatsu* in the distribution of aid flows to Africa but results are mixed for Latin America (Katada, 1997; Tuman *et al*., 2001) and negative for Asia (Tuman and Strand, 2006). Looking across regions, Tuman *et al*. (2005) do find evidence of *gaiatsu.*

The consensus in past work on multilateral organizations is that the geographic allocation of multilateral aid reflects a greater emphasis on recipient need than does the geographic allocation of bilateral aid (Burnside and Dollar, 2000; Alesina and Dollar, 2000). This does not mean that the distribution of multilateral aid is determined purely by need. Numerous studies of IFIs have uncovered statistically significant links between donor geopolitical and commercial interests, on the one hand, and access to IFI resources, on the other hand. For the World Bank, a number of studies find trade and commercial influences (Akins, 1981; Fleck and Kilby, 2006; Frey and Schneider, 1986; Weck-Hannemann and Schneider, 1991) and a few uncover links to UN voting patterns (Andersen, Hansen, and Markussen, 2006; Kilby, 2009A,B).

Research on ADB governance focuses primarily on Japanese and U.S. influence (Dutt, 1997, 2001; Kilby, 2006; Krasner, 1981; Wan, 1995; Wihtol, 1988; Yasutomo, 1983, 1995). Japan has significant sway for two key reasons: its generous funding of the ADF and technical assistance grants; and high ranking Japanese nationals in the Bank staffing (including the president). The U.S. maintains influence not by generous contributions but because of its unique global position as the

dominant economic and military force. The ADB charter gives the U.S. and Japan equal voting weights and the organization's funding mechanisms allow the most recalcitrant member–typically the U.S.–significant leverage (Wihtol, 1988). Analysis of the ADB's formal governance structure suggests that the institution serves both Japanese and U.S. interests (Dutt, 1997, 2001; Wihtol, 1988).

Relatively little quantitative work has been done on ADB aid allocation and donor interests. Krasner (1981) and Wihtol (1988) employ basic descriptive statistics (means and correlations) to examine lending patterns. Looking at correlations between ADB lending and Japanese and U.S. trade and aid flows (to proxy for commercial and geopolitical interests), Krasner finds uniformly high correlations for Japan but low and variable correlations for the U.S. He interprets these differences as a reflection of the long-term geopolitical interests of the U.S., the global hegemon, as compared to the narrower commercial interests of Japan. Wihtol finds that ADB loans align closely with Japanese bilateral aid while countries at odds with the U.S. (Afghanistan, Vietnam, Cambodia, and Laos at various points in time) received little or no ADB money. There were no new loans to Taiwan after it lost its seat in the UN to China in 1971. Wihtol attributes the subsequent delay of China's membership in the ADB until 1986 as "partly due to strong [U.S.] congressional opposition to such a move" (Wihtol, 1988, 102). India's restricted access to ADB resources reflects Japan's concern that India might come to dominate the ADB. Based on this evidence, Wihtol concludes that "the allocation of lending by country...[is] largely a reflection of the political and economic concerns of the [Asian Development] Bank's donors" (Wihtol, 1988, 173).

Kilby (2006) presents an econometric analysis of U.S. and Japanese influence on ADB lending using panel data from 1968 to 2002. The estimation method is a two part model consisting of a selection equation (via probit) and a separate allocation equation in terms of budget shares (via

FGLS). Estimation results based on trade flows and voting alignment on all adopted UNGA regular session resolutions suggest that donor interests play a larger role relative to humanitarian concerns at the ADB than at the World Bank.

III. Framework

This section presents an empirical framework similar to that in Kilby (2009A, 2010) but imposing stronger assumptions because of ADB data limitation. I start with a general framework for modeling the disbursement process and progressively revise this to describe the link between disbursements and a collection of past and present commitments. It is this revised form that provides the starting point for the empirical analysis.

To understand the disbursement process, I examine the ADB's allocation of funds at the project or program level. Donors can influence ADB funding decisions in two distinct periods: up through loan approval and post-approval. Up through loan approval, donors may expedite the early phases of the project cycle or simply increase loan amounts as a reward to favored countries. Alternatively, donors may hold up the process or slash loan amounts as a punishment for out-of-favor countries. During this period, these expediting or delaying tactics can work through formal channels (via the speed of board approval) or informal channels (via pressure on ADB management and staff charged with project preparation). After loan approval, donors may pressure ADB management or staff to accelerate disbursement, ignoring red flags indicating corruption, domestic funding shortfalls, etc. Conversely, donors could apply pressure in the opposite direction, encouraging the ADB to slow or suspend disbursement. In either event, this post-approval influence is solely through informal channels since the board of directors has no direct oversight of disbursements from already approved loans.

I use the following notation to describe projects. Let j index all ADB-funded projects (across all recipient countries i and time periods t). At loan approval, the ADB commits c_{ij} to country i for project j.[1] While the loan is "active" (post-approval but before closing), the ADB disburses a variable amount d_{ijt} to country i for project j in year t. Let A_{it} be the set of active projects in recipient country i during year t. If $j \notin A_{it}$ (project j is not active in country i in year t), $d_{ijt} = 0$; if $j \in A_{it}$ (project j is active in country i in year t), $d_{ijt} \geq 0$.

Actual disbursements (d_{ijt}) will differ from planned disbursements ($\boldsymbol{d}^*_{\boldsymbol{ijt}}$) if project implementation does not follow the plan spelled out in the *Report and Recommendation to the President* (RRP) and the loan agreement. In some cases, deviations from the original planned disbursement profile may be the result of changing donor interests that lead to pressure on ADB staff to modify disbursement. Planned disbursements depend on the loan commitment amount, characteristics of the project/program, and country characteristics. One approach allowing for these factors is to model the ratio of actual to planned disbursements as a function of these variables:

$$\boldsymbol{d}_{ijt}/\boldsymbol{d}^*_{ijt} = f(\boldsymbol{X}_{ijt}, \boldsymbol{DI}_{it}, \varepsilon_{ijt}) \tag{1}$$

where $\boldsymbol{X}_{ijt}$ is a vector of project and country characteristics that influence the speed of disbursement, $\boldsymbol{DI}_{it}$ is a vector of donor interest variables that may reflect donor pressure on the ADB regarding disbursements to country i, and ε_{ijt} is a stochastic element. I define $\boldsymbol{X}$ such that higher values correspond to project/country characteristics that speed disbursement and $\boldsymbol{DI}$ such that higher values correspond to more intense positive donor interest (again, that may speed disbursement). For the ADB, $\boldsymbol{DI}$ will include both Japanese and U.S. interest variables. One useful functional form is:

$$\boldsymbol{d}_{ijt}/\boldsymbol{d}^*_{ijt} = e^{(\beta_1 \boldsymbol{X}_{ijt} + \beta_2 \boldsymbol{DI}_{it} + \varepsilon_{ijt})} \tag{2}$$

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[1] Although the subscript i is redundant given that j indexes all projects (across all countries and time periods), it is helpful for tracking other variables.

where $\boldsymbol{\beta_1 > 0}$. Taking logs of both sides and rearranging yields

$$lnd_{ijt} = \boldsymbol{ln d^*_{ijt}} + \beta_1 \boldsymbol{X}_{ijt} + \beta_2 \boldsymbol{DI}_{it} + \varepsilon_{ijt} \quad (3)$$

The hypothesis that donors influence disbursement rates is equivalent to $\boldsymbol{\beta_2 > 0}$ while the alternative hypothesis that donors do not influence disbursement rates implies $\boldsymbol{\beta_2 = 0}$. Because $\boldsymbol{d^*_{ijt}}$ incorporates the impact of any donor influence up to loan approval, β_2 captures only post-approval donor influence (if any) which is purely informal.

Unfortunately, there are a number limitations in the available data that prevent direct estimation of Equation (3). The first limitation is that planned disbursements ($\boldsymbol{d^*_{ijt}}$) are not systematically reported. Fortunately, project level commitment data (c_{ij}) are available from the ADB's Project Database or the PLAID data set. Recall that c_{ij} is the amount committed by the ADB to country *i* for project *j* in whatever year the project was approved (i.e., the original ADB loan amount for project *j*). Assuming a standard disbursement profile by project type and "age" (years since the project was approved), c_{ij} is proportional to $\boldsymbol{d^*_{ijt}}$ once we control for project type (e.g., with a sector dummy variable) and age.[2] With these control variables included in $\boldsymbol{X}_{ijt}$, the equation becomes:

$$lnd_{ijt} = lnc_{ij} + \beta_1 \boldsymbol{X}_{ijt} + \beta_2 \boldsymbol{DI}_{it} + \varepsilon_{ijt} \quad (4)$$

The second limitation is that data on actual disbursements are available only at the country level ($d_{it} = \sum_{j \in A_{it}} \boldsymbol{d_{ijt}}$), not at the project level (d_{ijt}).[3] In addition, few project-level factors ($\boldsymbol{X}_{ijt}$) are available. I address these issues by shifting to country-level analysis, summing over all active projects in country *i* in year *t* (i.e., summing over $j \in A_{it}$):

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[2]This allows for loans that disburse over several years rather than assuming immediate disbursement as in Bulíř and Hamann (2003, 2007), Celasun and Walliser (2008), and Odedokun (2003).

[3]PLAID includes some project-level disbursement data but these are cumulative, not annual.

$$ln\, d_{it} = ln\, c_{it} + \beta_1 \boldsymbol{X}_{it} + \beta_2 \boldsymbol{DI}_{it} + \varepsilon_{it} \quad (5)$$

I refer to the country-level commitment variable c_{it} as *Original Commitments* to distinguish it from new commitments approved by the ADB board in year t. It is defined as the sum of ADB commitments to country i for all projects still active in year t:

$$c_{it} = \sum_{j \in A_{it}} c_{ij} \quad (6)$$

Thus, c_{it} reflects the portfolio of originally committed funds for active projects from which current disbursements could be drawn (the country's active loan portfolio). $\boldsymbol{X}_{it}$ is a vector of technical country characteristics that may influence disbursement.[4] It also includes variables describing the loan portfolio of country i in year t including *Portfolio Age*, the quantity-weighted "age" of the active loan portfolio. Denoting this PA_{it},

$$PA_{it} = \frac{\sum_{j \in A_{it}} \sum_{s=0}^{7} (s+1) c_{ij(t-s)}}{\sum_{j \in A_{it}} \sum_{s=0}^{7} c_{ij(t-s)}} \quad (7)$$

where $c_{ij(t-s)}$ are new ADB commitments to country i for project j in period $t-s$, i.e., loan amounts for projects and programs approved in year $t-s$. Note that the window of summation (the range of s) excludes very old projects that are likely to be inactive even if not formally closed. I use s+1 rather than s as project age to give a non-zero weight to current commitments in the calculation of this weighted average.

The third data limitation is that the ADB Projects Database lacks project completion dates.[5] The above definitions of *Original Commitments* and *Portfolio Age* require data on commitment

[4]More precisely, these are factors that: 1) may influence the disbursement rate; and, 2) are consistent with the ADB's apolitical charter.

