# Political Aid Cycles* 

Michael Faye ${ }^{\dagger} \quad$ Paul Niehaus ${ }^{\ddagger}$

June 23, 2011


#### Abstract

Researchers have scrutinized foreign aid's effects on poverty and growth, but anecdotal evidence suggests that donors often use aid for other ends. We test whether donors use bilateral aid to influence elections in developing countries. We find that recipient country administrations closely aligned with a donor receive more aid during election years, while those less aligned receive less. Consist with our interpretation, this effect holds only in competitive elections, is absent in U.S. aid flows to non-government entities, and is driven by bilateral alignment rather than incumbent characteristics.


[^0]
## 1 Introduction

Since Boone (1994; 1996) reignited debate on the effectiveness of foreign aid, a large literature has examined its impacts on economic development. ${ }^{1}$ This is an important agenda on normative grounds and eminently sensible: after all, Official Development Assistance (ODA) is by definition financing "with promotion of economic development and welfare as the main objective." (OECD, 2006) Might it nevertheless miss part of the story? Might donors also use aid for political change abroad?

The 2006 Palestinian elections suggest so. In these elections the U.S.-backed incumbent Palestinian Authority (P.A.) faced strong opposition from Hamas. In the weeks preceding the elections the United States Agency for International Development Assistance (USAID) funded several development programs in Palestine including the distribution of free food and water, a street-cleaning campaign, computers for community centers, and even a national youth soccer tournament. A progress report distributed to USAID and State Department officials was strikingly candid about the objective:
"Public outreach is integrated into the design of each project to highlight the role of the P.A. in meeting citizens needs. The plan is to have events running every day of the coming week, beginning 13 January, such that there is a constant stream of announcements and public outreach about positive happenings all over Palestinian areas in the critical week before the elections." (Wilson and Kessler, 2006)

This paper examines whether the Palestinian episode is indicative of a broader phenomenon: do donors use foreign aid to influence elections?

If so, the political cycles literature suggests that donors might adjust aid flows immediately before elections according to whether they favor the incumbent or not. We test this hypothesis using an empirical strategy analogous to differences-in-differences estimation: we compare aid flows in election and non-election years for recipient administrations that are more or less politically aligned with a donor. If donors do attempt to help more aligned administrations (or hamper less aligned ones) then we should see differentially higher aid flows in election years for more aligned administrations. Following Alesina and Dollar (2000) we use voting patterns at the United Nations to measure alignment between administrations. ${ }^{2}$ We include donor-recipient fixed effects in all our models, and

[^1]hence estimate election effects using only time variation within donor-recipient pairs.
We find that donors give significantly more aid in election years to recipient administrations that are more closely aligned. An administration that is two standard deviations more politically aligned with the donor receives $\$ 20$ million more ODA on average during an election year as opposed to a non-election year, which is $35 \%$ of mean annual ODA level in our sample. The least aligned administrations experience a decrease in aid during election years: an administration one standard deviation below mean alignment receives $\$ 8$ million less on average during an election year. On average aid is no higher during election years than non-election years, which suggests that donors and not recipients are responsible for political aid cycles.

We provide three additional pieces of evidence for the influence hypothesis. First, political aid cycles are driven by donor-specific alignment rather than alignment with the "average" donor, confirming that bilateral politics is the key driver. Second, political aid cycles are concentrated in competitive elections, as one would expect if donors are more likely to intervene when the stakes are higher. Third, U.S. funding to nongovernmental and opposition groups exhibits (statistically insignificant) political cycles opposite to those in ODA, consistent with the influence hypothesis but inconsistent with omitted variables interpretations. The Appendix shows that our results are also robust to using aid disbursements v.s. commitments, to dropping the largest aid recipients, to controlling directly for outliers, and to focusing on elections that take place later in the calendar year.

Our findings add to work on aid's determinants, which has shown that aid allocations are strongly correlated with measures of political alignment. ${ }^{3}$ Along with Kuziemko and Werker (2006) and Dreher and Jensen (2007) this paper provides evidence that politics plays a causal role. This point has further implications for the aid effectiveness literature, which has built on the determinants literature by using political variables as instruments for aid. The assumption implicit in this strategy is that politics affects how aid is allocated but not how it is used. Our results raise the question of whether intent matters - that is, whether aid given for political ends has different impacts than aid given purely to promote development. ${ }^{4}$ They also imply that selecting leaders may be an important channel through which aid influences development. ${ }^{5}$

Our analysis also fits within work on political cycles more generally, which has docu-
present evidence that US aid is used to buy UN votes without specific reference to elections.
${ }^{3}$ E.g. Alesina and Dollar (2000), Neumayer (2002), Barro and Lee (2005), and Dreher et al. (2009).
${ }^{4}$ Clemens et al. (2004) make the related argument that different kinds of aid have impacts over different time horizons.
${ }^{5}$ See Jones and Olken (2005) on the importance of national leaders.
mented a pattern of fiscal expansion prior to elections in developing countries. ${ }^{6}$ Several of the explanations proposed for this pattern may also explain our results - voters may naively "vote their pocketbooks" or may infer candidate quality from social spending (Rogoff, 1990). Alternatively, changes in aid flows may signal the strength of the incumbent's relationship with the donor. As for impacts, there is some evidence that fiscal policy affects voting, though valid instruments are scarce. ${ }^{7}$

The rest of the paper is organized as follows: Section 2 describes our data sources and Section 3 our empirical methodology. In Section 4 we present the main results along with robustness checks and extensions; the Appendix presents additional robustness checks. Section 5 concludes.

## 2 Data Sources

Our source for ODA figures is the OECD Development Co-operation Directorate (DAC) database. We use ODA commitments from 1975-2004, inflated to constant 2004 U.S. dollars, as our main outcome variable. (Results using aid disbursements instead are somewhat smaller but otherwise similar - see Appendix Table A.2). We consider only bilateral donors, since multilateral donors have multiple stakeholders making it difficult to define donor-recipient alignment. We focus on the five largest donors during the study period (the United States, Japan, Germany, France, and the United Kingdom) who together accounted for $77 \%$ of aid commitments. This gives us a 30 -year panel with 116 recipients in total and an average of 102 recipients per donor-year. ${ }^{8}$ It is important to note that ODA as defined by the DAC must meet three criteria: it must be "(a) undertaken by the official sector (b) with promotion of economic development and welfare as the main objective (c) at concessional financial terms [if a loan, having a Grant Element of at least 25 per cent]" (OECD, 2006). ODA does not include grants, loans and credit for military purposes or transfer payments to private individuals.

[^2]To account for the possibility that some aid is specifically intended to facilitate elections we incorporate data from the DAC Creditor Reporting System (CRS), which presents ODA statistics broken down by purpose. The database is incomplete and includes only a fraction of the ODA in the DAC database; OECD representatives claim it is a random subsample of the DAC data but cannot account for specific differences. We nonetheless use the data to subtract aid directed towards "elections" and "government administration" (sector codes 15161 and 15140) from our outcome variables in order to be sure that there is nothing mechanical driving our results. Of course, since our goal is to estimate differential election year effects by political alignment, election-facilitating aid is a priori unlikely to affect the results. In practice, the excluded aid makes up only $1 \%$ of total CRS aid and whether we include or exclude it has essentially no impact on the results.

Data on executive elections come from the World Bank Database of Political Institutions (DPI) (Beck et al., 2005). The data include the years that elections were held between 1975 and 2004. We observe a total of 274 elections in our final sample, with 71 of the 116 aid-receiving countries holding at least one election. Most (262) executive elections take place in presidential systems, with the rest (12) in parliamentary systems. The mean probability of an election occurring in any particular recipient-year is $8.9 \%$ and increases by $0.2 \%$ per year after controlling for recipient fixed-effects (not reported). The DPI also includes information on the election outcomes and an index of electoral competitiveness which we describe in Section 4 where we differentiate our results by the competitiveness of elections. ${ }^{9}$

Our measure of political alignment is the fraction of UN General Assembly votes in which both countries voted (either yes or no) for which their votes coincided. Any vote for which a country was absent, abstained, or was not a member of the UN is not counted in its total. We calculate this fraction for every donor-recipient-year observation and use the average of this variable over each recipient administration's term in office as our measure of alignment. This aggregation does not distinguish between more and less important votes, but we were unable to systematically improve upon it since donors likely differ in the importance they attach to specific votes. General Assembly voting records are taken from Documenting Votes in the UN General Assembly v2.0 (Voeten, 2005). According to the measure, in 2004 the recipient most aligned with the United States was Israel (UN alignment of .96) while the one least aligned was North Korea (.02). On the other

[^3]hand, France was least aligned with Israel (.51) but most aligned with Slovenia (.98). Interestingly, recipients' UN alignment with the United States does not appear to reflect public sentiment: in the 2004 cross-section it is negatively correlated with the fraction of foreigners with a favorable view of the Unites States ( $\rho=-0.22, p=0.26$ ) and the fraction that believe that the United States takes into account the interests of countries like their own ( $\rho=-0.35, p=0.07$ ), as measured by the Pew Global Attitudes Survey.

