Informal Influence in the World Bank

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Abstract

This paper studies the role of US political interests as measured by UN voting records in the allocation of funds by the World Bank and International Development Association (IDA). We examine the role of the informal influence of the US in determining IDA commitments and disbursements using a fixed effects model with country-clustered standard errors as well as an Arellano-Bond Estimation Model, and find that the informal influence of the US significantly affects ODA commitments, gross loans, and net loans.

1 Introduction

Many academic studies have indicated that the political interests of powerful countries play a role in determining loans in IFI's (International Financial Institutions) such as the IMF (International Monetary Fund) and the World Bank. Ideally, loans meant to promote economic development and welfare should not be fueled by political influences. The World Bank has been criticized for its organizational hierarchy that gives a large proportion of power to G7 countries–specifically, the US.

There have been many cases of politically motivated World Bank lending decisions. For example, the World Bank turned down lending in Vietnam in 1977 despite the fact that project implementation was much better in Vietnam than many countries actually receiving loans. Furthermore, the World Bank has decided not to lend to Nicaragua in the 1980s, and Iran in the 1980s and 90s. Following the 9/11 terrorist attacks, the World Bank's Official Development Assistance (ODA) to Pakistan, a key ally of the US, tripled from 2001 to 2002.

Powerful donors such as the US can influence World Bank decisions through two main ways: formal influence and informal influence. Formal influence is a result of the organization and hierarchical structure of the world bank, such as voting power and the disbursement eligibility process. On the other hand, informal influence is a type of donor influence that arises outside of predetermined organizational structures. For example, donor favored countries have informal influence if the employees of the World Bank anticipate and suggest more project proposals for those countries, and can exert informal influence by putting pressure on individuals in power. Both formal and informal influence affect the total influence that powerful donor countries such as the US have on the World Bank.

Understanding how donors influence IFI decisions is critical for successful institutional reform. It is important to distinguish between and account for both formal and informal influence, since these channels call for different kinds of reform. To curb formal donor influence, reforms can be made to the governance structure–for example voting shares and majority requirements. However, these reforms will not be very effective in reducing informal donor influence. In order to account for informal influence, reforms must focus on information disclosure, hiring and promotion practices, institution location, or appropriately linking pay to performance.

Issues such as information disclosure, hiring practices, and location are contributors to informal influence. These issues been examined in the context of the US in many studies.[1] US-educated professionals dominate the World Bank, which ensures that the US government receives good access to information regardless of official disclosure policies. A large proportion of World Bank staff is educated in the US, and World Bank policies are heavily influenced by a number of US-based civil society actors such as academia and NGO's. Furthermore, pay and promotions are not closely tied to project outcomes, so bank management and staff do not have incentive to resist informal pressures that may reduce project performance. Lastly, the Bretton Woods institutions are located very close to the White House, which facilitates informal US control of the institution.

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[1]French (1994), Gwin (1997), Stern and Ferreira (1997), and Woods (2003).

In this paper, we will look specifically at the informal influence of the US in the IDA (International Development Association), which is a major part of the World Bank. We ask whether IDA lending is influenced in any systematic way by US political factors by examining UN voting records–specifically, countries' alignment with the US on important and non-important UN issues.

We will first give a brief background about the IDA and its commitments and disbursements, go over previous literature of influence in IFI's, outline our data and model, and present our analysis and conclusion.

2 Background

The International Development Association (IDA), established in 1960 as a part of the World Bank, provides loans and grants for programs that foster economic growth and improves living conditions in the world's poorest countries. The IDA is one of the largest sources of assistance for 77 countries around the world, 39 of which are in Africa. In the fiscal year ending in June 30, 2015, a total of $19 billion was committed by the IDA. Annual commitments have averaged about $19 billion over the last three years.

IDA loans are normally interest free, with a service charge of less than 1%. IDA loans are categorized as Official Development Assistance (ODA): official financing administered with the objective of promoting the economic development and welfare of developing countries. The IDA's allocation criteria are more explicit than those of any other donor, which makes direct political influence difficult. However, the performance indicators for each country are not publicly available, which provides opportunity to exert political influence.

Funds are allocated to eligible countries according to poverty, as measured by GNI per capita, and to the CPR, the Country Performance Rating. The CPR is an index calculated as a weighted average of a country's score on the CPIA (Country Policy and Institutional Assessment) and the ARPP (Annual Report on Portfolio Performance). Based on the CPR and GNI per capita, the IDA calculates how much funding a country can expect to receive.

