

How Does Foreign Aid Buy Influence?

Abstract: Can foreign aid buy influence? One way to answer this question is to view aid allocation as a game of cooperation and competition between donors for influence in recipient states. How exactly aid translates into influence is one wrinkle in this larger picture of donors' strategic interaction. This process determines how a donor views the presence of the other players in the aid game. While many studies examine whether foreign aid buys influence, it may be too simplistic to expect absolute amounts of aid to translate neatly into degrees of influence. Recipient countries are usually responsible to more than one donor; and often play donors off against one another to obtain the greatest amount of money for the fewest concessions. Donors' aid efforts must be viewed relative to one another in determining the amount of influence one would expect to see. This adds a more nuanced view to traditional models of foreign aid and generates interesting predictions for the current era of emerging aid powers. This paper presents an empirical test of whether and when aid does in fact buy influence. It may be the case that changes in shares of aid result in a change in the distance between a recipient and donor's UN ideal points. It could also be the case that the largest, or primary, donor receives a disproportionate share of influence. If it is aid primacy that matters, becoming the number one aid donor should provide a bonus amount of influence on top of that received from actual aid amounts or aid share. This study posits that aid is a foreign policy tool used to move recipients closer to donors in policy space. How exactly this process works is an empirical question. Using ideal point estimates, this study investigates whether it is aid amounts, aid shares or primary donor status that is most important in securing a donor influence in recipient states.

Aid as a Tool of Influence

The starting behavioral assumption of this study is that aid is not given for purely altruistic or humanitarian reasons; it is a foreign policy tool used to buy influence in recipient states. There are two basic ways in which this can work. First, donors can use aid to prop up friendly governments. A classic example of this is the Marshall Plan where large amounts of money were transferred from the US to Western Europe after WWII to strengthen friendly governments against the threat of communism (Mallalieu 1958). The idea that this aid was purely humanitarian is negated by the fact that parts of the plan, such as the strengthening of labor unions, were specifically structured to curtail communist influence. Second, donors can use aid as a form of bribery where they are in effect buying policy concessions, often from governments that are not close to the donor in policy space on many dimensions. An example of this more cynical use of aid is the assistance given by the United States to the Mobutu regime in the former Zaire.

This behavioral assumption about the role of foreign aid is not novel, particularly for the United States. Even early studies of US foreign aid characterized it as a foreign policy tool, where there is

some role for altruism and humanitarianism, but within the broader context of the US national interest as defined by economic and military goals (Beim 1964, VanBuren Cleveland 1957, Morgenthau 1962, Pakenham 1966). This characterization has been continued in contemporary studies which view aid as an exchange of money for influence and pro-donor policies (Bueno de Mesquita 2007, Knack 2004). The literature has focused almost exclusively on donor-recipient relations. While some support has been found for the importance of humanitarian and development objectives in foreign aid allocation, studies have consistently found evidence that political and strategic concerns are an important, perhaps the most important, force driving this process. Measures of the strategic importance of recipients to the United States are some of the strongest and most reliable predictors of US aid allocation (Meernik Krueger and Poe 1998, Lai 2003, Apodaca and Stohl 1999, Poe 1992).

However, the arguments and assumptions in this study are not specific to the United States. The other donors included in this study are the Soviet Union, Japan, the United Kingdom, France and Germany. There is ample evidence that the Soviet Union used its aid budget to compete with the United States for political influence in recipient states. (Roeder 1985; Lundborg 1998; James and Imai 1998). Assuming that other Western donors use aid as an influence buying tool is also reasonable. While some studies argue that other donors, particularly Scandinavian countries, are more altruistic in their foreign aid allocation than is the United States, there is evidence that both economic and political concerns are also present in the aid decisions of these other Western donors. (Alesina and Dollar 2000, Neumayer 2003; Schraeder Hook and Taylor 1998; Schraeder 2000)

A separate body of literature examines whether aid is in fact effective at “buying influence.” Just as there are a variety of measures of political and economic concerns in the allocation process, there are a variety of types of influence aid could be expected to purchase. However studies often capture this concept through some measure of UN voting. Webster (1992) finds that US aid bought political support as measured by UN voting from Latin America, particularly South America. James and Imai (1998) find that the greater the power inequality between the Soviet Union and the US, the greater the recipient’s consensus in voting with the predominant power in the UN. Wang (1999) looks at the relationship between the US and a broader sample of recipient states and finds that changes in US foreign aid affect political support as measured by UN roll call voting. Dreher Nunnenkamp and Thiele (2008) confirm these findings but add the nuance that specific types of aid are more effective at buying influence than others.¹

¹ They also find that aid from G7 donors other than the US is not effective at buying influence. This is contradictory to the assumption in my study.