Additional demographic and economic controls are taken from the World Development Indicators database (World Bank, 2005). Tables 1 and 2 present summary statistics.

## 3 Empirical Methodology

Let $d$ index donor countries, $r$ index recipient countries, and $t$ index years. We first estimate the direct relationship between bilateral aid and elections:

$$
\begin{equation*}
O D A_{d r t}=\delta_{1} E L E C_{r t}+X_{d r t}^{\prime} \beta+\alpha_{d r}+\epsilon_{d r t} \tag{1}
\end{equation*}
$$

Here $E L E C_{r t}$ is an indicator which takes the value 1 if recipient $r$ held an election for the chief executive office in year $t, X_{d r t}$ is a vector of time-varying donor or recipient-specific control variables such as population and GDP, and $\alpha_{d r}$ represents a vector of donorrecipient fixed effects. In this specification $\delta_{1}$ represents the average effect of elections on aid flows. Our donor influence hypothesis does not predict anything particular about $\delta_{1}$ : in some cases a donor may wish to support an incumbent by increasing aid flows, while in others the donor may seek to hurt an incumbent's electoral chances by restricting aid flows, and $\delta_{1}$ averages together these offsetting effects.

There are, however, several other reasons why one might expect aid to be systematically different in election years. First, elections could alter aid's effectiveness. Media scrutiny might be higher and electoral discipline stronger, leading to more effective use of funds; alternatively, incentives for corruption might be stronger because of the need to finance campaigns or because of shortened time horizons, leading to less effective use of funds. Election years might also be more prone to civil unrest and internal conflict, which could either attract or deter aid. Second, elections might be endogenously timed in some countries. Politicians with discretion over the timing of elections may schedule them to coincide with periods of strong economic performance in order to increase their chances of reelection (Ito, 1990). They might also aim to hold elections at times when aid inflows were high. If so we should see a positive relationship between elections and aid. Finally, aid might increase during election years because recipients intensify their requests for aid in hopes of boosting their electoral prospects. This view is similar to our
influence hypothesis in that aid is used to influence elections, but distinct in that incumbent leaders rather than donors have agency. A key distinguishing feature of this view is that aid should only increase and not decrease during election years, since incumbents would never request aid reductions. We estimate Equation 1 as an omnibus test of these hypotheses.

One statistical concern is that elections may be correlated with unobserved recipient characteristics - for example, well-governed countries might hold elections more frequently and also receive more aid. We address this possibility by including donor-recipient fixed effects (the $\alpha_{d r} \mathrm{~s}$ ) in Equation 1. This eliminates any time-invariant attributes of recipients and of their bilateral relationships with donors, leaving only time variation within donorrecipient pairs with which to estimate election effects. Another concern is that trends in aid have mirrored trends in election frequency. To control for this possibility we include, alternately, year fixed effects, donor-year fixed effects, and time-varying controls such as population and GDP.

After estimating (1) we move to our main question: do donors provide differentially more aid in election years to recipient administrations with which they are more politically aligned? Donors might engage in this behavior if changes in aid flows could affect election results. There are several channels through which this effect could operate. It could be that increases in aid allow a government to increase visible social spending (e.g., distribution of free food, employment and public works programs) as in the Palestinian anecdote in the Introduction. Social spending might directly influence voters beliefs about the candidate, or indirectly by signaling something about candidate quality (Rogoff, 1990). Incumbents may also be able to use public funds to directly finance campaign activities, or inflows of aid might signal levels of foreign support for the incumbent government. Regardless of the exact mechanism, we expect increased aid to improve an incumbent's chances of winning re-election, while reductions in aid would harm these chances. ${ }^{10}$

To test the influence hypothesis we estimate

$$
\begin{equation*}
O D A_{d r t}=\delta_{1} U N_{d r t}+\delta_{2} E L E C_{r t}+\delta_{3} E L E C_{r t} * U N_{d r t}+X_{d r t}^{\prime} \beta+\alpha_{d r}+\epsilon_{d r t} \tag{2}
\end{equation*}
$$

Here $U N_{d r t}$ is our measure of political alignment between the donor $d$ and recipient $r$ at time $t$, which captures average alignment over the recipient administration's previous

[^4]term in office. Intuitively, $\delta_{3}$ estimates the differences-in-differences between election year effects for more and less politically aligned regimes. This identification strategy allows for unobserved factors that covary with both aid and elections (e.g., conflict and efficiency of aid spending, as discussed above) provided they do not do so differentially by political alignment. It also directly addresses concerns about election endogeneity: in order for endogenous election timing to bias estimates of this specification, more closely aligned governments would need to be more (or less) likely to shift elections toward such years. We include the same battery of time-varying controls as above.

A final methodological issue concerns inference. Even after removing donor-recipient and time fixed effects the error terms in (1) and (2) are unlikely to be conditionally uncorrelated within dimensions of the panel, as is necessary for consistency of the usual OLS standard errors (Bertrand et al., 2004; Petersen, 2005). Since there are several possible dimensions on which to cluster we use the most general approach, non-nested multi-way clustering along each of the three dimensions of the panel (donors, recipients, and years) as proposed by Cameron et al. (2006). The only restriction this imposes is that $\operatorname{Cov}\left(\epsilon_{d r t}, \epsilon_{e s u}\right)=0$ for $d \neq e, r \neq s, t \neq u$. While we prefer this approach for its robustness, our results are also significant when we use more restrictive approaches, e.g. clustering on donor-recipient pairs to allow for autocorrelation.

## 4 Results

### 4.1 Is There an Election Year Effect?

We first test whether there are election-year aid shocks in recipient countries. Columns I-III of Table 3 report estimates of Equation 1, in which the election year indicator enters uninteracted as a predictor of bilateral aid. The results suggest a very small positive direct relationship between aid and elections that is statistically indistinguishable from zero. This is true whether we control for time-varying influences using year fixed effects (Column I), donor-year fixed effects (Column II), or macroeconomic controls (Column III). Moreover, this does not seem to be due to a lack of power: the magnitudes within a $95 \%$ confidence interval are still only on the order of $\$ 10$ million.

The absence of a relationship between mean aid flows and election years increases our confidence that the differential effects we document below are not driven by omitted variable bias. Any variables correlated with election timing that affect aid decisions, such as domestic conflict, would have shown up in these regressions. The non-result is also inconsistent with the hypothesis that politicians systematically time elections to coincide with large inflows of aid; this accords with the existing literature, which has not found
strong evidence of endogenous timing (Alesina et al., 1999). Finally, it is inconsistent with the view that recipients proactively request more aid during election years and donors passively respond.

### 4.2 Is There a Differential Election Year Effect by Political Alignment?

We now turn to our main question: do ODA flows change differentially in election years for recipient administrations that are more and less aligned with the donor. Columns IV-VI of Table 3 report estimates of Equation 2, which are our central results. Starting with Column IV, we see that an administration that is two standard deviations more politically aligned with the donor can expect to receive $\$ 20$ million more in ODA flows during an election year than the less aligned administration. This figure represents $35 \%$ of the average annual ODA level in our sample. Moreover, this large positive interaction term combined with the negative direct effect of an election year implies that while the more politically aligned recipient administrations receive an increase in ODA during election years, the less politically aligned administrations experience a decrease in ODA. For example, an administration one standard deviation below the mean level of donoralignment receives $\$ 8$ million less on average during an election year. In contrast, an administration one standard deviation above the mean receives $\$ 12$ million more during an election year.

The fact that less aligned administrations receive less aid during election years is particularly important as it is incompatible with the idea that recipients themselves drive the observed patterns: one would have to believe that less aligned administrations request a decrease in aid during election years. Similarly, endogenous timing is an unlikely explanation: one would have to believe that less-aligned governments systematically choose low-aid years in which to hold elections.

Regarding robustness, Columns V and VI show that the results hold up when we include donor-year fixed effects or macroeconomic controls; they are also robust to recipientspecific trends (not reported). The Appendix shows that political cycles are more pronounced for elections that take place in the latter half of the calendar year and insignificant for elections that take place in the first three months of the year, confirming that our results are driven by aid before rather than after elections. The Appendix also reports checks for the influence of outliers. In brief, the results are robust to (a) controlling for individual outlier observations, (b) dropping the larger aid recipients, and (c) using aid disbursements rather than commitments as the dependent variable. The point estimates are smaller in some of these specifications but consistently statistically significant and
economically relevant. Estimates using the logarithm of ODA as the dependent variable are less precise, but consistent in sign and magnitude with our base results and significant for elections after the first three months of the year (as is the case when estimating in levels).

It is difficult to accurately quantify the costs of political campaigning in developing countries, but what rough figures are available suggest that our estimates are large. For example, the Washington Post estimates that the main candidates in Kenya's 2007 presidential election spent $\$ 6$ million to $\$ 10$ million each on their campaigns (McCrummen, 2007). Vicente (2007) studies vote-buying in São Tomé and Príncipe and estimates that the median price of a presidential vote is $\$ 4.20$.