The US currently has 10.36% of all votes in the IDA, which is almost twice as many as any other country. Because IDA lending is on concessional terms, IDA resources must continually be replenished by the donors, who meet every three years for replenishment negotiations. Because the World Bank is headquartered in Washington DC and a large proportion of World Bank staff has been educated in the US, the US has privileged access to the bank. This creates pressure for American ideas and values to influence decision-making in the World Bank, and one of the ways that this informal influence can manifest is through pressuring other countries to vote alongside the US on important UN issues. A country might hope to vote similarly to the US on important UN issues in order to place themselves in the US's favor and receive a larger disbursement from the World Bank. Alternatively, the US may provide countries that help the US achieve its political goals with a greater amount of disbursement.

3 Literature Review

Many studies have previously examined donor influence in IFI's such as the IMF and World Bank. In this section, we will first examine major literature that investigates donor influence in IFI's, and then examine literature that looks at informal influence in particular.

Andersen, Harr, and Tarp (2005) look at the effect of countries giving political concessions to the US on the probability that they receive an IMF loan. They find that the probability of a country receiving an IMF loan increases as political payments increase. They define political payments as the difference between an actual policy stand and its true political preferences measured relative to the US, and conclude that US politics play a decisive role in IMF decision making.

Dreher, Sturm, and Vreeland (2009a) find that the number of World Bank projects approved is higher when the borrowing country is an elected member of the United Nations Security Council than when the country is not. After accounting for economic and political factors and regional, country, and year effects, they conclude that temporary UN Security Council membership positively affects the number of World Bank projects a country receives.

Other studies of donor influence in IFI's include Thacker (1999); Stone (2002), (2011); Barro and Lee (2005); Fleck and Kilby (2005); and Dreher and Jensen (2007). However, these studies of IFI loan decisions do not distinguish between formal and informal influence, since the details of executive board decisions are not on public record. Instead, they observe the combined effect of both formal and informal influence. A number of studies have attempted to isolate the effect of informal influence, such as

Stone (2004), Dreher (2009a), Andersen, Hansen, and Markussen (2006), Kaja and Werker (2010), Kilby (2009), and Kilby (2013). Dreher (2009a) suggests that there are two routes for action in the World Bank: formally, such as when the board acts quickly on projects for favored countries, and informally, such as when staff anticipates and bring forward more project proposals for favored countries.

Stone (2004) examines IMF program interruptions. Programs are suspended when countries fail to meet lending conditions, and the Board of Executive Directors then decided if the case should be reinstated. Stone finds that reinstatements happen more expeditiously for geopolitically important countries, which is an example of informal influence.

Andersen, Hansen, and Markussen (2006) uncover a positive link between alignment with the US on UN votes designated as important by the US State Department and IDA commitments on the other. They conclude that compliance with US political interests in the UNGA affects the allocation of aid flows to developing countries. They also argue that their results are not influenced by the omission of the CPIA index, which we will discuss later. This is similar to our study, since they also proxy for political concessions to the US with UN voting, and use data from IDA disbursements. However, our proxy for political concessions is slightly different than theirs, in that we look at the difference between a country's alignment with the US on important and non-important issues, while they only look at the alignment with the US on important issues.

Kaja and Werker (2010) look at informal influence through the World Bank's governance structure. They examine World Bank loan approvals, which are done by Executive Directors who represent multiple countries at once. They estimate that while a borrowing country's national holds the Executive Director or alternative executive director position, they recieve an additional $60 million in IBRD loans per year on average. However, because Executive Directors have significantly more formal power than alternate Executive Directors, the premium in IBRD loans is most likely driven by informal influence in the boardroom than by the power of the vote itself.

Kilby (2009) explores informal influence through World Bank structural adjustment programs. According to the study, World Bank disbursements to countries with structural adjustment programs are less dependent on macroeconomic performance in countries aligned with the United States. This is evidence of informal US influence, since the decision to release a loan tranche is not officially made by the board.

The study that we have drawn the most inspiration from and are expanding on is Kilby (2013), which examines the effect of a country's alignment with the US on UN voting records on World Bank loan disbursements. Kilby finds that there is evidence of US interests playing a role in the rate of disbursement across the World Bank. He compares the effect of informal and formal influence, and finds that informal donor influence as at least as much impact on the allocation of World Bank resources as formal donor influence, which provides evidence that the US influences not only high-profile structural adjustment programs, but also smaller investment project disbursement decisions.

4   Data

Our data set is panel data consisting of annual observations for 108 countries during the period 1985 to 2014. We explore three different measures of IDA lending–net ODA, gross ODA loans and IDA commitments–to asses different stages of informal influence.

