

# Does US aid buy UN general assembly votes? A disaggregated analysis

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**Abstract** Using panel data for 143 countries over the period 1973–2002, this paper empirically analyzes the influence of US aid on voting patterns in the UN General Assembly. We use disaggregated aid data to account for the fact that various forms of aid may differ in their ability to induce political support by recipients. We obtain strong evidence that US aid buys voting compliance in the Assembly. More specifically, our results suggest that general budget support and grants are the major aid categories by which recipients have been induced to vote in line with the United States. When replicating the analysis for other G7 donors, no comparable patterns emerge.

**Keywords** Bilateral Aid · UN General Assembly · Voting

**JEL Classification** F33

## 1 Introduction

According to the rhetoric of donors, foreign aid rewards efficient and honest governments striving for the economic and social development of the countries they rule. Hence, it poses a puzzle that several empirical studies (e.g., Jensen and Paldam 2006; Rajan and Subramanian 2005) show foreign aid to be rather ineffective in promoting economic growth in recipient

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countries. Both the meta study by Doucouliagos and Paldam (2005) and the extensive survey by Harms and Lutz (2005) conclude that the aid effectiveness literature has not established that aid works.

Critical evaluations of actual donor behavior suggest that this puzzle may be solved by taking into account that donors are by far less altruistic than they claim. Research conducted in the 1970s and 1980s, summarized by McGillivray (2003), revealed that bilateral donors largely pursued their own interests when allocating aid across recipients. The rhetoric of donors is also in conflict with more recent empirical studies such as Schraeder et al. (1998), Alesina and Dollar (2000), Alesina and Weder (2002), and Kuziemko and Werker (2006). According to these studies, aid may not only serve the *economic* self-interest of donors, but may also be used to buy *political* support from the recipients of aid. Even though the geopolitical situation has changed dramatically since the end of the Cold War, it would be rather naive to expect that aid is no longer granted for political reasons (Langhammer 2004). The fight against terrorism and the contested bid by important donors, i.e., Germany and Japan, to become permanent members of the UN Security Council provide examples of political considerations that may still distort a needs-based distribution of aid. According to the recent meta study of Doucouliagos and Paldam (2007), political factors help explain the surprisingly weak impact of the recipient country's population on the amount of aid received. Small recipients with disproportionately more power in international organizations may be favored by donors as buying influence from these recipients is relatively cheap.

Particularly for the United States, political considerations are likely to remain important. Ruttan (1996) and Zimmermann (1993) claim that US administrations typically have regarded financial aid as an important means to achieve their foreign policy objectives. Harrigan et al. (2006) argue that the fight against terrorism and the related domestic security concerns might even have strengthened the motive to employ aid as a foreign policy tool. The recent message of US Secretary of State, Condoleezza Rice, that “you can't preach violence and expect international aid” (The Economist 2006)—though referring to the particular case of political developments in Palestine—supports this view.

One policy objective that supposedly has been pursued by means of aid is to affect the recipients' voting behavior in the UN General Assembly. There are indications that the United States and other G7 countries keep close records of the voting behavior of UN member states and that the voting behavior influences bilateral relationships, including aid relationships (Barnebeck Andersen et al. 2006). Clearly, as compared to the Security Council, the power of the General Assembly is rather limited, and not all of its decisions are likely to be important for the United States. Still, there is ample evidence that the US government places some weight on the outcome of General Assembly votes. A report of the US Department of State in 2000 states that “a country's behavior at the United Nations is always relevant to its bilateral relationship with the United States, a point the Secretary of State regularly makes in letters of instruction to new U.S. ambassadors” (quoted in Barnebeck Andersen et al. 2006). Thacker (1999, p. 54) cites a memo to the director of the Food for Peace Program noting that “at critical moments in the world's recent history, the U.S. ‘bought’ votes subtly and indirectly to support its stand in the General Assembly”. Bennis (1997) claims that “U.S. influence in (and often control of) the UN comes in the form of coercing the organization to take one or another position, or to reject some other position, or pressuring a country or countries to vote a certain way in the General Assembly”.<sup>1</sup>

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<sup>1</sup>As a specific example of US pressure on the Assembly, Bennis (1997) describes US efforts to overturn the 1975 resolution identifying political Zionism as a form of racism and racial discrimination: “U.S. diplomats took off, criss-crossing the globe using Gulf War-tested methods of bribing and threatening other nations to win support for the repeal effort”.

Voting in the General Assembly thus clearly has some relevance for US foreign policy. Consequently, it is instructive to test whether and to what extent the United States actually is successful in inducing aid recipients to vote according to US preferences. The existing literature on this question reports mixed results. While some studies confirm the link between voting behavior and aid, others do not find any clear relationship. Arguably, the failure to identify a link from aid to voting might be due to the focus on aggregate flows of aid. This approach ignores that some forms of aid are more likely to be given for political reasons than others. We therefore use disaggregated aid data to take into account that various forms of aid may differ in their ability to induce political support by the recipients. Our basic hypothesis is that aid with few restrictions imposed on recipients is more effective in buying political support. To test this hypothesis, we distinguish project aid from different forms of program aid (budget support, food aid and debt relief), grants from loans, and tied from untied aid. Both donors and recipients tend to regard budget support, grants and untied aid as more generous forms of financial support. We expect these aid categories to have the strongest impact on UN voting behavior. Indeed, it turns out that general budget support and grants successfully have been employed to bribe recipients to vote in line with the United States in the UN General Assembly.

The organization of the paper is as follows. The next section provides a short overview of previous empirical work on bilateral aid and UN voting. Section 3 introduces our hypotheses, while our data and method of estimation are discussed in Sects. 4 and 5, respectively. Section 6 presents the results. Finally, we provide a short summary and discuss policy implications.

## 2 Previous literature

Two distinct strands of the literature deal with the link between foreign aid and UN voting behavior of recipient countries. The first strand concerns bilateral aid allocation. The second strand relates to the determinants of UN voting behavior, and thus provides the most relevant starting point for our subsequent analysis.

The main focus of the aid allocation literature is on the extent to which aid has been targeted to recipient countries that are most needy (given their per-capita income and/or the prevalence of absolute poverty) and, at the same time, offering favorable local conditions for aid to be effective (measured by the quality of local policies and institutions). Studies along these lines include Neumayer (2003), Dollar and Levin (2006), and Canavire et al. (2006). While these studies report ambiguous results regarding the targeting of needy and deserving recipients,<sup>2</sup> most of them pay only limited attention to the political determinants of bilateral aid. Dollar and Levin (2006) represent an extreme case in that they do not control at all for selfish donor motivations. Other studies do account for trade-related interests of donors, but political interests are often considered in an ad hoc manner—usually by including dummy variables for post-colonial ties between donors and recipients.