Other studies suggest that aid does not really buy much (Banfield 1963; Regan 1995). Specifically, Kegley and Hook (1991) find that the US attempt to link foreign aid to recipients' UN voting failed. Dreher and Sturm (2006) find that IMF and World Bank aid does influence whether a recipient votes with G7 countries, that World Bank but not IMF flows influence voting coincidence with the US but that there is no statistical relationship between bilateral aid and general assembly votes.

One reason for these contradictory findings could be that these studies look at only one donor at a time. If only one donor is in the model, the empirical prediction is that aid should always buy influence. When taking into account other donors, different empirical predictions follow. Influence as result of competition predicts not just that recipients move closer to a donor in policy space, but that increasing aid allocation may keep the recipient from not moving closer to the competing donor. Aid competition reinforces this "stalemate" by reducing the credibility of threats to cut aid if recipients do not behave as donors would like.

Aid Primacy

In deciding how to allocate a limited aid budget in a strategic game of competition and cooperation, one key question is how a donor views the presence of the other players in the game. It may be too simplistic to expect absolute amounts of aid to translate neatly into degrees of influence. Recipient countries are usually responsible to more than one donor; and often play donors off against one another to obtain the greatest amount of money for the fewest concessions. The aid efforts of donors must be viewed relative to one another in determining the amount of influence one would expect to see. If the presence of multiple donors does matter in buying influence, then changes in shares of aid, rather than aid volumes should better predict changes in the distance between a recipient and donor's UN ideal points.

Lebovic (2005) goes one step further and argues that it is not just the share of aid that matters, but primary donor status. He suggests that great powers establish aid primacy in states for different, yet all self-interested reasons. Once established, he finds that these relationships are "sticky" and can explain a bonus amount of aid given to recipient countries by the primary donor. In fact, he finds that "the benefits of having the US as a primary donor exceeded the benefits both of geographical location... and of being Egypt... Of the dummy variables, only the US special relationship with Israel

added greater value to an aid package.” (123) Donors are even more likely to retain or compete for primary donor status in states that voted with them the UN.²

The flip side of this, assumed by Lebovic, is that being the primary donor may award a bonus amount of influence to the donor and thus impact how donors choose to distribute their money (119). Testing this assumption will help determine how the relative presence of donors translates into influence. The question to be answered is: Do primary donors get states to move closer to their policy preferences?³ One way to answer this question would be to see if primary donors can get recipients to move closer to them in policy space.

This argument also implies that if it is just primary donor status that matters in buying influence, donors should give enough to maintain this status and not a dollar more. An example of this line of reasoning is the finding by James and Imai (1996) that there is threshold effect where once recipients are firmly in the Soviet Union’s camp, a further increase in presence (in their study political/military) didn’t increase consensus with that state (1126). However, Lebovic finds that primary donors give extremely large aid bonuses. One possibility for this finding is that while primary donors receive a bonus of influence, this influence continues to increase with further amounts of aid. Another possibility is that it depends on how primary donor status is defined. Lebovic defines the primary donor as the largest bilateral contributor of foreign aid to a recipient in a given year. In reality, every recipient may have a primary donor if it is defined merely as the state which gives more aid in a given year than any other state. Defining primary donor status this way does not distinguish between cases where the primary donor contributes 20% of a recipient’s total aid and cases where the primary donor gives 80% of a recipient’s total aid. It may be necessary to distinguish between these types of cases by setting some threshold percentage of a recipient’s aid to indicate primary donor status in a more specific sense. I have no theoretical reasons for what this threshold should be and am leaving it undefined at present.

Measuring Aid:

The data used to test whether it is aid volumes, aid share or primary donor status that matters more in influencing the policy positions of recipient states should include all aid that could conceivably buy influence. The question to answer in deciding how to measure aid is does the type of

² Lebovic suggests this is a measure of ideology. However the counterargument is that they are awarding compliant behavior with more aid.

³ A related interesting thought is that bureaucratic inertia and reputation costs may cause states to defend primary donor status even when the recipients are not intrinsically important. Lebovic suggests that this may be one cost of upholding an institutional framework of deference to other primary donors (2005, 119).

aid matter? Do only certain types of aid buy influence? Studies of aid effectiveness often assume that certain types of aid can be matched with certain types of donor objectives and thus certain types of outcomes in recipient states. While this assumption does simplify research, it can underestimate the effect of aid. Multiple types of aid can and often do accomplish the same objectives. For example, consider the “contrasting” goals of using aid to promote development versus using aid to buy influence. Even aid that is used to buy influence can in fact promote development. Aid is largely substitutable; even military aid frees up the resources of recipient governments to spend on other things. Conversely, even purely developmental aid such as ODA can buy influence. Development can prop up friendly governments, increase dependence on the donor or provide democratic leaders with a public good to appease their citizens. While certain types of aid are certainly more effective at producing certain objectives, this does not mean that they cannot also contribute to the accomplishment of other objectives. For these reasons, I use not only a broad conception of influence (anything that moves/stabilizes recipient in policy space along 2 dimensions) but also an inclusive definition of what constitutes aid. The limitation thus becomes what data is available to best capture this total aid effort.