The IDA separates the planning and allocation of loans to a recipient country. Commitments are the sum of new loans publicly guaranteed by the IDA for a given project, while gross and net ODA reflect the subsequent disbursement of funds to the recipient country, such that annual loans can reflect commitments made in prior years. We exploit this temporal discrepancy between planning and allocation to analyze two stages of informal influence. In the commitment stage, donors may influence both the size or number of projects proposed by the IDA, while in the years after funds are publicly committed, donors may accelerate or slow the rate at which funds are dispersed in response to their political interests. As a result, commitments are fully controlled by the donor, whereas disbursements partly rely on recipient behavior in the interim. We use World Bank commitment and disbursement data from the Organization for Economic Cooperation and Development database, as measured in 2013 constant prices of millions of dollars. The average commitment size is $205 million, however commitments are heavily skewed right, with the majority of commitments between $0 and $200. Average net and gross loans are noticeably smaller at $103 million and also skewed right. We use a log transformation of all three IDA lending measures in our model.

4.1 Measuring Donor Interest

As discussed in the introduction, there are many donor interest variables which can capture donor interest in a particular recipient state, many of which rely on voting patterns in the United Nations General Assembly. A number of studies focus on a recipient's alignment with the United States on all votes presented to the UNGA, such as Barro and Lee (2005), Dreher and Jensen (2007) and Stone (2004). These studies identify overall alignment as a loose assessment for political proximity. Since 1983, the US Department of State has published an annual report identifying a subset of votes "on issues which directly affected important United States interests and on which the United States lobbied extensively" (US State Department, 2014). Several studies have focused on incorporating this identification into measures of donor interest. Andersen, Hansen, and Markussen (2006), Kilby (2009) and Vreeland (2005) use measure of a recipient's alignment with the United States on UN General Assembly on exclusively issues declared as important, arguing that other votes are less indicative of support for the US.

However, the significance of voting incidence with the US on important issues to be mixed. Neumayer (2003) has found voting incidence with the US on important issues to be nonsignificant on IDA lending and in a Heckman selection model, Andersen, Hansen and Markussen (2006) found UN voting alignment on important votes to be insignificant in the selection equation and significant in the allocation equation for IMF disbursements. The mixed significance of overall and important specific donor interest variables on both IMF and IDA lending may suggest that the US exerts influence not on behalf of those countries which exhibit overall geopolitical proximity, but as a form of compensation for states which deviate from their ideal voting patterns. Andersen, Harr, and Tarp (2006) advocate for this "vote buying model" where IMF loans are treated as political concessions for costly deviations from its preferred voting pattern. They suggest that ignoring a country's political preferences, or "bliss point," may lead to endogenity bias, a conclusion which is supported by Kilby (2009).

Table 1: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Year	2,727	1999.738	8.876	1984	2014
IDA Commitments$_t$ (millions)	1,638	205.223	343.183	0.000	3,983.280
ODA Net Loans$_t$ (millions)	1,802	103.970	192.817	0.000	2,143.090
ODA Gross Loans$_t$ (millions)	1,552	103.158	228.616	0.000	3,760.200
# of UN Votes (Total)	2,727	75.374	30.858	2	155
# of UN Votes (Important)	2,727	10.351	3.777	1	28
USdiff$_t$	2,727	0.146	0.090	0.000	1.000
USdiff$_{t-1}$	2,615	0.142	0.089	0.000	1.000
Alignment Important Votes	2,727	0.297	0.199	0.000	1.000
Alignment Unimportant Votes	2,727	0.146	0.090	-0.00000	1.000
Polity	2,612	0.838	6.372	-11.107	10.462
Freedom	2,721	8.417	3.401	2	14
Conflict	2,727	0.217	0.412	0	1
Conflict Intensity	2,727	0.274	0.559	0	2
Population	2,727	45,128,040.000	171,269,998.000	9,844	1,364,270,000
GDP per Capita	2,592	1,565.435	1,855.128	113.706	15,912.140

Our analysis will use the variable *USdiff*, the donor interest measure developed in Andersen, Harr, and Tarp (2006). This measure variable is defined as the difference between a country's alignment with the United States on important UN votes and the country's alignment with the United Stated on other UN votes:

$$USdiff = \% \text{ US Agreement on Important Votes} - \% \text{ US Agree on Unimportant Votes}$$