Yet there is a growing body of literature on aid allocation in which political interests receive more explicit treatment. Apart from altruistic motivations of aid, Schraeder et al. (1998) list several selfish motivations, including aid as a means to promote strategic and

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<sup>2</sup>It is especially disputed whether donors favor recipient countries with better local conditions. With respect to the poverty focus of aid, the meta analysis of Doucouliagos and Paldam (2007, p. 25) finds most studies corroborating the stated donor policy of providing more aid to needy recipients; but “the inverse aid-income relation explains only about 10% of the variation in the data”.

political considerations of bilateral donors. For the Cold War period they find, for example, that the security alliance between the United States and certain recipient countries ensured the generous provision of US aid. Alesina and Dollar (2000), Alesina and Weder (2002) as well as Gates and Hoeffler (2004) all consider both colonial dummies and UN voting behavior of recipients as political determinants of bilateral aid. The results of these studies differ in one important respect: According to Alesina and Weder (2002), only the United States rewards recipients' voting compliance by granting more aid; Alesina and Dollar (2000) as well as Gates and Hoeffler (2004) find the same pattern also for the other G7 countries.<sup>3</sup>

The literature on the impact of aid on UN voting behavior has been summarized in Dreher and Sturm (2006).<sup>4</sup> According to their survey, empirical findings have remained inconclusive. Some studies, including Kato (1969), Kegley and Hook (1991), as well as Morey and Lai (2003), conclude that aid is ineffective in influencing the voting behavior of recipients. By contrast, Bernstein and Alpert (1971), Rai (1980), Wittkopf (1973), Lundborg (1998) and Wang (1999) find the expected positive relation between bilateral aid and voting similarity. Considering votes (by 65 countries in 1984–1993) that were classified by the US State Department as being important, Wang (1999) finds that changes in the level of US aid significantly increase voting coincidence, while the coefficient of the level itself is insignificant. Lundborg (1998) focuses on relative support for the United States and the Soviet Union in 1948–1979. His simultaneous regressions reveal that (i) both donors employed aid to stimulate international political support, and (ii) aid recipients allocated their support to stimulate aid.

Wittkopf (1973) covers all member countries of the OECD's Development Assistance Committee (DAC) and the Soviet Bloc for the years 1962 and 1967. His correlation analysis shows, however, that only US aid is significantly associated with voting patterns. Dreher and Sturm (2006) analyze whether G7 donors employ financial assistance provided by the IMF and the World Bank to change the UN voting behavior of developing countries. They use panel data for 188 recipient countries over the period 1970–2002. Applying Extreme Bounds Analysis to test for the robustness of results, they find that countries receiving financial support from the IMF and the World Bank tend to vote more frequently in line with G7 countries. By contrast, *overall bilateral* aid by G7 donors is not robustly related to UN voting behavior.

The aid allocation literature and the literature on the impact of aid on UN voting behavior have one serious limitation in common, namely that aid is typically considered in aggregate terms. This ignores the heterogeneity of aid, which is likely to matter not only for the determinants of aid but also for its effects. The need for differentiating aid is stressed by Thiele et al. (2007), who show that (i) the composition of aid has changed significantly

<sup>3</sup>Gates and Hoeffler (2004) also find that Nordic countries differ from G7 countries in that they do not give more aid to political allies.

<sup>4</sup>The literature on the determinants of voting decisions is not confined to the UN General Assembly. In addition, there are numerous studies focusing on other voting bodies. One group of studies investigated the relative importance of voting motives at the national level. Levitt (1996) and Rothenberg and Sanders (2000), e.g., analyze voting patterns in the US Congress. Likewise, Snyder and Groseclose (2000), and Broz and Hawes (2006) focus on the determinants of the individual voting decision. Using discrete choice techniques, a distinction can be made between different motives of voting, such as constituent interest, party affiliation, or personal ideology. Logrolling may effectively reduce the number of dimensions of constituent interests (e.g., Fleck and Kilby 2002). Buying votes is also a theme in research on national elections (Levitt and Snyder 1997; Dahlberg and Johansson 2002). Concerning international organizations, studies that have tried to disentangle the different motives of voting include: Boockmann (2006) who analyzes voting in the International Labour Organization, and Hix et al. (2006) for the European Parliament. The focus of Eldar (2007) is on the UN Security Council and General Assembly, the WTO, and the International Whaling Commission.

over time, and (ii) bilateral donors differ considerably with regard to the focus attached to different aid categories. In the subsequent analysis, we intend to contribute to the strand of the literature dealing with the effects of aid, by taking a more disaggregated view on how aid affects UN voting behavior. As elaborated in the next section, we expect that specific aid categories are better suited for buying political support from the recipient countries than other aid categories.

### 3 Hypotheses

The guiding principle underlying the disaggregation of aid is that the degree of political support a donor expects from the recipients is likely to differ across categories of aid. Donors pursue multiple objectives when allocating aid, which implies that not all forms of aid are necessarily directed at buying political support. Apart from emergency aid given for humanitarian reasons, aid may be granted altruistically to promote the social and economic development of recipient countries.<sup>5</sup> Project-related aid devoted to social infrastructure (such as education and health systems) is a case in point. Project-related aid may also be motivated by the economic self-interests of donors, especially if it is given as tied aid. Japanese aid provided to economic infrastructure (such as communication and energy systems) and production sectors in neighboring Asian countries with which Japan trades intensively comes to mind in this regard. Compared to project-related aid, program aid is more likely to be motivated by political considerations of donors. Furthermore, aid not related to specific projects may be more “effective” in buying political support. Recipients typically will prefer program over project aid as the former offers more discretion in using aid according to the recipient’s own priorities.<sup>6</sup> According to Roodman (2004), recipients tend to have almost complete control over program aid. Hence, recipients should be more inclined to grant political favors to donors of program aid as compared to those of project aid. Our first hypothesis therefore is:

**Hypothesis 1** *Recipients of program aid vote more frequently in line with the donor.*

The benefit of program aid for the recipient is probably greatest when it comes in the form of “general budget support”. General budget support is thus supposed to be most relevant in buying political support from aid recipients. Two other sub-categories of program aid, namely “developmental food aid” and “other commodity assistance”, though not project-related, are probably at least partly driven by economic self-interests of donors, notably the motive to please domestic farmers. “Action related to debt”, which includes debt forgiveness and rescheduling, is influenced by coordinated donor initiatives so that an individual donor may not have full control over this aid category. Moreover, from the perspective of recipients, debt relief tends to be cumbersome and subject to various economic and political

<sup>5</sup>Even the United States, for which political aid motives are supposed to be particularly strong, appears to take humanitarian and developmental considerations into account when giving aid (Abrams and Lewis 1993; Canavire et al. 2006).

<sup>6</sup>This is not to ignore that the distinction between program and project aid gets blurred when the fungibility of aid is taken into account. However, unless fungibility is perfect, program aid should carry higher benefits to the recipient. According to Feyzioğlu et al. (1998), aid is unlikely to be fully fungible. This is particularly true for low-income recipient countries where the generally large share of aid in public budgets limits the ability of governments to shift resources.

conditions. Recipients thus may value general budget support higher than other forms of program aid. Hence, our second hypothesis is:

**Hypothesis 2** *Recipients of general budget support vote more frequently in line with the donor.*

Aid in the form of grants as compared to (concessional) loans provides another relevant distinction. The rationale is similar to the one described above. Even though most loans are characterized by a high grant element, especially when extended to low-income recipients, most donors and recipients tend to regard grants as more generous. As a consequence, donors may use grants not only for altruistic reasons but also when expecting political favors from recipients, and recipients may reward grants with political support. Our third hypothesis is:

**Hypothesis 3** *Recipients of grants vote more frequently in line with the donor.*

Finally, we distinguish tied aid from untied aid. The reason is that tied aid provides fewer benefits to the recipients. The economic, rather than political self-interest of donors is most obvious when aid is strictly conditioned on recipients using the funds transferred for the procurement of goods and services from the donor country. In the case of partially tied aid, the recipient is still constrained in spending the funds.<sup>7</sup> According to Roodman (2004), tying reduces the value of aid by 13–23%. In other words, recipients are probably less inclined to support donors politically if aid is tied. Our fourth hypothesis is therefore:

**Hypothesis 4** *Recipients of untied aid vote more frequently in line with the donor.*

#### 4 Voting and aid data

Voting coincidence in the UN General Assembly represents our dependent variable.<sup>8</sup> There are several ways to construct this variable. Barro and Lee (2005) employ the fraction of times a country votes the same as the country of interest (either both voting yes, both voting no, both voting abstentions, or both being absent). Thacker (1999), among others, codes votes in agreement with the United States as 1, votes in disagreement as 0, and abstentions or absences as 0.5. Kegley and Hook (1991) discard abstentions or absences. In all three approaches, the resulting numbers are divided by the total number of votes in each year. The difference between the approaches lies in the way they weigh abstentions or absences, attaching to them a weight of 1, 0.5 and 0, respectively, in case the donor country does vote. As argued by Zimmermann (1993), Palmer et al. (2002), and Hawes (2004), abstentions can be of considerable importance. Donors might bribe recipient governments not only to comply, but also to avoid non-compliance. We therefore decided against discarding abstentions and absences and opt for the approach proposed by Barro and Lee (2005).