[5]PLAID data on ADB projects also lack closing dates.

amounts, project approval dates, *and* project completion dates (when disbursement ends). To work around this limitation, I assume ADB disbursements extend over 8 years, the typical disbursement period in the World Bank Projects Database. The new measure of *Original Commitments* is

$$\tilde{c}_{it} = \sum_{j} \sum_{s=0}^{7} c_{ij(t-s)} \tag{8}$$

and the new measure of *Portfolio Age* is

$$\tilde{PA}_{it} = \frac{\sum_{j} \sum_{s=0}^{7} (s+1) c_{ij(t-s)}}{\sum_{j} \sum_{s=0}^{7} c_{ij(t-s)}} \tag{9}$$

where $c_{ij(t-s)}=0$ if project j is not in country i. Note that the old measures of *Original Commitments* and *Portfolio Age* exclude projects that have already closed (by requiring $j \in A_{it}$) while the new measures do not.

The equation estimated for the ADB is

$$\ln d_{it} = \ln \tilde{c}_{it} + \beta_1 \tilde{X}_{it} + \beta_2 DI_{it} + \varepsilon_{it} \tag{10}$$

where $\tilde{X}$ incorporates $\tilde{PA}$. To assess the impact of substituting in $\tilde{c}_{it}$ and $\tilde{X}_{it}$, I estimate both (5) and (10) using data for the World Bank. World Bank data also include sector information not available for the ADB; I assess this limitation in the same manner.

Donor Interest Variables

There are a number of possible donor interest variables. Here, I explore three sets, the first based on UN voting, the second based on bilateral aid, and the third based on trade.[6]

[6]Using military aid as a proxy for geopolitical importance would be reasonable for the U.S. but not for Japan. U.S. military aid proves insignificant if included in the specifications reported below.

UN Voting

Following the work of Andersen, Harr, and Tarp (2006–henceforth AHT) on the IMF, I focus on a measure of UN voting alignment derived from a vote buying model. AHT differentiate between important votes on which the donor lobbies other countries intensively and other votes on which the donor does not. Thus, only the second set of votes reflect the other countries' true preferences, free of donor influence. A country's alignment with the donor on these other votes reflects the country's ideal location (relative to the donor) in the voting space. Conversely, votes on important measures reflect the outcome of donor influence, i.e., concessions the voting country makes to the donor position. Payments to a country for its concessions to the donor should be related to the difference between its alignment with the donor on important votes and its alignment with the donor on other votes. This is consistent with a vote buying model where alignment on other votes reflects the voter's bliss point. Kilby (2009B) evaluates these competing approaches empirically for the U.S. using World Bank lending data and finds considerable support for a vote buying formulation.[7]

One challenge with this approach in the context of the ADB is the available data. Only the U.S. government publishes a list of designated important UN votes. Since 1983, Section 406 of Public Law 101-246 has required the U.S. State Department to identify and report to Congress those "votes on issues which directly affected United States interests and on which the United States lobbied extensively." (US PL 101-246 quoted in U.S. State Department, 2009, 123). To the extent that different votes are important for Japan or the five other G7 countries (henceforth G7-2), a Japanese or G7-2 voting alignment variable based U.S.-designated important votes serves more as

[7]Although many votes are not close, a vote buying model is still relevant if the U.S. values support regardless of the outcome. For the UNSC, Dreher *et al.* (2009B) point out that the U.S. works toward consensus by rewarding UNSC members for their votes even when those votes are not required (for example, "No" votes where the U.S. could simply exercise its veto).

a control variable to verify that the U.S. variable captures just direct U.S. influence. However, in the case of Japan, the notation of *gaiatsu* (Japanese foreign policy as a reaction to external pressure from the U.S.) suggests that using the same U.S. important votes may be reasonable. Given the data limitations, I proceed with this interpretation for the time being.

I define *diffUSA* as the difference between a country's alignment with the U.S. on important UN votes and its alignment with the U.S. on other UN votes. The variables *diffJPN* and *diffG7-2* are defined in a parallel fashion, again using votes designated as important by the U.S. I include *diffG7-2* to avoid omitted variable bias in the event that the G7-2 countries both influence ADB lending and that their voting is correlated with U.S. or Japanese voting.

There are several possible objections to this UN voting measure in addition to the U.S.-centric definition of important votes. The underlying model is subject to the usual critiques of a narrowly rational voting model. It assumes away log rolling and other forms of strategic voting. More critically, the model assumes that alignment on "other votes" is a good predictor of the voting country's true preferences for the "important votes." This presents two problems. First, the U.S. is not the only country which attempts to influence the outcome of UN voting; the "other votes" could be another donor's "important votes." Even setting this concern aside, there is no assurance that alignment on other votes is predictive of true preferences on important votes as the issues are likely to be quite unrelated, i.e., the designation as "important" is non-random. Although they do not pursue this issue in detail, AHT point out that country fixed effects provide an alternative approach to specifying the recipient government's bliss point.

If the vote buying model is correct, the optimal strategy for the vote buyer is to reward voting countries based on how far they deviate from their bliss point toward the vote buyer's position. In the AHT formulation, this takes the form of an all-pay auction where countries "bid" on an increased

probability of an IMF program. AHT demonstrate that specifications excluding an appropriate bliss point proxy will in general produce biased results. However, one should also consider the impact of omitting or mis-measuring the bliss point in the absence of vote buying. Suppose a new government comes to power with a more internationalist, pro-western orientation. We would simultaneously see a shift in UN voting toward the U.S. position and a demand-driven increase in the flow of World Bank funds.[8] If the bliss point proxy (e.g., alignment on other votes) and alignment on important votes do indeed span the same voting space, both will shift and the measure of concessions to the U.S. would not increase.[9] However, if the bliss point is omitted (or measured too poorly), omitted variable bias becomes a problem. Although the U.S. exerts no pressure on the Bank (in the scenario where vote buying does not happen), a voting shift toward the U.S. is accompanied by an increase in Bank funding.

This possibility refocuses attention on how the bliss point is introduced. It is unlikely that the votes the U.S. considers important are, in the opinion of other voters, a random or representative selection of all votes. Thus, although voting alignment on "other votes" is a good proxy for the voter's ideal location in the space of "other" issues ("other bliss point"), it is unlikely to be a good proxy of the voter's ideal location in the space of "important" issues ("important bliss point"). Specifically, it is possible that the advent of a government with more internationalist, pro-western orientation would cause a larger shift in the important bliss point than in the other bliss point, resulting in a similar problem as when the bliss point proxy is omitted.

This example suggests that country fixed effects also may not be sufficient because they do

[8]It is also possible that there would be a non-political shift in the supply side of World Bank funding if the country also adopts reforms more in-line with prevailing World Bank policy prescriptions.

[9]Indeed, it could decrease since alignment is bounded from above at unity.

not capture within-country changes. But the example does point to an alternative–government fixed effects. Here, I include a separate fixed effect for each government that differs substantially from its predecessor, i.e., when the government changes and the country's *Polity* score changes by more than 3 points.[10]

In a different context, Dreher and Strum (2010, Table 7) find similar results whether using alignment on important votes, alignment on other votes, or the difference between the two. This is consistent with early work by Wittkopf (1973) critiquing prior attempts to identify important UN votes though recent analysis of U.S. bilateral aid does find strong evidence linking aid flows to important votes in particular.[11] For ADB disbursements, the discussion above suggests similar results for important vote alignment with fixed effects and the difference between important and other vote alignment (with or without fixed effects) but very different results with other votes. I explore this question empirically below (Table 4).

Bilateral Aid

The second set of donor interest variables are bilateral aid flows. The bilateral aid allocation literature generally finds Japanese aid closely mirrors Japanese commercial interests (developing sources for raw materials, cultivating export markets, and directly providing business for Japanese firms) and that U.S. bilateral aid correlates with U.S. commercial and geopolitical interests. Japanese and U.S. bilateral aid flows clearly are not perfect measures of donor interests in this

[10]Including a separate fixed effect for every government poses problems in terms of degrees of freedom. Also, exploratory regressions suggest only substantial changes matter: there is a significant drop in funding levels the year before a substantial change in government while the effect is much smaller and not significant if all changes in government are included.

[11]Of course, Wittkopf did not have benefit of the State Department's post-1982 designations. Indeed, it was an increased emphasis in U.S. Congress in early 1980s to identify what the public was getting for its aid tax dollars that resulted in the law mandating State Department reporting.

context, however, because they may have some humanitarian component. To the extent that control variables (i.e., population, GDP per capita, etc.) miss some aspect of need to which bilateral aid flows respond, interpretation of the coefficients on these bilateral aid flows becomes difficult. To mitigate this concern, I also include bilateral aid from the so-called like-minded donors (Denmark, the Netherlands, Norway, and Sweden). These countries are known for their relatively humanitarian aid practices. The key advantage of using aid from these donors is that they have very limited power within the ADB.[12] Thus, any link between like-minded aid flows and ADB lending should be driven by common humanitarian elements and like-minded donor aid flows should be a better humanitarian proxy than U.S., Japanese aid, or G7-2 aid.

Trade

The third set of donor interest variables is a group of measures based on trade flows. For ease of interpretation, I use total trade (imports plus exports) between each donor/recipient pair.[13] To make sure that U.S. or Japanese trade flows are not simply proxying for integration into the world economy, I also include the country's overall world trade as well as G7-2 trade.

IV. Data

The data used in this analysis are described in Table 1. Variables include aid flows and related measures (from the ADB and various bilateral donors), recipient country economic and political characteristics, UN voting alignments, and trade flows. The data are an unbalanced panel; the unit of observation is the recipient country/year. The sample is determined largely by data

[12]See Fleck and Kilby (2006) for discussion of using like-minded donor aid as a control variable. I omit Canada from the like-minded donor group as it is already included in the G7-2.

[13]Because exports and imports are highly correlated, it can be difficult to interpret the coefficient on individual components of trade.

availability. Important UN voting data start in 1983 while DAC data on aid flows end with 2007. Given the lag structure, the estimation sample is 540 observations on 33 ADB member countries for the years 1984 to 2007.[14]

Data come from a number of sources. Disbursement variables (for the ADB, the U.S., Japan, and the G7-2) are based on total official gross disbursements from the *International Development Statistics CD-ROM* (OECD, 2006-2009).[15] I take ADB commitment data from the ADB Projects Database (Asian Development Bank, 2010). The OECD reports commitments only for official development assistance (ODA) and the interest rate on ADB Ordinary Capital Resources (OCR) loans is not concessional enough for these loans to qualify as ODA.[16] GDP and population data are from the World Development Indicators (World Bank 2009A) with missing values imputed using Penn World Tables data (Heston *et al*., 2002, 2006). Recipient country political/governance indicators are derived from Freedom House indices (Freedom House, 2009), Polity IV scores (Polity IV Project, 2009), and Cheibub *et al.* (2010). Conflict data from PRIO cover through 2008

[14]The sample excludes eight influential observations (Afghanistan 1992; Solomon Islands 1995, 2001; Tuvalu 2003-5; Vanuatu 2003; Vietnam 1985). Excluding these data points, results are robust across specifications and sub-samples (e.g., omitting individual countries or years). Due to the relatively small number of borrowing member countries in the ADB and the extremes represented (in terms of size, commercial importance, and geopolitical significance), the problem of influential outliers and how to delineate the estimation sample is particular thorny in this analysis (see the discussion on China below). A list of included countries is included in Appendix B.

