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Aid and Growth: Politics Matters

by

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Abstract[1]

The literature on aid effectiveness has focused more on recipient policies than the determinants of aid allocation yet a consistent result is that political allies obtain more aid from donors than non-allies. This paper shows that aid allocated to political allies is ineffective for growth, whereas aid extended to countries that are not allies is highly effective. The result appears to be robust across different specifications and estimation techniques. In particular, new methods are employed to control for endogeneity. The paper suggests that aid allocation should be scrutinized carefully to make aid as effective as possible.

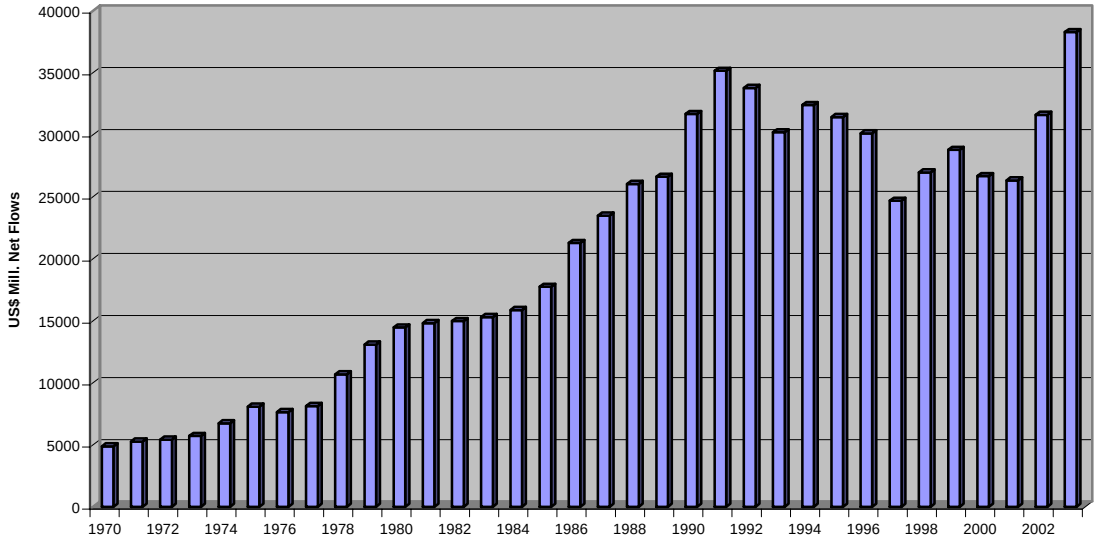
JEL classification: O1; O2; O4; C23
Keywords: Aid impact; Economic growth; Instrumental Variables; Generalized method of moments; Panel data

[1] Both authors are in the Research Department of the Inter American Development Bank. The views expressed in this paper are solely the views of the authors and do not necessarily reflect the views of the Inter-American Development Bank or any other institution. We are very grateful to Simon Scott at the OECD for answering many questions on the data. All mistakes naturally remain our own. Further comments are welcome at matteob(at)iadb.org and andrewp(at)iadb.org.

1. Introduction

After a dip in the late 1990s, bilateral foreign aid, graphed in Figure 1, has risen significantly in recent years.[2] But its effectiveness in terms of enhancing recipient economic performance remains controversial. While much of the extensive literature on the effectiveness of aid to enhance growth finds a positive effect, there are several notable papers that find no effect or even a negative relation. Much attention has been focused on aid-effectiveness conditional on recipient policies and the attractive idea that aid may be effective if combined with good policies adopted by recipient countries. Surprisingly, less attention has been paid to the results and implications of the aid allocation literature. A consistent result therein is that politics matters, or specifically that recipients that are allied politically to donors receive more aid than non-allies.

Figure 1. Bilateral Foreign Aid to Developing Countries



In this paper, we suggest that if politics matters for aid allocation, perhaps it also matters for aid effectiveness. One idea is that aid may be used to obtain political allegiance. This view reverses the standard causality of the aid allocation results. If aid is used to buy political allegiance it is likely that there will be less concern regarding the effectiveness of that aid for enhancing economic performance. A second view is that aid to political allies may be more tied in other dimensions than aid to non-allies. Political allegiance is likely to go hand in hand with a closer relationship in general, and hence recipients may feel they should (or are pressured to) buy

[2] Data from the OECD's Official Development Assistance database.

more goods and services from donors—typically financed by that aid. Both views suggest that aid between allies may be less effective than aid between non-allies.

The contribution of this paper is twofold. First, we believe that this is the first paper to disaggregate aid specifically taking into account a basic result of the aid allocation literature: that politics matters. In particular, we employ OECD data from 22 donors to a wide range of recipients for 24 years and split aid into aid between political allies and aid between non-allies using voting patterns in the UN general assembly. Second, taking into account this disaggregation, we focus our methodology on controlling for problems of endogeneity and for the likely medium to long-run impact of aid on growth. Aid between allies is explained well by deeper exogenous variables that have been used frequently in the literature such as a previous colonial relationship, common language or a formal political alliance. However, to explain aid between non-allies we find that other instruments explain the relevant aid patterns. We suggest that our instrumentation strategy provides a better explanation for the different patterns of aid than in previous work evidenced by the results of tests on instrument validity. Using a variety of specifications and estimation techniques we find robust and striking results.

The paper is organized as follows. In the next section we discuss relevant aspects of the aid allocation and the aid effectiveness literature. In Section 3 we explain the methodologies adopted, and Section 4 contains the main results. In Section 5 we provide conclusions, focusing on the implications of our results.

2. Motivation

There is a small but growing literature on the determinants of aid allocation. Alesina and Dollar (2000) first suggested that politics is an important determinant of aid for some donors. On the other hand, Chong (2006) suggests that donor characteristics including tax revenues and donor income inequality are important determinants of aid allocation. Powell and Bobba (2006) finds that politics, recipient characteristics *and* donor characteristics all play a role in explaining aid patterns. In particular, this paper confirms the result that countries tend to receive more aid from donors if they are allied politically and less if they are not political allies of donors.[3]

[3] The paper follows the literature in using voting in the UN general assembly to measure political alignment.

The extensive literature on aid effectiveness has tended to focus more on recipient characteristics than donor characteristics or ties between the two, and has paid little attention to determinants of the pattern of aid as potential explanations of aid effectiveness.[4] Excellent reviews of the aid effectiveness literature are included in Clemens, Radelet and Bhavnani (2004), Hansen and Tarp (1999) and Cassens (1994) to name but three. The first and most recent review cited, considers the work of Boone (see Boone 1994) as central in sparking an industry of growth regressions. Boone found that aid was largely ineffective in enhancing growth. A series of papers including Burnside and Dollar (2000), Collier and Dollar (2002), Collier and Hoeffler (2002), Islam (2003) and Ovaska (2003) then argued that aid is effective, but conditional on recipient characteristics. Relevant characteristics include inflation, budget balance, openness, an overall indices of the quality of policies and institutions, warfare, totalitarian government and economic freedom. However, there has been a lively debate regarding the robustness of these results; see especially the contributions by Easterly, Levine and Roodman (2003) and (2004).

On the other hand, Clemens, Radelet and Bhavnani (2004) disaggregate aid and suggest that only certain types of aid are likely to be effective in promoting growth. They also favor a non-linear effect of aid on growth and find that, accounting for diminishing returns, aid tends to be effective independently of recipient policies. Finally, they stress that most aid can only be expected to have effects on growth over the medium to longer run.[5]

The underlying problem of endogeneity is that while aid may affect recipient economic performance, that performance may well affect the quantity of aid received. Rajan and Subramajan (2005) argue in favor of a careful treatment of this issue, and their results take the literature right back to Boone. The conclusion is that, when including instruments that explain the pattern of aid but that are unrelated to recipient performance, aid is not effective for growth.