An important issue in previous studies has been the question of which UN General Assembly votes to include in either definition of voting coincidence. Most of the literature

<sup>7</sup>The OECD defines partially tied aid as loans and grants which are tied to procurements of goods and services from a restricted number of countries (including the donor country).

<sup>8</sup>The voting behavior of each country on every roll call vote in the UN General Assembly since 1946 has been documented by Voeten (2004).

includes all votes, while some researchers consider “important” votes only. Clearly, the amount of effort a country puts into influencing others will depend on the importance of a vote. As pointed out in the introduction, not all votes in the General Assembly are likely to be of great importance to the United States. Restricting the analysis to a sub-set of votes might thus be superior. However, inclusion of all votes has also been defended. Wittkopf (1973) states that none of the alternatives focusing on “important” votes is preferable to the general approach. Wittkopf replicates his overall results including only those votes on which the United States and the Soviet Union disagreed, finding that the results do not differ substantially from the analysis including all votes. Similarly, he replicates the previous analysis of Russett (1967), and again finds no substantial differences between “important” votes and all votes.

Labeling votes as being important is highly subjective (e.g., Kegley and McGowan 1981). This issue could potentially be solved by employing the categorization provided by the US State Department. However, the State Department classifies votes since 1983 only. As the present study deals with a longer period of time (1973–2002), our main analysis includes all votes. We present additional estimations based on key votes for comparison.<sup>9</sup> Finally, we follow the previous literature in concentrating on the United States as the donor of principal interest. Nevertheless, we replicate major results for the other G7 countries for comparison.

Aid data are taken from the Creditor Reporting System (CRS) as presented by the Development Cooperation Directorate of the OECD (<http://www.oecd.org/dataoecd/50/17/5037721.htm>). The data refer to aid commitments, rather than actual disbursements. In the aid allocation literature, it is disputed whether the choice between disbursements and commitments affects empirical results.<sup>10</sup> Disbursements may be the preferred aid measure as the behavior of recipients is more likely to depend on resource transfers actually made, rather than on donor promises. Nevertheless, several authors, including Berthelemy and Tichit (2004), favor commitments, which constitute the only aid variable over which donors have full control. Moreover, data on disbursements are not available for several of the categories our analysis refers to. For the sake of consistency we thus use commitments throughout the paper.

The differentiation between program and project aid is based on the so-called DAC sector codes of the CRS. Program aid consists of “general budget support”, “developmental food aid”, “other commodity assistance”, and “action related to debt”, while project aid comprises most other sector codes, including investment in social and economic infrastructure as well as aid to production sectors such as agriculture.<sup>11</sup> We do not consider emergency aid, following the argument in the aid allocation literature that this type of aid by definition goes to where natural emergencies occur and should not necessarily adhere to selectivity concerns related to the recipient countries’ poverty and governance situation (Roodman 2004;

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<sup>9</sup>Some studies exclude nearly unanimous votes, as it is unlikely that countries bribe on those. Voting alignment might also depend on the underlying topic. With almost 20% of all votes in our sample, decisions related to Israel account for the by far biggest share. As shown by Dreher and Sturm (2006), excluding almost unanimous votes or votes related to Israel does not affect the results. Moreover, the decision of which votes to exclude is purely subjective. Hence, we do not investigate this issue further.

<sup>10</sup>According to McGillivray and White (1993), the patterns of disbursements and commitments differ significantly in most of the cases analyzed. By contrast, Neumayer (2003) suggests that estimation results are unlikely to be affected much as disbursements and commitments are highly correlated.

<sup>11</sup>For a similar approach, see Roodman (2004).



**Table 1** Selected aid categories for G7 donors (percent of total aid),<sup>a</sup> 1973–2004

Donors	Program aid <sup>b</sup>	General budget support <sup>c</sup>	Grants <sup>d</sup>	Untied aid <sup>e</sup>
United States	38.1	17.2	84.9	23.0
Canada	21.5	2.4	87.8	32.5
France	29.8	8.0	51.5	40.0
Germany	32.2	0.6	47.0	56.8
Italy	29.1	2.1	52.2	31.0
United Kingdom	23.4	9.6	90.4	65.7
Japan	20.8	5.1	20.8	79.6

<sup>a</sup>Total aid refers to donor commitments as detailed in the text; total aid is differentiated in several respects; only the categories of major interest are listed in the table

<sup>b</sup>Sum of “commodity aid and general programme assistance” and “action related to debt”

<sup>c</sup>Note that “general budget support” is part of “commodity aid and general programme assistance”

<sup>d</sup>Excluding “ODA/OA grant like”

<sup>e</sup>The tying status of aid is available for 58–98 percent of overall commitments, with the United States representing the lower bound; note that the sum of untied, partially tied and tied aid is set equal to 100

Source: DAC online database

Dollar and Levin 2006).<sup>12</sup> We also exclude administrative costs of donors and unallocated aid (because these items are neither project-related nor program aid).

Data on the tying status of aid are incomplete. This applies especially to the United States. The distinction between tied and untied aid is available since 1984 only, whereas all aid was classified as partially tied in previous years. Hence, the estimates for tied and untied aid presented below refer to the period 1984–2002. For this period, donors provide (almost) complete data on tied and untied loans, but entries largely are missing for tied grants. To overcome this problem, we assume all aid to be tied that is not reported as untied. This assumption is a reasonable approximation, as donors have incentives to report untied aid completely in order to appear more generous. From the estimated amount of tied aid we subtract the (reported) amount of tied loans to calculate tied grants.

Table 1 indicates the importance of the various aid categories employed in our analysis. For the G7 as a whole, program aid accounted for 29% of total aid commitments over the period 1973–2004. However, this share varied considerably across donor countries, with the United States reporting the by far highest share. The United States also stands out regarding the significance of “general budget support”. Likewise, the emphasis on grants differed significantly across G7 donors over the period 1973–2004. Together with Canada and the United Kingdom, the United States clearly preferred grants, whereas grants played a marginal role for Japanese aid. In contrast to the other aid categories, the United States ranks at the bottom of G7 donors with regard to untying aid. The fact that more than half of the aid by several other donors was untied during the whole period of observation suggests that

<sup>12</sup>This argument does not imply, however, that emergency aid has a purely humanitarian motivation. Indeed, two recent studies suggest addressing in future research the question of whether foreign donors use emergency aid, too, for political ends. According to Sobel and Leeson (2006), disaster relief in the wake of Hurricane Katrina clearly was affected by political considerations. Escaleras et al. (2007) find that even the need for disaster relief is endogenous to political phenomena, showing that public sector corruption is related to the number of earthquake deaths.



the *economic* self-interest of these donors figures less prominently. It remains open to question, however, whether these donors are also less self-interested than the United States with respect to *political* ends.