### 4.3 Are Aid Cycles Really Bilateral?

As a first interpretation check we examine in more detail what exactly "donor-recipient political alignment" measures. Although it is natural to think of UN voting measuring international relations, it could also be that high UN alignment captures some other characteristic of an incumbent leader that makes him attractive to donors. It could even be that donors use political cycles to support the leaders that are best for their countries, in which case aid cycles would still be consistent with the definition of ODA. This seems unlikely given the variation in UN voting across donors - recall that in 2004 Israel was the U.S.'s most-aligned recipient and also France's least-aligned - but a systematic test is desirable.

We implement a test as follows: we decompose $U N_{d r t}$ into the component $\overline{U N}_{r t} \equiv$ $\sum_{d} \frac{U N_{d r t}}{D}$ which is common to all donors and the residual $\widetilde{U N}_{d r t}=U N_{d r t}-\overline{U N}_{r t}$ which is donor-specific. Intuitively, if political aid cycles are driven by recipient-level characteristics then we should find that they are predicted by the common component of UN votes, while if bilateral politics are key then the donor-specific component should drive the results. We estimate

$$
\begin{array}{r}
O D A_{d r t}=\delta_{1} \widetilde{U N}_{d r t}+\delta_{2} \widetilde{U N}_{r t}+\delta_{3} E L E C_{r t}+\delta_{4} E L E C_{r t} * \widetilde{U N}_{d r t}+\delta_{5} E L E C_{r t} * \overline{U N}_{r t} \\
+X_{d r t}^{\prime} \beta+\alpha_{d r}+\epsilon_{d r t} \tag{3}
\end{array}
$$

Columns VII-IX of Table 3 present the results. We find that aid cycles are driven entirely by the idiosyncratic, donor-specific component of UN alignment; the election-year coefficient on the common component is small and statistically insignificant. This suggests that aid cycles are indeed about bilateral politics and not a concerted effort by donors to select particular kinds of leaders for recipient countries.

### 4.4 Are The Effects Stronger in Closer Elections?

We next differentiate elections by how readily a donor could influence them, proxying for ease of influence with measures of competitiveness. The motivating idea is that changes in aid flows are more likely to influence an election that is hanging in the balance that one that is a foregone conclusion. To test this formally we allow for distinct political cycles around non-competitive elections (indicated by $N O N C O M P_{r t}$ ) and competitive ones (indicated by $1-N O N C O M P_{r t}$ ):

$$
\begin{align*}
& O D A_{d r t}=\delta_{1} U N_{d r t}+\delta_{2} N O N C O M P_{r t}+\delta_{3} U N_{d r t} * N O N C O M P_{r t} \\
& +\delta_{4} E L E C_{r t} *\left(1-\text { NONCOMP }_{r t}\right)+\delta_{5} U N_{d r t} * E L E C_{r t} *\left(1-N_{\text {NONCOMP }}^{r t} \text { }\right) \\
& +\delta_{6} E L E C_{r t} * \text { NONCOMP }_{r t}+\delta_{7} U N_{d r t} * E L E C_{r t} * \text { NONCOMP }_{r t}+\alpha_{d r}+\epsilon_{d r t} \tag{4}
\end{align*}
$$

Here $\delta_{4}$ and $\delta_{5}$ measure political cycles around competitive elections, while $\delta_{6}$ and $\delta_{7}$ measure those around non-competitive ones. We predict the former pair to be large and the latter pair small.

We use two complementary proxies for the competitiveness of an election. The first characterizes an election as noncompetitive if the winner received more than $75 \%$ of the votes. We observe this measure for 225 elections, of which 73 are defined as noncompetitive. For example, the 1996 presidential election in Zimbabwe in which Robert Mugabe received a commanding $93 \%$ of the vote is characterized as noncompetitive. This outcome might reflect either overwhelming support for Mugabe or electoral fraud; in either case we expect that this election would have been difficult for a donor to influence.

The vote-share approach has several limitations. One is availability: we observe voting outcomes for only 64 of the 71 aid-receiving countries that held elections, and of course for none of those that did not. A second is potential endogeneity: if variation in ODA affects which elections have a winner with more than $75 \%$ of the vote then our estimates would be biased (though the sign of the bias is unclear). Though we believe that setting the threshold at $75 \%$ minimizes this possibility, we cannot rule it out. To compensate for these limitations we also introduce a second proxy for competitiveness: an indicator for whether multiple parties are illegal at the time of the election. We derive this from the DPI's Executive Index of Electoral Competitiveness (EIEC) (Beck et al., 2005). This is an objective measure of political competition, available for all 274 elections in our sample (105 of which it categorizes as non-competitive) as well as for for aid-receiving countries that did not hold executive elections, and not subject to the endogeneity bias discussed above. The obvious drawback is that it captures only one aspect of competitiveness - there are surely elections in our sample in which multiple parties were legal and yet the outcome was never in doubt. The EIEC measure and the voting measure of noncompetitiveness
are positively correlated but the magnitude of the correlation is only 0.50 , suggesting that they do contain different information.

The first three columns of Table 4 present results using the vote-based measure of competitiveness. For competitive elections our point estimates again indicate a political aid cycle, smaller in magnitude but highly significant. ${ }^{11}$ For non-competitive elections, however, there is no evidence of a cycle at all. This contrast becomes even sharper when we use the EIEC-based measure of competitiveness in Columns IV-VI. We find a large and strongly significant aid cycle around competitive elections, but no cycle around non-competitive ones. These results support the joint hypothesis that donors use aid to influence elections and that the expected returns to doing so are greater in more competitive elections.

### 4.5 Are there Cycles in Aid Flows to NGOs?

Our analysis thus far has focused exclusively on ODA flows, which originate with donor governments and benefit recipient governments. But some donors also give money to non-governmental entities in developing countries. Testing for political cycles in these aid flows is interesting for two reasons. First, it serves as a placebo test: if our ODA results were driven by some omitted variable affecting the desirability of sending aid then we would expect to see analogous cycles in aid to non-governmental groups. Second, if some of the non-governmental groups who receive foreign aid are in fact part of the political opposition then our influence hypothesis predicts an opposite political cycle in their funding.

Unfortunately we do not have systematic data on support from donors to non-governmental groups in developing countries. However, we did obtain data on funds channeled through the U.S. National Endowment for Democracy. Congress established the NED in 1983 at President Reagan's request to promote democracy abroad, and it continues to receive over $99 \%$ of its $\$ 110$ million in annual revenue from the federal government (NED, 2006). The NED funds many non-governmental entities (e.g. trade unions, civic and social organizations, policy institutes, media outlets, and political parties) which potentially represent a mixture of political opposition groups and non-political organizations. While the NED's stated policy is "not [to] pick and choose among the democratic competitors in countries where such competition is possible" (NED, 2007), observers have accused it of doing so. For example, in the 1980s it funded groups opposing Costa Rican president and 1987

[^5]Nobel Peace Laureate Oscar Arias, whose peace proposals for Central America conflicted with Reagan's support for the Contras in Nicaragua (Greenberger, 1989). Suggestively, U.S. ODA to Costa Rica fell from $\$ 213 \mathrm{M}$ in 1986 when Arias won the presidency to $\$ 124$ in 1990 when his party's nominee lost to Rafael Fournier (Arias was constitutionally prohibited from seeking re-election).

We obtained data on all NED grants from 1990 to 2005 including amounts, years, and recipient countries. In Table 5 we report estimates of Equation 2 using NED flows as our new outcome variable, with results for U.S. ODA over the same time period in Column IV for comparison (note that ODA flows greatly exceed NED grantmaking, explaining the difference in magnitude of the coefficients). While the NED estimates are not significant they point in the opposite direction as those for ODA flows: NED aid is higher in election years when UN votes is low, and lower when UN votes is high. This is consistent with the influence hypothesis but inconsistent with omitted variables interpretations of our earlier results.

## 5 Conclusion

This paper argues that donor countries use ODA to influence the outcome of foreign elections. During election years, donor countries increase ODA to recipient administrations that are politically aligned with them and reduce ODA to less aligned administrations. Auxiliary tests support our interpretation of this pattern. First, it is driven by alignment between specific donors and recipients, not alignment between recipients and donors in general. Second, it holds only for competitive elections. Third, U.S. funding to non-governmental entities follows an opposite pattern, albeit insignificantly.

## References

Achen, Christopher and Larry Bartels, "Blind Retrospection: Electoral Responses to Droughts, Flu and Shark Attacks," Technical Report, Princeton University January 2004.

Alesina, Albert, Nouriel Roubini, and Gerald Cohen, Political Cycles and the Macroeconomy, The MIT Press, 1999.

Alesina, Alberto and David Dollar, "Who Gives Foreign Aid to Whom and Why?," Journal of Economic Growth, 2000, 5, 33-63.

Barro, Robert J. and Jong-Wha Lee, "IMF programs: Who is chosen and what are the effects?," Journal of Monetary Economics, 2005, 52, 1245-1269.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh, "New Tools In Comparative Political Economy: The Datbase of Political Institutions," World Bank Economic Review, 2005, 15 (1), 165-176.

Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, "How Much Should We Trust Differences-in-Differences Estimates?," The Quarterly Journal of Economics, 2004, 119, 249-275.