[15]I use older IDS CD-ROM data to fill-in missing values in new data to recover countries dropped from OECD coverage (especially from 2007 on). IDS data are ahistorical in the sense that the DAC alters historical data to fit current national boundaries. When two countries unite, their individual time series are combined so that current and historical data are available only in the combined format. When a country splinters, the DAC divides its data accordingly, again even back through the period when the country was united. When a country drops from DAC coverage (e.g., in 2007 when CEECs/NICs were dropped as no longer "developing"), the historical data for the country vanishes.

[16]Only low interest loans from the ADF and grants qualify as ODA and appear in the DAC commitment data.

(Gleditsch *et al*., 2002).

Data on UN voting come from two sources. Voeten and Merdzanovic (2009) provide data on all UNGA regular session resolutions passed by roll call vote. Data on UNGA votes designated as important by the U.S. come from U.S. State Department (1984-2009). These include some votes not covered by Voeten and Merdzanovic–votes on defeated resolutions, votes on motions, votes on paragraphs or language of proposed resolutions, emergency session votes, etc.[17]

The UN voting alignment calculation is the same as in Kilby (2010) and closely follows Thacker (1999) and Dreher and Jensen (2007). For each vote, a country scores a 1 if it follows the U.S., a 0.5 if it abstains or is absent when the U.S. votes (or vice versa), and a 0 if it opposes the U.S. This process is repeated for Japan and each of the G7-2 countries. A country's alignment is its mean score for the year on either important or other votes (averaged again over the five countries in case of the G7-2). The analysis focuses on the difference between a country's alignment with the donor(s) on important votes and other votes, designated as *diffUSA*, *diffJPN*, and *diffG7-2*. See Appendix A for precise definitions.

Turning to the numbers, *ADB disbursements* average $159 million with a maximum of $2 billion (Korea 1997). *Original Commitments* average $1.5 billion with a maximum of $14.7 billion (India 2007). The portfolio-weighted age (*Portfolio Age*) averages 4 years, close to the middle of the possible 1 to 8 range. The dummy variable *Blend* equals 1 for countries that have access to both concessional and nonconcessional ADB funds (OCR and ADF, i.e., *Original Commitments* greater than zero in both categories), a situation that applies to 72 percent of the country/years in the

[17]I collected State Department data at the vote level rather than aggregated to the country level so that measures can be constructed for Japan and the other G7 countries.

sample.[18]

The remaining variables describe country characteristics, including measures of U.S., Japanese, and G7-2 geopolitical interests in the country. *Population* averages 120 million, ranging from 9,516 people (Tuvalu 2001) to 1.3 billion (China 2007). *GDP per capita* (PPP) averages $3,178 in 2000 dollars, running from $312 (Myanmar 1988) to $15,011 (Korea 1999). *Freedom House* is the average of the civil liberties and political rights indices, inverted so that 1 indicates least free and 7 indicates most free with an mean of 3.8. Forty-five percent of the observations in the sample are for democracies according to the Cheibub *et al*. (2010) *Democracy* indicator. The variable *War* is a dummy indicating whether the country is involved in a major conflict with at least 1000 war-related deaths in that year, the case in eight percent of the sample.

The UN variables are lagged one year since UN votes happen predominantly in the last quarter of the calendar year. The average alignment with the U.S. on important votes is 0.4264, with countries ranging all the way from always disagreeing with the U.S. (Indonesia, Laos and Vietnam in various years) to alignment of 0.9 (Fiji 1984). Average alignment with Japan and the other G7 countries on these votes is notably higher at 0.6651 and 0.6487. Surprisingly, this difference is even more pronounced for other votes where the averages for the U.S., Japan and the other G7 countries are 0.3053, 0.7354, and 0.6559. Conversely, it is no surprise that the variances of the important vote variables is substantially higher than those of the other vote variables since the latter are based on a substantially larger number of individual votes. The "*diff*" variables are the difference between important vote alignment and other vote alignment. The average for *diffUSA* is 0.12, with the

[18]Because the ADB Projects Database does not indicate the source of funds (OCR versus ADF), I use PLAID data to construct this variable. Also using PLAID data for *Original Commitments* yields very similar results; the correlation between *Original Commitments* derived from the two sources is greater than 0.99 though the PLAID data appear to omit a large loan for Korea in 1997.

variable ranging from −0.364 (Afghanistan 2001) to 0.6466 (Fiji 1984). The average score for Japan is actually negative at −0.07 and ranges from −0.5912 (Laos 1983) to 0.3446 (Fiji 1984). The average the five other G7 countries as a group, *diffG7-2*, is close to zero with a minimum of −0.4121 (Laos 1987) and a maximum of 0.3414 (Fiji 1985).

I measure bilateral aid via gross disbursements (to match the dependent variable) and lag all variables one year to minimize endogeneity concerns, for example, if bilateral donors follow the lead of the ADB. The average annual amount for *US aid* is $65 million. The highest level of *US aid* is $1.1 billion (Pakistan 2003). The average annual amount for *Japanese aid* is $416 million, reflecting the heavy regional concentration of Japanese foreign assistance. The highest level of *Japanese aid* is $5.1 billion (Thailand 1999). The average annual amount for *G7-2 aid* is $29 million; this is an average over the five donors, not the sum of their disbursements. The peak value is $254 million (China 1996). The average annual amount for *Like-minded donor aid* is $11 million (again, group average not sum) with the highest level at $104 million (India 1987).[19]

Finally, Table 1 reports statistics for four trade variables. *US trade* is the sum of the country's imports from and exports to the U.S.; the other variables are defined in a parallel fashion except that *G7-2 trade* is averaged over the five countries in the group. *World trade* includes trade with the G7 so that, once it is included in an estimation, we can interpret the coefficients on the other trade measures as capturing any unique aspects of trading with those partners, rather than just the general impact of trade or its covariates. As with bilateral aid, trade variables are lagged by one year to reduce concerns of reverse causation (though the relative magnitudes of aid and trade make this a

[19] *G7-2 aid* and *Like-minded donor aid* are averages over their groups. When these variables are converted to logs, I include the average of the log (where defined) rather than the log of the average. Results are generally not sensitive to how this step is done. The same applies to trade variables below. This approach makes more sense when including the common agency measures later in the paper.

minor concern in practical terms).[20]

Turning to the numbers, *US trade* averages $7.9 billion, reaching a high of $360 billion (China 2007). *Japanese trade* averages $6.6 billion, topping out at $211 billion (China 2006). *G7-2 trade* averages $1.1 billion with a maximum of $45 billion (China 2006). *World trade* averages $46.6 billion, peaking at $1.9 trillion (China 2006).

V. Estimation and Results

The estimates presented below are from an allocation equation conditional on selection. That is, the equation describes disbursements of ADB funds in cases where disbursements are positive rather than zero. Results should be interpreted as such, i.e., not generalized to the unconditional case without noting the strong assumptions necessary to do so. Alternative approaches include estimating a Type I tobit, Type II tobit (Heckman selection model), or 2 part model (independent selection and allocation equations).[21]

Given the distribution of disbursements with some extremely high, possibly anomalous values, a log specification is critical for finding generalizable, broadly meaningful results. Since zero disbursements can and do happen, this presents the standard "log of zero" problem. Using a Type I tobit (the standard tobit method) imposes the strong assumption that the same factors have the same weight in both the selection decision (whether or not to disburse any funds to a given country) and the conditional allocation decision (how much to disburse if the country is selected). In the case of aid flows, this seems a particularly poor assumption since a factor like population might play a very

[20]One might think of trade flows scaled by donor GDP to capture the importance of a trading partner. Given the log specification used below, this scaling factor just folds into the year dummies included in all specification. An alternative approach is to examine aid shares as in Kilby (2006).

[21]See Cameron and Trivedi (2005) for a discussion of these different approaches.

different role at the selection and allocation stages; Kilby (2006) illustrates this point for ADB disbursements. The tobit specification also places sharp limits on the types of panel methods that yield consistent estimates (e.g., no recipient country fixed effects). The Type II tobit is less restrictive but presents identification problems given the lack of theory-based exclusion restrictions. Panel methods are again limited and convergence problems common. With these caveats in mind, I estimate a relatively simple Type II tobit model using regional dummies rather than country fixed effects and achieving identification via nonlinearities.[22] Tests based on this specification fail to reject the hypothesis that the error terms of the selection and allocation equations are uncorrelated. Taken together, these considerations point toward estimating a two part model, that is a selection equation and, separately, an allocation equation.

However, a confluence of factors undermines the usefulness of estimating a selection equation. The critical step in the analysis below is including *Original Commitments* to control for the impact of formal influence. In the selection equation, one might include this as a dichotomous variable (*Original Commitments*>0) or as a continuous variable (e.g., log of *Original Commitments*). However, *Original Commitments*=0 perfectly predicts *ADB disbursements*=0 since there can be no disbursements when there are no funds to disburse. This leaves the continuous variable as the only option. Unfortunately, in this specification collinearity causes a number of year dummies to drop from the estimation. The result is that we cannot estimate a satisfactory selection equation.[23]

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[22]I rely on two types of nonlinearities, those arising from the probit function and using dichotomous versions of bilateral aid variables in the selection equation but continuous versions of these same variables in the allocation equation. In addition, I had to progressively strip out variables (e.g., year dummies) to achieve convergence.

[23]It is a possible to estimate a selection equation without year dummies (e.g., with a trend term) but this severely limits comparisons with the allocation equation and hence interpretation of results. The underlying source of this estimation problem is limited variability in the ADB sample.

All specifications include year dummies and government fixed effects.[24] Reported t statistics are based on robust standard errors. The dependent variable is the natural log of ADB disbursements. Several explanatory variables are also logged. This includes *Population* and *GDP per capita* as well as the aid and trade variables. Dichotomous, index, and time variables are not logged. Table 2 reports results for specifications that include different donor interest variables but which omit *Original Commitments* and related portfolio variables. Table 3 includes these variables. Table 4 assesses alternative UN voting measures. Table 5 presents estimates using World Bank data for comparison with Tables 2 and 3. Table 6 assesses the impact of ADB data limitations by also imposing them on World Bank data. Tables 7 and 8 explore the impact of donor heterogeneity. Specifications including commitment variables generally account for 70 to 75 percent of the variation in the dependent variable.