## 5 Method of estimation

Our regressions are pooled time-series cross-section analyses (panel data) and cover the period 1973–2002. Fixed country and time effects are significant at the one percent level in all estimated model specifications. They are included in all regressions but not shown in the tables. Since some of the data are not available for all countries or years, the panel data are unbalanced and the number of observations depends on the choice of explanatory variables. As one problem, we have to deal with the potential endogeneity of aid, which has been ignored in most previous studies on UN voting patterns.<sup>13</sup> Voting coincidence in the UN General Assembly might as well cause aid flows to adjust (see Sect. 2). Voting and aid could also be jointly influenced by other common determinants. We pursue two strategies to deal with this potential problem.

First, we estimate Two-Stage-Least-Squares (2SLS) employing instruments for aid by G7 donors. Bilateral aid flows by other donors widely believed not to grant aid for political reasons are natural instruments. Earlier research has shown that humanitarian and developmental concerns have been particularly important for the Netherlands, Denmark, Norway, and Sweden. These countries' aid should exhibit a fairly high correlation with G7 aid as all major donors tend to focus on the same set of 'aid darlings' (Thiele et al. 2007). Their aid has also not been affected by the UN voting behavior of recipients (Stokke 1989; Alesina and Dollar 2000; Gates and Hoefler 2004), and arguably is uncorrelated with voting coincidence between aid recipients and G7 donors. Accordingly, Fleck and Kilby (2006a, 2006b) suggest "good donor" aid as a proxy for the ability of aid to serve recipient needs in the absence of any political motives. Following Kilby (2006), we thus employ aid by these 'humanitarian' donors as instruments for G7 aid. The instruments appear to be valid as they pass the usual tests for the quality of instruments (see below).

As a second approach to deal with the potential endogeneity of aid, we employ the system GMM estimator as suggested by Arellano and Bover (1995) and Blundell and Bond (1998) as a test for robustness. Results are based on the two-step estimator implemented by Roodman (2007) in Stata, including Windmeijer's (2005) finite sample correction. We apply the Sargan-Hansen test on the validity of the instruments used (amounting to a test for the exogeneity of the covariates) and the Arellano-Bond test of second-order autocorrelation, which must be absent from the data in order for the estimator to be consistent. To anticipate the results, all these tests do clearly not reject our specifications.<sup>14</sup>

<sup>13</sup>As an additional problem, our dependent variable is bounded by zero and one, so efficiency could potentially be increased by employing a log-odds transformation ( $\log(y/(1-y))$ ). However, this comes at the cost of making the coefficients hard to interpret. In addition, arbitrary values would have to be assigned to the boundary values (see Papke and Wooldridge 1996 for a detailed discussion). Our qualitative results are not affected by employing the log-odds transformation. They are available on request.

<sup>14</sup>Note that the GMM regressions also include individual dummies for each year. This is necessary as the estimator assumes uncorrelated disturbances across individuals (see Roodman 2006).

One of the main challenges in empirically testing the hypotheses introduced in Sect. 3 is to come up with a reliable model. We employ the benchmark established in Dreher and Sturm (2006) as our base model. Dreher and Sturm follow a general-to-specific method to construct their model, based on the variables introduced in the previous literature. They tested the robustness of the model with Extreme Bounds Analysis. According to this method, a measure of democracy and an indicator of national capability are robustly associated with UN voting behavior: More democratic countries tend to vote in line with G7 countries, whereas higher national capability lowers the degree of voting coincidence.<sup>15</sup> We use the same control variables here. The measure of democracy is a composite of the political rights index and the civil liberty index given by Freedom House. The indicator of national capability is a measure of power based on six elements: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. Both variables are available on a yearly basis over the sample period. We test the robustness of our results by including other variables suggested in the previous literature as determinants of UN voting coincidence.

Appendix A lists all variables with their definitions and sources; Appendix B reports summary statistics. The countries included in our study are listed in Appendix C.

## 6 Results

Columns 1 and 2 of Table 2 report the results for the United States, separating program aid and project aid (estimated with OLS and 2SLS). Voting coincidence rises with the degree of democracy in the recipient country, with a coefficient significant at the 1% level in both regressions. Greater national capability significantly reduces voting coincidence with the United States. These results are in line with Dreher and Sturm (2006).

Regarding a potentially differential effect of program aid and project aid (Hypothesis 1), the results support our a priori hypothesis for the United States. In the OLS regression, both project and program aid significantly increase the probability that the recipient votes in line with the United States in the General Assembly. However, only the coefficient on program aid remains significant at the 5% percent level when we take the potential endogeneity of aid into account. The Sargan test does not reject the overidentifying restrictions at conventional levels of significance. F-tests show that the instruments are highly significant in the first-stage regressions (including all exogenous variables), even though the F-statistics do not exceed the critical rule-of-thumb value of 10 (Staiger and Stock 1997). When included to the regression explaining voting behavior, the instruments are not jointly significant at conventional levels. It seems therefore safe to assume that there is no direct impact of the instruments on UN voting behavior.

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<sup>15</sup>Thacker (1999) has pointed out that, as countries become more democratic, they may also alter their UN voting behavior to reflect these changes. Democracies rarely fight wars against each other (Doyle 1986) and probably have interests closer to the G7 countries than dictatorships do. Democracies agree, e.g., on principles like free speech, private property and elected representation (Wang 1999) and might thus form a liberal alliance against more dictatorial regimes. Voeten (2000) provides empirical evidence. According to his results, the Western-Non-Western dimension is most important in explaining voting behavior in the General Assembly—with Western countries being democracies and Non-Western countries mostly being non-democratic for the major part of the sample period (Dreher and Sturm 2006). See Holcombe and Sobel (1996) for an alternative analysis of voting blocs and their stability in the UN General Assembly.

**Table 2** Bilateral aid and UN voting, project vs. program aid, 1973–2002

	USA		France		Japan		Germany		Canada		Italy		UK	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Democracy ( $t - 1$ )	0.007 (7.77***)	0.008 (6.83***)	0.013 (7.76***)	0.013 (6.77***)	0.012 (5.58***)	0.011 (4.81***)	0.015 (7.37***)	0.013 (4.79***)	0.015 (7.24***)	0.016 (7.16***)	0.015 (7.49***)	0.015 (6.58***)	0.014 (8.37***)	0.014 (7.64***)
National capability ( $t - 1$ )	-2.092 (2.58***)	-2.285 (2.50**)	-2.426 (1.72*)	-2.341 (1.51)	-0.689 (0.39)	-0.933 (0.37)	-0.878 (0.51)	-0.953 (0.54)	-1.087 (0.64)	-1.185 (0.63)	-1.322 (0.80)	-1.178 (0.68)	-1.872 (1.31)	-1.847 (1.28)
Project aid	0.003 (2.65***)	-0.005 (0.43)	-0.001 (0.47)	0.000 (0.95)	0.002 (1.00)	0.000 (0.02)	0.005 (1.04)	-0.085 (4.96***)	0.001 (0.17)	-0.004 (0.23)	0.006 (2.08**)	-0.028 (1.64*)	-0.011 (2.97***)	-0.027 (1.94*)
Program aid	0.006 (10.83***)	0.021 (2.45**)	-0.013 (3.22***)	0.030 (1.02)	-0.008 (1.69*)	0.016 (0.31)	0.004 (1.23)	0.017 (0.60)	0.006 (0.67)	0.133 (1.78*)	0.001 (0.39)	0.006 (0.17)	-0.001 (0.39)	0.007 (0.30)
$R^2$ (within)	0.68	0.61	0.41	0.33	0.29	0.27	0.49	0.46	0.30	0.22	0.35	0.30	0.47	0.47
Method	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
Sargan test ( $p$ -value)		0.72		0.01		0.01		0.01		0.05		0.09		0.00
Number of countries	143	143	143	143	143	143	143	143	143	143	143	143	143	143
Number of observations	3227	3227	3227	3227	3227	3227	3227	3227	3227	3227	3227	3227	3227	3227