However, the consistent result that donors extend more aid to recipients that are political allies than to other countries, leads us to question whether aid to political allies may have a different nature than aid to non-allies. There are at least two broad justifications for thinking that aid between political allies may be different than aid between non-allies. The first is that aid may be used to influence recipient countries. This explanation would reverse the causality considered

[4] See for example Radelet's primer on aid (Radelet 2006a) where he states "to date there has been very little systematic research connecting specific donor practices to aid effectiveness."

[5] These results underline the idea that aid may come in different flavors and hence suggest that a somewhat richer instrumentation strategy than otherwise may be required to do justice in explaining aid patterns.

in the aid allocation literature.[6] If some aid is used to buy political allegiance then there may be less emphasis on ensuring that that aid is effective for growth.[7] A second view is that aid that is extended to political allies may be more tied in other dimensions than aid to non-allies. Specifically, if political allegiance implies a closer relation between donor and recipient in general then recipients may either feel that they should (or be forced to) buy goods or services from the donor country (typically financed by the aid) whether they be of the highest quality or not.[8] In both cases, our hypothesis is that aid extended to political allies may be rendered less effective for growth.

To some extent, using instruments to control for endogeneity may indirectly harness the determinants of aid allocation to explain aid effectiveness. The time-invariant instruments employed by Rajan and Subramajan (2005) include whether a country was a colony of a donor, whether there is a common language between recipient and donor and whether the countries had entered into a political alliance. While these variables appear to be adequate instruments for total aid by standard tests, we suspect that they will explain better aid to political allies rather than aid to non-allies. We suggest here that the more altruistic donor characteristics suggested by Chong (2006), including the equality of donor societies and the size of tax revenues, may better explain aid to non-allies.

In order to test our hypotheses, we need to separate aid to political allies from aid to non allies. As in previous papers, we use the voting correlations in the UN general assembly to measure political allegiance. Specifically, we use an indicator variable for the voting behavior of the countries in our database developed by Voeten (2005). Whenever a country votes in favor of a resolution that attracts a 1, if it abstains a 2 and when it votes against then the value is 3. We then calculate the correlation coefficient between each donor-recipient pair for each year of our sample. In Figure 2, we plot the distribution of the correlation of UN voting for selected donors. As can be seen from the graph different donors have different distributions. The United States

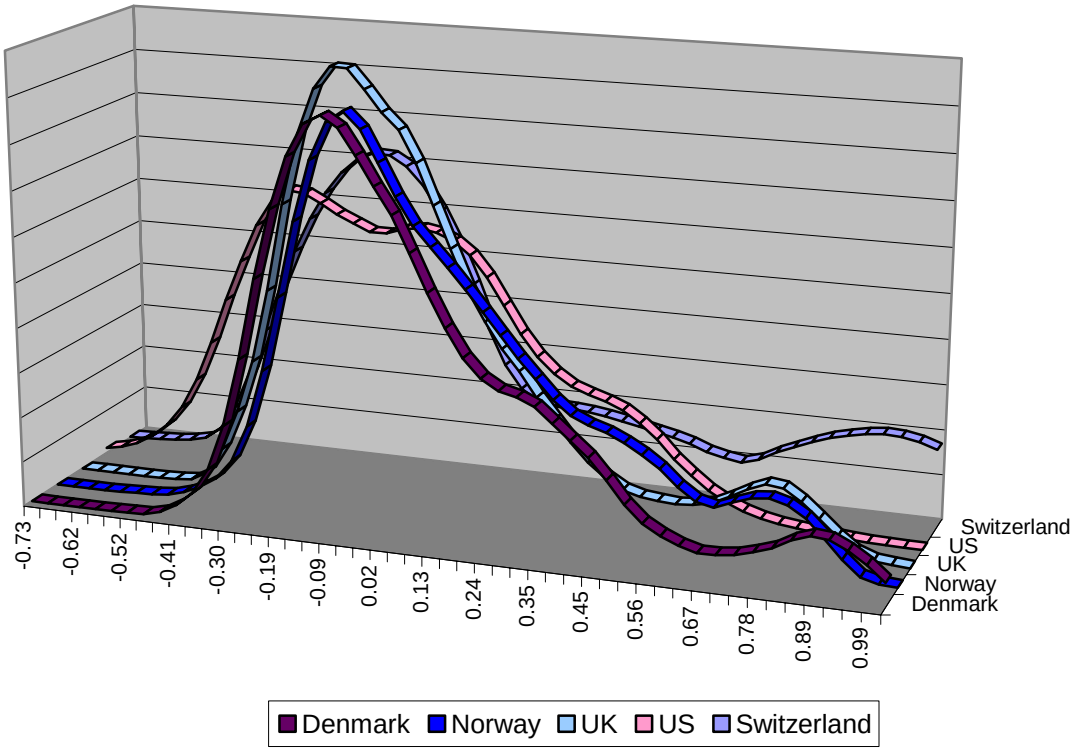
[6] Much of the literature on aid allocation established the correlation between these variables but not necessarily the causality.

[7] In the general direction of this view, Kuziemko and Werker (2006) argue that recipient countries that are members of the UN security council obtain more US foreign aid.

[8] The OECD data on aid splits aid into tied, partially tied and untied according to the destination of each loan or grant. However, there is some controversy and skepticism regarding the quality of this disaggregation and hence we were unwilling to employ this variable directly; see Roodman (2004) for a discussion. Still, the correlation between aid to political allies and the OECD tied aid series is 0.7 providing some support for the view that aid between allies may be more tied in other dimensions too.

and Switzerland have distributions with wide dispersion reflecting that they have many allies among potential aid recipients but also that there are many potential recipients that vote against them at the United Nations. The United Kingdom, Norway and Denmark have distributions with a lower dispersion, suggesting greater independence between their voting and that of potential aid recipients.

Figure 2. Frequency Domains for UN Alignment across Recipients for Various Donors

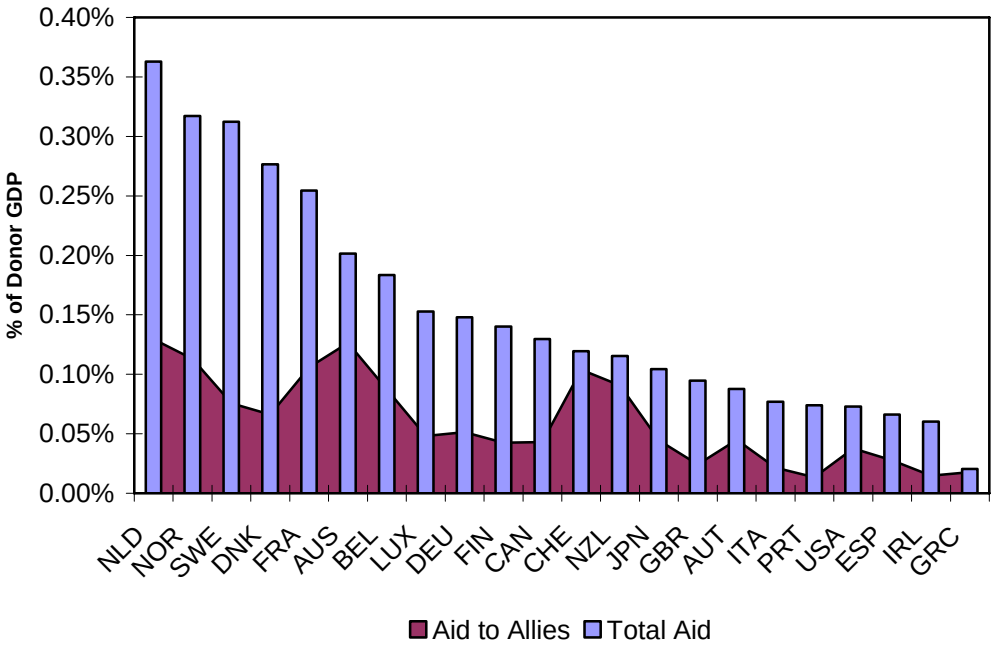


To be as clean and objective as possible, we simply considered two countries that displayed a voting correlation greater than the overall sample median in a particular year as allies for that period, whereas if the correlation was less than the median then they are considered as non-allies.[9] Splitting aid in this manner implies that about 49 percent of the volume of aid was extended to political allies across our sample. In Figure 3, we plot total aid extended and aid extended to political allies, both as a percentage of donor GDP. In general, countries that extend