If this study was focused on only the United States, creating this measure of “total aid effort” would be relatively straightforward since the Greenbook reports both economic (developmental and non-developmental) as well as military aid. However, the focus of this study on numerous donors makes it difficult to find comparable and comprehensive measures of aid.

The Organization for Economic Cooperation and Development (OECD) is the best cross-national source for economic aid data. Data on OECD donors is available from the online search engine OECD.StatExtracts going back to 1960. Unlike the US Greenbook, the OECD is geared towards providing statistics on “ODA”, the most common measure of aid. In part, this is because many of the smaller donors they report on do not give significant military aid as do larger states such as the United States. Official Development Assistance (ODA) is a very specific type of aid, and for countries like the US certainly does not represent “total aid.” To be counted as ODA, aid must have an economic developmental purpose, be concessional and convey a grant element of at least 25%, and go to a state on the DAC list of ODA eligible recipients. This list of eligible recipients is based on income. ODA specifically excludes types of aid such as military assistance and anti-terrorism. Another important category of aid is official assistance (OA). OA is aid that would otherwise meet the conditions to be counted as ODA, except the recipient is on Part II of the DAC List of Aid Recipients, indicating a slightly higher GNI/capita. The DAC online search engine OECD.StatExtracts provides

data on aid to both Part I as well as Part II countries, giving numbers for OA as well as ODA. While this still captures only developmental aid, it includes recipients in transition as well as recipients on the official ODA list.

Data on economic aid from the Soviet Union and the PRC are not reported by the OECD. I obtained this data from Charles Dannehl. The information is available in the replication data for his 1995 book, Politics Trade and Development: Soviet Economic Aid to the Non-Communist Third World, 1955-89.

Military Aid

Using ODA and OA still excludes non-developmental economic aid and military aid. The OECD reports a third type of aid, Other Official Flows (OOF), which capture all official flows to aid recipients that are either not aimed at development or have a grant element of less than 25%. At first, this seems like a residual category that would include all other aid, including military aid. However, it is not exactly clear what this category captures. There are huge negative numbers. OOF is equal to 0 for 40,584 cases in this dataset. For country years where OOF takes on a nonzero value, OOF is negative in more cases (2,679) than positive (2,367 cases). The mean value of these negative OOF flows is substantial- about -41 million dollars.

The following are examples of types of aid the OECD counts as OOF:

- i. Grants to developing countries for representational or essentially commercial purposes.
- ii. Official bilateral transactions intended to promote development but having a grant element of less than 25 per cent.
- iii. Official bilateral transactions, whatever their grant element, that are primarily export-facilitating in purpose. This category includes by definition export credits extended directly to a developing country by an official agency or institution (“official direct export credits”).
- iv. The net acquisition by governments and central monetary institutions of securities issued by multilateral development banks at market terms.
- v. Subsidies (grants) to the private sector to soften its credits to developing countries.
- vi. Funds in support of private investment.” (OECD)

It seems that OOF is not a residual category, but rather another specific type of aid flow. This does not capture the other aid flows I was looking for and will not be used in this study. Since OOF does not include military aid, it is important to find another source for both military aid and sales. The two most common sources for multiple donors’ military aid and arms transfers are the World Military

Expenditures Database and SIPRI arms transfers database. However, the World Military Expenditures Database does not disaggregate information by donor recipient year as is necessary for this study. Using the cumulative measures and imputing or using moving averages is not practical since the data going further back in time are averages covering time spans of up to ten years. The SIPRI trade registers have actual financial values of deals but this information is not disaggregated on a yearly basis. Only the cumulative value of deals for each donor-recipient is listed. There is no way to assign the financial value of these deals to years in a meaningful way. SIPRI also has TIV Exporter/Importer tables. These tables have the benefit of being broken out by donor recipient year and of covering both arms sales and gifts. However, the numbers given are volumes of arms transferred not the financial value of the goods. While these volumes are given in 1990 US dollars, SIPRI specifically warns against adding or comparing these volumes with other economic data. Since my goal is to add military aid to economic aid to get total aid; this is a problem.

One potential solution is to create an equivalency measure to convert TIV amounts into actual financial values. It is possible to get data for both US military aid and US arms sales from other sources. Adding together these two measures effectively gives a measure of total US military aid. Regressing Total US Military Aid onto the SIPRI TIV amounts for the United States should logically yield an equivalency series to convert US SIPRI volume amounts into dollar values. This equivalency series could then be applied to other states' SIPRI amounts to create dollar amounts for all the donors in my study. It is reasonable to assume that the relationship between US military aid and SIPRI amounts is the same as the relationship between other donors' military aid and their SIPRI amounts.