Notes: The dependent variable is the percentage of votes the recipient of aid votes in line with the donor. Fixed country and time dummies are included in all regressions. (absolute)  $t$ -statistics in parentheses: \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level

According to the estimated coefficient, a ten-percentage point increase in US program aid increases voting coincidence by 0.2 (column 2). This is far from being quantitatively negligible compared with, e.g., the impact of democracy—for which a one-point increase on the seven-point scale increases voting coincidence by 0.008. Calculating elasticities, an increase in program aid by 1% increases voting coincidence by 0.03%, while an increase in democracy (national capability) by 1% increases (reduces) voting coincidence by 0.15% (0.05%).

The further columns of Table 2 replicate the analysis for the other G7 countries. Regarding democracy the previous results remain. In all (OLS and 2SLS) equations, the coefficient of democracy is significant at the 1% level. However, national capability does not have a significant impact on voting compliance with most other G7 countries. This provides some evidence that these countries exert less pressure on recipient countries. Only when there is no pressure in the first place would we expect the power to potentially resist the pressure being irrelevant. This conjecture is supported by our results with respect to bilateral aid flows. Bilateral program aid by G7 donors other than the United States rarely has an impact on voting coincidence when the potential endogeneity of aid is taken into account. The exception is Canada, where program aid increases voting compliance at the 1% level of significance. However, the Sargan test rejects the instruments, so we cannot put faith in this result. Likewise, the significant impact of project aid found for Germany, Italy and the UK cannot be trusted as the instruments again fail to pass the Sargan test. Overall, our results imply that G7 countries other than the United States do not (successfully) bribe aid recipients.

Table 3 reports the system GMM estimates for the US and further disaggregates US program aid. Note that the Sargan test rejects the instruments in some cases when only the first lag of the dependent variable is included in the specification. We therefore opted to include the second lag also, which is highly significant. The Sargan test does not reject the instruments at conventional levels of significance when the second lag is included. The Arellano-Bond test does also not reject the specification.

Column 1 shows that the previous result remains in the GMM estimation—voting coincidence increases with greater US program aid, with a coefficient significant at the 1% level, while project aid has no significant impact on voting.

The further columns of Table 3 list the disaggregated results for general budget support, (developmental) food aid, and debt relief. According to our three methods of estimation, it is general budget support that drives the results, supporting Hypothesis 2. As the results show, the coefficients are somewhat higher than those of program aid as a whole, indicating a sizable impact of US budget aid on UN voting behavior.

Table 4 disaggregates total aid into loans and grants (Hypothesis 3). Loans have no impact on voting coincidence at conventional levels of significance. With respect to grants, the picture is more nuanced. The overall amount of US grants does not significantly affect voting according to the 2SLS regression. However, grants do increase voting coincidence when estimated with GMM, at the 1% level of significance. Moreover, the amount of untied grants affects voting compliance according to the 2SLS and GMM regressions (columns 5 and 6). The finding that recipients of higher untied US grants vote more closely in line with the United States in the UN General Assembly lends support to Hypothesis 4.<sup>16</sup> According to the 2SLS estimates, a rise in untied grants by ten percentage points raises voting coincidence by 0.3. The GMM estimates imply a more modest increase of 0.04 percentage points.

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<sup>16</sup>When replicating the analysis for the other G7 countries, we did not find any significant pattern. These results are not reported in the tables. They are available on request.

**Table 3** Bilateral aid and UN voting, US project vs. program aid, 1973–2002

	(1)	(2)	(3)	(4)
Dependent variable ( $t - 1$ )	0.477 (8.32)***			0.479 (8.21)***
Dependent variable ( $t - 2$ )	0.346 (3.94)***			0.353 (4.02)***
Democracy ( $t - 1$ )	0.003 (2.27)**	0.008 (7.88***)	0.007 (4.57***)	0.003 (2.20)**
National Capability ( $t - 1$ )	0.059 (1.18)	-2.065 (2.54**)	-1.814 (1.45)	0.062 (1.25)
Project aid	0.000 [0.00071] (0.35)	0.003 [0.0059] (2.68***)	-0.004 [-0.0042] (0.32)	0.000 [0.0006] (0.29)
Program aid	0.002 [0.0036] (2.79)***			
Budget aid		0.007 [0.0043] (10.78***)	0.025 [0.159] (1.92*)	0.003 [0.0015] (3.50)***
Food aid		0.004 [0.0032] (1.75*)	0.012 [0.009] (0.51)	0.003 [0.0023] (0.96)
Debt relief		-0.003 [-0.0001] (0.70)	0.139 [0.007] (0.65)	0.000 [0.000] (0.21)
$R^2$ (within)		0.68	0.44	
Method	GMM	OLS	2SLS	GMM
Sargan test ( $p$ -value)	0.42		0.72	0.40
Arellano-Bond test ( $p$ -value)	0.14			0.13
Number of countries	141	143	143	141
Number of observations	3137	3227	3227	3137

Notes: The dependent variable is the percentage of votes the recipient of aid votes in line with the donor. 2SLS and OLS regressions include fixed country and time dummies; GMM regressions include time dummies (absolute)  $t$ -statistics in parentheses: \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level.

Brackets report elasticities for the aid variables of principle interest.

However, as this regression includes two lags of the dependent variable, the coefficient has to be interpreted as an immediate, short-term effect, rather than the overall impact. Calculating the overall impact produces a comparably large estimated increase of 0.2 percentage points.

Table 5 replicates the analysis including only those votes that the US State Department considers to be important.<sup>17</sup> Since observations are missing for the first ten years, the sam-

<sup>17</sup>In 2000, for example, “important” resolutions comprised resolution A/Res/ES-10/7 on Israeli actions in occupied territories, resolution A/Res/55/20 on the U.S. embargo of Cuba, and resolution A/Res/55/33B on compliance with the Anti-Ballistic Missile treaty, among others.