[9] We have tested the sensitivity of our results to the choice of this threshold for our splitting rule. In particular, we chose the 33rd and 66th percentile of the distribution of UN voting as alternative thresholds. Results are shown in Appendix 2.

a larger share of aid as a percentage of GDP extend less aid to allies. Greece gives the largest proportion of aid to allies, followed by Switzerland and then New Zealand and Australia. Countries that give little aid to allies as a proportion of total aid include Ireland, Denmark and the United Kingdom.

Figure 3. Aid to Political Allies: Period Averages



3. Data and Methodology

The data on aid are drawn from the OECD database on Official Development Assistance (ODA). These data cover aid extended from 22 donors to a wide number of individual recipient countries.[10] In the analyses that follow we consider net flows. As discussed above, an important consideration is whether aid has a long-run or a medium-run impact on growth. In order to seek robustness we decided to consider both possibilities. We employ a cross-section with time-averages and to maximize the consistency of the panel we choose to consider the period 1980-2003 inclusive. We believe a 24-year period should be sufficient to capture the effects of aid on

[10] A caveat is that we do not consider aid from countries that are not members of the OECD. China, for example, has become an important source of finance for several developing countries.

growth, and over this period we can include some 133 recipient countries.[11] However, we also employ a panel analysis. Here we calculate five-year averages to consider what might be termed medium-run impacts, and to maximize the information used we consider the all the information available 1970-2003 and use unbalanced panel techniques. In the following subsections we discuss instrumentation strategies to control for endogeneity and provide further detail on the estimation techniques used to consider the medium and longer term impact of aid on growth.

3.1. Tackling Endogeneity: Instrumentation Strategies

Our methodology for addressing endogeneity follows Frankel and Romer (1999) and Rajan and Subramanian (2005), however the crucial difference compared to the latter paper is that we split aid into aid between allies and aid to non-allies and choose instruments accordingly. We believe that this not only allows us to estimate separate coefficients for what may be potentially different effects of different types of aid, but also improves dramatically the statistical quality of the instrumentation strategy.

For aid between allies we employ similar instruments to those used by Rajan and Subramanian (2005). However, here we also take into account the results from Alesina and Dollar (2000) and Powell and Bobba (2006) that different donors may behave differently. We therefore introduce interaction terms between some of the explanatory variables and country dummies such that, for example, the effect of a recipient being a colony may differ across donors. Specifically, we derive our instrument for Allies' Aid from the following regression for the bilateral (donor-recipient) aid allocation decision,

$$(1)\ \vartheta_{ijt} = \alpha + \beta ENTENTE_{ijt} + \delta COLONY_{ij} * DONOR_i + \gamma COMMLANG_{ij} + \eta_j + \nu_t + \varepsilon_{ijt}$$

where ϑ_{ijt} is the share of donor *i*'s aid allocated to recipient *j* at time *t* if recipient *j* is an ally. *ENTENTE* is a dummy that takes the value of 1 if the donor and recipient are common members of an entente or alliance in any given time period.[12] *COLONY* and *COMMLANG* are dummies representing, respectively, a former colonial relationship and common language between donor and recipient. η_j are recipient country dummies that control for other unobservable factors that

[11] For some countries the data go back to 1970, and we exploit these additional data using an unbalanced panel below.
[12] See Appendix 1 for description and sources.

might affect aid allocation decision, and ν_t are time dummies controlling for potential common trends.[13]

We derive our instrument for aid between non-allies using the following equation,

$$\sigma_{ijt} = a + bGDP_{it} + cGINI_{it} + dTAXREV_{it} + \eta_{ij} + \nu_t + \varepsilon_{ijt} \quad (2)$$

where σ_{ijt} is the share of recipient *j*'s aid received from donor *i* at time *t* where *i* is not a political ally. The explanatory variables are now the donor characteristics, as proposed by Chong (2006), that represent more altruistic determinants for aid and are hence excellent candidates for explaining aid allocations to non-allies.

We have a bilateral (donor-recipient) panel data set with five-year intervals spanning the period 1970-2003. Estimation results of equation (1) and (2) are shown in Table 1 and 2. Viewing Table 1, the reader will note that all variables are highly statistically significant and display the expected signs; between them they account for a substantial share (56 percent) of the variation in donor allocation decision of aid to allies. In Table 2 we see donor size and tax revenues are significant determinants of the amount of aid received by non-allies.[14]

[14] We estimate equation with bilateral (donor-recipient) fixed effects; nevertheless when we take the predicted value we only consider the portion of variation explained by our regressors.

Table 1. Modeling Aid to Allies

Dependent variable is the share of donor *i*'s aid allocated to recipient *j* at time *t*

	(1) (1970-2003)	(2) (1980-2003)
Dummy for common Membership in Entente Alliance	0.003	0.007
	(1.23)	(2.21)**
Dummy for Egypt	0.045	0.055
	(8.84)***	(10.77)***
egyptUSA	0.156	0.145
	(102.93)***	(92.00)***
israel	-0.000	0.001
	(0.04)	(0.27)
israelUSA	0.171	0.197
	(113.76)***	(125.01)***
colony	0.001	0.001
	(4.47)***	(2.93)***
colonyAUS	0.007	0.006
	(93.82)***	(60.83)***
colonyBEL	0.004	0.003
	(2.56)**	(2.52)**
colonyGBR	-0.000	-0.000
	(4.15)***	(3.33)***
colonyITA	0.001	0.001
	(20.71)***	(15.93)***
colonyJPN	0.002	0.000
	(21.37)***	(2.82)***
colonyNLD	0.002	0.001
	(4.49)***	(8.40)***
colonyNZL	0.001	0.001
	(16.95)***	(13.88)***
colonyPRT	0.001	0.001
	(17.95)***	(13.67)***
comlang	0.007	0.008
	(4.32)***	(5.23)***
Constant	0.003	-0.000
	(0.50)	(0.04)
Observations	6627	4685
R-squared	0.56	0.56
Time effects	yes	yes

Robust t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 2. Modeling Aid to Non-Allies
Dependent variable is the share of recipient *j*'s aid received from donor *i* at time *t*.

	(1) (1970-2003)	(2) (1980-2003)
Log(GDP of Donor)	0.197	0.144
	(5.69)***	(4.01)***
Gini Coefficient in Donor	-0.000	-0.000
	(0.84)	(0.50)
Tax Revenues	0.003	0.002
	(3.21)***	(2.27)**
Constant	-1.878	-1.406
	(5.56)***	(3.95)***
Observations	4926	4370
Number of id	1642	1632
Donor-Recipient fixed effect	yes	yes
Time effects	yes	yes
R-squared (within variation)	0.04	0.01

Robust t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

The crucial exclusion restriction here is that historical and political connections between donors and recipients that explain aid to allies and donors' characteristics that explain aid to non-allies are uncorrelated with recipient country economic performances. This identification assumption seems highly plausible to us, as the non time-variant and historical links (explanatory variables in equation 1) and donor characteristics (explanatory variables equation 2) are unlikely to affect directly economic growth in recipient countries.