The US Greenbook reports total military aid with a non-economic development purpose for each recipient year going back to 1946. For 2007 aid for the following accounts were reported: International Military Education & Training (IMET), Excess Defense Articles, Foreign Military Financing Grants, Peace keeping Operations, Former Soviet Union Threat Reduction Afghanistan Security Forces Fund, Iraq Relief and Reconstruction Fund, and the Iraq Security Forces Fund. Military Assistance Program spending is not reported.

I obtained data on US foreign military sales (FMS) from the authors of US Foreign Policy in Perspective: Clients Enemies and Empire (Sylvan and Majeski 2009). FMS include government to government sales of US defense equipment, services and training from 1946-2003. Sylvan and Majeski created this data series by extracting information from Defense Security Cooperation Agency (DSCA) factbooks and interpolating missing and non-reported values. However, one drawback to this dataset is that it covers only 37 recipients. They included a sample of US clients (wealthy, newly well off, and

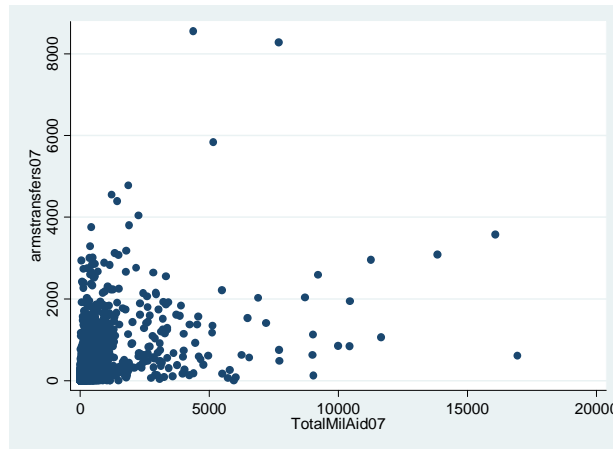
poor) as well as a very few non-clients as well. The reason for this, as they note, is that creating a complete data set would be an extremely daunting and complicated task. However, 37 recipients is still a reasonable sample to use to estimate the equivalency series; particularly since the sample includes several types of recipients and the data cover such a long time period.

SIPRI includes all international arms transfers whether in the form of gifts or sales. The equipment and technology must have a military purpose. Technology necessary for the production of weapons is also counted. The database covers only major conventional weapons such as aircraft, armored vehicles, missiles and ships. Other military equipment such as small arms and light weapons and repair and support services are not included in this database.

US FMS and Greenbook military aid are mutually exclusive as one contains only sales and the other only other types of military aid. These two datasets also seem to be mutually exhaustive in that they report in financial values for the US what SIPRI reports in volume units. The only difference in reporting is that SIPRI doesn't include light arms but the US Greenbook does. However, this should only change the intercept of the relationship between the two variables. Total US military aid (Greenbook Military Aid +FMS) should be highly correlated with US TIV SIPRI aid volumes. Regressing the two aid amounts should reveal this high correlation and provide an equivalency series to convert other donor countries TIV amounts into financial dollars that could be added to economic aid. This is not the case. There appears to be no relationship between total US military aid as measured by the Greenbook and FMS and these SIPRI arms transfers volumes. (All units are in 2007 constant USD)

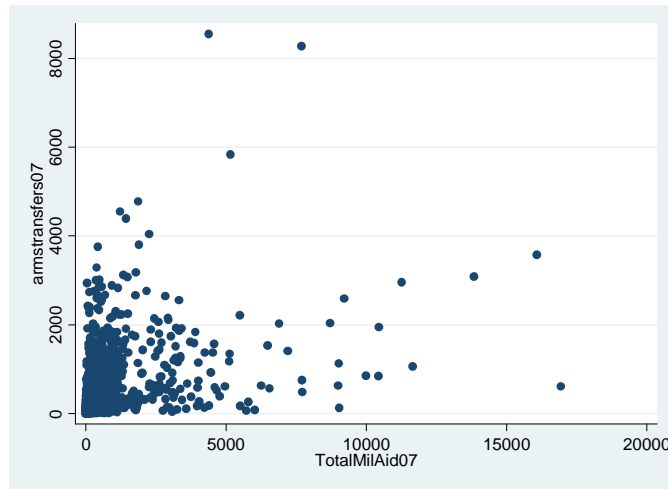
While total US military aid does statistically significantly predict SIPRI US arms transfers, these variables are not highly correlated. The fit of the model is very poor, as indicated by an R-squared of .1957. The scatterplot below illustrates the non-relationship between the two measures.