**Table 4** Bilateral aid and UN voting, US loans vs. grants, 1973–2002

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable ( $t - 1$ )			0.459 (7.25)***			0.453 (6.98)***
Dependent variable ( $t - 2$ )			0.202 (1.86)*			0.374 (4.04)***
Democracy ( $t - 1$ )	0.008 (7.82***)	0.007 (6.35***)	0.005 (3.36)***	0.008 (7.98***)	0.007 (5.47***)	0.003 (2.19)**
National Capability ( $t - 1$ )	-1.992 (2.44**)	-2.232 (2.49**)	0.018 (0.19)	-1.918 (2.35**)	-2.407 (2.50**)	0.056 (1.04)
Loans	0.001 [0.00078] (0.70)	0.017 [0.012] (0.81)	-0.000 [-0.00002] (0.22)			
Loans, untied				-0.003 [-0.000] (0.74)	-0.036 [-0.0012] (0.18)	-0.001 [-0.000] (1.56)
Loans, tied				-0.001 [-0.0003] (0.35)	0.010 [0.002] (0.44)	-0.003 [-0.0007] (1.21)
Grants	0.005 [0.015] (10.12***)	0.005 [0.016] (1.39)	0.002 [0.0048] (3.21)***			
Grants, untied				-0.003 [-0.0004] (1.07)	0.029 [0.0047] (2.55**)	0.004 [0.0006] (2.81)***
Grants, tied				0.005 [0.0128] (9.88***)	-0.007 [-0.019] (1.33)	0.001 [0.0028] (2.44)**
$R^2$ (within)	0.68	0.67		0.68	0.59	
Method	OLS	2SLS	GMM	OLS	2SLS	GMM
Sargan test ( $p$ -value)		0.01	0.58		0.60	0.48
Arellano-Bond test ( $p$ -value)			0.89			0.11
Number of countries	143	143	141	143	143	141
Number of observations	3227	3227	3137	3227	3227	3137

Notes: The dependent variable is the percentage of votes the recipient of aid votes in line with the donor

Data for tied and untied aid are available for the period 1984–2002 only

Fixed country and time dummies are included in all regressions

(absolute)  $t$ -statistics in parentheses: \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level

Brackets report elasticities for the aid variables of principle interest

ple period is reduced to 1983–2002. In qualitative terms, the previous results for the United States are hardly affected by dropping “unimportant” votes from the regression. Quantitatively, however, some major changes occur. In particular, the 2SLS regressions yield an

**Table 5** Bilateral aid and UN voting, US key votes, 1983–2002

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variable ( $t - 1$ )			0.620 (12.06)***			0.621 (11.85)***			0.629 (12.30)***			0.624 (12.11)***
Dependent variable ( $t - 2$ )			0.048 (1.52)			0.051 (1.60)			0.043 (1.30)			0.045 (1.37)
Democracy ( $t - 1$ )	0.024 (8.27)***	0.023 (6.08)***	0.013 (5.44)***	0.024 (8.28)***	0.021 (3.63)***	0.013 (5.13)***	0.024 (8.31)***	0.022 (5.72)***	0.013 (5.39)***	0.024 (8.33)***	0.025 (4.16)***	0.014 (5.36)***
National Capability ( $t - 1$ )	-4.846 (2.05)**	-5.405 (1.87*)	-0.164 (0.69)	-4.871 (2.06)**	-4.941 (1.40)	-0.248 (1.02)	-4.780 (2.01)**	-5.211 (1.87*)	-0.161 (0.72)	-4.748 (2.00)**	-5.981 (1.62)	-0.165 (0.70)
Project aid	0.009 (3.02)***	0.024 (0.78)	-0.004 (1.60)	0.009 (3.00)***	0.027 (0.71)	-0.004 (1.35)						
Program aid	0.007 (4.93)***	0.056 (2.46)**	0.012 (7.18)***									
Budget aid				0.007 (4.86)***	0.059 (1.84*)	0.013 (8.09)***						
Food aid				0.008 (0.87)	0.045 (0.74)	-0.010 (0.97)						
Debt relief				-0.004 (0.44)	0.295 (0.54)	0.002 (0.57)						



**Table 5** (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Loans							0.004 (0.83)	0.039 (0.66)	-0.003 (0.75)			
Loans, untied										-0.004 (0.43)	-0.486 (0.79)	0.001 (0.20)
Loans, tied										0.005 (0.47)	0.040 (0.54)	-0.010 (1.37)
Grants							0.005 (4.41***)	0.035 (3.06***)	0.003 (2.68)***			
Grants, untied										0.003 (0.49)	0.060 (1.75*)	0.016 (5.34)***
Grants, tied										0.005 (4.02***)	0.019 (0.91)	0.002 (2.36)**
$R^2$ (within)	0.46	0.20		0.46	0.28		0.46	0.29		0.46	0.18	
Method	OLS	2SLS	GMM	OLS	2SLS	GMM	OLS	2SLS	GMM	OLS	2SLS	GMM
Sargan test ( $p$ -value)		0.66	0.18		0.60	0.18		0.21	0.18		0.99	0.20
Arellano-Bond test ( $p$ -value)			0.25			0.26			0.20			0.23
Number of countries	143	143	141	143	143	141	143	143	141	143	143	141
Number of observations	2455	2455	2100	2455	2455	2100	2455	3227	2100	2455	2455	2100

Notes: The dependent variable is the percentage of votes the recipient of aid votes in line with the donor  
 2SLS and OLS regressions include fixed country and time dummies; GMM regressions include time dummies  
 (absolute)  $t$ -statistics in parentheses: \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level

impact of budget aid and untied grants on voting coincidence that is more than twice the impact reported above (columns 5 and 11). When focusing on those votes that the United States considers to be important, the results are thus even more strongly in line with our a priori hypotheses.

Table 6 tests the robustness of our results to the inclusion of additional variables suggested as potential determinants of voting coincidence in the previous literature. The first set of additional variables reflects a country's economic power that might be important for voting behavior. Following Dreher and Sturm (2006), we employ GDP per capita, real GDP growth and total external debt (in percent of GDP) to proxy for dependence on foreign support. Economically strong countries with easy access to private capital are less likely to accept bribes and may thus vote less in line with G7 countries. By contrast, highly indebted countries frequently have no alternative to aid money, increasing their dependence.

Second, international trade patterns are potentially important for UN General Assembly voting. Cooperation is more likely with greater interdependence among countries (e.g., Oneal and Russett 1999) as interdependence might create similar preferences on certain topics. At the same time, strong bilateral trade relations can create fears of losing access to markets. According to Keohane (1967), dependence on trade increases a country's responsiveness to external pressure and may thus lead to voting compliance with the partner country.<sup>18</sup> This applies especially to a partner country such as the United States considering the vast size of its markets. Finally, we employ an index for the rule of law as proxy for cultural proximity with the United States, which may result in closer voting compliance.

Table 6 reports the coefficients of the aid variables together with their *t*-values, but excludes the results for the covariates to save space. In addition to the covariates listed in the column headings, all regressions include the index of democracy, national capability, and time dummies. We restrict the analysis to the GMM system specifications. As can be seen from the table, many of our results for the aid variables are unaffected by the inclusion of the additional explanatory variables. Including GDP per capita, for example, does not change the positive effects of budget aid and grants on voting behavior, while the coefficient of GDP per capita itself is insignificant. The only major exception is that tied grants rather than untied ones significantly increase voting compliance with the US in five of the six models. Moreover, grants no longer significantly affect voting coincidence when the rule of law index is included in the regression. This is due to the substantially reduced number of observations once including the rule of law index (1504 observations). Excluding the rule of law index from the regression but restricting the sample to the same observations confirms the insignificant result. We conclude that, except for the case of untied grants, our results are indeed robust to the inclusion of these additional variables.

## 7 Summary and conclusions

We empirically investigated the hypothesis that foreign aid is used as an instrument to influence the voting behavior of recipients in the UN General Assembly. As the main innovation of this paper, we employed disaggregated aid data in order to assess which aid categories were effective in inducing voting compliance with the donor.

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<sup>18</sup>See also Stone (2004) on foreign trade as a potential measure of foreign influence.