We then compute the predicted values from these first stages and aggregate across donors accordingly. In particular, the predicted value from equation (1) is $\hat{\vartheta}_{ijt} = \left(\frac{AlliesAid_{ijt}}{\sum_{j=1}^{R} Aid_{ijt}} \right)$, and we compute the instrumented allies' aid to GDP ratio with the following aggregation formula:

$$\left(\frac{\widehat{AlliesAid}}{Gdp} \right)_{jt} = \frac{\sum_{i=1}^{22} \left(\hat{\vartheta}_{ijt} \cdot \sum_{j=1}^{R} Aid_{ijt} \right)}{Gdp_{jt}} \quad (3)$$

Similarly, the predicted value from equation (2) is $\hat{\sigma}_{ijt} = \left(\frac{NonAlliesAid_{ijt}}{\sum_{i=1}^{D} Aid_{ijt}} \right)$, and we compute the instrumented Non-allies' aid to GDP ratio with the following aggregation formula:

(4) $$\widehat{\left(\frac{NonAlliesAid}{Gdp} \right)}_{jt} = \frac{\sum_{i=1}^{22} \left(\hat{\sigma}_{ijt} \cdot \sum_{i=1}^{D} Aid_{ijt} \right)}{Gdp_{jt}}.$$

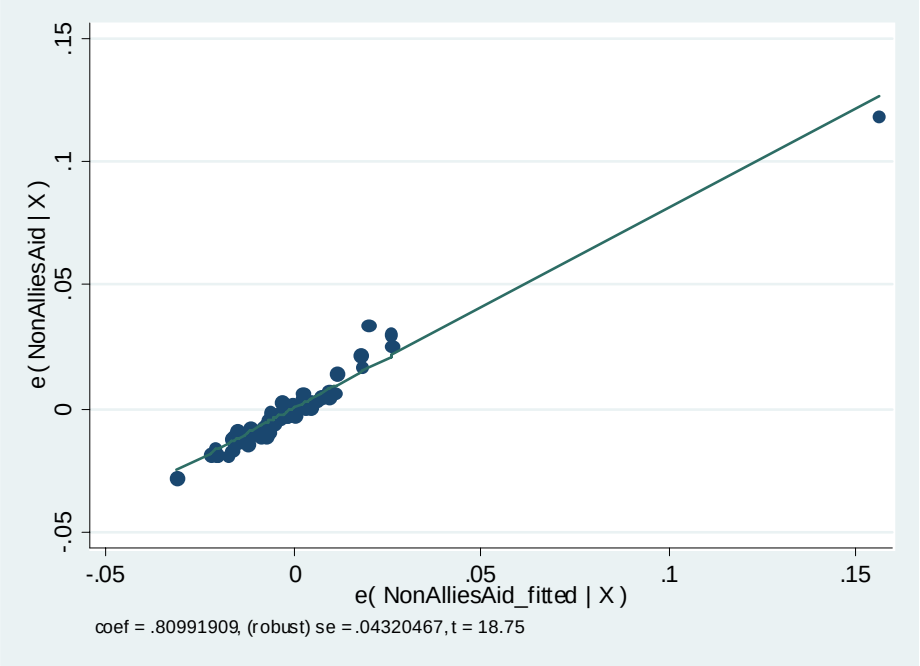
These computations then allow us to estimate growth equations using the above as instruments. For example, we can estimate a panel growth regression of the following form,

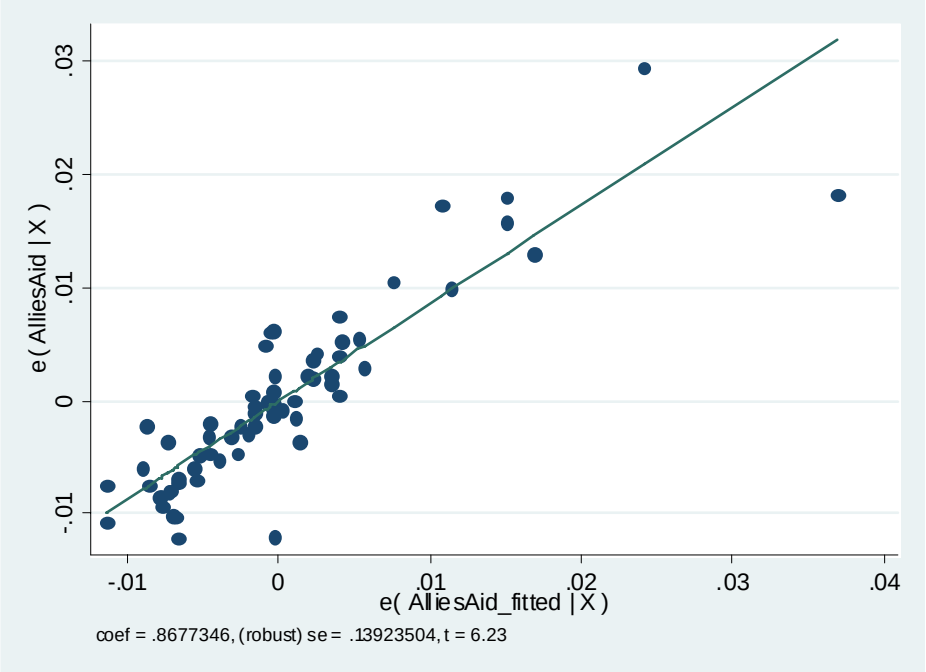
$$(5)\ GROWTH_{jt} = \alpha + \lambda y_{jt-1} + \beta \left(\frac{AlliesAid}{Gdp} \right)_{jt} + \phi \left(\frac{NonAlliesAid}{Gdp} \right)_{jt} + \gamma CONTROLS_{jt} + \varepsilon_{jt}$$

where y_{it-1} is the conditional convergence term, namely the initial level of income per capita and *CONTROLS* is a vector of standard growth determinants. We may then instrument the terms including *AlliesAid* and *NonAlliesAid* using the instruments derived above from equations (3) and (4).

Besides exogeneity, another concern with our instruments is that there may be other variables in the vector *CONTROLS* such as GDP per capita, institutions or economic policies that drive the correlation between the actual values of *AlliesAid and NonAlliesAid* Aid and their fitted values estimated from equations (3) and (4), respectively. Figure 4 shows the scatter plot of the conditional relationship between *AlliesAid* and *NonAlliesAid* Non-Allies' Aid and their relative instruments, conditional on all the covariates that enter into equation (5). The charts illustrate the very strong conditional relationship between the two types of aid and their fitted values with a correlation coefficient of 0.87 and 0.80 and T-statistics of 6.23 and 18.7, respectively. The conclusion is that the instruments appear to contain a great deal of information regarding the actual values.