Formal and Informal Influence

Table 2 presents four allocation equation specifications that exclude *Original Commitments* and related portfolio variables. Without this set of control variables, the estimated coefficients reflect the impact of the explanatory variables on both commitment levels (up to the approval stage) and subsequent disbursement rate of those commitments (at the post-approval stage). For the donor interest variables, these estimates reflect the combination of formal and informal influence.

Many of the country characteristics included as control variables are insignificant. For *Population* (and to a lesser extent *GDP per capita*), this is due to the inclusion of fixed effects. For example, in a simple log-log bivariate regression (without fixed effects), *Population* explains 60

[24]As noted above, I only generate a new government fixed effect if the new government differs substantially (Δpolity$\geq\pm3$). In the estimation sample with 33 countries, there are 49 separately identified governments. Results are generally similar with country fixed effects.

percent of the variation in *ADB disbursements*. Without fixed effects, *Freedom House* and *Democracy* are significant (positive) in this sample when included individually. The *War* dummy variable enters consistently with the expected negative sign (fewer disbursements in war-torn countries) but is generally not statistically significant. The signs on *GDP per capita*, *Freedom House* and *Democracy* appear counter-intuitive but exclude selection effects. In a selection equation, *GDP per capita* enters with a negative sign (consistent with need-based selection) and *Freedom House* and *Democracy* enter with positive signs.

Column (1) of Table 2 includes the first set of donor interest variables measuring concessions made to donors when casting important UN votes. Recall that important votes are designated as such only by the U.S. so that this variable is the correct measure for the U.S., a reasonable measure for Japan if *gaiatsu* is an important determinant of Japanese foreign policy, and simply an appropriate control variable in the case of the G7-2. In this specification, the estimated coefficient for *diffUSA* is positive and significant while the estimated coefficient for *diffJPN* is smaller and not statistically significant.

The magnitude of the U.S. effect is substantial. For a typical country (i.e., holding all values at the sample mean), the predicted disbursement is $34 million. Holding all else constant but increasing *diffUSA* by one standard deviation (0.1603), the predicted disbursement rises to $48 million, a 40% increase. The largest one period change in *diffUSA* was a jump in the score for Laos from −0.1875 (1989) to 0.2820 (1990); using these two values and an otherwise typical country, predicted disbursement rises from $18 million to $48 million, a 160 % increase. We can also estimate the value of a vote. Switching from voting against the U.S. to voting with the U.S. raises *diffUSA* by approximately 0.2. For a typical country (i.e., all variables set to their sample means), this corresponds to a $17 million greater predicted disbursement. Thus, a typical UN vote is worth

$17 million in ADB funding–either due to higher commitments, faster disbursement of existing commitments, or some combination of the two.

Column (2) of Table 2 uses bilateral aid flows to capture donor interests. I include aid flows from the like-minded donors to capture any humanitarian factors not already included; the variable *Liked-minded donor aid* enters with a negative though insignificant coefficient estimate. In this specification, only aid from the other G7 countries proves significant. The point estimate indicates that one percent higher G7-2 bilateral aid disbursement corresponds to 0.265 percent higher ADB disbursement. To put this in perspective, if the log of G7-2 bilateral aid for a typical recipient country (i.e., all independent variables set to their sample mean values) is one standard deviation higher, predicted ADB disbursements are $34 million (100 percent) higher.[25]

Column (3) introduces trade flows to reflect donor commercial interests. While all trade measures have positive coefficient estimates, none are significantly different from zero (individually or jointly). Column (4) includes all three groups of donor interest variables simultaneously. The estimation results change very little. Overall, this table provides strong evidence of American influence over ADB lending when we consider formal and informal influence together.

Informal Influence Only

Table 3 adds *Original Commitments* and related portfolio variables the Table 2 specifications. These variables control for donor influence up through loan approval (the period which includes avenues of formal influence) and thus effectively capture the influence of events up through board approval on disbursement. Since the board has no official role in post-approval

[25]A one standard deviation increase in the average of the log of G7-2 aid corresponds to a $20 million increase in the level of average G7-2 aid, i.e., $100 million increase counting all five donors. If Vietnam is dropped from the sample, U.S. bilateral aid becomes marginally significant.

disbursement decisions, any remaining effects captured by donor interest variables in this setting reflect informal influence only.[26]

The commitment variables enter as expected with quantitatively substantial and statistically significant coefficients. The estimated coefficient on *Original Commitments* ranges between 0.636 and 0.688, indicating that a one percentage point increase in the size of the portfolio available for disbursement increases disbursements by about 0.65 percent. The assumption of a coefficient equal to one on *Original Commitments* in Equation (10) is soundly rejected in all specifications; this may be due to the approximation and is explored in more detail below. *Portfolio age* enters with a positive linear term and a negative quadratic term, indicating peak disbursement four years after project approval.

There are a number of differences in the role of the control variables. While the level of disbursements to countries when they have blend status (access to both concessional and non-concessional ADB money) is not significantly different than when they do not have blend status (Table 2), the rate of disbursement is significantly lower (Table 3). This is consistent with the pattern of commitments in the data: when countries have blend status they have significantly larger active loan portfolios (higher *Original Commitments*) than when they do not have blend status. The larger portfolio disburses more slowly leading to a comparable level of disbursements. The positive coefficient estimate for population indicates a disbursement rate that is higher than the country's norm when the country's population is higher than its norm though the significance of this effect depends substantially on one country (Western Samoa).

Turning to the donor interest variables, the magnitude of the estimated coefficients are

[26]This assumes formal donor influence does not substantial bias the mix of projects toward those with faster disbursement profiles.

generally smaller, consistent with the interpretation that the table reflects only informal influence. The U.S. UN voting variable *diffUSA* enters with a smaller though still significant coefficient in both columns (1) and (4); the estimated coefficient for *diffJPN* is negative and marginally significant. The analysis in Table 4 sheds some light on this result. Note also that the estimated coefficient for *G7-2 aid* is now small, statistically insignificant, and negative.

Looking at the results from Tables 2 and 3 together tells us something about the avenues through which donors influence the ADB. The estimates suggest that U.S. influence in the ADB does not end with project approval but continues during the post-approval implementation phase. Judging by the size of the estimated coefficients, this post-approval, and hence informal, channel is as important as U.S. influence up to loan approval. In contrast, the combined influence of the G7-2 (Canada, France, Germany, Great Britain, and Italy) appears to operate only pre-approval.

The "no influence" result for Japan is surprising considering the country's role in the ADB and the results of past research. Is it possible that the above analysis misses something important regarding Japanese influence? One possibility is the fixed effect analysis.[27] If Japan's interests are very persistent, there may be insufficient time series variation to identify the effects of Japanese influence. To investigate this possibility, I re-estimate the equations in Tables 2 and 3 excluding fixed effects. Even in this setting, Japanese interest variables remain insignificant in all specifications though the estimated coefficient on U.S. bilateral aid does become significant. A second possibility is the use of U.S.-important UN votes. Although there is no perfect solution to this problem since other countries do not publish lists of their "important" votes, I re-estimate the previous equations using other UN alignment measures. Results for the UN variables are

[27]For example, using a different sample and a specification that does not include fixed effects, Kilby (2006) does find evidence of Japanese influence in ADB disbursements.

summarized in Table 4.

The first three columns of Table 4A report estimation results for a specification that excludes commitment portfolio variables (formal and informal influence). Column (1) measures UN alignment with the "other votes" variable, i.e., using UNGA regular session votes that the U.S. State Department did not designate at important. Because there are relatively few important votes, these results are essentially the same as with all regular session votes. With this UN voting measure, the estimated coefficient for Japanese alignment is now positive but not statistically significant. The relatively large coefficient estimate (4.133) reflects the high degree of correlation between Japanese voting alignment and G7-2 voting alignment (0.89); the coefficient falls to 2 if the G7-2 variable is omitted. With China excluded from the estimation sample, the estimated coefficient for *Japan other votes* increases in size (6.247, 3.2 when *G7-2 other votes* is omitted) and significance.[28] In these specifications, the estimated coefficient for *US other votes* small and insignificant.

Of course, these measures are based on precisely the "wrong" votes from the U.S. perspective. Column (3) rectifies this by including both important votes and other votes for each group. Now *US important votes* also enters with a positive, significant coefficient. For Japan, the positive coefficient on *Japan other votes* and negative coefficient on *Japan important votes* explain the previous negative sign for *diffJPN*. Columns (4) to (6) repeat this exercise for the specification that includes commitment portfolio variables, confirming that a similar pattern holds when restricting attention to post-approval informal influence.

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[28]I identified China as an outlier through a robustness check that sequentially omits entire countries or entire years from the estimation sample. Only the regression omitting China yields a significant coefficient on *Japan other votes*. Two factors contribute to this. First, disbursements to China tend to be large, making Chinese observations potentially influential. Second, China's size and important role in geopolitics (e.g., the only ADB regional member with a permanent seat on the UNSC) makes the notion of buy its UN vote with ADB funding far less plausible.

When comparing the magnitudes of estimated coefficients on the *important votes* and *other votes* variables it is important to remember the differences between these measures. First, the domestic cost of switching a vote may differ between the two groups of votes. Second, the sample variance is quite different between the two since important vote alignment is typically based on 10 individual votes while other vote alignment is typically based on 100 individual votes. It is difficult to address the first issue but the second is readily dealt with via the standardized coefficients reported in Table 4B. Using the estimated equation in column (3) for both formal and informal influence, increasing *Japan other votes* one standard deviation above the sample mean for an otherwise typical country raises predicted ADB disbursements from $32 million to $49 million, an increase of $17 million or 55%. Increasing *US important votes* one standard deviation above the sample mean for an otherwise typical country raises predicted ADB disbursements from $32 million to $55 million, an increase of $23 million or 75%. Using the estimated equation in column (6) for informal, post-approval influence only, increasing *Japan other votes* one standard deviation above the sample mean for an otherwise typical country raises predicted ADB disbursements from $32 million to $53 million, an increase of $21 million or 70%. Increasing *US important votes* one standard deviation above the sample mean for an otherwise typical country raises predicted ADB disbursements from $32 million to $42 million, an increase of $10 million or 30%.

Thus, setting aside the special case of China, we find evidence of both Japanese and U.S. influence in the allocation of ADB funds. When measuring impact via standard deviations, it appears that the magnitude of Japanese and U.S. influence are similar, with U.S. influence more pronounced when formal influence is included and Japanese influence more pronounced when formal influence is excluded.

Validating Results

The approach taken above is similar to that used in Kilby (2010) to examine informal influence in the World Bank. The results here for the U.S. are similar to those for the World Bank where post-approval, informal influence appeared to be at least as important as influence earlier on. However, data limitations for the ADB required a modified version of the *Original Commitments* and *Portfolio age* variables. Table 3 estimates Equation (10) rather than Equation (5) while results reported in Kilby (2010) for the World Bank are based on an equation similar to (5). This leaves open the question: To what degree is are the results effected by measurement error in Equation (10)?