**Table 6** Bilateral aid and UN voting, tests for robustness, GMM, 1973–2002

	GDP p.c.	GDP growth	External debt	US exports	US imports	Rule of law
(1)	Project aid 0.00028 (0.22)	0.00047 (0.37)	0.00061 (0.46)	0.00027 (0.20)	0.00061 (0.46)	-0.00207 (1.89*)
	Program aid 0.00336 (3.13***)	0.00352 (3.53***)	0.00296 (3.21***)	0.00237 (2.46**)	0.00260 (3.06***)	0.00090 (1.66*)
(2)	Project aid 0.00052 (0.44)	0.00033 (0.26)	0.00042 (0.33)	0.00007 (0.05)	0.00020 (0.14)	-0.00177 (1.44)
	Budget aid 0.00453 (4.25***)	0.00472 (4.14***)	0.00466 (4.49***)	0.00399 (3.85***)	0.00406 (3.97***)	0.00162 (2.09**)
	Food aid -0.00281 (1.05)	-0.00149 (0.54)	0.00218 (0.86)	0.00212 (0.73)	0.00101 (0.34)	-0.00032 (0.16)
	Debt relief -0.00129 (1.03)	-0.00181 (1.47)	-0.00114 (0.66)	-0.00010 (0.03)	-0.00094 (0.51)	-0.00077 (2.00**)
(3)	Loans -0.00183 (1.60)	-0.00181 (1.55)	-0.00152 (1.63)	-0.00172 (1.70*)	-0.00097 (1.23)	-0.00132 (1.69*)
	Grants 0.00211 (4.84***)	0.00194 (4.61***)	0.00217 (4.36***)	0.00165 (4.32***)	0.00150 (4.20***)	0.00013 (0.12)
(4)	Loans, untied -0.0043 (0.67)	-0.00044 (0.52)	-0.00044 (0.57)	-0.00098 (1.92*)	-0.00108 (1.97*)	-0.00050 (0.60)
	Loans, tied -0.00985 (2.40**)	-0.00726 (1.81*)	-0.00458 (0.98)	-0.00300 (0.77)	-0.00412 (1.16)	0.00054 (0.08)
	Grants, untied 0.00182 (1.32)	0.00181 (1.06)	0.00182 (0.86)	0.00163 (1.03)	0.00198 (1.49)	0.00201 (1.84*)
	Grants, tied 0.00183 (3.99***)	0.00174 (3.76***)	0.00193 (4.57***)	0.00149 (3.22***)	0.00140 (3.17***)	-0.00118 (0.90)

Notes: The dependent variable is the percentage of votes the recipient of aid votes in line with the donor

Each cell reports the result for our variables of interest, when the respective additional variable is included to the regression in addition to democracy and national capability  
All regressions include time dummies

(absolute) *t*-statistics in parentheses: \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level

Different forms of aid may differ in their ability to induce political support by recipients. In particular, program aid (notably in the form of general budget support), grants, and untied aid are most likely to shape UN voting behavior. Other forms of aid are less likely to be employed for buying political support. Donors may prefer project-related aid and concessional loans when pursuing other objectives, e.g., providing incentives for a productive use of aid in the recipient countries (especially where local governance is weak). Tied aid may be preferred when commercial donor interests dominate over political motivations.

The focus of our analysis is on US aid and its effects on voting patterns in the UN General Assembly over the period 1973–2002. Compared to other bilateral donors, the United States is widely believed to be less altruistic in allocating aid. Apart from pursuing economic self-interests, US aid is supposed to be used to buy political support from recipient countries. Various UN members are susceptible to bilateral pressure by the world's super-power, and UN voting is considered to be relevant by the United States in defining bilateral relationships and foreign policy.

Accounting for the potential endogeneity of aid, our results provide strong evidence that US aid has indeed bought voting compliance. More specifically, the results suggest that general budget support and grants are the major aid categories with which recipients have been induced to vote in line with the United States. When replicating the results for the other G7 countries, however, we did not find a similar pattern.

By relying on specific aid categories, our analysis provides a more nuanced account than previous studies of how the United States might bribe recipient countries. As a means of obtaining a yet more complete picture of the relationship between political interests and aid allocation, one fruitful avenue for future research would be to extend the analysis of disaggregated aid data to other political spheres such as decision making in the UN Security Council. We intend to address this in future research.

As concerns the normative implications of our findings, it may be tempting to demand that aid should no longer be used to buy political support of recipient countries in the UN General Assembly (or anywhere else). Similar demands have been made before with respect to the practice of pursuing trade-related donor interests by tying aid to the procurement of goods and services from the donor country. The reason is that tied aid delivers fewer economic benefits to the recipients than untied aid. Similarly, the effectiveness of aid in fostering the economic and social development of recipient countries tends to be compromised when aid is conditioned on political favors. The developmental impact of aid, in terms of raising growth and alleviating poverty, is likely to be reduced if political donor motivations result in the diversion of aid from the neediest recipients to recipients offering political support to the donor.

However, the welfare implications of using aid to induce UN voting compliance are less clear than these concerns tend to suggest. With respect to the recipient governments of politically motivated aid, it seems safe to conclude that their utility, though not necessarily the welfare of the neediest population segments in these countries, increases—considering that they appear to prefer voting in line with the donor over forgoing aid. The welfare of other recipient countries depends on whether politically motivated aid is additional to aid given for altruistic reasons, or rather diverts aid away from the needy but politically less compliant recipients. This tricky issue should be addressed in future research.

Finally, as concerns the United States, it appears to be politically naive to demand from the world's super-power not to use financial instruments to induce compliant voting behavior in international organizations such as the United Nations. Our finding that aid is effective in this respect tends to imply that politically motivated aid raises US welfare. Still, the use of one single (financial) instrument for multiple purposes is unlikely to be efficient.

Moreover, it would help transparency and donor accountability if separate financial facilities were clearly related to specific donor motives. Politically motivated support as well as trade-related support should therefore be separated from the development aid budget.

Smaller donors may show the way to enhanced transparency and accountability for the United States. For example, Sweden and Switzerland appear to have a clearer division of responsibilities between different government agencies in dealing with developing countries. In the case of Sweden, the Swedish International Development Cooperation Agency (SIDA), the Ministry of Foreign Affairs and the Export Credits Guarantee Board are all considered to be official donors but, as it seems, with distinct mandates in international financial cooperation. If the United States had separate budget positions along similar lines, it would become more transparent what purposes the announced increase in US aid is actually meant to serve, e.g., developmental objectives such as helping achieve the Millennium Development Goals or political objectives such as forming coalitions in the United Nations.

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## Appendix A: Sources and definitions