Figure 4. Conditional Relations between Estimated and Fitted Aid Types





There has been a substantial debate in the literature regarding the appropriate estimation of equation (5). There are perhaps three main methodological caveats. The first refers to a standard problem of growth empirics, namely the fact that the equation is dynamic due to the conditional convergence term, hence any attempt to control for the problem of unobservable heterogeneity by incorporating country fixed effects would produce inconsistent estimates. One way to overcome this problem is averaging the data over the whole period and estimating a pure cross-section; alternatively, one can estimate the equation in a panel with a pooled OLS estimator and hence without specifying the fixed effects. Both estimators have the drawback that we can never be sure whether we are controlling for all possible ways in which countries might differ. A further possibility is to employ the Blundell-Bond GMM system estimator. This estimator addresses both the problem of the endogeneity of standard growth controls (through the use of instruments and corresponding moment restrictions) and implicitly incorporates fixed effects.[15]

The second caveat refers to the time horizon at which it is appropriate to evaluate the effect of aid on economic growth. While much of the literature studies the aid-growth relationship over the shorter run (with a panel dataset of time windows ranging from three to five years), others stress that the impact of aid on economic performance will likely take longer to materialize, and hence growth equations with cross-sectional averages taken over longer time horizons may be more appropriate.[16]

The third concern is model specification, particularly the choice of controls. Temple (1999) summarizes several widespread concerns regarding the fragility of cross-country growth regressions. More specifically, Roodman (2004) tests the robustness of the relationship between aid and growth by replicating and assessing the validity of the most influential studies in the literature and performing a number of specification tests. He concludes that the results are indeed fragile. However, he does not split aid according to the results of the aid allocation literature.

Given these methodological issues, we present estimates of equation (5) using i) time average cross sections (OLS, 2SLS and 3SLS) over the whole period, ii) a pooled panel OLS estimator using 5 year time averages and again employing with OLS, 2SLS and 3SLS estimators, *and* iii)

[15] Hauk and Wacziarg (2004) argue, based on Monte Carlo simulations, and taking account of all the advantages and limitations of the different estimation procedures, that the pure cross-section OLS estimator that averages data over long periods is the most inefficient. However, their simulations do not consider the Blundell-Bond estimator.

[16] Again see Clemens et al. (2004) for a review of this point.

using the Blundell Bond GMM system estimator with the same five-year-averages panel dataset and with alternative instrument sets. Given the issues regarding the fragility of controls, we first chose controls that may be considered as exogenous and that have been used in the literature—in particular by Rajan and Subramanian (2005)—and then performed several experiments in terms of dropping controls or replacing them with other variants, perhaps more susceptible to criticisms of endogeneity, and found that the results are robust to these variations.[17] In the following section we present the main results.

4. Results

4.1. The Long-Run Effect of Aid on Growth: Cross-Sectional Evidence

Table 3 summarizes our main results for the cross section estimation of equation (5) averaging data over the period 1980-2003.[18] The standard set of controls includes initial per capita income (in log), a measure of institutional quality (the ICRG index from the World Bank), measures of geography, which are a dummy for Sub-Saharan Africa and the fraction of the country's area in the tropics, and external shocks represented by the average growth and variability of the terms of trade. Column 1 employs total aid (as a percentage of recipient GDP) rather than splitting aid into that between allies and non-allies, the relative estimated coefficient is not significant. In column 2 we control for potential endogeneity of this variable, and we find the relative estimated coefficient to be negative and marginally significant. These results confirm the main findings of Rajan and Subramanian (2005) of no aggregate relationship between aid and growth or possibly even a negative relationship.

In Columns 3-7 we split total aid as a percentage of GDP into aid to allies and aid to non-allies and we test the robustness of our results by employing alternative estimators and instrumentation strategies. The results are striking. Aid between allies is always negative for growth, while aid between non-allies is always positive and significant in explaining growth. This result holds in a simple OLS (Column 3) and across various 2SLS estimators that employ alternative instrument sets. Our preferred estimator is the one in Column 6 in which both aid

[17] See Appendix 3.
[18] We also tested robustness by considering a shorter time average; see Appendix 4 for these results.

between allies and between non allies are instrumented with their respective fitted values derived from equations (1) and (2).[19]

Table 3. Cross Section Analysis for Period 1980-2003
(Dependent Variable is average annual growth rate of per capita GDP)

Model	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS	(5) 2SLS	(6) 2SLS	(7) System of eq
Total Aid(% GDP)	-0.803	-1.587					
	(1.95)*	(1.67)*					
NonAlliesAid(% GDP)			1.765	1.618	1.985	1.912	1.780
			(2.19)**	(2.19)**	(2.48)**	(2.22)**	(1.84)*
AlliesAid(% GDP)			-5.956	-5.790	-6.533	-6.539	-6.914
			(3.66)***	(3.75)***	(3.43)***	(3.45)***	(3.99)***
log(Initial Per Capita GDP)	-0.083	-0.091	-0.096	-0.096	-0.098	-0.098	-0.101
	(3.62)***	(3.92)***	(4.45)***	(4.77)***	(4.75)***	(4.80)***	(6.00)***
Dummy for Sub-Saharan Africa	-0.135	-0.124	-0.163	-0.162	-0.166	-0.165	-0.162
	(3.70)***	(3.57)***	(4.86)***	(5.13)***	(5.22)***	(5.12)***	(5.04)***
Institutional quality (ICRG Index)	0.010	0.010	0.011	0.011	0.011	0.011	0.011
	(3.24)***	(3.59)***	(3.61)***	(3.88)***	(3.92)***	(3.93)***	(5.51)***
Fraction of area in the tropics	-0.017	-0.009	0.026	0.025	0.031	0.031	0.034
	(0.44)	(0.24)	(0.65)	(0.67)	(0.78)	(0.79)	(0.96)
Terms of Trade Growth	0.215	0.205	0.121	0.125	0.109	0.109	0.102
	(1.41)	(1.43)	(0.82)	(0.91)	(0.78)	(0.78)	(0.84)
St. deviation of Terms of Trade Growth	-0.038	-0.028	-0.062	-0.060	-0.063	-0.062	-0.060
	(0.96)	(0.71)	(1.51)	(1.58)	(1.61)	(1.58)	(1.16)
Constant	0.144	0.187	0.199	0.199	0.205	0.208	0.220
	(1.11)	(1.52)	(1.57)	(1.70)*	(1.72)*	(1.76)*	(1.72)*
Observations	67	67	65	65	65	65	65
R-squared	0.44	0.40	0.53	0.53	0.53	0.56	
Instrumented Variables		Total Aid (% GDP)		NonAlliesAid(% GDP)	AlliesAid (% GDP)	AlliesAid and NonAllies Aid	Growth, AlliesAid and NonAlliesAid
Instruments		Rajan et al Fitted Aid (% GDP)		Fitted NonAlliesAid Aid(% GDP)	Fitted AlliesAid(% GDP)	Fitted AlliesAid and Fitted NonAllies Aid	Fitted AlliesAid and Fitted NonAlliesAid
F Test of Excluded iv		8.12		193.71	27.56		
Craigg-Donald Test for Weak iv						53.81	
Robust t statistics in parentheses							
* significant at 10%; ** significant at 5%; *** significant at 1%							

[19] Note that the correlation between aid to allies and to non-allies is only 0.46. Moreover, the correlation between the fitted values of aid between allies and non-allies estimated from equations 1 and 2 is around zero. We conclude that these results are not driven by any high positive correlations between the regressors. See Appendix 5 for the correlation matrix.

We have also performed several tests to evaluate the statistical quality of instruments and reported the relevant test statistics in Table 3. We note that the instrument of total aid relevant for Column 2 seems to perform weakly in terms of the conditional correlation with its respective actual value; this is not surprising given that, in this case, in the first stage of aid allocation we regressed total aid on historical and political factors that are unlikely to explain the overall pattern of aid extended to every donor. On the other hand, when we split aid into aid between allies and aid to non-allies and use these values as dependent variables in our aid allocation equations (1) and (2), the relative performance of the resulting fitted values is outstanding.[20]

Finally, the model of Column 7 employs a 3SLS full information estimator that estimates equation (5) together with its two first stages in a system of equations. Besides this different estimation technique, here we are imposing the restriction that the two types of aid do not interact with each other in the first stages.[21] The results are again fully consistent with those in columns 3-6.