To assess the impact of the two different versions of *Original Commitments* and *Portfolio age*, I present results for the World Bank in Tables 5 and 6. Table 5 reports specifications parallel to those in Table 2 (in Columns (1) to (3) of Table 5) and Table 3 (in Columns (4) to (6) of Table 5) but using the full information on project duration (and sector) available in the World Bank Projects Database. Table 6 then imposes ADB-style data restrictions on World Bank data to assess the impact of these data limitations.[29]

Column (1) of Table 5 looks at overall formal and informal U.S. influence using the full World Bank sample. The U.S. UN voting alignment variable enters with a positive and significant coefficient in this specification; alignment for the other G7 countries (this time including Japan) is also positive and significant. Both the estimated coefficients for U.S. aid and other G7 aid are also positive and significant. Restricting the sample to ADB member countries in Column (2) reduces the number of observations considerably. The estimated coefficient for U.S. UN alignment is larger in the ADB sub-sample while the estimated coefficient for other G7 UN alignment shrinks and is no longer significant. The estimated coefficient on U.S. aid becomes small and not significant while

[29]Note that the samples (even when restricted) are not identical.

the estimated coefficient for other G7 aid is essentially the same in the ADB sub-sample. In addition, the estimated coefficient for other G7 trade doubles and is statistically significant for this group of countries. Column (3) presents results for a bootstrapped estimation using random samples the same size as in Column (2). The smaller t-statistics in this column (relative to Column (2)) indicate that, if anything, donor influence is more consistent within the ADB sub-sample than outside it.

Columns (4) to (6) repeat this exercise but with the full specification that includes the range of portfolio variables available in the World Bank Projects Database, including the correctly defined *Original Commitments*. The estimated coefficient on *diffUSA* is smaller but still statistically significant in the full sample. Looking only at ADB member countries in Column (5), the pattern of change for U.S. variables is similar to that in Column (2): the estimated coefficient *diffUSA* increases in magnitude (and is marginally significant) while the aid coefficient becomes much smaller and statistically insignificant. Column (6) confirms that a stronger U.S. UN voting link in the ADB sub-sample than in a random sub-sample.

Table 6 re-estimates the final three columns of Table 5 after imposing ADB-style data limitations. Two important patterns emerge. First, comparing donor interest variables in Column (2) of Table 6 with those in Column (5) of Table 5, the data restrictions do not appear to dramatically influence the estimated coefficients in the ADB-only sample except for *G7-1 aid* (which increases marginally in size and significance). Although only indirect evidence, this suggests that the ADB data limitations do not drive the results found earlier. Second, the coefficient estimates on *Original Commitments* are substantially smaller than when the variable is correctly defined (attenuation bias). In particular, both Equations (5) and (10) imply a coefficient of unity on *Original Commitments*. When the *Original Commitments* variable is correctly defined (Table 5), we consistently fail to reject

the hypothesis that the true coefficient equals 1. However, with the approximation used in Table 6 (and, equally, in Table 3), we consistent can reject the hypothesis that the true coefficient equals 1. Taken together, these two patterns suggest data limitations have real effects but there is no evidence these constraints drive the findings reported earlier.

Preference Heterogeneity and the Common Agency model

A final issue I explore is the impact of preference heterogeneity between donor countries in a common agency framework. Copelovitch (2010) argues for the importance of considering preference heterogeneity to understand how donor interests impact IFI behavior. As he puts it, "principal–agent theory suggests that agent autonomy in cases of common agency is a function of both the intensity and heterogeneity of principals' preferences." (Copelovitch, 2010, 57) When preferences are intense and homogeneous, the outcome is likely to reflect the principals' preferences. When preferences are intense but heterogeneous, the outcome can be either a stalemate or a log roll. Copelovitch operationalizes this in his study of the IMF by measuring preference intensity via the group average and heterogeneity via a measure of variation among group members. He also includes the interaction of the two to investigate the conditional hypothesis.[30] I repeat that analysis here for the ADB using G7 UN voting alignment, G7 aid, and G7 trade. Results for the variables of interest are reported in Table 7. For UN voting, I use the AHT formulation but results are the same wuing other measure. Because of the interaction terms, conditional marginal effects are depicted in Figures 1 and 2.

[30]Copelovitch's measure variation with the coefficient of variation (COV – standard deviation divided by the mean after the data have been shifted right so that all values are positive). I use the standard deviation (STD) as my results were sensitive to the size of the rightward shift needed for the COV calculation.

The graphs in Figures 1 and 2 plot the marginal effect of one variable on the outcome (ADB disbursements) as a function of the conditioning variable. The graphs also include the 95% confidence interval (dashed lines) and the distribution of the conditioning variable (histogram but with scale omitted). Figure 1 and Column (1) of Table 7 exclude commitments while Figure 2 and Column (2) include commitments. The first panel of Figure 1 examines the marginal effect of *diffG7* (G7 preference intensity) conditional on *STD diffG7* (G7 preference heterogeneity). The graph illustrates that all levels of preference heterogeneity, the marginal effect of an increase in *diffG7* is not significantly different from zero. The right hand side panel depicts a similar pattern for marginal effect of heterogeneity (*STD diffG7*) conditioning on *diffG7*.

The middle left hand side panel illustrates the one significant relationship in the graphs. The marginal effect of G7 aid is positive and fairly constant. The estimated effect is significant if *STD G7 aid* is greater than 1.2, which is true for most of the sample. Thus, in practice, the impact of preference intensity does not depend greatly on preference heterogeneity or vice versa. Neither estimation uncovers the sort of strong relationship evident in Copelovitch's work with the IMF. While Copelovitch's conditional marginal effects plots show a significant relationship between preference heterogeneity and IMF lending when donor preferences are intense, no such pattern emerges in the case of the ADB.

It is possible that we have defined the principals too broadly in the case of the ADB, that we should restrict attention to preference heterogeneity between Japan and the U.S. Table 8 explores this issue with a set of simple interaction terms. For each of the three Japanese interest measures (UN voting concessions, bilateral aid, and bilateral trade), I define a "low" binary variable which equals 1 if the Japanese interest measure is one of the lowest 50 observations and a "high" binary variable which equals 1 if the Japanese interest measure is one of the highest 50 observations. I

interact these binary variables with the corresponding continuous U.S. interest measure to allow the impact to vary with preference heterogeneity. Because the interaction terms involve a binary variable, we can interpret the marginal effects directly from the table without the aid of conditional marginal effects graphs.

Column (1) of Table 8 presents results for the variables of interest looking at the combined impact of formal and informal influence (i.e., omitting commitment portfolio variables). Looking first at UN voting, both interaction terms are small and neither is statistically significant. Thus, the impact of alignment with the U.S. is essentially unrelated to the degree of alignment with Japan. The estimation sample again excludes China and the specification uses the UN variables most appropriate to capture each donor's geopolitical interests ("important" votes for the U.S., "other" votes for Japan). Parallel estimations using other UN variables (e.g., *diffUSA*, etc.) yield similar results for the interaction terms. Turning to bilateral aid measures, the estimated coefficient on the *high Japanese aid* interaction term is positive and marginally significant, indicating that the impact of the *US aid* variable does depend on the level of Japanese aid. However, the combined effect is still not significantly different from zero; the hypothesis that the basic coefficient and the interaction term coefficient sum to zero cannot be rejected (p=0.1506). For trade, the *high Japanese trade* interaction term is significance (only when China is excluded) but again the combined effect is not statistically different from zero (p=.3609). Column (2) of Table 8 presents the same analysis including commitment portfolio variables to focus on post-approval, informal influence only. Results are essentially the same regarding interaction terms. Comparing the columns, we again see evident that Japanese influence in particular has a substantial informal component. Altogether, preference heterogeneity appears to play a limited role in how ADB behavior correlates with donor interests.

VI. Conclusion

Meaningful, efficiency-promoting reform of international financial institutions hinges on a full understanding of how these institutions currently function. The core component of recent reform efforts is a drive to redistribute votes. Such changes in the governance structure of IFIs may reduce the formal influence of historically powerful nations such as Japan and the U.S. Less reform attention–and less research attention–has focused on avenues of informal influence. Indeed, the relative importance of formal and informal influence is not well understood. With such gaps in our knowledge, it is impossible to say how effective governance reform is likely to be at changing the actual functioning of an institution.

This paper picks apart the avenues through which donors influence the Asian Development Bank. I find quantitatively and statistically significant links between both Japanese and U.S. interests–and, to a lessor degree, other G7 countries–and ADB disbursements to eligible countries when allowing for a broad spectrum of donor influence (over loan commitment amounts and loan disbursement rates). This broad-spectrum approach captures both formal and informal channels of influence. Narrowing the focus to post-approval informal influence does not appear to reduce Japan's influence but does shrink U.S. and eliminate other G7 countries' influence. This suggests that much of U.S. and, especially, Japanese influence is via informal channels. In this panel analysis, the donor interest variables that matter are based on UN voting patterns, thus reflecting geopolitical concerns. Interestingly, Japanese influence is only apparent when China is omitted from the sample; the same is not true for the U.S.. This suggests that Japanese policy toward China within the ADB is different than its policy toward other nations. Overall, the analysis indicates that governance reforms redistributing formal voting power to rising regional powers (such as China and India) are unlikely eliminate U.S. and, especially, Japanese dominance in the ADB, at least in the short run.

These finding are intriguing in what they say about the exercise of informal influence more broadly. In the case of the World Bank, the institution's physical proximity to the U.S. government and the multitude of links between World Bank staff and U.S. government employees are obvious factors in facilitating the exercise of U.S. informal influence. Such close geographic proximity to the dominant donors is absent in the case of the ADB. That donor influence is nonetheless substantially informal suggests other features may be as important as proximity for the exercise of informal influence.