	Coefficient	Std Error	P >t
TotalMilAid07	.2255717	.102942	.000
Constant	207.3771	13.90552	.000
			N=1975



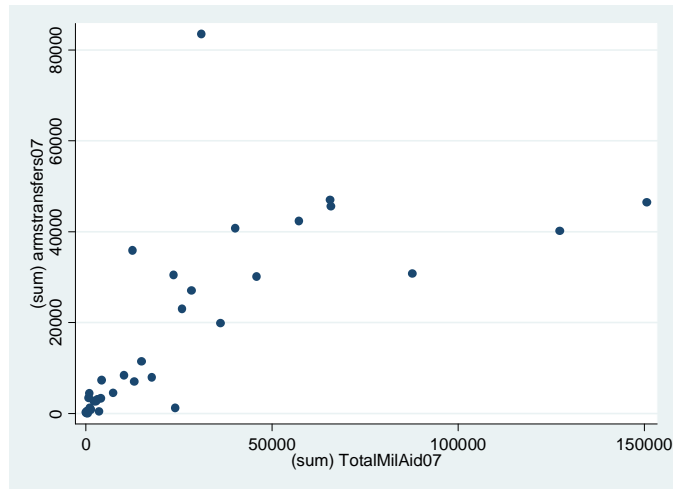
One common problem when dealing with aid data is how to treat the zeros. Zero aid amounts represent a large share of the total observations. Zeros are particularly problematic because of the different thresholds that are used to either include small aid amounts or report them as zeros. For example, some databases report zero amounts for country years which actually indicate that no aid was transferred. (ie. The FMS data). Other databases, report zero's for positive aid amounts that are under a certain threshold. For example, SIPRI reports a zero when the aid amount is positive but less than .5 million. True zeros are left blank. Therefore, I replaced the reported zeros with aid amounts of 0.5 and missings with zeros. Because of these discrepancies, the correlation between these two aid measures might be stronger for states which were reported as receiving some non-zero amount of aid in both the SIPRI and Total Military Aid data. The following regression is the same as above but includes only these non-zero observations. This does not solve the problem. The R-squared is even lower (0 .1644) and the scatterplot illustrates a similar non-relationship between the two measures.

	Coefficient	Std Error	P>t
TotalMilAid07	.202107	.0123945	.000
Constant	322.0003	20.0901	.000
			N=1975



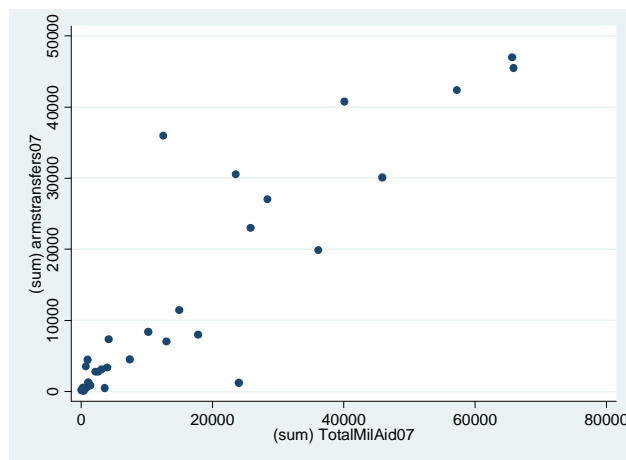
It is also possible that the discrepancy between the measures is driven by different reporting practices. Aid trends exhibit huge spikes and dips because multi-year aid commitments may be attributed to one year. If one agency is reporting in fiscal year and another in calendar year format, these spikes and dips will often not match up. In addition, reporting commitments versus disbursements can account for differences in agency’s aid trends. To smooth out these trends, I collapsed the sum of each of the two military aid measures by recipient. This reduced the number of observations to 36. Interestingly, the scatterplot reveals that the relationship between these two aid measures is much more highly correlated when using the cumulative recipient measures. However, the R-squared is still relatively low (0.4648). While this is somewhat of an improvement from the previous regressions, I still have no confidence using an equivalency series created from a model with such a low fit.

	Coefficient	Std Error	P>t
TotalMilAid07	.3827921	.0702603	.000
Constant	7422.444	3058.515	.021
			N=36



There are four outliers in this scatterplot. The recipient exhibiting high amounts of SIPRI arms transfers and relatively low amounts of Total Military Aid is Japan. The three recipients receiving very high total military aid but relatively low amounts of arms transfers are Egypt, Saudi Arabia, and Israel (left to right). Dropping these outliers from the regression greatly improves the fit of the model. The R-squared jumps to 0.8108. The coefficient on Total Military Aid is much larger in magnitude than in previous regressions and is statistically significant. As the scatterplot illustrates, the relationship between the two variables appears roughly linear rather than random as before.