Also note that the all the controls are significant, with signs and magnitude in accordance with the literature, with the exception of the external shocks variable, which is not significant.

4.2 The Medium-Run Effect of Aid on Growth: Evidence Using Panel Data

Here we employ a panel dataset employing five-year time windows spanning the period 1970-2003. Since we are trying to explain shorter-run growth dynamics, the set of controls employed differs from the one in the cross section of Table 3 and include initial per capita income (in log), the inflation rate (in log), an openness index and the same measures of geography and institutional quality employed above. Table 4 displays estimation results of a pooled OLS model without fixed effects across the same estimators of Table 3. With respect to our coefficients of interest, the results are very similar to the one in the cross-section and confirm our main findings. Total aid as a percentage of GDP has a non-significant impact on growth, whereas when we split this term into aid between allies and aid to non-allies we find the former negative and the latter positive and significant. Again, the results are robust across various estimators and instrument sets.

[20] On weak instruments see Stock and Wright (2000) and Stock and Yogo (2004). When we split aid into aid between allies and non-allies, the instruments employed produce test statistics that exceed by far the critical values proposed in this literature.

[21] Namely, we drop the non-allies' aid term from the allies' aid first-stage equation and the allies' aid term from the non-allies' aid first-stage equation.

Table 4. Panel Analysis for Period 1970-2003
(Dependent Variable is average annual growth rate of per capita GDP)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Model	OLS	2SLS	OLS	2SLS	2SLS	2SLS	System of eq
Total Aid(% GDP)	0.083	-0.867					
	(0.23)	(0.96)					
NonAlliesAid(% GDP)			1.618	2.511	2.587	3.032	2.946
			(2.21)**	(2.65)***	(2.54)**	(2.80)***	(3.53)***
AlliesAid(% GDP)			-2.906	-3.983	-5.403	-5.088	-5.804
			(1.58)	(2.24)**	(2.24)**	(2.16)**	(3.51)***
log(Initial Per Capita GDP)	-0.013	-0.029	-0.029	-0.028	-0.029	-0.022	-0.022
	(0.54)	(1.22)	(1.17)	(1.18)	(1.13)	(0.82)	(0.79)
log(inflation)	-0.013	-0.011	-0.013	-0.013	-0.011	-0.012	-0.014
	(1.75)*	(1.52)	(1.73)*	(1.82)*	(1.55)	(1.63)	(1.37)
Openness Index	-0.036	-0.022	-0.041	-0.044	-0.053	-0.061	-0.056
	(0.97)	(0.64)	(1.11)	(1.18)	(1.43)	(1.62)	(1.50)
Dummy for Sub-Saharan Africa	-0.102	-0.084	-0.131	-0.142	-0.121	-0.131	-0.127
	(2.36)**	(1.91)*	(3.19)***	(3.53)***	(3.35)***	(3.58)***	(3.03)***
Institutional quality (ICRG Index)	0.008	0.008	0.010	0.010	0.011	0.011	0.010
	(4.32)***	(4.52)***	(4.76)***	(5.00)***	(6.01)***	(5.91)***	(4.99)***
Fraction of area in the tropics	-0.043	-0.041	-0.012	-0.006	0.018	0.018	0.021
	(0.98)	(0.96)	(0.23)	(0.12)	(0.41)	(0.40)	(0.52)
Constant	-0.233	-0.100	-0.186	-0.166	-0.261	-0.320	-0.259
	(1.08)	(0.49)	(0.84)	(0.71)	(1.18)	(1.38)	(1.28)
Observations	243	243	192	191	157	156	156
R-squared	0.31	0.29	0.33	0.32	0.33	0.33	
Instrumented Variables		Total Aid (% GDP)		NonAlliesAid (% GDP)	AlliesAid (% GDP)	AlliesAid and NonAlliesAid	Growth, AlliesAid and NonAlliesAid
Instruments		Rajan et al Fitted Aid (% GDP)		Fitted NonAlliesAid Aid(% GDP)	Fitted AlliesAid(% GDP)	Fitted AlliesAid and Fitted NonAlliesAid	Fitted AlliesAid and Fitted NonAlliesAid
F Test of Excluded iv		7.90		156.25	119.06		
Craigg-Donald Test for Weak iv						79.69	

Robust t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

As discussed above, estimating a panel without fixed effects has the key drawback that it does not control for unobservable heterogeneity across countries. An alternative and arguably superior approach that controls for potential endogeneity of the regressors *and* introduces fixed effects is the Blundell-Bond GMM system estimator.[22] This estimation technique allows us to specify two different types of instruments: the so-called "internal instruments" (i.e., past levels and differences of the endogenous regressors together with contemporaneous values of strictly exogenous variables), and "external instruments" (i.e., exogenous variables that do not enter into the growth equation and whose contemporaneous values are used as instruments).

In this case, we employ the lagged values of explanatory variables as internal instruments, as is standard, including measures of economic policies (GDP per capita, inflation and trade openness) together with the lagged actual values of aid to allies and aid to non-allies. To create a second instrument set we also add as external instruments the fitted values of aid derived from aid allocation equations (1) and (2). Given that these are derived from more clearly exogenous variables we anticipate that this second instrument will be superior.

Table 5 shows our main results of estimation of equation (5) with the same set of controls of the previous panel estimation. The models in columns 1 and 2 use total aid as the dependent variable (as a percentage of recipient GDP) and the estimated coefficient is not significant regardless of the instrument set used. This mirrors are results above and several papers in the literature that aid is not effective for growth. In columns 3 and 4 however we split the aid term into aid to allies and aid to non-allies and compare the results for the two alternative instrument sets. When only internal instruments are used (column 3) then both aid terms appear non-significant, whereas when we employ internal and add external instruments (namely the fitted values of aid to allies and aid to non allies from equations 1 and 2 respectively) we confirm our previous finding that aid to allies has a negative impact on growth while aid to non-allies appears positive and significant. We interpret these findings as further evidence that, once we address the issue of endogeneity appropriately, by taking into account how aid is allocated, politics matters for aid effectiveness.

[22] Within the range of GMM estimators for dynamic panel models, we prefer the Blundell-Bond system estimator, that stacks the levels and the difference equations together in a system, precisely as it allows us to incorporate fixed effects even though we also have time invariant regressors, but also when compared to say the Arellano-Bond estimator, which considers only the difference equation, the Blundell-Bond estimator appears to do better in terms of efficiency and less bias when there are relatively few individuals as is typical in cross country regressions; see Bond et al. (2001).