Boone, Peter, "The Impact of Foreign Aid on Savings and Growth," 1994. Centre for Economic Performance Working Paper No. 677 (London School of Economics).
_ , "Politics and the effectiveness of foreign aid," European Economic Review, 1996, 40, 289-329.

Brender, Adi and Allan Drazen, "Political budget cycles in new versus established democracies," Journal of Monetary Economics, October 2005, 52 (7), 1271-1295.
_ and _ , "How Do Budget Deficits and Economic Growth Affect Reelection Prospects? Evidence from a Large Panel of Countries," American Economic Review, 2008, 98 (5), 2203-20.

Burnside, Craig and David Dollar, "Aid, Policies, and Growth," American Economic Review, 2000, 90 (4), 847-868.

Cameron, A. Colin, Jonah B. Gelbach, and Douglas L. Miller, "Robust Inference with Multi-Way Clustering," 2006. NBER Technical Working Paper 327.

Clemens, Michael, Steven Radelet, and Rikhil Bhavnani, "Counting Chickens When They Hatch: The Short-term Effect of Aid on Growth," Working Papers 44, Center for Global Development July 2004.

Cole, Shawn, Andrew Healy, and Erik Werker, "Do Voters Appreciate Responsive Government? Evidence from Indian Disaster Relief," Technical Report, Harvard University 2008.

Drazen, Allan, "The Political Business Cycle after 25 Years," NBER Macroeconomics Annual, 2000, 15, 75-117.

Dreher, Axel and Nathan M Jensen, "Independent Actor or Agent? An Empirical Analysis of the Impact of U.S. Interests on International Monetary Fund Conditions," Journal of Law $\mathfrak{E}$ Economics, February 2007, 50 (1), 105-24.
_ , Jan-Egbert Sturm, and James Raymond Vreeland, "Development aid and international politics: Does membership on the UN Security Council influence World Bank decisions?," Journal of Development Economics, January 2009, 88 (1), 1-18.
_ , Peter Nunnenkamp, and Rainer Thiele, "Does US aid buy UN general assembly votes? A disaggregated analysis," Public Choice, July 2008, 136 (1), 139-164.

Easterly, William, Ross Levine, and David Roodman, "Aid, Policies, and Growth: Comment," American Economic Review, 2004, 94 (3), 774-780.

Eric, Faisal Z. Ahmed Werker and Charles Cohen, "How Is Foreign Aid Spent? Evidence from a Natural Experiment," American Economic Journal: Macroeconomics, 2009, 1(2), 22544.

Franzese, Robert J., "Electoral and Partisan Cycles in Economic Policies and Outcomes," Annual Review of Political Science, 2002, 5.

Greenberger, Robert, "U.S. Group Aided Arias's Costa Rican Foes - Republican Grudge Match Led to Support for Some Linked to Gen. Noriega," Wall Street Journal, 1989. October 13th.

Ito, Takatoshi, "The Timining of Elections and Political Business Cycles in Japan," Journal of Asian Economics, 1990, 1, 135-46.

Jones, Benjamin F. and Benjamin A. Olken, "Do Leaders Matter? National Leadership and Growth Since World War II," The Quarterly Journal of Economics, August 2005, 120 (3), 835-864.

Kuziemko, Ilyana and Eric Werker, "How Much is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations," Journal of Political Economy, 2006, 114 (5), 905-930.

Levitt, Steven D. and James M. Snyder, "The Impact of Federal Spending on House Election Outcomes," Journal of Political Economy, 1997, 105 (1), 30-53.

McCrummen, Stephanie, "Kenya Tests New Style of Politicking; Campaigns Reflect Effects of Technology, Increased Openness," Washington Post, December 2007.

NED, 2006. IRS Form 990: Return of Organization Exempt from Income Tax.
_, "Statement of Principles and Objectives," 2007. http://www.ned.org/about/ principlesObjectives.html, accessed September 2007.

Neumayer, Eric, "Is Good Governance Rewarded? A Cross-national Analysis of Debt Forgiveness," World Development, June 2002, 30 (6), 913-930.

OECD, "International Development Statistics," 2006.
Petersen, Mitchell A., "Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches," 2005. NBER Working Paper No. 11280.

Radelet, Steven, "A Primer on Foreign Aid," Working Papers 92, Center for Global Development 2006.

Rajan, Raghuram and Arvind Subramanian, "Does Aid Affect Governance?," American Economic Review, May 2007, 97 (2), 322-327.

Rajan, Raghuram G. and Arvind Subramanian, "What Undermines Aid's Impact on Growth?," NBER Working Papers 11657, National Bureau of Economic Research, Inc October 2005.

- and _ , "Aid and Growth: What Does the Cross-Country Evidence Really Show?," The Review of Economics and Statistics, 06 2008, 90 (4), 643-665.

Rogoff, Kenneth, "Equilibrium Political Budget Cycles," American Economic Review, 1990, 80 (1).

Schuknecht, Ludger, "Political Business Cycles and Fiscal Policies in Developing Countries," Kyklos, 1996, 49 (2), 155-70.
_ , "Fiscal Policy Cycles and Public Expenditure in Developing Countries," Public Choice, January 2000, 102 (1-2), 115-30.

Shi, Min and Jakob Svensson, "Political Budget Cycles: A Review of Recent Developments," Nordic Journal of Political Economy, 2003, 29 (1).

Vicente, Pedro C., "Is Vote Buying Effective? Evidence from a Randomized Experiment in West Africa," March 2007. mimeo.

Voeten, Erik, "Documenting Votes in the UN General Assembly V2.0 (1946-2005)," 2005.

Wilson, Scott and Glenn Kessler, "U.S. Funds Enter Fray in Palestinian Elections," Washington Post, January 2006.

Wolfers, Justin, "Are Voters Rational? Evidence from Gubernatorial Elections," Technical Report, University of Pennsylvania January 2007.

World Bank, "World Development Indicators," 2005.

Table 1: Overall Summary Statistics

| Variable | $N$ | Mean | S.D. |
| :---: | :--- | :--- | :--- |
| Donor/Recipient/Year Level |  |  |  |
| ODA | 15315 | 57.19 | 232.56 |
| UN Alignment | 15315 | 0.64 | 0.22 |
| Recipient/Year Level |  |  |  |
| Election | 3063 | 0.09 | 0.29 |
| GDP | 2760 | 42.16 | 115.48 |
| Population | 3049 | 36.35 | 135.91 |
| Donor/Year Level |  |  |  |
| GDP (Donor) | 150 | 2910.67 | 2510.21 |
| Population (Donor) | 150 | 113.56 | 74.18 |

"Total ODA" is ODA commitments in millions of 2004 US dollars. "UN Agreement" is the average sample probability of agreement between donor and recipient votes at the United Nations. Population is in millions and "Corruption" is a linear transformation of the ICRG index ranging from 0 (least corrupt) to 1 (most corrupt).

Table 2: Summary Statistics by Donor

| Donor | Total ODA | Mean UN | Fraction Positive |
| :--- | ---: | ---: | ---: |
| United States | 285220 | 0.86 | 0.97 |
| Japan | 259400 | 0.28 | 0.82 |
| Germany | 151744 | 0.74 | 0.98 |
| France | 115161 | 0.69 | 0.86 |
| United Kingdom | 71050 | 0.62 | 0.87 |
| Other | 270591 | 0.84 | 0.46 |

"Total ODA" is ODA commitments in millions of 2004 US dollars. "Fraction Positive" is the fraction of donor-recipient-year observations for which bilateral ODA is positive. "Mean UN" is the average sample probability of agreement between donor and recipient votes at the United Nations.

| Table 3: Effect of Recipient Country Executive Elections on ODA |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Regressor | I | II | III | IV | V | VI | VII | VIII | IX |
| Exec. Election | 2.183 | 2.183 | 0.428 | -27.346 | -19.861 | -23.102 | -5.853 | -5.853 | -1.525 |
|  | (3.290) | (3.287) | (3.275) | (9.848)*** | (7.428)*** | (7.407)*** | (16.089) | (17.217) | (11.139) |
| UN * Election |  |  |  | 45.458 | 33.990 | 36.734 |  |  |  |
|  |  |  |  | $(17.687)^{* *}$ | $(13.956)^{* *}$ | $(14.387)^{* *}$ |  |  |  |
| UN Avg. * Election |  |  |  |  |  |  | 12.165 | 12.165 | 3.771 |
|  |  |  |  |  |  |  | (28.920) | (28.777) | (21.320) |
| UN Residual * Election |  |  |  |  |  |  | 51.590 | 34.971 | 40.753 |
|  |  |  |  |  |  |  | (19.323)*** | (15.522)** | (17.131)** |
| UN Agreement |  |  |  | -16.450 | -20.244 | -81.142 |  |  |  |
|  |  |  |  | (21.303) | (23.978) | $(40.862)^{* *}$ |  |  |  |
| UN Donor Avg. |  |  |  |  |  |  | 25.292 | 25.292 | -39.641 |
|  |  |  |  |  |  |  | (23.867) | (33.212) | (36.098) |
| UN Residual |  |  |  |  |  |  | -53.023 | -132.273 | -179.880 |
|  |  |  |  |  |  |  | (25.197)** | (43.164)*** | (66.551)*** |
| Population |  |  | -0.439 |  |  | -0.447 |  |  | -0.424 |
|  |  |  | (0.374) |  |  | (0.379) |  |  | (0.374) |
| GDP |  |  | 0.220 |  |  | 0.228 |  |  | 0.226 |
|  |  |  | (0.000)*** |  |  | (0.000)*** |  |  | $(0.000)^{* * *}$ |
| Population (Donor) |  |  | -4.018 |  |  | -4.430 |  |  | -4.941 |
|  |  |  | $(0.830)^{* * *}$ |  |  | $(0.852)^{* * *}$ |  |  | $(0.760)^{* * *}$ |
| GDP (Donor) |  |  | 0.045 |  |  | 0.048 |  |  | 0.051 |
|  |  |  | $(0.010)^{* * *}$ |  |  | $(0.009)^{* * *}$ |  |  | (0.008)*** |
| Fixed Effects | DR, Y | DR,DY | DR | DR,Y | DR,DY | DR | DR, Y | DR,DY | DR |
| N | 15315 | 15315 | 13495 | 15315 | 15315 | 13495 | 15315 | 15315 | 13495 |
| $R^{2}$ | 0.003 | 0.017 | 0.006 | 0.004 | 0.017 | 0.007 | 0.004 | 0.017 | 0.008 |