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Table 1: Descriptive Statistics

Number of observations = 539

Variable	Mean	StDev	Min	Max	Description
ADB disbursements	158.6	265.5	0.15	2,000	ADB disbursements (in millions)
Original Commitments	1,543	2,397	0.125	14,666	Sum of commitments for active projects (in millions)
Portfolio age	4.168	1.201	1	8	Portfolio weighted age
Blend	0.718	0.4504	0	1	OCR & ADF Original Commitments
Population	119.4	290.8	0.009516	1,318	Population in millions
GDP per capita	3,178	2,248	312	15,011	PPP GDP per capita in chained 2000 $
Freedom House	3.778	1.678	1	7	Averaged Freedom House Rating (inverted)
Democracy	0.4508	0.498	0	1	Democracy indicator
War	0.08349	0.2769	0	1	Dummy indicating on-going major conflict (>1000 dead)
US important votes	0.4264	0.1801	0	0.9	Alignment with US on UN votes important to US (t-1)
Japan important votes	0.6651	0.1454	0.15	1	Alignment with Japan on UN votes important to US (t-1)
G7-2 important votes	0.6487	0.1441	0.15	0.94	Alignment with other G7 on UN votes important to US (t-1)
US other votes	0.3053	0.1065	0.119	0.6827	Alignment with US on other UN votes (t-1)
Japan other votes	0.7354	0.06062	0.5703	0.9219	Alignment with Japan on other UN votes (t-1)
G7-2 other votes	0.6559	0.05903	0.5155	0.8588	Alignment with other G7 on other UN votes (t-1)
diffUSA	0.1211	0.1603	-0.364	0.6466	Concessions to US on UN votes important to US
diffJPN	-0.07031	0.1379	-0.4812	0.3446	Concessions to Japan on UN votes important to US
diffG7-2	-0.007185	0.1352	-0.4121	0.3414	Concessions to other G7 on UN votes important to US
US aid	65.4	121.3	0	1,117	Disbursements of US economic aid (t-1)
Japanese aid	416	759.2	0.1	5,062	Disbursements of Japanese economic aid (t-1)
G7-2 aid	29.16	46.79	0	254	Average disbursements of other G7 economic aid (t-1)
Like-minded donor aid	10.7	16.32	0	103.9	Average disbursements of Like-minded donor aid (t-1)
US trade	7,895	28,119	0	361,012	US trade (imports+exports) with country in millions (t-1)
Japanese trade	6,630	19,095	0	211,233	Japanese trade (imports+exports) with country in millions (t-1)
G7-2 trade	1,098	3,443	0.1266	44,633	Average of G7-2 (IM+EX) with country in millions (t-1)
World trade	46,672	149,303	1.569	1,920,585	World trade (imports+exports) with country in millions (t-1)

Table 2: Formal and Informal Influence

	(1)	(2)	(3)	(4)
	Dependent Variable: ln ADB disbursements			
Blend	0.0986	0.101	0.0860	0.0249
	(0.29)	(0.31)	(0.28)	(0.08)
Population	-0.124	-0.0246	-0.109	-0.690
	(-0.05)	(-0.01)	(-0.04)	(-0.27)
GDP per capita	2.072**	1.708**	1.511	1.259
	(2.81)	(2.27)	(1.56)	(1.41)
Freedom House	-0.147	-0.127	-0.188*	-0.184*
	(-1.47)	(-1.32)	(-1.94)	(-1.89)
Democracy	-0.200	-0.214	-0.177	-0.130
	(-0.74)	(-0.76)	(-0.55)	(-0.42)
War	-0.200	-0.199	-0.163	-0.226
	(-1.45)	(-1.40)	(-1.17)	(-1.61)
diffUSA	2.059**			2.019**
	(3.33)			(3.76)
diffJPN	1.006			0.487
	(0.65)			(0.34)
diffG7-2	-2.159			-2.159
	(-1.46)			(-1.56)
US aid (t-1)		0.0178		0.0204
		(0.40)		(0.43)
Japanese aid (t-1)		0.0364		-0.0134
		(0.31)		(-0.12)
G7-2 aid (t-1)		0.265**		0.253**
		(2.36)		(2.15)
Like-minded donor aid (t-1)		-0.0589		-0.0661
		(-0.59)		(-0.67)
US trade (t-1)			0.0111	0.0312
			(0.17)	(0.52)
Japanese trade (t-1)			0.0122	0.0715
			(0.33)	(1.49)
G7-2 trade (t-1)			0.230	0.0862
			(1.26)	(0.57)
World trade (t-1)			0.145	0.00181
			(0.61)	(0.01)
N	539	539	539	539

All specifications include year dummies and government fixed effects.
t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

Table 3: Informal Influence Only

	(1)	(2)	(3)	(4)
	Dependent Variable: ln ADB disbursements			
Original Commitments	0.656**	0.671**	0.636**	0.688**
	(5.78)	(6.40)	(5.86)	(6.06)
Portfolio age	0.466	0.552	0.497	0.581*
	(1.32)	(1.59)	(1.41)	(1.70)
Portfolio age^2	-0.0636	-0.0741*	-0.0663*	-0.0769**
	(-1.66)	(-1.98)	(-1.74)	(-2.10)
Blend	-0.402**	-0.350*	-0.353*	-0.400**
	(-2.04)	(-1.76)	(-1.79)	(-2.12)
Population	2.183**	2.405**	2.034*	2.707**
	(2.08)	(2.08)	(1.78)	(2.03)
GDP per capita	0.971**	1.246**	1.065**	1.017**
	(2.86)	(3.72)	(2.62)	(2.69)
Freedom House	-0.0711	-0.0804	-0.0671	-0.0646
	(-0.98)	(-0.97)	(-0.78)	(-0.78)
Democracy	-0.238	-0.234	-0.214	-0.242
	(-1.13)	(-0.97)	(-0.88)	(-1.03)
War	-0.119	-0.114	-0.125	-0.106
	(-1.39)	(-1.11)	(-1.34)	(-1.16)
diffUSA	1.100**			1.122**
	(2.05)			(2.17)
diffJPN	-1.827*			-1.786*
	(-1.93)			(-1.85)
diffG7-2	0.0847			-0.113
	(0.10)			(-0.14)
US aid (t-1)		0.0320		0.0387
		(1.21)		(1.43)
Japanese aid (t-1)		-0.0933		-0.103
		(-1.12)		(-1.23)
G7-2 aid (t-1)		-0.0489		-0.0750
		(-0.80)		(-1.28)
Like-minded donor aid (t-1)		-0.0916*		-0.104*
		(-1.73)		(-2.00)
US trade (t-1)			-0.0292	-0.0275
			(-0.59)	(-0.59)
Japanese trade (t-1)			-0.0125	-0.0229
			(-0.50)	(-0.89)
G7-2 trade (t-1)			0.103	0.187
			(0.83)	(1.39)
World trade (t-1)			-0.0627	-0.0622
			(-0.36)	(-0.35)
N	539	539	539	539

All specifications include year dummies and government fixed effects.
t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

Table 4A: Alternative UN alignment measures

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: ln ADB disbursements					
US:						
important votes			3.057**			1.556*
			(2.99)			(1.76)
other votes	0.157	0.832	0.0330	0.205	0.666	0.507
	(0.17)	(1.17)	(0.04)	(0.27)	(1.00)	(0.64)
Japan:						
important votes			0.282			-0.883
			(0.12)			(-0.54)
other votes	4.133	6.247**	6.994**	6.003*	7.420**	8.443**
	(1.29)	(2.45)	(2.65)	(1.96)	(2.58)	(2.85)
G7-2:						
important votes			-2.541			-1.222
			(-1.15)			(-0.81)
other votes	-2.093	-3.737	-4.776	-4.710	-5.928	-6.528*
	(-0.55)	(-1.06)	(-1.33)	(-1.25)	(-1.62)	(-1.80)
N	539	518	518	539	518	518

All columns include aid variables, trade variables, *Blend*, *Population*, *GDP per capita*, *Freedom House*, *Democracy*, *War*, year dummies, and government fixed effects. Columns (4)-(6) also include *Original Commitments*, *Portfolio age*, and *Portfolio age*^{2}.
Estimation sample with 518 observations excludes China.
t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

† Reject the joint hypothesis that coefficients are zero (p=0.0191).
‡ Reject the joint hypothesis that coefficients are zero (p=0.0036).

Table 4B: Alternative UN alignment measures - with standardized coefficients

	(1)	(2)	(3)	(4)	(5)	(6)
			Dependent Variable: ln ADB disbursements			
US:						
important votes			0.269**			0.137*
			(2.99)			(1.76)
other votes	0.008	0.044	0.002	0.010	0.035	0.027
	(0.17)	(1.17)	(0.04)	(0.27)	(1.00)	(0.64)
Japan:						
important votes			0.020			-0.063
			(0.12)			(-0.54)
other votes	0.121	0.189**	0.211**	0.175*	0.224**	0.255**
	(1.29)	(2.45)	(2.65)	(1.96)	(2.58)	(2.85)
G7-2:						
important votes			-0.179			-0.086
			(-1.15)			(-0.81)
other votes	-0.059	-0.110	-0.140	-0.134	-0.174	-0.192*
	(-0.55)	(-1.06)	(-1.33)	(-1.25)	(-1.62)	(-1.80)
N	539	518	518	539	518	518

All columns include aid variables, trade variables, *Blend*, *Population*, *GDP per capita*, *Freedom House*, *Democracy*, *War*, year dummies, and government fixed effects. Columns (4)-(6) also include *Original Commitments*, *Portfolio age*, and *Portfolio age*^{2}.
Estimation sample with 518 observations excludes China.
Standardized beta coefficients; t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

Table 5: World Bank Comparison – Using exact *Original Commitments*

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: ln World Bank disbursements					
Original Commitments				0.915**	1.047**	0.915**
				(11.27)	(9.31)	(5.76)
Portfolio age				0.0316	0.0102	0.0316
				(0.35)	(0.06)	(0.14)
Portfolio age²				-0.00850	-0.00512	-0.00850
				(-0.86)	(-0.27)	(-0.34)
SAL count				0.0302**	0.0305	0.0302
				(2.05)	(1.09)	(1.10)
Project count				-0.00496	-0.00307	-0.00496
				(-1.24)	(-0.69)	(-0.57)
TA count				-0.00752	-0.00143	-0.00752
				(-0.55)	(-0.09)	(-0.28)
Blend	0.145	0.219	0.145	0.0126	-0.0796	0.0126
	(1.56)	(1.61)	(0.66)	(0.18)	(-0.90)	(0.08)
Population	0.616	-0.682	0.616	0.340	1.225	0.340
	(0.95)	(-0.43)	(0.52)	(0.84)	(1.49)	(0.50)
GDP per capita	-0.400	-0.156	-0.400	-0.0578	0.0999	-0.0578
	(-1.18)	(-0.34)	(-0.86)	(-0.30)	(0.38)	(-0.15)
Freedom House	0.141**	0.158	0.141*	0.0303	0.117	0.0303
	(2.76)	(1.36)	(1.72)	(0.80)	(1.52)	(0.36)
Democracy	-0.356**	-0.333	-0.356	-0.178**	-0.179	-0.178
	(-2.37)	(-1.40)	(-1.09)	(-2.02)	(-1.04)	(-0.65)
War	-0.336**	-0.0715	-0.336	-0.0982	-0.0157	-0.0982
	(-2.04)	(-0.64)	(-1.19)	(-1.03)	(-0.16)	(-0.44)
diffUSA	0.521**	0.952*	0.521	0.389**	0.587*	0.389
	(2.44)	(1.86)	(1.02)	(2.14)	(1.74)	(0.92)
diffG7-1	0.615**	0.217	0.615	0.220	-0.463	0.220
	(2.10)	(0.38)	(0.86)	(0.95)	(-0.93)	(0.42)
US aid (t-1)	0.0377**	0.0167	0.0377	0.0184*	0.00177	0.0184
	(2.36)	(0.70)	(1.13)	(1.91)	(0.12)	(0.72)
G7-1 aid (t-1)	0.156**	0.177**	0.156	0.00446	-0.0874	0.00446
	(3.18)	(2.51)	(1.49)	(0.10)	(-1.57)	(0.05)
Like-minded donor aid (t-1)	0.0625**	0.0134	0.0625	0.0429*	0.0267	0.0429
	(2.13)	(0.18)	(0.96)	(1.80)	(0.55)	(0.78)
US trade (t-1)	0.00960	0.0422	0.00960	-0.0102	-0.0386	-0.0102
	(0.36)	(0.93)	(0.13)	(-0.56)	(-1.40)	(-0.16)
G7-1 trade (t-1)	0.188	0.365**	0.188	0.101	0.123	0.101
	(1.46)	(2.12)	(0.87)	(1.11)	(1.35)	(0.49)
World trade (t-1)	-0.139	-0.424	-0.139	-0.161*	-0.331**	-0.161
	(-0.81)	(-1.48)	(-0.44)	(-1.68)	(-2.56)	(-0.66)
N	2603	572	572	2603	572	572

All specifications include year dummies and government fixed effects. Columns (1) and (4) include the full sample; columns (2) and (5) are restricted to ADB member countries; columns (3) and (6) present results from bootstrap estimations drawing from the full sample. t statistics in parentheses based on government-clustered SEs.