Table 5. Panel GMM for Period 1970-2003
(Dependent Variable is average annual growth rate of per capita GDP)

	(1)	(2)	(3)	(4)
Model	SYS GMM	SYS GMM	SYS GMM	SYS GMM
growth rate (t-1)	0.843	0.856	0.960	0.879
	(7.14)***	(7.44)***	(7.62)***	(8.50)***
Total Aid(% GDP)	-0.023	-0.240		
	(0.08)	(0.60)		
NonAlliesAid(% GDP)			0.161	1.24
			(0.24)	(2.86)***
AlliesAid(% GDP)			-0.501	-1.78
			(0.32)	(1.83)*
log(Initial Per Capita GDP)	-0.139	-0.106	-0.159	-0.125
	(2.59)***	(2.04)**	(2.69)***	(2.14)**
log(inflation)	0.014	0.014	0.005	0.004
	(1.36)	(1.40)	(0.45)	(0.39)
Openness Index	0.015	0.036	0.018	-0.001
	(0.29)	(0.73)	(0.34)	(0.02)
Dummy for Sub-Saharan Africa	-0.119	-0.081	-0.143	-0.154
	(2.17)**	(1.49)	(2.18)**	(2.77)***
Institutional quality (ICRG Index)	0.019	0.017	0.018	0.017
	(5.68)***	(5.65)***	(5.18)***	(4.91)***
Fraction of area in the tropics	-0.048	-0.042	-0.028	-0.024
	(1.42)	(1.20)	(0.82)	(0.73)
Constant	0.129	-0.050	0.387	0.185
	(0.33)	(0.12)	(0.97)	(0.50)
Observations	242	242	191	155
Number of id	66	66	63	63
Endogenous variables used as instruments	Total Aid, loggdppc, loginfl, open_index	loggdppc, loginfl, open_index	Tied Aid, Untied Aid, loggdppc loginfl open_index	loggdppc loginfl open_index
Exogenous variables used as Instruments		Rajan et al Fitted Aid(% GDP)		Both Fitted Tied and Untied Aid
Hansen test of overid. restrictions (p-value)	0.17	0.15	0.48	0.37
Arellano-Bond test for AR(1) in first diff	0.00	0.00	0.02	0.02
Arellano-Bond test for AR(2) in first diff	0.92	1.00	0.71	0.74

Robust z statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

5. Conclusions

In this paper we have revisited the debate on whether foreign aid is effective in enhancing economic performance in recipient countries and in particular in spurring growth. Our main hypothesis is that the way aid is allocated is important in determining aid effectiveness. A consistent result of the aid allocation literature is that politics matters and hence it seems natural to question whether politics also matters for aid effectiveness.

Our main finding is that aid extended to non-allies has a strong positive impact on recipient countries' economic growth, whereas aid to political allies has a negative impact. These results are robust across different samples, model specifications, time horizons, estimators and instrumentation strategies. While there are always caveats that must accompany any empirical analysis of this nature, our results do appear to be striking in terms of both quantitative impact and robustness. In particular, we feel our instruments more adequately explain the pattern of aid than standard donor-recipient time-invariant factors that may explain the pattern of aid between allies but not between non-allies. We remain agnostic regarding the precise mechanism behind our results but consider two likely possibilities supported by additional evidence: i) aid is used to buy political allegiance and hence its effectiveness for growth may be at best a secondary consideration, and ii) aid between allies may be more tied in other dimensions than aid between non-allies.

These results carry strong policy conclusions. They show that foreign aid can be very beneficial to economic development around the world independent of recipient policies. Indeed, the results stress the role played by donors rather than by recipients. This emphasis stands in contrast to much of the recent debate regarding aid effectiveness, which has focused on recipient policies. We suggest here that donors' allocation policies should be seen as a leading determinant of aid effectiveness.

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Appendix 1: Description of Variables

Category	Variable	Description	Scale	Source	Notes
Dependent Variables	Total Aid (% GDP)	ODA net flows as percentage of GDP in PPP	percent	OECD, 2005. Geographical Distribution of Financial Flows to Aid Recipient	The Total Official Development Assistance (ODA) includes grants or loans to countries and territories on Part I of the DAC List of Aid Recipients (developing countries) which are : - undertaken by the official sector; - with promotion of economic development and welfare as the main objective. - at concessional financial terms (if a loan, have a grant element of at least 25 per cent). Grants, loans and credits for military purposes are excluded.
	AlliesAid(% GDP)	Aid extended from each donor to recipients with UN voting correlation above the sample median	percent	Authors computation using OECD data	
	NonAlliedAid(% GDP)	Aid extended from each donor to recipients with UN voting correlation below the sample median	percent	Authors computation using OECD data	
	growth GDPPC	Annual difference of natural log of Gross Domestic Product per capita in constant 2000 price	percent	Authors computation using WDI data	
Ties between donors and recipients	political allignment with donors	Annual correlation of voting records in UNGA between recipient and donor	natural units in (-1,1) interval	Erik Voeten, Political Science and International Affairs.	Votes were recorded at each UN General Assembly according to the following criterion: 1 Yes, 2 Abstain, 3 No, 8 Absent, 9 Not a Member. Linear correlation coefficent between donor and recipient voting patterns is then computed for each year.
	colony	Number of years as a colony of donor since 1900	natural units	ICOW Colonial History data set	
	egypt	dummy variable for Egypt	binary 0-1	WDI	
	israel	dummy variable for Israel	binary 0-1	WDI	
	Common Language	dummy=1 if donor and recipient share common language	binary 0-1		
	distance	distance between donor and recipient	natural log		
Donors Characteristics	GDP	Gross Domestic Product in constant international price	natural log	PWT	
	Gini Coefficient	Gini Index of Income Inequality	natural units in (0,1) interval	WIDER, United Nations	
	Tax Revenues (% GDP)	Tax Revenues over Gross Domestic Product	percent	WDI	
	Institutional Quality	International Country Risk Guide (ICRG) Index of Institutional Quality	natural units in (0,7) interval	PRS group	
Recipients Characteristics	GDPPC	Initial Period Gross Domestic Product per capita in current international price	natural log	WDI	
	openness	Sachs and Warner Index of Trade Openness	natural units in (0,1) interval	Sachs and Warner (1995), updated by Tabellini et al (2005)	A country is rated as an open economy according to the foollowing four criteria: (1) average tariff rates below 40 %, (2) average quota and licencing coverage of imports of less than 40 %, (3) black market exchange rate premium that averaged less than 20 % and (4) no extreme controls (taxes, quotas, state monopolies) on exports
	Fraction of area in the tropics	The Fraction of a country's alnd area in the tropics	percent	Doppelhoffer et. al (2004)	
	Terms of Trade growth	Annual Percentage change of terms of trade	percent	Authors computation using WDI data	
	Std of Terms of Trade growth	Standard deviation of terms of trade growth	natural units	Authors computation using WDI data	
	inflation	Annual Percentage Change of CPI index	natural log	Authors computation using WDI data	
	Budget Balance (% GDP)	Budget Surplus/Deficit as percentage of GDP	percent	World Economic Forum	

Appendix 2. Alternative splitting rules for AlliesAid and NonAlliesAid according to UN voting.
Cross Section Analysis for period 1980-2003.
Dependent Variable is average annual growth rate of per capita GDP