Each column reports a separate regression. The dependent variable in all columns is bilateral ODA. Fixed effects are denoted $D R$ for donor-recipient pair, $Y$ for year, and $D Y$ for donor-year pair. Robust standard errors in parenthesis are multi-way clustered by donor, recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$
Table 4: Effect of the Competitiveness of the Election on Political Aid Cycles

| Regressor | I | II | III | IV | V | VI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UN Agreement | -6.744 | 19.338 | -40.689 | -18.687 | -49.965 | -107.690 |
|  | (13.585) | (17.599) | (27.763) | (20.080) | $(24.209)^{* *}$ | $(45.997)^{* *}$ |
| Noncompetitive | -2.846 | -9.551 | -6.259 | -7.570 | -47.781 | -39.873 |
|  | (6.948) | (6.947) | $(3.705)^{*}$ | (15.908) | $(1.461)^{* * *}$ | $(7.766)^{* * *}$ |
| UN * Noncompetitive | 1.744 | 12.367 | 2.359 | -4.212 | 59.927 | 51.410 |
|  | (8.844) | (9.802) | (5.373) | (16.483) | $(0.000)^{* * *}$ | (9.470)*** |
| Competitive Election | -16.519 | -8.528 | -13.531 | -43.488 | -35.549 | -38.683 |
|  | (0.000)*** | $(0.000)^{* * *}$ | (0.000)*** | (14.639)*** | $(12.745)^{* * *}$ | (12.393)*** |
| UN * Competitive Election | 22.641 | 10.841 | 14.875 | 65.564 | 53.961 | 56.523 |
|  | $(0.000)^{* * *}$ | $(0.000)^{* * *}$ | $(0.000)^{* * *}$ | (24.683)*** | $(21.564)^{* *}$ | $(21.078){ }^{* * *}$ |
| Noncompetitive Election | -0.847 | 2.259 | 0.507 | -3.541 | 5.429 | 4.490 |
|  | (6.854) | (4.245) | (8.410) | (5.449) | (3.552) | (5.176) |
| UN * Noncompetitive Election | 1.671 | -3.306 | -3.125 | 14.484 | -0.338 | -0.667 |
|  | (8.135) | (2.796) | (11.159) | (10.697) | (8.389) | (10.830) |
| FEs | DR,Y | DR,DY | DR | DR,Y | DR,DY | DR |
| Controls | - | - | Yes | - | - | Yes |
| N | 3310 | 3310 | 3005 | 15305 | 15305 | 13490 |
| $R^{2}$ | 0.025 | 0.082 | 0.019 | 0.004 | 0.018 | 0.007 |

Each column reports a separate regression. The dependent variable in all columns is bilateral ODA. Columns I-III use a non-competitiveness indicator derived from vote shares; Columns IV-VI use an EIEC-based indicator. Competitiveness for non-election years is set equal to the competitiveness of the next upcoming election. Fixed effects are denoted $D R$ for donor-recipient pair, $Y$ for year, and $D Y$ for donor-year pair. Robust standard errors in parenthesis are multi-way clustered by donor, recipient, and year. The estimated multi-way clustered variances for "Competitive Election" and "UN * Competitive Election" in Columns I-III were negative and have been censored at 0 . Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05$, ${ }^{* * *} p<0.01$

Table 5: Election Year Effects of Aid to Non-governmental Entities

| Regressor | I | II | III | IV (ODA) |
| :--- | :--- | :--- | :--- | :--- |
| Exec. Election | 0.054 | 0.063 | 0.067 | -140.143 |
|  | $(0.058)$ | $(0.053)$ | $(0.054)$ | $(71.982)^{*}$ |
| UN * Election | -0.137 | -0.179 | -0.191 | 484.226 |
|  | $(0.159)$ | $(0.140)$ | $(0.142)$ | $(256.728)^{*}$ |
| UN Agreement | -0.070 | 0.052 | -0.023 | -354.479 |
|  | $(0.110)$ | $(0.054)$ | $(0.068)$ | $(150.970)^{* *}$ |
| Population |  |  | -0.001 |  |
|  |  |  | $(0.002)$ |  |
| GDP |  |  | 0.002 |  |
|  |  |  | $(0.000)^{* * *}$ |  |
| Population (Donor) |  |  | 0.002 |  |
|  |  |  | $0.002)$ |  |
| GDP (Donor) |  |  | 0.000 |  |
|  |  |  |  | $\mathrm{R}, \mathrm{Y}$ |
| Fixed Effects | 1601 | 1511 | R |  |
| N |  | 0.025 | 0.2000 | 1601 |
| $R^{2}$ | 1601 |  |  | 0.004 |

Each column reports a separate regression. The dependent variable in Columns I-III is total NED flows in millions of 2004 US dollars; Column IV displays the results for U.S. ODA over the same time period for comparison purposes. Fixed effects are denoted $R$ for recipient and $Y$ for year. Robust standard errors are multi-way clustered by recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05$, ${ }^{* * *} p<0.01$

## A Appendix (For Online Publication Only)

This Appendix examines the robustness of the results presented in the main text along two dimensions. Section A. 1 explores potential mis-specification issues arising due to the granular timing of aid flows and elections, and Section A. 2 examines the sensitivity of the results to methods for limiting the influence of outliers.

## A. 1 Timing Concerns

One limitation of our data is that we observe both elections and aid flows at the annual level. This raises a question whether the relationship between aid and UN alignment during election years is driven by aid before or after the election itself takes place. The Palestinian anecdote cited in the Introduction and our own conversations with former USAID officials suggest that donors can implement new aid packages fairly quickly before an election if they desire, but it is desirable to examine the issue more systematically.

Specifications Exploiting Election Timing. One way we can examine this issue is to exploit information on the timing of elections, which is available for 268 out of the 274 elections in our sample. If aid cycles were driven by changes in aid following elections we would expect to see stronger effects for earlier elections, while our influence hypothesis predicts stronger effects in later elections. Table A. 1 reports results differentiated by election timing. In the first column we define an election as "early" if it took place in the first six months of the year (the median election takes place in July). We estimate larger aid cycles for elections that take place later in the year, but economically and statistically significant cycles around early elections as well. In the next column we redefine "early" to mean taking place in the first three months of the year; using that definition we again estimate a large and significant effect of later elections but now estimate a small and insignificant cycle for early elections.

Specifications Using Aid Disbursements. Our primary estimates of political aid cycles use aid commitments as the outcome variable, but we could alternatively have used aid disbursements, which are recorded separately in the DAC database. The quantitative gap between commitments and disbursements is not large in our sample (mean disbursements are $\$ 50$ million, as opposed to mean commitments of $\$ 57$ million), but the difference in the timing of commitments and disbursements could be important depending on the nature of political aid cycles. If one believes that donors are signalling support for an incumbent then commitments are appropriate (especially since we know that they are not binding). If, on the other hand, one thinks that fiscal policy is the key mechanism then either commitments or disbursements might be appropriate depend-
ing on the incumbent's ability to spend future income. To examine this issue we re-ran our main estimators using aid disbursements rather than commitments as the outcome variable. The results are reported in Tables A. 2 and A.3. Estimated political cycles in aid disbursements are smaller than estimated cycles in commitments, but they remain economically and statistically significant.

## A. 2 Robustness to Outliers

Table A. 4 presents summary statistics on ODA by recipient for our sample. As is well-known this distribution is skewed, with politically important countries receiving disproportionate shares of total ODA. Given this skewness, one important question is how sensitive the results are to outliers.