* p<.1, ** p<.05

Table 6: World Bank Comparison – Using approximate *Original Commitments*

	(1)	(2)	(3)
	Dependent Variable:	*ln World Bank disbursements*	
Original Commitments	0.776**	0.710**	0.776**
	(11.84)	(7.45)	(5.25)
Portfolio age	0.155	-0.0245	0.155
	(1.25)	(-0.11)	(0.52)
Portfolio age²	-0.0314**	-0.0111	-0.0314
	(-2.25)	(-0.42)	(-0.91)
Blend	0.0491	0.0688	0.0491
	(0.64)	(0.56)	(0.24)
Population	0.530	0.151	0.530
	(1.36)	(0.16)	(0.56)
GDP per capita	-0.0531	0.113	-0.0531
	(-0.28)	(0.39)	(-0.11)
Freedom House	0.0414	0.123	0.0414
	(1.02)	(1.67)	(0.54)
Democracy	-0.139	-0.168	-0.139
	(-1.34)	(-0.91)	(-0.41)
War	-0.132	0.0238	-0.132
	(-1.29)	(0.19)	(-0.54)
diffUSA	0.339*	0.775**	0.339
	(1.82)	(2.08)	(0.66)
diffG7-1	0.0726	-0.478	0.0726
	(0.29)	(-0.80)	(0.15)
US aid (t-1)	0.0184	0.00125	0.0184
	(1.60)	(0.07)	(0.58)
G7-1 aid (t-1)	0.00388	0.0000793	0.00388
	(0.09)	(0.00)	(0.04)
Like-minded donor aid (t-1)	0.0489*	0.0477	0.0489
	(1.95)	(0.84)	(0.84)
US trade (t-1)	-0.00203	0.00311	-0.00203
	(-0.12)	(0.11)	(-0.04)
G7-1 trade (t-1)	0.0824	0.158*	0.0824
	(0.85)	(1.86)	(0.43)
World trade (t-1)	-0.154	-0.406**	-0.154
	(-1.63)	(-3.49)	(-0.67)
N	2598	571	571

All specifications include year dummies and government fixed effects. Column (1) includes the full sample; column (2) is restricted to ADB member countries; column (3) presents results from bootstrap estimations drawing from the full sample. t statistics in parentheses based on government-clustered SEs.

* p<.1, ** p<.05

Table 7: Common Agency Estimates

	(1)	(2)
	Dependent Variable: ln ADB disbursements	
diffG7	-0.0325	-0.867
	(-0.03)	(-1.03)
STD diffG7	3.847*	2.318
	(1.89)	(1.23)
** diffG7*	0.209	1.680
	(0.02)	(0.22)
G7 aid	0.308	0.00822
	(1.43)	(0.05)
STD G7 aid	0.173	0.0828
	(0.98)	(0.66)
** G7 aid*	0.00985	-0.00337
	(0.17)	(-0.08)
G7 trade	0.325	0.275
	(0.99)	(1.21)
STD G7 trade	0.152	0.150
	(0.55)	(0.91)
** G7 trade*	-0.0345	-0.0532
	(-0.42)	(-1.26)
N	539	539

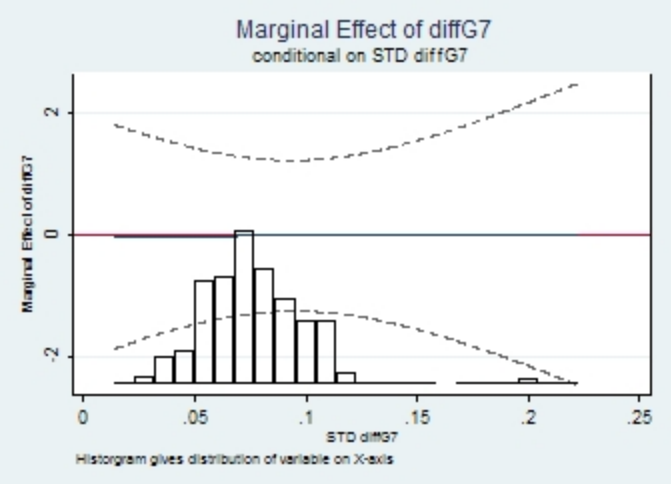
All specifications include *Blend*, *Population*, *GDP per capita*, *Freedom House*, *Democracy*, *War*, *Like-minded donor aid*, *World trade*, year dummies, and government fixed effects. (2) also includes *Original Commitments*, *Portfolio age*, and *Portfolio age*^{2}.
t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

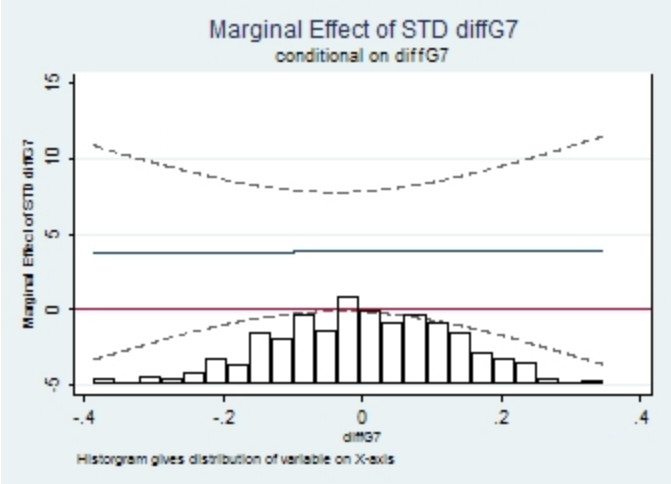
Table 8: Donor Interest Interaction Terms

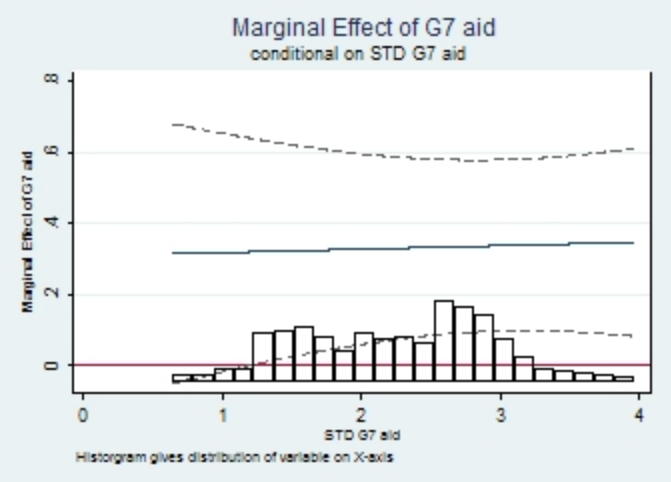
	(1)	(2)
	Dependent Variable: ln ADB disbursements	
US important votes	1.066*	-0.103
	(1.86)	(-0.20)
* *low Japan other votes*	0.400	0.357
	(1.28)	(1.32)
* *high Japan other votes*	-0.340	-0.0600
	(-0.67)	(-0.16)
Japan other votes	6.565**	6.644**
	(3.15)	(3.00)
US aid (t-1)	-0.00368	0.0115
	(-0.10)	(0.46)
* *low Japanese aid*	0.0724	0.0382
	(1.50)	(1.26)
* *high Japanese aid*	0.112*	0.0690
	(1.73)	(1.57)
Japanese aid (t-1)	0.0163	-0.0813
	(0.15)	(-0.96)
US trade (t-1)	0.0350	0.0234
	(0.52)	(0.37)
* *low Japanese trade*	0.0364	-0.0441
	(0.61)	(-0.85)
* *high Japanese trade*	-0.106**	-0.00617
	(-2.96)	(-0.30)
Japanese trade (t-1)	0.0205	-0.0350
	(0.47)	(-0.95)
N	518	518

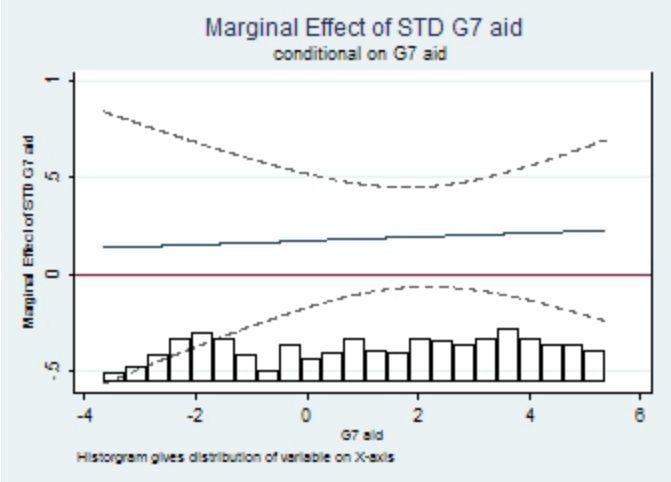
All specifications include *Blend*, *Population*, *GDP per capita*, *Freedom House*, *Democracy*, *War*, *diffG7-2*, *G7-2 aid*, *Like-minded donor aid*, *G7-2 trade*, *World trade*, year dummies, and government fixed effects. (2) also includes *Original Commitments*, *Portfolio age*, and *Portfolio age*^{2}. "Low" variables are binary identifiers of the lowest 50 observations; "high" variables are binary identifiers of the highest 50 observations. Estimation sample excludes China.
t statistics in parentheses based on government-clustered SEs.
* p<.1, ** p<.05