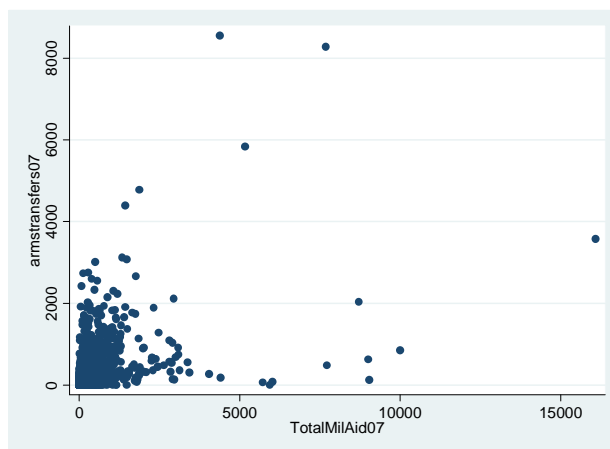
	Coefficient	Std Error	P>t
TotalMilAid07	.7065151	.0623085	.000
Constant	1584.223	1582.92	.325
			N=32



(Results are the same if zeros are excluded)

However, dropping these recipients from the analysis is not appealing empirically or theoretically. Collapsing the data eliminates a lot of information in the first place. Dropping these recipients further reduces the number of observations. It could be that high aid volumes magnify differences in accounting practices. Theoretically, dropping these observations is problematic because the two aid measures should be highly correlated even for high volume observations. If there is no consistency between aid measures for some of the most important US recipients, I do not have much confidence in the equivalency series that could be created. Dropping these recipients does not improve the fit of the original regression (using the un-collapsed recipient year data). The R-squared is 0.2060; only slightly better than the original 0.1957. The scatterplot illustrates that even when these recipients are dropped, there appears to be no relationship between the two aid measures.

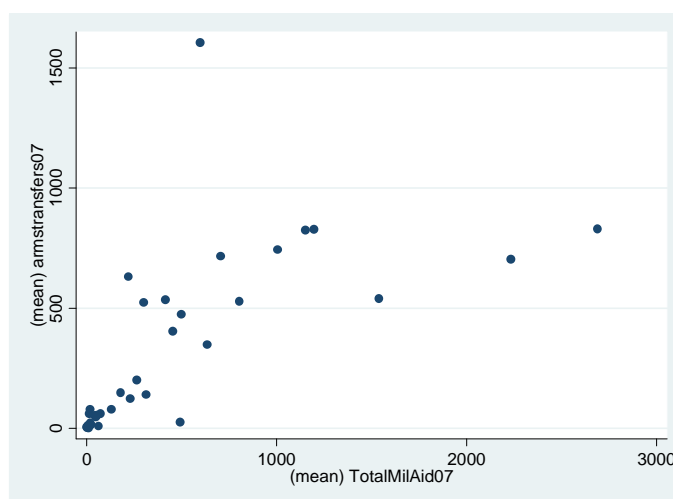
	Coefficient	Std Error	P>t
TotalMilAid07	.2967143	.0139196	.000
Constant	149.2115	12.29423	.000
			N=1753



Given my theoretical hesitancy to exclude these important recipients, as well as the empirical fact that doing so does not greatly improve the recipient year correlation between the two aid measures I am keeping them in the regressions below. Collapsing the mean of each of the two aid measures for each recipient, the R-squared is .4298. This is higher than for the regressions on the un-collapsed recipient year data, but slightly lower than when the sum of aid to each recipient is used instead of the mean. The same four outliers are evident in the scatterplot below. If I end up collapsing the data, I

would prefer to use the sum of aid measures for each recipient rather than the mean. In addition to the R-squared being slightly higher, I think the sum of aid transfers to each recipient is a more intuitive quantity than the mean value of aid transfers to each recipient.

	Coefficient	Std Error	P>t
TotalMilAid07	.3813683	.0753258	.000
Constant	142.1558	58.28564	.020
			N=36



(Results for collapsed data are same excluding zeros)

Since a reliable and valid measure of total aid for each donor is integral to my study, this is a key problem that I need to get around either by finding an alternative data source or by figuring out how to create a valid equivalency series. The top ten arms exporters for 1950-2008, as recorded in the SIPRI TIV data, are the US, USSR, United Kingdom, France, Russia, Germany (FRG), China, Italy and Czechoslovakia. All of the donors in my study are on this top ten list. Counting only ODA and not this military assistance excludes a major component of these donors' total aid. If no alternative data source is available, creating an equivalency series to translate TIV amounts into financial values could potentially be an important contribution of this paper.

Hypotheses and Prospective Tests:

The purpose of this study is to empirically sort out whether it is aid volume, aid share or primary donor status that matters most in buying a donor influence in a recipient state. I expect that aid volume will not explain as much as aid share or primary donor status since it does not take into account the presence of other donors. If it is simple aid volumes that matter, this implies either that donors and recipients are not strategic or that donors do not compete for influence in the same recipient. I find this unlikely. In keeping with the argument here, I expect that aid share or primary donor status will be better predictors of influence buying. Both of these variables take into account the relative presence of donors. I do not have strong prior theoretical expectations as to which of these two strategic measure of aid presence is more important, previous studies to give some weight to the importance of primary donor status. Ultimately this is an empirical question.

Hypothesis 1: As donors allocate larger volumes of aid they can get states to move closer to their policy positions.

Hypothesis 2: As the share of one donor's aid increases (out of total recipient aid) they can get the recipient to move closer to their policy positions.