Splitting Rule	Zero corr		33rd percentile		66th percentile		before 33rd perc and after 66th perc	
	(1)	(2)	(3)	(4)	(3)	(4)	(3)	(4)
Model	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
NonAlliesAid(% GDP)	1.379	1.264	2.652	1.452	2.314	2.307	3.244	3.146
	(2.04)**	(1.72)*	(1.88)*	(0.82)	(2.10)**	(2.18)**	(2.11)**	(1.82)*
AlliesAid(% GDP)	-4.965	-5.022	-4.403	-3.281	-6.953	-7.108	-7.409	-7.914
	(3.52)***	(3.00)***	(2.73)***	(1.31)	(3.22)***	(3.31)***	(2.90)***	(2.87)***
log(Initial Per Capita GDP)	-0.085	-0.086	-0.089	-0.089	-0.095	-0.095	-0.097	-0.103
	(4.49)***	(4.71)***	(3.55)***	(3.28)***	(4.21)***	(4.44)***	(3.98)***	(3.98)***
Dummy for Sub-Saharian Africa	-0.152	-0.148	-0.172	-0.165	-0.185	-0.185	-0.201	-0.203
	(4.81)***	(4.99)***	(3.80)***	(3.80)***	(4.66)***	(4.78)***	(4.27)***	(4.17)***
Institutional quality (ICRG Index)	0.009	0.009	0.010	0.010	0.011	0.011	0.011	0.011
	(3.49)***	(3.72)***	(3.03)***	(2.99)***	(3.28)***	(3.51)***	(3.16)***	(3.37)***
Fraction of area in the tropics	0.019	0.019	0.042	0.034	0.004	0.005	0.048	0.060
	(0.53)	(0.54)	(0.79)	(0.55)	(0.10)	(0.13)	(0.93)	(1.08)
Terms of Trade Growth	0.202	0.200	0.225	0.253	0.235	0.232	0.224	0.219
	(1.42)	(1.48)	(1.41)	(1.63)	(1.54)	(1.62)	(1.49)	(1.59)
Std of Terms of Trade Growth	-0.046	-0.043	-0.034	-0.036	-0.050	-0.050	-0.036	-0.030
	(1.21)	(1.19)	(0.88)	(0.99)	(1.33)	(1.39)	(0.92)	(0.82)
Constant	0.226	0.226	0.148	0.164	0.200	0.203	0.175	0.190
	(1.98)*	(2.12)**	(0.94)	(1.17)	(1.53)	(1.68)*	(1.18)	(1.39)
Observations	64	63	58	57	67	67	58	57
R-squared	0.52	0.52	0.49	0.48	0.52	0.52	0.52	0.52
Craigg-Donald Test for Weak iv		125.26		32.65		85.60		45.39

Robust t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Appendix 3. Robustness Check. Panel Analysis for period 1970-2003.
Dependent Variable is average annual growth rate of per capita GDP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Model	OLS	2SLS	OLS	2SLS	2SLS	2SLS	System of eq
Total Aid(% GDP)	0.545	0.060					
	(2.05)**	(0.10)					
NonAlliesAid(% GDP)			1.818	2.327	2.411	2.730	2.602
			(2.72)***	(3.06)***	(3.06)***	(3.23)***	(2.94)***
AlliesAid(% GDP)			-2.168	-2.781	-3.901	-3.617	-3.997
			(1.53)	(1.97)**	(2.12)**	(2.03)**	(2.30)**
log(Initial Per Capita GDP)	0.054	0.043	0.046	0.046	0.048	0.055	0.049
	(1.60)	(1.29)	(1.28)	(1.38)	(1.27)	(1.44)	(1.51)
Institutional quality (ICRG Index)	0.007	0.007	0.007	0.007	0.006	0.006	0.007
	(3.55)***	(3.70)***	(3.43)***	(3.66)***	(3.06)***	(3.00)***	(3.35)***
log(inflation)	-0.003	-0.002	-0.001	-0.001	-0.004	-0.004	-0.005
	(0.29)	(0.21)	(0.13)	(0.13)	(0.48)	(0.49)	(0.50)
Openness Index	-0.048	-0.038	-0.047	-0.050	-0.066	-0.075	-0.054
	(1.14)	(0.89)	(1.02)	(1.12)	(1.31)	(1.46)	(1.35)
Budget Balance(% GDP)	0.393	0.247	0.666	0.773	0.731	0.836	0.800
	(0.83)	(0.53)	(1.60)	(1.92)*	(1.66)*	(1.84)*	(1.15)
Constant	-0.595	-0.550	-0.399	-0.463	-0.396	-0.411	0.000
	(2.01)**	(1.94)*	(1.42)	(1.77)*	(1.52)	(1.51)	(.)
Observations	217	217	174	173	144	143	143
R-squared	0.43	0.42	0.42	0.42	0.41	0.41	
Instrumented Variables		Total Aid (% GDP)		NonAllies Aid (% GDP)	AlliesAid (% GDP)	AlliesAid and NonAllies Aid	Growth, AlliesAid and NonAlliesAid
Instruments		Rajan et al Fitted Aid (% GDP)		Fitted NonAllies Aid Aid(% GDP)	Fitted AlliesAid(% GDP)	Fitted AlliesAid and Fitted NonAllies	Fitted AlliesAid and Fitted NonAlliesAid
F Test of Excluded iv		8.38		119.66	112.58		
Craigg-Donald Test for Weak iv						162.81	

Robust t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Appendix 4. Cross Section Analysis for period 1990-2003.
Dependent Variable is average annual growth rate of per capita GDP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Model	OLS	2SLS	OLS	2SLS	2SLS	2SLS	System of eq
Total Aid(% GDP)	-0.641	-2.309					
	(0.93)	(1.30)					
NonAlliesAid(% GDP)			2.759	3.225	3.765	4.014	3.124
			(2.17)**	(2.61)***	(2.35)**	(2.45)**	(1.71)*
AlliesAid(% GDP)			-7.714	-8.293	-10.329	-10.231	-9.499
			(3.18)***	(3.41)***	(2.99)***	(3.02)***	(2.82)***
log(Initial Per Capita GDP)	-0.094	-0.113	-0.114	-0.114	-0.122	-0.120	-0.122
	(3.00)***	(3.22)***	(3.49)***	(3.76)***	(3.90)***	(3.84)***	(3.52)***
Dummy for Sub-Saharian Africa	-0.178	-0.156	-0.230	-0.236	-0.244	-0.247	-0.235
	(3.20)***	(2.90)***	(4.10)***	(4.47)***	(4.34)***	(4.36)***	(3.61)***
Institutional quality (ICRG Index)	0.018	0.018	0.018	0.018	0.018	0.018	0.018
	(3.25)***	(3.55)***	(3.22)***	(3.46)***	(3.52)***	(3.50)***	(4.56)***
Fraction of area in the tropics	-0.044	-0.030	0.033	0.036	0.051	0.050	0.046
	(0.58)	(0.42)	(0.39)	(0.46)	(0.62)	(0.61)	(0.63)
Terms of Trade Growth	0.379	0.288	0.295	0.294	0.256	0.267	0.259
	(1.45)	(1.14)	(1.13)	(1.21)	(1.04)	(1.09)	(1.39)
Std of Terms of Trade Growth	0.099	0.093	0.068	0.065	0.056	0.056	0.060
	(0.88)	(0.84)	(0.60)	(0.62)	(0.52)	(0.52)	(0.60)
Constant	-0.207	-0.081	-0.110	-0.111	-0.065	-0.079	-0.066
	(0.66)	(0.28)	(0.35)	(0.38)	(0.22)	(0.27)	(0.24)
Observations	71	71	67	67	67	67	67
R-squared	0.39	0.36	0.44	0.44	0.44	0.44	
Instrumented Variables		Total Aid (% GDP)		Untied Aid (% GDP)	Tied Aid (% GDP)	Both Tied and Untied Aid	Growth, AlliesAid and NonAlliesAid
Instruments		Rajan et al Fitted Aid to GDP		Fitted Untied Aid(% GDP)	Fitted tied Aid(% GDP)	Both Fitted Tied and Untied Aid	Both Fitted Tied and Untied Aid
F Test of Excluded iv		5.82		213.97	109.19		
Craigg-Donald Test for Weak iv						59.90	

Robust t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Appendix 5: Correlation Matrices

A. Cross Section Database (1980-2003)

	NonAlliesAid	Non Allies Aid Fitted
AlliesAid	0.4662	0.4783
AlliesAid Fitted	0.0892	0.0155

B. Panel Database (1970-2003)

	NonAlliesAid	Non Allies Aid Fitted
AlliesAid	0.4856	0.6081
AlliesAid Fitted	-0.0251	-0.016