Variable	Description	Source
Voting with USA	Number of times a country votes the same as the US (either both voting yes, both voting no, both voting abstentions, or both being absent), divided by the total number of votes in each year. The same definition applies for the other G7 countries.	Dreher and Sturm (2006)
Democracy	$8 - (\text{Political Rights Index} + \text{Civil Liberties Index}) / 2$	Freedom House (2004)
National capability	Composite indicator of national capability, based on total population, urban population, iron and steel production, energy consumption, military personnel, and military expenditure. This measure is generally computed by summing all observations on each of the 6 capability components for a given year, converting each state's absolute component to a share of the international system, and then averaging across the 6 components.	Singer et al. (1972), Correlates of War (COW) website ( <a href="http://www.correlatesofwar.org">http://www.correlatesofwar.org</a> )
Project aid (USA, France, Germany, Japan, Canada, Italy, UK)	Sum of DAC sector codes 110, 120, 130, 140, 150, 160, 200, 210, 220, 230, 240, 250, 310, 320, 330, 400, 410, 420, 430, 920, in percent of GDP.	Creditor Reporting System
Program aid (USA, France, Germany, Japan, Canada, Italy, UK)	Sum of DAC sector codes 500, 510, 520, 530, 600, in percent of GDP.	Creditor Reporting System
USA		
Budget aid	DAC sector code 510 (General Budget Support), in percent of GDP.	Creditor Reporting System
Food aid	DAC sector code 520 (Developmental Food Aid/ Food Security Assistance), in percent of GDP.	Creditor Reporting System
Debt relief	DAC sector code 600 (Action Relating to Debt), in percent of GDP.	Creditor Reporting System
Loans	ODA/OA Loans, in percent of GDP.	Creditor Reporting System
Grants	ODA/OA Grants, in percent of GDP.	Creditor Reporting System
Tied loans	ODA/OA Loans Tied, in percent of GDP.	Creditor Reporting System
Untied loans	ODA/OA Loans Untied, in percent of GDP.	Creditor Reporting System
Tied grants	$(\text{ODA/OA Total Amount} - \text{ODA/OA Total Untied}) - \text{ODA/OA Loans Tied}$ , in percent of GDP.	Creditor Reporting System
Untied grants	$\text{ODA/OA Total Amount Untied} - \text{ODA/OA Loans Untied}$ , in percent of GDP.	Creditor Reporting System
GDP p.c.	GDP per capita (constant 1995 US\$)	World Bank (2006)
GDP growth	real GDP growth (annual percent)	World Bank (2006)
External debt	total external debt (as percent of GDP)	World Bank (2006)
US exports	Exports from US (as percent of recipient GDP)	OECD (2005)
US imports	Imports of US (as percent of recipient GDP)	OECD (2005)
Rule of law	Rule of law (law and order tradition) indicator	ICRG (2006)

**Appendix B: Summary statistics**

Variable	Mean	Minimum	Maximum	Standard Deviation
Voting with USA	0.22	0.00	0.90	0.13
Voting with Canada	0.48	0.00	0.98	0.19
Voting with France	0.39	0.00	0.95	0.17
Voting with UK	0.38	0.00	0.93	0.18
Voting with Germany	0.45	0.00	1.00	0.21
Voting with Italy	0.47	0.00	1.00	0.19
Voting with Japan	0.51	0.00	0.92	0.17
Democracy	4.00	1.00	7.00	2.06
National Capability	0.01	0.00	0.18	0.02
Project aid, USA	0.24	0.00	21.64	0.80
Program aid, USA	0.22	0.00	46.67	1.52
Budget aid, USA	0.09	0.00	46.67	1.32
Food aid, USA	0.10	0.00	12.79	0.37
Debt relief, USA	0.01	0.00	13.05	0.19
Project aid, France	0.25	0.00	31.60	0.97
Program aid, France	0.06	0.00	11.80	0.34
Project aid, Germany	0.14	0.00	25.53	0.55
Program aid, Germany	0.08	0.00	14.45	0.48
Project aid, Japan	0.35	0.00	40.13	1.41
Program aid, Japan	0.08	0.00	10.56	0.37
Project aid, Canada	0.09	0.00	12.18	0.50
Program aid, Canada	0.02	0.00	6.52	0.18
Project aid, Italy	0.07	0.00	18.02	0.56
Program aid, Italy	0.05	0.00	67.01	1.06
Project aid, UK	0.13	0.00	28.49	0.85
Program aid, UK	0.08	0.00	22.60	0.69
Loans (percent of GDP), USA	0.10	0.00	24.29	0.61
Grants (percent of GDP), USA	0.40	0.00	49.37	1.95
Tied loans (percent of GDP), USA	0.03	0.00	7.50	0.19
Untied loans (percent of GDP), USA	0.00	0.00	13.05	0.18
Tied grants (percent of GDP), USA	0.33	0.00	49.37	1.88
Untied grants (percent of GDP), USA	0.03	0.00	17.71	0.36
GDP p.c.	5198.2	0	52943	7627
GDP growth	3.40	-51.03	106.28	6.59
External debt	0.34	0.00	15.96	0.71
US exports	0.00	0.00	0.07	0.01
US imports	0.00	0.00	0.22	0.01
Rule of law	3.56	0.00	6.00	1.60



## Appendix C: Countries (observations) included in this study

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Afghanistan (11)	Guinea-Bissau (27)	Panama (29)
Angola (18)	Equatorial Guinea (22)	Peru (29)
Albania (19)	Grenada (26)	Philippines (29)
Argentina (29)	Guatemala (29)	Palau (7)
Armenia (10)	Guyana (29)	Papua New Guinea (26)
Antigua and Barbuda (20)	Honduras (29)	Poland (18)
Azerbaijan (10)	Croatia (10)	Paraguay (29)
Burundi (29)	Haiti (29)	Romania (16)
Benin (29)	Hungary (29)	Russian Federation (10)
Burkina Faso (29)	Indonesia (29)	Rwanda (29)
Bangladesh (29)	India (29)	Saudi Arabia (29)
Bulgaria (23)	Iran, Islamic Rep. (27)	Sudan (29)
Bahrain (23)	Iraq (17)	Senegal (29)
Bosnia and Herzegovina (9)	Jamaica (29)	Solomon Islands (23)
Belarus (10)	Jordan (29)	Sierra Leone (29)
Belize (20)	Kazakhstan (10)	El Salvador (29)
Bolivia (28)	Kenya (29)	San Marino (4)
Brazil (29)	Kirghiz Republic (10)	Somalia (17)
Barbados (29)	Cambodia (17)	Sao Tome and Principe (26)
Bhutan (23)	Kiribati (3)	Suriname (26)
Botswana (29)	St. Kitts and Nevis (18)	Slovak Republic (8)
Central African Republic (25)	Korea, Rep. (12)	Swaziland (29)
Chile (29)	Lao PDR (19)	Seychelles (25)
China (29)	Lebanon (15)	Syrian Arab Republic (29)
Cote d'Ivoire (29)	St. Lucia (22)	Chad (29)
Cameroon (29)	Sri Lanka (29)	Togo (29)
Congo, Rep. (29)	Lesotho (29)	Thailand (29)
Colombia (29)	Lithuania (10)	Tajikistan (10)
Comoros (23)	Morocco (29)	Turkmenistan (10)
Cape Verde (17)	Moldova (10)	Tonga (3)
Costa Rica (29)	Madagascar (29)	Trinidad and Tobago (29)
Czech Republic (8)	Maldives (23)	Tunisia (29)
Djibouti (17)	Mexico (29)	Turkey (29)
Dominica (21)	Marshall Islands (10)	Tanzania (15)
Dominican Republic (29)	Mali (29)	Uganda (29)
Algeria (29)	Mongolia (10)	Ukraine (10)
Ecuador (29)	Mozambique (23)	Uruguay (29)
Egypt, Arab Rep. (29)	Mauritania (29)	Uzbekistan (9)
Eritrea (8)	Mauritius (23)	St. Vincent and the Grenadines (22)
Estonia (10)	Malawi (29)	Venezuela, RB (29)
Ethiopia (22)	Malaysia (29)	Vietnam (18)
Fiji (29)	Namibia (12)	Vanuatu (21)
Micronesia, Fed. Sts. (10)	Niger (27)	Samoa (25)
Gabon (29)	Nigeria (29)	Yemen, Rep. (11)
Georgia (10)	Nicaragua (29)	South Africa (28)
Ghana (29)	Nepal (29)	Zambia (29)
Guinea (17)	Oman (29)	Zimbabwe (23)
Gambia (29)	Pakistan (29)	

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