We assume that a state's voting patterns on non-important votes represents their true political preferences independent of US influence on UN issues, while their alignment with the US on important votes represents preference under US informal influence. Our voting data captures recorded votes on all UN sessions from 1985-2014 and comes from a forthcoming paper from Bailey, Strezhnev and Voeten. It is important to note that the number of important UN votes per year ranges from 1 to 28 and as a
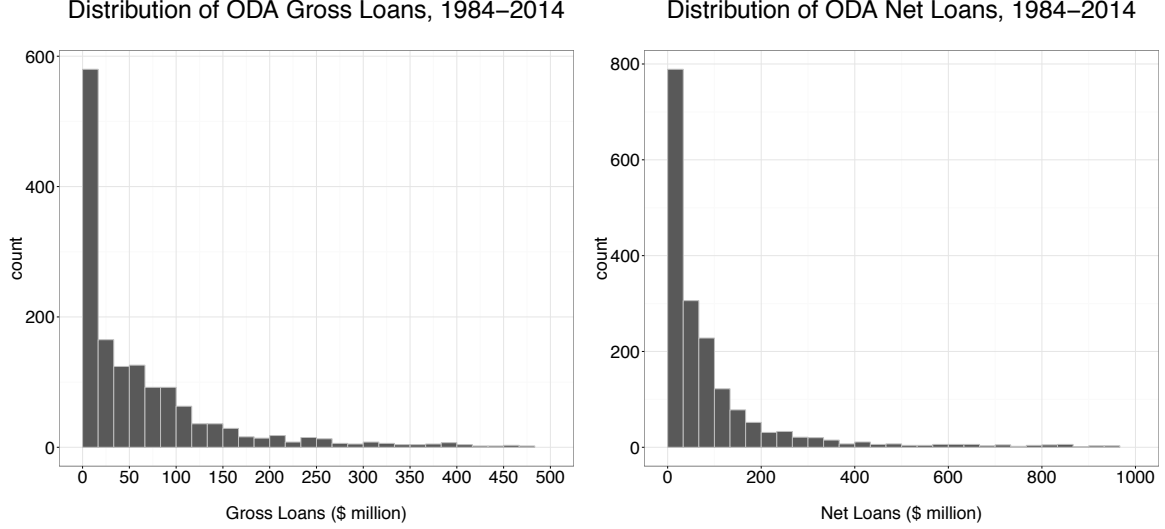
result alignment with the US on important votes in *USdiff* for some countries in certain years may be calculated from a small sample of votes. However, on average the number of US votes is a seventh of the number of total votes. Alignment is calculated using Lijphart's (1963) index of agreement devised on the Rice-Beyle technique. This index of agreement (*USdiff*) equals 1 if a state always agrees with the US and 0 if it always votes the other way. If one state votes yes and the other abstains, the vote is recorded as 0.5. The difference between two indices of agreement, *USdiff* ranges from -1 to 1, where 1 indicates complete political concession in favor of the US and -1 represents complete political deviation against the US. A *USdiff* score of 0 reflects a complete lack of political concession, since voting patterns do not change between unimportant and important votes. Our paper explores whether countries with higher *USdiff* receive greater preference in both IDA commitments and ODA loans.

Distribution of USdiff
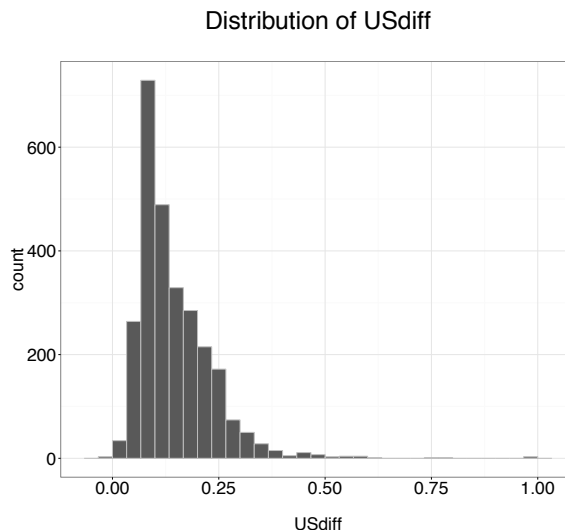
Our data shows that *USdiff* is bounded between 0 and 1, signifying that no countries in our sample are less aligned on important votes than unimportant votes. The mean *USdiff* is 0.146 which suggests countries do make political concessions. As an consistency check, we check to see that the average alignment on unimportant votes, a proxy for a country's bliss point for a given year, is higher than the average alignment on important votes. In our sample the difference between the two alignments is large, with an average of 0.151. This suggests that construction of the donor interest variable as "vote buying" is well suited to the sample as we see overall political alignment measures shift depending on the sample of votes used. As a further check, we compare the variability between the alignment on unimportant votes and important votes. If unimportant votes act as a measure of a country's true preferences while important votes measure US influence, we would expect true preferences to be more consistent than preferences expressed under influence. Our data confirms this prediction; the standard deviation of alignment on unimportant votes is 0.090 and the standard deviation of alignment on important votes is 0.199, suggesting that our measure of a country's bliss point is reliable.