Hypothesis: Primary donors can get states to move closer to their policy positions.

As discussed above, the main independent variable is a measure of "total aid" from each donor to each recipient. Aid volumes for each donor are computed by adding together the SIPRI arms volumes, ODA and OA. For the Soviet Union, aid volume is computed by adding their SIPRI arms volumes with the Dannehl data on economic Soviet aid. Aid share is the donor's total aid divided by a total aid quantity for each recipient year. Total aid for each recipient year is computed as the sum of the following three variables:

1) Total ODA+OA for each recipient year. This will include all donor's aid, not just the donors in this study. (As reported by the OECD)

2) Total TIV Imports for each recipient year- sum of SIPRI's top ten arms suppliers to each recipient for each year

3) Soviet economic aid (1955-1989)

Given my theoretical uncertainty as to how best to define primary donor status, I will try different measures of this concept including the largest bilateral aid donor to a country in a given year as well as different threshold measures of aid share.

The main dependent variable of interest here is ideal point estimates; specifically the difference between donor and recipient ideal point estimates and the change in these distances. The choice of this variable reflects the characterization of this study (and the future chapters of my dissertation) of a 2-D policy space along which donors and recipients are placed. In later chapters I will investigate how donors use their aid budgets to compete and cooperate with each other depending on their relative placement in policy space. In this study, I first investigate how and when donors are able to move recipients closer to them in this 2-D policy space. Ideal point estimate data were obtained from Reed, Clark, Nordstrom and Hwang's (2008) replication data set online. They estimated these ideal points from UN roll call votes with the goal of creating a latent measure of state's preferences. Since I am more interested in the location of states in policy space than voting behavior per se, this measure better captures the concept that I am trying to capture in this study.

Control variables may not be necessary since I plan to include fixed effects to control for the differences between each dyad. However, possible control variables for these tests include democracy, exports, imports, military alliances and colonial ties.

General Test:

Dependent variable: Change in distance between donor and recipient's ideal points (proximity to donor in policy space)

Independent variable: Test 1: change in aid volume

Test 2: change in aid share

Test 3: change in aid volume and change in primary donor status

Test 4: change in aid share and change in primary donor status

I will also be conducting these three general tests using levels instead of changes. I am unsure how best to specify the lags since I am not sure how long it takes for aid to translate into influence. Again, this is an empirical question. I plan to start with a one year lag, but to then use longer lags. I also plan to run these models again using moving averages. One reason this may be important is because of the extreme peaks and dips in aid data. Often states are recorded as receiving a huge lump sum in one year and then receive no aid for the following several years.

Test of Donor Competition:

Dependent variable: change in difference between donor and recipient ideal points

Independent variable: change in aid of “cooperating” donors and change in aid of “competing” donors. I will identify cooperating and competing donors for each recipient based on states’ ideal point estimates. States that are on the same side of the recipient in policy space are considered cooperating and states that are on opposite sides of the recipient in policy space are competing.

Preliminary Test

The initial test of my hypotheses that I present here uses the TIV aid volumes from SIPRI to indicate military aid. The problems with adding these volume amounts to military aid to economic aid data denoted in financial values are noted above. I readily acknowledge that this is a first cut test using the data I have at present. I focus here only on the United States as a donor. This not only simplifies my initial analysis but also allows for comparison between the two regression results using the different measures of military aid. For the following tests I have set the primary donor status threshold at >0.5 aid share. The dummy variable will include only cases where the US is the largest bilateral donor. The following models are run on time set panel data with fixed effects. The dependent variable is the absolute value of the difference in the recipient and donor’s ideal point estimates. All aid amounts are in constant 2007 USD.

	Coefficient	Std Error	P>t
Total Aid*	-.000095	.0000119	.000
Constant*	.9796	.0051	.000
			N=4737
	Coefficient	Std Error	P>t
Aid Share	-.0045	.0031	.153
Constant*	0.9670	.0047	.000
			N=4680
	Coefficient	Std Error	P>t
Total Aid*	-.0000554	.0000122	.000
PD Status*	-.1671	.0147	.000
Constant*	-1.0102	.0057	.000
			N=4737
	Coefficient	Std Error	P>t
Aid Share	.0027	.0031	.378
PD Status*	-.2043	.0148	.000
Constant	1.010	.0056	.000
			N=4680

Aid volumes and primary donor status better predict differences in ideal points than does aid share. The signs are negative which is in the expected direction. As aid increases, the differences between a donor and recipient's ideal points should decrease. The coefficient on primary donor status is considerably larger than that for aid volumes. This indicates that it would take a very large increase in aid volume to equal the effect of attaining primary donor on moving recipients in policy space.

Lagging the independent variables by one year produces largely the same results. Total aid volume still statistically significantly predicts the differences in ideal points and the sign is still negative. In the model with total aid volume and primary donor status, both variables retain their level of significance and coefficients change little. Similarly, in the model with aid share and primary donor status, aid share still does not come close to statistical significance and primary donor status retains the same level of significance and similar coefficient. The only real difference in results is that the previous year's aid share achieves statistical significance ($P > |t| = .010$) and the sign is in the expected direction (negative).