Dropping Individual Observations. A simple way to define "outliers" is to identify individual outlier observations. Figure 1 plots the residual values of ODA and UN alignment, separately for election and non-election years, after taking out donor-recipient means. The three data points identified in red are obvious outliers (these are US aid to Egypt in 1990 and 1991 and Japanese aid to Pakistan in 2003). To verify that our results are not driven by these observations we re-ran our main specification including a separate indicator variable for each of these three observations, effectively dropping them from the regression. Table A. 5 reports the results; dropping these outliers reduces the estimated magnitude of aid cycles but they remain economically and statistically significant.

Dropping Large Recipients. An alternative notion of robustness is sensitivity to large aid recipients. Tables A. 6 and A. 7 report estimates of our main specifications for samples that exclude the largest 3 recipients (Egypt, Indonesia, India) and largest 5 recipients (Egypt, Indonesia, India, Israel, China) in our sample, respectively. The estimates in Table A. 6 are smaller in magnitude but qualitatively similar and in fact more strongly significant than baseline estimates. Estimates in Table A. 7 are again somewhat smaller in magnitude but remain qualitatively consistent with baseline estimates and statistically significant (in some cases at the $10 \%$ level). ${ }^{12}$

Estimates Using Ln(ODA) as the Dependent Variable. An alternative way to reduce the weight given to larger aid recipients is to estimates specifications using the logarithm of ODA as the dependent variable. A priori it is unclear whether estimation in logs or in levels is more appropriate. Suppose the optimal amount of aid given to recipient $r$ during "normal" years is $n_{r}$ while the magnitude of the "adjustment" in aid

[^6]flows a donor wishes to make prior to an election in recipient $r$ is $e_{r}$. If cross-recipient variation in these figures is proportionate - i.e. if $e_{r}=k n_{r}$ for some constant $k$ - then a logarithmic specification is appropriate. On the other hand if $e_{r}$ is independent of $n_{r}$ then a linear model is appropriate. It is thus an empirical question which specification better fits the data.

An additional issue that arises when fitting models for $\log$ ODA is that aid flows are strictly positive for only $90 \%$ of the donor-recipient-year observations in our sample. Following Kuziemko \& Werker (2006) we set ODA to $\$ 1$ for the remaining observations and then take natural logarithms. Table A. 8 presents results, replicating the specifications used in Tables A. 6 and A.7. In general the estimates are consistent in sign and order of magnitude with those in levels. While they are less precisely estimated, we do obtain significant results when we isolate the role of bilateral UN alignment in Column V and perhaps most importantly when we focus on elections after the 3rd month of the year in Column IX. (Recall from Table A. 1 that we obtain significant results in levels only for these elections.)

Table A.1: Political Aid Cycles Differentiated by Election Timing

| Regressor | Early $=$ First 6 Months | Early $=$ First 3 Months |
| :--- | :--- | :--- |
| Early Election | -13.189 | -1.771 |
|  | $(1.582)^{* * *}$ | $(8.673)$ |
| UN * Early Election | 25.946 | 3.316 |
|  | $(0.000)^{* * *}$ | $(14.401)$ |
| Late Election | -41.154 | -34.746 |
|  | $(14.828)^{* * *}$ | $(10.593)^{* * *}$ |
| UN * Late Election | 66.942 | 58.400 |
|  | $(29.595)^{* *}$ | $(20.865)^{* * *}$ |
| UN Alignment | -31.402 | -31.396 |
|  | $(21.384)$ | $(21.493)$ |
| N | 14435 | 14435 |
| $R^{2}$ | 0.001 | 0.001 |

Robust standard errors in parenthesis are multi-way clustered by donor, recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$
Table A.2: Effect of Recipient Country Executive Elections on ODA (Disbursements)

| Regressor | I | II | III | IV | V | VI | VII | VIII | IX |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exec. Election | 3.827 | 3.827 | 2.732 | -15.473 | -8.704 | -12.397 | 9.105 | 9.105 | 12.685 |
|  | (2.109)* | (2.088)* | (2.490) | $(7.867$ )** | (5.539) | (5.832)** | (12.079) | (13.347) | (11.555) |
| UN * Election |  |  |  | 29.729 | 19.353 | 23.750 |  |  |  |
|  |  |  |  | $(13.659)^{* *}$ | (10.071)* | $(11.019)^{* *}$ |  |  |  |
| UN Avg. * Election |  |  |  |  |  |  | -8.226 | -8.226 | -14.650 |
|  |  |  |  |  |  |  | (21.039) | (21.523) | (19.079) |
| UN Residual * Election |  |  |  |  |  |  | 37.036 | 22.601 | 30.374 |
|  |  |  |  |  |  |  | $(17.290)^{* *}$ | (13.504)* | (14.894)** |
| UN Agreement |  |  |  | -13.427 | -16.185 | $-67.478$ |  |  |  |
|  |  |  |  | (12.817) | (20.814) | $(37.874)^{*}$ |  |  |  |
| UN Donor Avg. |  |  |  |  |  |  | 17.403 | 17.403 | -44.025 |
|  |  |  |  |  |  |  | (17.037) | (20.984) | (29.385) |
| UN Residual |  |  |  |  |  |  | -39.030 | -94.853 | -116.768 |
|  |  |  |  |  |  |  | $(10.246)^{* * *}$ | $(37.553)^{* *}$ | (55.327)** |
| Population |  |  | -0.310 |  |  | -0.316 |  |  | -0.305 |
|  |  |  | (0.286) |  |  | (0.291) |  |  | (0.287) |
| GDP |  |  | 0.218 |  |  | 0.225 |  |  | 0.224 |
|  |  |  | (0.000)*** |  |  | (0.000)*** |  |  | (0.000)*** |
| Population (Donor) |  |  | $-2.947$ |  |  | -3.301 |  |  | -3.548 |
|  |  |  | (0.782)*** |  |  | (0.783)*** |  |  | (0.762)*** |
| GDP (Donor) |  |  | 0.034 |  |  | 0.037 |  |  | 0.039 |
|  |  |  | (0.009)*** |  |  | (0.008)*** |  |  | (0.008)*** |
| Fixed Effects | DR, Y | DR,DY | DR | DR,Y | DR,DY | DR | DR,Y | DR,DY | DR |
| N | 15315 | 15315 | 13495 | 15315 | 15315 | 13495 | 15315 | 15315 | 13495 |
| $R^{2}$ | 0.008 | 0.028 | 0.012 | 0.009 | 0.028 | 0.014 | 0.009 | 0.029 | 0.015 |

Robust standard errors in parenthesis are multi-way clustered by donor, recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05$, ${ }^{* * *} p<0.01$
Table A.3: Effect of the Competitiveness of the Election on Political Aid Cycles (Disbursements)

| Regressor | I | II | III | IV | V | VI |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| UN Agreement | -3.797 | 11.001 | -24.943 | -13.988 | -38.042 | -87.674 |
|  | $(19.746)$ | $(24.045)$ | $(25.793)$ | $(13.841)$ | $(22.882)^{*}$ | $(41.445)^{* *}$ |
| Noncompetitive | 1.481 | -2.260 | -0.037 | -4.929 | -36.378 | -27.382 |
|  | $(5.598)$ | $(7.256)$ | $(7.047)$ | $(14.613)$ | $(2.576)^{* * *}$ | $(8.334)^{* * *}$ |
| UN * Noncompetitive | -5.888 | 0.058 | -7.563 | -8.907 | 41.302 | 26.534 |
|  | $(9.752)$ | $(11.710)$ | $(11.128)$ | $(18.690)$ | $(7.508)^{* * *}$ | $(14.180)^{*}$ |
| Competitive Election | -14.416 | -8.738 | -11.079 | -20.086 | -10.725 | -17.909 |
|  | $(7.159)^{* *}$ | $(5.179)^{*}$ | $(7.083)$ | $(11.227)^{*}$ | $(8.329)$ | $(8.864)^{* *}$ |
| UN * Competitive Election | 23.775 | 15.318 | 17.672 | 38.174 | 24.418 | 32.921 |
|  | $(11.403)^{* *}$ | $(9.127)^{*}$ | $(10.702)^{*}$ | $(19.102)^{* *}$ | $(14.145)^{*}$ | $(15.646)^{* *}$ |
| Noncompetitive Election | -4.799 | -3.629 | -6.935 | -5.314 | -1.016 | 0.782 |
|  | $(5.955)$ | $(4.548)$ | $(6.859)$ | $(4.314)$ | $(3.169)$ | $(5.533)$ |
| UN * Noncompetitive Election | 7.336 | 5.419 | 6.241 | 11.829 | 4.636 | 1.950 |
|  | $(7.912)$ | $(6.876)$ | $(8.603)$ | $(6.094)^{*}$ | $(4.486)$ | $(7.776)$ |
| FEs | DR,Y | DR,DY | DR | DR,Y | DR,DY | DR |
| Controls | - | - | - | - | Yes | 15305 |
| N | 3310 | 3310 | 3005 | 15305 | 13490 |  |
| $R^{2}$ | 0.039 | 0.102 | 0.017 | 0.010 | 0.030 | 0.016 |