4.2   Additional Controls

Our control variables include measures for recipient need and governance indicators that also factor into the amount of ODA commitment and disbursement a country receives from the IDA. Formally, the IDA resources are allocated among eligible countries based on their Country Policy Institutional Assessment (CPIA), which is composed of a combination of a Resource Allocation Index (IRAI), Country Performance Ratings (CPR) and County Needs. Holistically, these measures asses economic management (including debt policy), structural policies on trade and finance, policies for social inclusion/equity and public sector management. Country Needs are determined by gross national income per capita and population. Because IRAI and CPR scores–country and project performance scores–are only publicly available for sparse set of countries between 2007-2014, we have devised a set of governance and need indicators which serve as a proxy for CPIA scores.

Distribution of ODA Gross Loans, 1984–2014 (left) and Distribution of ODA Net Loans, 1984–2014 (right)

Governance indicators include a freedom index which is rated on a scale from 2 to 14, where 2 represents the most free conditions and 14 the least free. Our freedom index is an aggregate of 25 indicators of political rights and civil liberties captured by the Freedom House in their annual Freedom in the World Report. We also use a democracy rating devised by the Polity IV Project to assess public sector management and structural policies on trade, with a rating of -10 representing the most autocratic regimes and a rating of 10 representing the most democratic. Milner and Kubota (2005), Eichengreen and Leblang (2008) and Yu (2010) among others show that democracies are significantly more likely than autocracies to have lower tariffs and trade more often. We also include a conflict intensity variable from the Uppsala Conflict Data Program to account for overall governance management and shocks in country needs. The conflict intensity variable which ranges from 0 (no conflict) to 2 (high intensity conflict) and indexes the magnitude of conflict occurring within a country in a given year. The countries in our sample enjoy a high level of civil and political liberties, with *freedom* of 8.42 on average, however are roughly split between autocratic and democratic regimes as the average *polity* score is 0.84. Nearly a fifth of countries were involved in conflict over the 30 year period with a *conflict* average of 21.7%. We also include two measures of country needs, log of GDP per capita and log population, as well as a quadratic term for both measures to account for non-linear bias against large countries (ex. India and China).

In order to fill in missing data, we use regression-based imputation to fill in values of GDP per capita (135 values), polity index (305 values), and freedom score (6 values). GDP per capita is predicted by country, year, population, conflict index, and polity index; polity index is predicted by country, year, population, GDP per capita, and freedom score; freedom score is predicted by country, year, population, GDP per capita, and polity index. Regression-based imputation is a reasonable method to impute our missing control variables, since for each of the regressions, the R^2 value is very high for each of the regressions (GDP per capita: $R^2 = .93$, polity index: $R^2 = .87$, freedom score: $R^2 = .87$).

5   Model

We model the effect of US informal influence on ODA commitments, ODA gross loans, and ODA net loans from the IDA. ODA commitments are the amount of aid that is committed to each country, while ODA disbursements are the amount of aid that are actually given to each country. Our pooled OLS model is as follows:

$$ln(\text{ODA-commit})_{i,t} = \alpha(\text{USdiff})_{i,t-1} + \beta X_{i,t} + \epsilon_{i,t}$$
$$ln(\text{ODA-gross})_{i,t} = \alpha(\text{USdiff})_{i,t-1} + \beta X_{i,t} + \epsilon_{i,t}$$
$$ln(\text{ODA-net})_{i,t} = \alpha(\text{USdiff})_{i,t-1} + \beta X_{i,t} + \epsilon_{i,t}$$

where $X_{i,t}$ is a vector of control variables consisting of indicators for recipient need and governance indicators. As outlined in the data section, we use linear and quadratic terms for gross national income

per capita and population as a proxy for recipient need, and a freedom index, polity index, and conflict intensity as a proxy for governance indicators. We use lagged UN votes because UN voting happens predominantly in the last quarter of the calendar year.