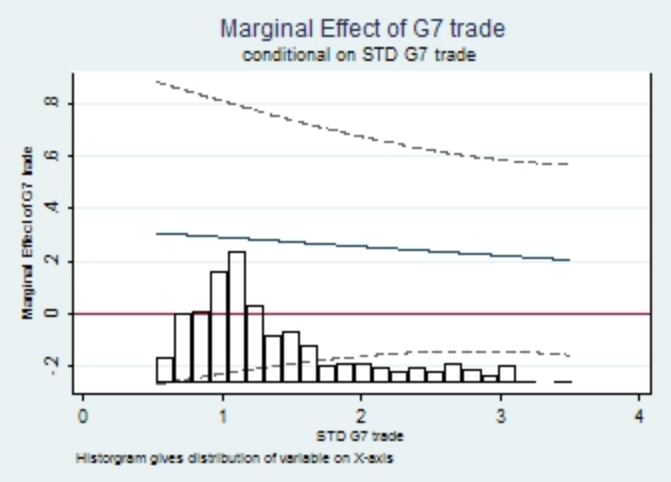
Figure 1: Common Agency Marginal Effects, Formal and Informal Influence











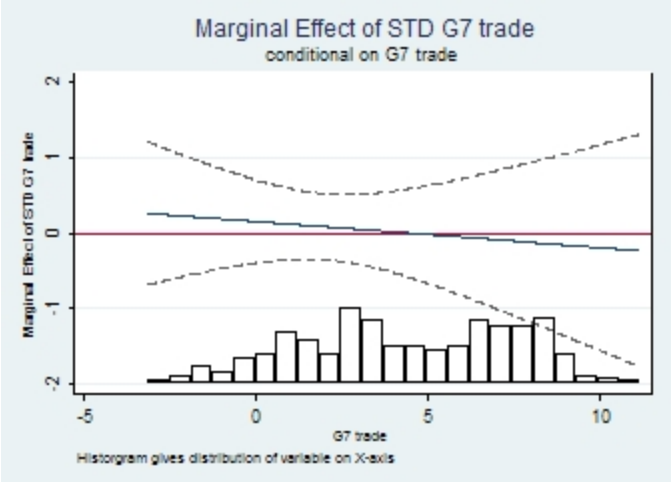
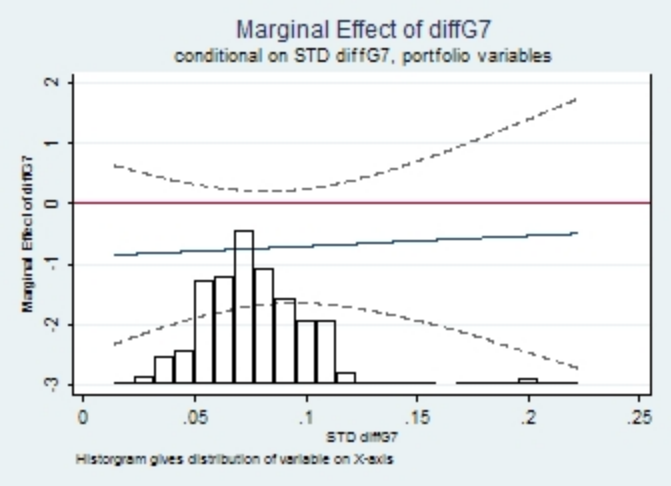
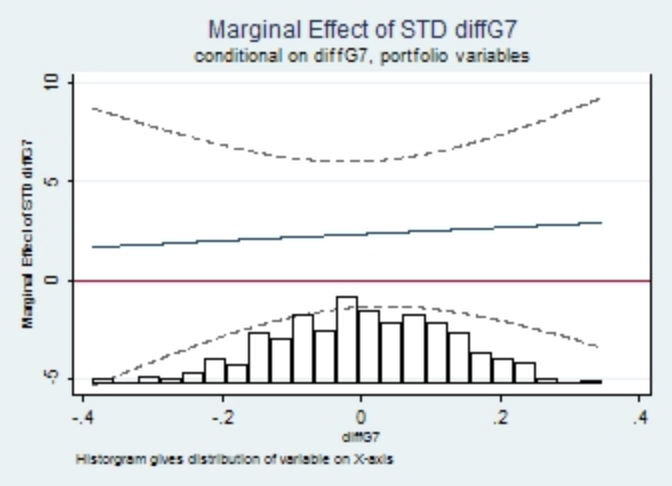
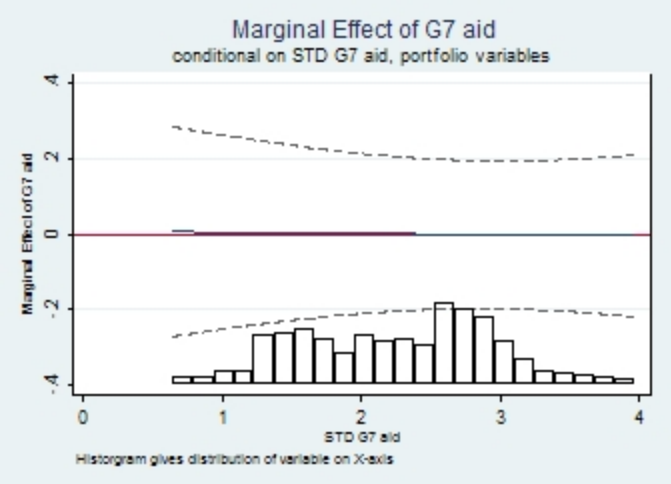
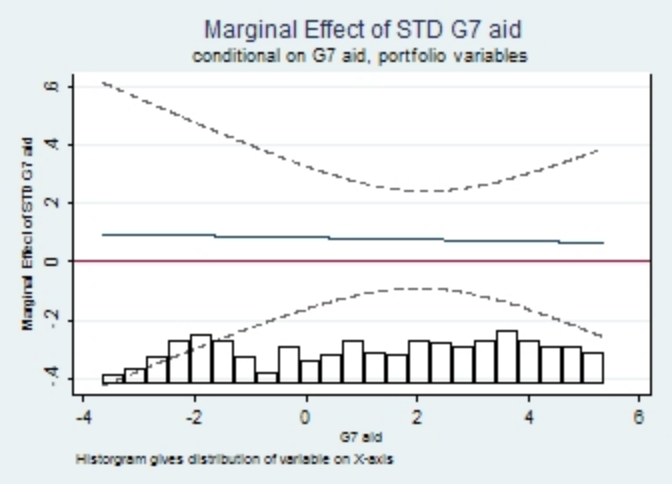


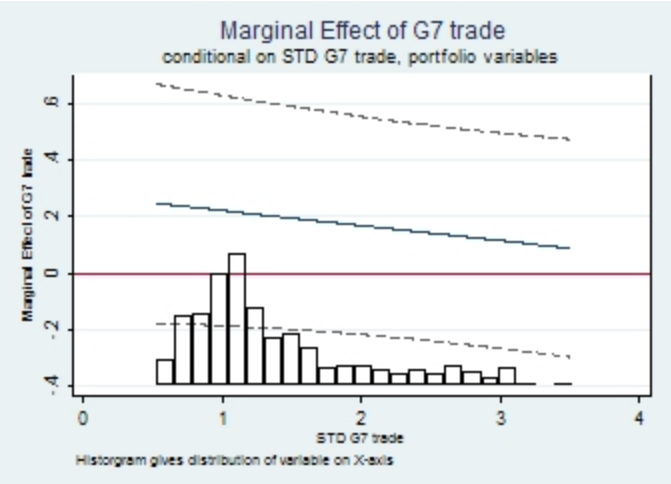
Figure 2: Common Agency Marginal Effects, Informal Influence Only

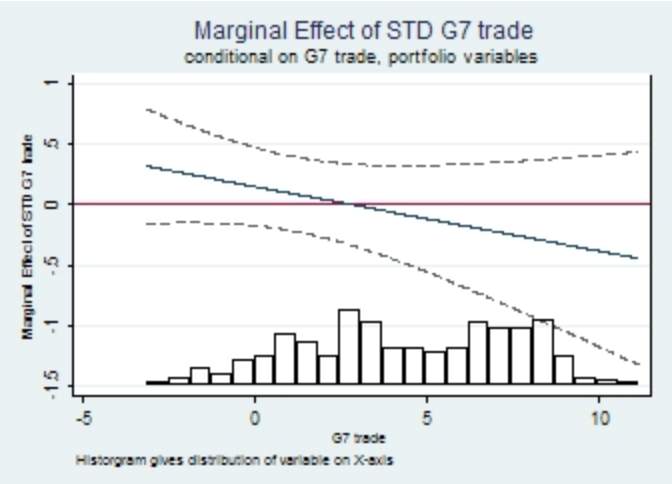












Appendix A: UN Alignment Measure

Basic Notation:

- a = country index
  - = i for recipient country
  - = d for donor country
- k = index of UN roll call votes
- t = year
- M_t = {important UNGA roll call votes in year t}
- N_t = {other UNGA roll call votes on regular session resolutions that passed in year t}

Define the possible votes cast as by country a in roll call vote k in year t as

v_{akt} = −1 if a votes "No"
= 0 if a abstains or is absent
= 1 if a votes "Yes"

The voting alignment score of donor d and recipient i on UN roll call vote k in year t is

ρ_{dikt} = 1 if $v_{dkt} = v_{ikt}$
= 0 if $v_{dkt} = -v_{ikt}$ and $v_{dkt} \neq 0$
= .5 otherwise

This voting alignment score has the desirable property that $\rho_{aakt} = 1$ under all circumstances. The overall voting alignment on important UN votes for donor d and recipient i in year t is the average over the applicable votes for the year:

$$\rho^{M}_{dit} = \frac{1}{|M_t|} \sum_{k \in M_t} \rho_{dikt} \tag{A1}$$

The overall voting alignment on other UN votes for donor d and recipient i in year t is the average over the applicable votes for the year:

$$\rho^{N}_{dit} = \frac{1}{|N_t|} \sum_{k \in N_t} \rho_{dikt} \tag{A2}$$

The voting alignment measure used in the empirical analysis for donor d and recipient i in year t is

$$diffd_{it} = \rho^{M}_{dit} - \rho^{N}_{dit} \tag{A3}$$

When the alignment measure is for a group of donor countries, it is the unweighted average of the measures for the member countries.

Appendix B: Countries in estimation sample

ADB borrowers (current and former) included in estimation sample:

Afghanistan
Azerbaijan
Bangladesh
Bhutan
Cambodia
China
Fiji
India
Indonesia
Kazakstan
Kiribati
Korea
Kyrgyz Republic
Laos
Malaysia
Maldives
Mongolia
Myanmar
Nepal
Pakistan
Papua New Guinea
Philippines
Samoa
Singapore
Solomon Islands
Sri Lanka
Tajikistan
Thailand
Tonga
Tuvalu
Uzbekistan
Vanuatu
Viet Nam

ADB borrowers (current and former) dropped from estimation sample due to data constraints:

Armenia
Chinese Taipei
Cook Islands
Georgia
Hong Kong, China
Marshall Islands
Micronesia, Fed.States
Nauru
Palau
Timor-Leste
Turkmenistan