[^7]Table A.4: ODA by Recipient

| Recip. | Total ODA | Mean ODA | Recip. | Total ODA | Mean ODA | Recip. | Total ODA | Mean ODA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EGY | 88,791 | 592 | NIC | 5,800 | 39 | GUY | 1,417 | 9 |
| IDN | 62,303 | 415 | BFA | 5,583 | 37 | PNG | 1,404 | 9 |
| IND | 55,391 | 369 | UGA | 5,274 | 35 | ALB | 1,260 | 15 |
| ISR | 46,502 | 423 | ZWE | 5,164 | 41 | AZE | 1,050 | 17 |
| CHN | 45,945 | 353 | HTI | 5,019 | 33 | SWZ | 1,046 | 7 |
| PAK | 33,704 | 225 | YEM | 4,610 | 31 | NAM | 998 | 14 |
| PHL | 32,842 | 219 | JAM | 4,481 | 30 | CPV | 948 | 7 |
| BGD | 29,857 | 199 | SYR | 4,390 | 29 | MKD | 898 | 15 |
| THA | 26,370 | 176 | GTM | 4,373 | 29 | VEN | 861 | 6 |
| TUR | 20,039 | 134 | GIN | 4,192 | 28 | SGP | 854 | 8 |
| MAR | 17,360 | 116 | COG | 4,066 | 27 | URY | 809 | 5 |
| LKA | 13,931 | 93 | RWA | 4,065 | 27 | FJI | 806 | 5 |
| CIV | 13,820 | 92 | NGA | 3,988 | 27 | PRK | 712 | 10 |
| VNM | 13,247 | 95 | ECU | 3,920 | 26 | CYP | 706 | 6 |
| KEN | 12,810 | 85 | CRI | 3,829 | 26 | ERI | 677 | 12 |
| TZA | 12,241 | 82 | GAB | 3,809 | 25 | SAU | 622 | 4 |
| PER | 12,195 | 81 | BEN | 3,516 | 23 | HRV | 573 | 9 |
| MYS | 12,171 | 81 | CHL | 3,377 | 23 | OMN | 553 | 4 |
| CMR | 11,701 | 78 | TGO | 3,374 | 22 | BLZ | 537 | 5 |
| JOR | 11,634 | 78 | PRY | 3,014 | 20 | SLB | 530 | 4 |
| SEN | 11,271 | 75 | IRN | 2,835 | 19 | MDA | 496 | 12 |
| BOL | 10,878 | 73 | ZAF | 2,610 | 47 | WSM | 398 | 3 |
| TUN | 10,832 | 72 | SOM | 2,550 | 30 | BTN | 332 | 2 |
| GHA | 9,933 | 66 | LBN | 2,445 | 16 | MDV | 320 | 2 |
| BRA | 9,852 | 66 | AGO | 2,175 | 15 | ARE | 314 | 3 |
| SDN | 9,621 | 64 | BWA | 2,166 | 14 | TKM | 235 | 4 |
| ZMB | 9,381 | 63 | LAO | 2,126 | 14 | LCA | 213 | 2 |
| SLV | 8,194 | 55 | SLE | 2,095 | 14 | CUB | 212 | 1 |
| MMR | 8,067 | 54 | ARG | 2,081 | 14 | MLT | 211 | 2 |
| MOZ | 8,016 | 55 | DJI | 1,977 | 15 | SUR | 119 | 1 |
| ETH | 7,747 | 52 | KOR | 1,966 | 44 | KWT | 100 | 1 |
| COL | 7,675 | 51 | KAZ | 1,839 | 28 | BRB | 81 | 1 |
| MLI | 7,215 | 48 | MNG | 1,796 | 18 | BHR | 68 | 0 |
| MEX | 7,179 | 48 | PAN | 1,747 | 12 | SVN | 68 | 1 |
| MDG | 7,022 | 47 | LSO | 1,665 | 11 | LBY | 62 | 0 |
| HND | 6,592 | 44 | MUS | 1,602 | 11 | BRN | 50 | 1 |
| DZA | 6,490 | 43 | GEO | 1,540 | 26 | QAT | 30 | 0 |
| NPL | 6,214 | 41 | ARM | 1,518 | 25 | BHS | 13 | 0 |
| MWI | 6,180 | 41 | AFG | 1,510 | 12 |  |  |  |

ODA is in millions of 2004 U.S. dollars. Observations are ordered by Total ODA.

Figure 1: Outliers


Table A.5: Political Aid Cycles Controlling for Outliers

| Regressor | I |
| :--- | :--- |
| Exec. Election | -13.390 |
|  | UN ${ }^{*}$ Election |
|  | $(7.256)^{*}$ |
| UN Agreement | 26.250 |
|  | $(12.394)^{* *}$ |
| Fixed Effects | 8.886 |
| N | $(17.268)$ |
| $R^{2}$ | DR,Y,Outliers |

Robust standard errors in parenthesis are multi-way clustered by donor, recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$

| Regressor | I | II | III | IV | V | VI | VII | VIII | IX |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exec. Election | 2.391 | 1.345 |  | -8.853 | 9.138 | 7.225 |  |  |  |
|  | (2.342) | (2.254) | (4.431)** | $(2.608)^{* * *}$ | (10.662) | (6.167) |  |  |  |
| Competitive Election |  |  |  |  |  |  | -16.469 | -13.676 |  |
|  |  |  |  |  |  |  | (5.495)*** | $(2.697)^{* * *}$ |  |
| Noncompetitive Election |  |  |  |  |  |  | -3.410 | -1.185 |  |
|  |  |  |  |  |  |  | (4.147) | (3.497) |  |
| Early Election |  |  |  |  |  |  |  |  | -1.961 |
|  |  |  |  |  |  |  |  |  | (9.917) |
| Late Election |  |  |  |  |  |  |  |  | -14.307 |
|  |  |  |  |  |  |  |  |  | $(3.812)^{* * *}$ |
| UN * Election |  |  | 20.338 | 16.118 |  |  |  |  |  |
|  |  |  | (7.005)*** | $(4.145)^{* * *}$ |  |  |  |  |  |
| UN Avg. * Election |  |  |  |  | -10.483 | -8.423 |  |  |  |
|  |  |  |  |  | (15.500) | (7.572) |  |  |  |
| UN Residual * Election |  |  |  |  | 26.001 | 18.996 |  |  |  |
|  |  |  |  |  | $(8.780)^{* * *}$ | (5.582)*** |  |  |  |
| UN * Competitive Election |  |  |  |  |  |  | 26.218 | 21.503 |  |
|  |  |  |  |  |  |  | $(6.059)^{* * *}$ | $(0.000)^{* * *}$ |  |
| UN * Noncompetitive Election |  |  |  |  |  |  | 13.254 | 7.095 |  |
|  |  |  |  |  |  |  | (9.409) | (8.990) |  |
| UN * Early Election |  |  |  |  |  |  |  |  | 1.571 |
|  |  |  |  |  |  |  |  |  | $(14.763)$ |
| UN * Late Election |  |  |  |  |  |  |  |  | 27.864 |
|  |  |  |  |  |  |  |  |  | $(7.093)^{* * *}$ |
| UN Agreement |  |  | -22.962 | -56.972 |  |  | -22.283 | -64.929 | -18.583 |
|  |  |  | (14.228) | $(24.298)^{* *}$ |  |  | (14.013) | (23.845)*** | (15.416) |
| UN Donor Avg. |  |  |  |  | 19.759 | -24.216 |  |  |  |
|  |  |  |  |  | (18.600) | (24.590) |  |  |  |
| UN Residual |  |  |  |  | -60.960 | -136.366 |  |  |  |
|  |  |  |  |  | (16.613) ${ }^{* * *}$ | (33.827) ${ }^{* * *}$ |  |  |  |
| Fixed Effects | DR,Y | DR | DR,Y | DR | DR,Y | DR | DR,Y | DR | DR, Y |
| Macro Controls | N | Y | N | Y | N | Y | N | Y | N |
| N | 14865 | 13045 | 14865 | 13045 | 14865 | 13045 | 14855 | 13040 | 13985 |
| $R^{2}$ | 0.004 | 0.017 | 0.005 | 0.019 | 0.006 | 0.021 | 0.005 | 0.019 | 0.004 |