However, this may cause problems because the USdiff variable will be more homogeneous within the same country than between different countries. In other words, there may be endogeneity in the model: if we express the error as $\epsilon_{i,t} = v_t + \eta_i + e_{i,t}$, we expect that $Cov(\text{USdiff}, \eta_i) \neq 0$. In order to account for this, we will remove country fixed effects to demean the ODA commitments and disbursements by country. This leads to our fixed effects models:

$$ln(\text{ODA-}\tilde{\text{c}}\text{ommit})_t = \alpha(\tilde{\text{F}})_{t-1} + \beta\tilde{X}_t + \tilde{\epsilon}_t$$
$$ln(\text{ODA-}\tilde{\text{g}}\text{ross})_t = \alpha(\text{US}\tilde{\text{d}}\text{iff})_{t-1} + \beta\tilde{X}_t + \tilde{\epsilon}_t$$
$$ln(\text{OD}\tilde{\text{A}}\text{-net})_t = \alpha(\text{US}\tilde{\text{d}}\text{iff})_{t-1} + \beta\tilde{X}_t + \tilde{\epsilon}_t$$

where $\tilde{X}_t$ denotes that the variable has been demeaned by country: $\tilde{X}_t = X_{i,t} - \bar{X}_i$; $\bar{X}_t$ is the mean value of the variable for each country over all time periods. In this case, the η_i error from before disappears, so we no longer have an endogeneity problem.

While country specific fixed effects will control for part of within-country correlation of error terms, in general they will not completely control for within-country error correlation. Then the error $\epsilon_{i,t}$ may be correlated over time due to omitted factors that evolve progressively over time. As a result, we cluster the standard errors by country to fixed our grouped error problem.

Given that our model includes lagged IDA disbursements, by construction there are unobserved panel-level effects correlated with the lagged dependent variable, making standard errors inconsistent. To correct for this inconsistency in standard errors, we use a generalized method of moments (GMM) estimator derived in Arellano and Bond (1991). First we take the first differences of the model which yields

$$\delta y_{i,t} = \delta y_{i,t-1}\gamma + \delta\alpha(\text{USdiff})_{i,t-1} + \delta\beta X_{i,t} + \delta\epsilon_{i,t}$$

As with the fixed effects model, the η_i error term disappears, however the $y_{i,t-1}$ in $\delta y_{i,t-1}$ is a function of $\epsilon_{i,t-1}$ which is also in $\delta\epsilon_{i,t}$. Under the assumptions that (a) the error term ϵ is not serially correlated and (b) our explanatory variables, *USdiff* and X, are weakly exogenous, Arellano and Bond propose the moment conditions

$$E[y_{i,t-s}\ldots(\epsilon_{i,t} - \epsilon_{i,t-1}] = 0 \, for \, s >= 2, t = 3,..,T$$
$$E[X_{i,t-s}\ldots(\epsilon_{i,t} - \epsilon_{i,t-1}] = 0 \, for \, s >= 2, t = 3,..,T$$

Using these moment conditions, Arellano and Bond (1991) follow a two-step procedure to construct their GMM estimates. First, the error terms are assumed to be independent and homoskedastic across countries and over time. However, in the second step, the residuals obtained in the first step are used to construct a consistent estimate of the variance-covariance matrix, relaxing the assumptions of independence and homoskedasticity. We implement this two-step procedure in addition to the fixed effects model above to check the robustness of our fixed-effects model. In addition, we conduct the Arellano–Bond test to check for first- and second-order autocorrelation in the first-differenced errors.

Table 2: Arellano-Bond Test

Order	z	Estimate
IDA Commitments		
1	-3.3085	0.0009
2	-1.0044	0.3152
IDA Gross Loans		
1	-1.2707	0.2038
2	-0.63969	0.5224
Net Loans		
1	-2.3877	0.0170
2	1.2215	0.2219

Our results from the Arellano-Bond Test in Table 2 show that the error terms for two of our IDA lending variables are serially correlated. For the IDA commitments and net loans the null hypothesis can be rejected and we believe the model is a strong fit for our data. However, the test results do not hold for gross loans. As a result, we expect that the Arellano-Bond model estimates for gross loans will not be significant.

6   Analysis

The results of our fixed effects regression with clustered standard errors are shown in Table 3. We find that our variable for informal influence, *USdiff*, is significant at the .01 level for ODA commitments and ODA gross loans, and significant at the .001 level for ODA net loans.

This supports and extends the findings of Andersen, Hansen, and Markussen (2006). Similarly to Andersen et. al, we find that US influence plays a significant effect in ODA commitments from the IDA. However, we use a different informal donor influence variable that takes into account a country's true political preferences in addition to US influence–benefits are outlined in the data section–and confirms Andersen et. al's findings.