To see if the results varied by which measure of US military aid I used, I repeated the regressions from above using the sum of Greenbook military aid and US foreign military sales instead of the TIV SIPRI volumes. I do not run the model with aid share here because the denominator (total aid) uses SIPRI TIV amounts.

	Coefficient	Std Error	P>t
GB+FMS+ODA/OA	.000002	.0000101	.780
Constant*	.9263	.0096	.000
			N=1041

	Coefficient	Std Error	P>t
GB+FMS+ODA/OA	.000005	.0000101	.610
PD Status*	-.1001	.0249	.000
Constant*	.9652	.0136	.000
			N=1041

Lagging the independent variables does not change the results. Primary donor status retains its significance and its negative. However the lagged measure of Total US military aid comes closer to statistical significance in the model with Primary Donor Status ($P > |t| = .20$) though the coefficient is positive. These findings are contrary to the regressions results using the SIPRI aid data. There, aid volumes were statistically significant in all models here they are never statistically significant. This is perhaps because there are far fewer observations when using the FMS data. The number of observations dropped from 4737 using the SIPRI data to 1041 in this regression. However, 1041 is still

a very large sample. Primary donor status continues to perform strongly, but was calculated from the aid share variable which is based on TIV amounts.

I then conducted a series the same series of regressions using change variables instead of levels. The change variables were computed using one year differences. I ran the regressions using both lagged and non-lagged independent variables. Disappointingly, only one variable reached or came close to statistical significance and only in the models using lagged variables. Once again, primary donor status was the strongest predictor of influence. These results indicate that it is attaining primary donor status, not aid share or aid volumes that moves recipients closer to donors in policy space.

	Coefficient	Std Error	P>t
Change PD Status	-.0226	.0117	.052
Change Total Aid (-.00001	.0000	.252
Constant	.0058	.0036	.109
			N=4469

	Coefficient	Std Error	P>t
Change PD Status*	-.0236	.0121	.050
Change Aid Share	-.0024	.0019	.205
Constant	.0059	.0036	.106
			N=270

Initial results indicate that aid volumes, as measured by SIPRI TIV amounts, better predict differences in ideal points than do aid shares. However, primary donor status seems to be the best and most consistent predictor of the differences between donors and recipients in policy space. Primary donor status delivers a bonus amount of influence, on top of both the influence purchased by aid share and aid volumes. Furthermore, the change in primary donor status was the only change variable to achieve statistical significance. While the results of this test give interesting initial insights, I want to avoid “over-interpreting” them given my lack of confidence in the validity of the aid measures. In addition, since lagging variables and using changes versus levels of these variables alter results to a large degree, it is clear that I need to better specify these models. Using 3-5 year moving averages of the independent variables and a change dependent variable covering a longer time span might be more appropriate. This should smooth out the annual spikes and dips in aid trends and allow for more robust

models and results. It is also worth reemphasizing that the different measures of US military aid do produce very different regression results. This may in part be due to the fact that there are far fewer observations when using the FMS data. However, it seems more likely based on the earlier analysis in this paper that these differences in regression results are driven by substantive differences in what each measure of military aid is capturing. After solving the problem of how to add in military aid data, I plan to devote much more attention to both better specifying and more fully interpreting the models.

Conclusions and Implications

The results of my analysis in this paper (will) present initial evidence as to whether donors and recipients do in fact behave strategically. If aid volumes better predict influence buying than do aid share or primary donor status, this suggests that donors do not have to take into account the presence of other donors when allocating their aid budget. Recipients are able to reward donor's amounts of aid with incremental moves towards them in policy space. This suggests specifically that there is no competing donor pulling them in the other direction and more generally that donors do not compete for influence in recipient states. I expect that both aid share and primary donor status will better predict how and when donors are able to move recipients closer to them. While both of these measures support the characterization of the aid exchange as a strategic process between donors and recipients, they do imply slightly different behavior. If it is primacy that matters, donors might "give up" on trying influencing states where other donors have a significant aid presence. The bottom line is that if being the primary donor is only thing that matters not every state is worth competing for.

The findings in this study are also an important starting point for later chapters of my dissertation. These chapters seek to explain aid allocation decisions by characterizing aid as a strategic game of cooperation and competition between donors. The issue here of how aid translates into influence contributes to the understanding of how donors will use their aid budgets to most efficiently purchase influence in recipient states. While I have identified the tests I would like to conduct, unfortunately I have only a rough first cut set of results. The fact that I am adding the TIV arms transfer volumes to economic aid data as if they were dollar amounts presents major problems for the validity of my measures, and ultimately the confidence I have in my findings. I am holding off on conducting further tests until I can find a way to solve this problem of capturing "total aid."

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