[^8]| Regressor | I | II | III | IV | V | VI | VII | VIII | IX |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exec. Election | 2.104 | 1.139 | -7.433 | -6.519 | 11.835 | 7.082 |  |  |  |
|  | (2.605) | (2.545) | (4.763) | $(2.739)^{* *}$ | (10.357) | (5.025) |  |  |  |
| Competitive Election |  |  |  |  |  |  | -11.882 | -10.629 |  |
|  |  |  |  |  |  |  | (5.871)** | $(2.550)^{* * *}$ |  |
| Noncompetitive Election |  |  |  |  |  |  | -2.03 | -0.890 |  |
|  |  |  |  |  |  |  | (3.181) | (1.800) |  |
| Early Election |  |  |  |  |  |  |  |  | -0.265 |
|  |  |  |  |  |  |  |  |  | (9.591) |
| Late Election |  |  |  |  |  |  |  |  | -10.223 |
|  |  |  |  |  |  |  |  |  | $(4.586)^{* *}$ |
| UN * Election |  |  | 14.728 | 12.077 |  |  |  |  |  |
|  |  |  | (8.123)* | (5.772)** |  |  |  |  |  |
| UN Avg. * Election |  |  |  |  | -15.107 | -8.744 |  |  |  |
|  |  |  |  |  | (14.658) | (7.047) |  |  |  |
| UN Residual * Election |  |  |  |  | 20.245 | 15.450 |  |  |  |
|  |  |  |  |  | $(11.191)^{*}$ | $(7.935)^{*}$ |  |  |  |
| UN * Competitive Election |  |  |  |  |  |  | 18.564 | 15.908 |  |
|  |  |  |  |  |  |  | (8.481)** | $(3.911)^{* * *}$ |  |
| UN * Noncompetitive Election |  |  |  |  |  |  | 11.271 | 7.495 |  |
|  |  |  |  |  |  |  | (7.945) |  |  |
| UN * Early Election |  |  |  |  |  |  |  |  | -0.224 |
|  |  |  |  |  |  |  |  |  | (14.824) |
| UN * Late Election |  |  |  |  |  |  |  |  | 20.788 |
|  |  |  |  |  |  |  |  |  | (8.459)** |
| UN Agreement |  |  | -12.548 | -40.946 |  |  | -11.926 | -45.713 | -7.657 |
|  |  |  | (13.954) | (22.405)* |  |  | (15.554) | $(20.605)^{* *}$ | (14.322) |
| UN Donor Avg. |  |  |  |  | 24.134 | -26.274 |  |  |  |
|  |  |  |  |  | (14.828) | (19.233) |  |  |  |
| UN Residual |  |  |  |  | -44.766 | -74.464 |  |  |  |
|  |  |  |  |  | $(21.914)^{* *}$ | (38.866)* |  |  |  |
| Fixed Effects | DR,Y | DR | DR, Y | DR | DR, Y | DR | DR,Y | DR | DR,Y |
| Macro Controls | N | Y | N | Y | N | Y | N | Y | N |
| N | 14625 | 12805 | 14625 | 12805 | 14625 | 12805 | 14615 | 12800 | 13745 |
| $R^{2}$ | 0.006 | 0.007 | 0.006 | 0.009 | 0.007 | 0.009 | 0.007 | 0.009 | 0.006 |



| Regressor | I | II | III | IV | V | VI | VII | VIII | IX |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exec. Election | 0.082 | 0.059 | -0.070 | -0.130 | 0.411 | -0.235 |  |  |  |
|  | (0.052) | $(0.000)^{* * *}$ | (0.103) | (0.172) | (0.648) | $(0.000)^{* * *}$ |  |  |  |
| Competitive Election |  |  |  |  |  |  | 0.062 | -0.025 |  |
|  |  |  |  |  |  |  | (0.215) | (0.214) |  |
| Noncompetitive Election |  |  |  |  |  |  | -0.216 | -0.219 |  |
|  |  |  |  |  |  |  | (0.380) | (0.310) |  |
| Early Election |  |  |  |  |  |  |  |  | 0.400 |
|  |  |  |  |  |  |  |  |  | $(0.568)$ |
| Late Election |  |  |  |  |  |  |  |  | -0.308 |
|  |  |  |  |  |  |  |  |  | $(0.180)^{*}$ |
| UN * Election |  |  | 0.212 | 0.288 |  |  |  |  |  |
|  |  |  | (0.184) | (0.264) |  |  |  |  |  |
| UN Avg. * Election |  |  |  |  | -0.532 |  |  |  |  |
|  |  |  |  |  | (1.007) | $(0.000)^{* * *}$ |  |  |  |
| UN Residual * Election |  |  |  |  | 0.353 | 0.509 |  |  |  |
|  |  |  |  |  | $(0.129)^{* * *}$ |  |  |  |  |
| UN * Competitive Election |  |  |  |  |  |  | -0.005 | 0.148 |  |
|  |  |  |  |  |  |  | (0.369) | (0.335) |  |
| UN * Noncompetitive Election |  |  |  |  |  |  | 0.461 | 0.400 |  |
|  |  |  |  |  |  |  | (0.512) |  |  |
| UN * Early Election |  |  |  |  |  |  |  |  | -0.488 |
|  |  |  |  |  |  |  |  |  | (0.770) |
| UN * Late Election |  |  |  |  |  |  |  |  | 0.548 |
|  |  |  |  |  |  |  |  |  | $(0.328)^{*}$ |
| UN Agreement |  |  | 3.137 | 0.343 |  |  | 2.981 | 0.519 | 3.152 |
|  |  |  |  |  |  |  | (2.156) | (1.942) | (2.048) |
| UN Donor Avg. |  |  |  |  | 3.854 | -2.951 |  |  |  |
|  |  |  |  |  | $(1.692)^{* *}$ | (5.002) |  |  |  |
| UN Residual |  |  |  |  | 2.528 | 9.274 |  |  |  |
|  |  |  |  |  | (4.554) | (7.376) |  |  |  |
| Fixed Effects | DR,Y | DR | DR,Y | DR | DR,Y | DR | DR,Y | DR | DR,Y |
| Macro Controls | N | Y | N | Y | N | Y | N | Y | N |
| N | 15315 | 13495 | 15315 | 13495 | 15315 | 13495 | 15305 | 13490 | 14435 |
| $R^{2}$ | 0.061 | 0.036 | 0.064 | 0.036 | 0.064 | 0.049 | 0.066 | 0.036 | 0.061 |

[^9]
[^0]:    *We thank Alberto Alesina, Edward Glaeser, Asim Khwaja, Michael Kremer, Ilyana Kuziemko, Rohini Pande, Sendhil Mullainathan, Jesse Shapiro, Andrei Shleifer, Eric Werker, seminar participants at Harvard University and MIT, and two anonymous referees for valuable feedback. Faye acknowledges financial support from Harvard Business School and the Weiss Fellowship. Niehaus acknowledges financial support from a National Science Foundation graduate fellowship.
    ${ }^{\dagger}$ mlfaye@gmail.com
    ${ }^{\ddagger}$ Department of Economics, University of California at San Diego, 9500 Gilman Drive \#0508. pniehaus@ucsd.edu.

[^1]:    ${ }^{1}$ E.g. Burnside and Dollar (2000), Easterly et al. (2004), Rajan and Subramanian (2005), Rajan and Subramanian (2007), and Werker and Cohen (2009); see Radelet (2006) or Rajan and Subramanian (2008) for overviews.
    ${ }^{2}$ By using UN voting to measure alignment we do not necessarily mean to imply that aid is being exchanged for UN votes, though that interpretation is consistent with our results. Dreher et al. (2008)

[^2]:    ${ }^{6}$ E.g. Schuknecht (1996), Alesina et al. (1999), Drazen (2000), Schuknecht (2000), Franzese (2002), and Shi and Svensson (2003). Brender and Drazen (2005) argue that cycles are concentrated in new democracies.
    ${ }^{7}$ Using neighboring districts as instruments, Levitt and Snyder (1997) find that federal spending helps incumbent Congressmen in the U.S.; Brender and Drazen (2008) estimate that larger deficits hurt rather than help incumbents internationally. In our context, incumbent political alignment is a poor instrument since it likely affects voting through channels other than aid.
    ${ }^{8}$ We exclude from the analysis recipients with gaps in key time series (elections and UN votes) as including them would cloud the interpretation of fixed-effects estimators. Such gaps generally reflect internal strife (e.g., Iraq, Somalia) or other important transformations in the country which would affect both political alliances and aid levels. Where we introduce additional variables we again drop any pairs for whom we do not observe all variables in an unbroken sequence.

[^3]:    ${ }^{9}$ We also tested for aid cycles around legislative elections (which are also documented in the DPI) and found no evidence of significant patterns. This could reflect difficulties of channeling funds to specific legislators, or it could simply mean that UN voting is a better measure of executive than of legislative preferences.

[^4]:    ${ }^{10}$ Levitt and Snyder (1997) show that election-year spending helps incumbent U.S. Congressmen. Brender and Drazen (2008) show that larger deficits are associated with lower re-election probabilities in a large sample of countries; this supports our hypothesis to the extent that aid substitutes for deficits, but of course aid can also be turned into spending without affecting deficits. More broadly, a growing literature has documented that voters do not perfectly disentangle politician performance from exogenous shocks (Achen and Bartels, 2004; Wolfers, 2007; Cole et al., 2008).

[^5]:    ${ }^{11}$ Estimated standard errors are 0 due to an inherent limitation of multi-way clustering, namely that in finite samples it may yield negative estimated variances. These are the only estimates in the paper for which this is an issue.

[^6]:    ${ }^{12}$ We also estimated models dropping each individual recipient one-at-a-time. None of the exclusions has a material effect on the results except excluding Egypt; excluding Egypt yields estimates similar to those in Table A. 6.

[^7]:    EIEC-based indicator. Columns II and V include year fixed effects; Columns III and VI include recipient specific trends. Robust standard errors in parenthesis are multi-way clustered by donor, recipient and year. Statistical significance is denoted as: ${ }^{*} p<0.10,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$

[^8]:    

[^9]:    