In addition, we find that US informal influence in the IDA plays a significant role in determining ODA net and gross loans. This suggests that informal influence is in play throughout the entire loan process–from the initial commitment amount to the actual gross and net amount of loans given. It is unexpected that informal influence plays a more significant effect on net loans than the other type of ODA. This may be due in part to the fact that countries who are more influenced by the US are more responsible with paying back ODA loans.

Our fixed effects results estimate that an increase in a country's *USdiff* from one standard deviation below to one standard deviation above the mean increases a country's expected ODA commitments by 20.8%, ODA gross loans by 21.2%, and ODA net loans by 19.6%.

The results of the Arellano-Bond estimation model are shown in Table 4. We find that US informal influence is significant at the .05 level for ODA commitments, and significant at the .001 level for ODA net loans. The lack of significance in ODA gross loans is due to a lack of autocorrelation which suggests that the Arellano-Bond model will not provide the best fit for the data, as we can see from Table 2. Therefore, our fixed effects model will be a more accurate estimate of the effect of informal influence on ODA gross loans. These results corroborate our evidence from the fixed effects model that US informal influence as exerted through UN voting records significant affects ODA.

Our Arellano-Bond model estimates that *USdiff* has a slightly smaller effect than our fixed effects model suggests. According to the Arellano-Bond model, an increase in informal influence, *USdiff*, from one standard deviation below to one standard deviation above the sample mean will increase a country's ODA commitments by 18.0%, ODA gross loans by 16.8%, and ODA net loans by 20.9%. These estimates are very significant increases in ODA amount, which suggests that countries receive significant monetary benefits from the IDA when they change their votes to align with US political interests when voting on UN issues.

7   Conclusion

We have found significant evidence that US informal influence in UN voting records significantly increases the amount of ODA commitments, gross loans, and net loans a country receives from the World Bank. Our country fixed effects model with standard errors clustered by country finds that all three types of ODA aid are affected by US informal influence, with net loans being affected the most. Our Arellano-Bond Estimate model finds that ODA commitments and ODA net loans are significant, but ODA gross loans are not significant. This provides evidence that if a country is more susceptible to US influence in the World Bank and changes its views to align with the US more often, they will receive benefits in the entire ODA disbursement process, especially in the allocation of commitments and in the net amount of loans at a country receives from the IDA.

Thus, efforts to reform IFI's such as the World Bank must pay attention to informal as well as formal influence. A simple reallocation of voting shares will not reduce informal donor influence; instead, reforms must address the fundamental structure of the organization, which may call for changes in hiring and promotion practices, information disclosure, or other measures that address informal donor influence.

Table 3: ODA: Fixed Effects Model, Standard Errors Clustered by Country

	(1) log(ODA Commitments)	(2) log(ODA Gross Loans)	(3) log(Oda Net Loans)
$\boldsymbol{USdiff}_{t-1}$	1.156**	1.178*	1.087***
	(2.90)	(2.42)	(4.05)
log(ODA Commitments)$_{t-1}$	0.0123		
	(0.34)		
log(ODA Gross Loans)$_{t-1}$		0.330***	
		(5.93)	
log(ODA Net Loans)$_{t-1}$			0.484***
			(8.94)
log(GDP per capita)	-0.0841	1.019	-0.651
	(-0.09)	(0.64)	(-0.57)
log(GDP per capita)^2	-0.000848	-0.0766	0.0463
	(-0.01)	(-0.69)	(0.57)
log(population)	-8.360***	-2.606	-1.880
	(-3.70)	(-0.85)	(-1.10)
log(population)^2	0.275***	0.0655	0.0535
	(3.97)	(0.69)	(1.00)
Polity Index	-0.0230	-0.0102	-0.00589
	(-1.63)	(-0.69)	(-0.65)
Freedom Score	-0.0165	-0.0481	-0.0450
	(-0.68)	(-1.50)	(-1.95)
Constant	67.40***	23.81	20.54
	(3.62)	(0.99)	(1.43)
Observations	1318	971	1487

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Arellano-Bond Estimation Model

	(1) log(ODA Commitments)	(2) log(ODA Gross Loans)	(3) log(ODA Net Loans)
USdiff $_{t-1}$	0.999*	0.932	1.160***
	(2.19)	(1.65)	(3.34)
log(ODA Commitments)$_{t-1}$	−0.135***		
	(−3.77)		
log(ODA Gross Loans)$_{t-1}$		−0.0983*	
		(−2.44)	
log(ODA Net Loans)$_{t-1}$			0.192***
			(5.12)
log(GDP per capita)	4.886	9.327**	4.388*
	(1.45)	(3.08)	(2.26)
log(GDP per capita)^2	−0.344	−0.709**	−0.337*
	(−1.40)	(−3.28)	(−2.42)
log(Population)	8.955	4.608	4.330
	(1.30)	(0.78)	(1.38)
log(Population)^2	−0.242	−0.212	−0.181
	(−1.16)	(−1.14)	(−1.87)
Polity Index	−0.0437*	0.00127	−0.0246
	(−2.32)	(0.06)	(−1.86)
Freedom Score	0.0531	−0.0460	−0.0441
	(1.20)	(−1.05)	(−1.44)
Constant	−93.14	−45.32	−33.31
	(−1.53)	(−0.94)	(−1.24)
Observations	1123	696	1335

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

References

[1] Andersen, Thomas Barnebeck, Henrik Hansen, and Thomas Markussen. 2006. "US Politics and World Bank IDA-Lending." *Journal of Development Studies* 42 (5): 772–94.

[2] Andersen, Thomas Barnebeck, Thomas Harr, and Finn Tarp. "On US politics and IMF lending." *European Economic Review* 50.7 (2006): 1843-1862.

[3] Barro, Robert J., and Jong-Wha Lee. 2005. "IMF Programs: Who Is Chosen and What Are the Effects?" *Journal of Monetary Economics* 52:1245–69.

[4] Dreher, Axel, and Nathan M. Jensen. 2007. "Independent Actor or Agent? An Empirical Analysis of the Impact of US Interests on IMF Conditions." *Journal of Law and Economics* 50 (1): 105–24.

[5] Dreher, Axel, Jan-Egbert Sturm, and James Vreeland. 2009a. "Development Aid and International Politics: Does Membership on the UN Security Council Influence World Bank Decisions?" *Journal of Development Economics* 88:1-18.

[6] Dreher, Axel, Jan-Egbert Sturm, and James Vreeland. 2009b. "Global Horse Trading: IMF Loans for Votes in the United Nations Security Council." *European Economic Review* 53 (7): 742–57.

[7] Fleck, Robert K., and Christopher Kilby. 2006. "World Bank Independence: A Model and Statistical Analysis of U.S. Influence." *Review of Development Economics* 10 (2): 224–40.

[8] French, Hilary. 1994. "Rebuilding the World Bank." In *State of the World*, 1994, ed. Lester Brown. New York: Norton.

[9] Kaja, Ashwin, and Eric Werker. 2010. "Corporate Governance at the World Bank and the Dilemma of Global Governance." *World Bank Economic Review* 24 (2): 171–98.

[10] Kilby, Christopher. 2009. "The Political Economy of Conditionality: An Empirical Analysis of World Bank Loan Disbursements." *Journal of Development Economics* 89 (1): 51–61.

[11] Kilby, Christopher. 2013. "An empirical assessment of informal influence in the World Bank." *Economic Development and Cultural Change* 61.2 (2013): 431-464.

[12] Stern, Nicholas, and Francisco Ferreira. 1997. "The World Bank as 'Intellectual Ac- tor.'" In *The World Bank: Its First Half Century*, vol. 2., ed. Devish Kapur, John. P. Lewis, and Richard Webb. Washington, DC: Brookings.

[13] Stone, Randall. 2002. *Lending Credibility: The International Monetary Fund and the Post-Communist Transition*. Princeton, NJ: Princeton University Press.

[14] Stone, Randall. 2004. "The Political Economy of IMF Lending in Africa." *American Political Science Review* 98 (4): 577–91.

[15] Stone, Randall. 2011. *Controlling Institutions: International Organizations and the Global Economy.* New York: Cambridge University Press.

[16] Thacker, Strom C. "The high politics of IMF lending." *World politics* 52.01 (1999): 38-75.

[17] Woods, Ngaire. 2003. "The United States and the International Financial Institutions." In *U.S. Hegemony and International Organizations: The United States and Multilateral Institutions,* ed. Rosemary Foot, S. Neil MacFarlane, and Michael Mas- tanduno. Oxford: Oxford University Press.

[18] Bailey, Michael, Strezhnev Anton and Erik Voeten "Estimating Dynamic State Preferences from UN Voting Data" Forthcoming Journal of Conflict Resolution

[19] Yu, Miaojie. "Trade, democracy, and the gravity equation." Journal of Development Economics 91.2 (2010): 289-300.

[20] Milner, Helen V., and Keiko Kubota. "Why the move to free trade? Democracy and trade policy in the developing countries." International organization 59.01 (2005): 107-143.

[21] Eichengreen, Barry, and David Leblang. "Democracy and globalization." Economics & Politics 20.3 (2008): 289-334.