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Geopolitics, Aid and Growth

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Abstract

We investigate the effects of short-term political motivations on the effectiveness of foreign aid. Donor countries' political motives might reduce the effectiveness of conditionality, channel aid to inferior projects or affect the way aid is spent in other ways, reduce the aid bureaucracy's effort, and might impact the power structure in the recipient country. We investigate whether geopolitical motives matter by testing whether the effect of aid on economic growth is reduced by the share of years a country has served on the United Nations Security Council (UNSC) in the period the aid has been committed, which provides quasi-random variation in commitments. Our results show that the effect of aid on growth is significantly lower when aid has been granted for political reasons. We derive two conclusions from this. First, short-term political favoritism reduces growth. Second, political interest variables are invalid instruments for aid, raising doubts about a large number of results in the aid effectiveness literature.

JEL-Code: O190, O110, F350, F530.

Keywords: aid effectiveness, economic growth, politics and aid, United Nations Security Council membership, political instruments.

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"UNSC membership offers a quasi-experiment to assess the impact of unconditional aid."

(Bueno de Mesquita and Smith 2010)

1. Introduction

This paper investigates whether the effects of politically motivated aid can be distinguished from the effects of all aid in terms of achieving higher growth. For a new paper investigating the impact of aid on economic growth it may be good practice to begin with an apology for adding to such an immense literature. However, the debate on whether or not foreign aid is effective in promoting growth in recipient countries is ongoing and heated.

Large parts of the previous literature rely on one of three strategies to identify the causal effect of aid on growth. First, researchers use instruments for aid that mainly rely on the recipient country's population size. Second, they employ internal instruments in the context of difference or system GMM estimations. And third, they base the analysis on instruments that proxy the geopolitical importance of a recipient country to the donor. The first two estimation strategies violate the exclusion restriction. Clearly, population and lagged growth rates affect contemporaneous growth through channels other than aid. The third strategy requires assuming that the effects of aid are independent of the donors' motives for granting it. This might be reasonable. Having committed a certain amount of aid, the donor might be keen to achieve developmental outcomes, independent of the motive for granting aid in the first place (Rajan and Subramanian 2008). Kilby and Dreher (2010) however raise doubt about this homogeneity assumption. Their results show a significantly different effect of aid given for developmental reasons compared to overall aid.[1] Arguably, if a donor is motivated by pure self-interest, its allocation decision does not depend on the way the recipient uses the aid. Thus, the recipient might choose not to use disbursed aid for developmental policies, resulting in on average inferior outcomes. If geopolitical aid is less effective than overall aid,[2] the literature using political connections as instruments would not provide evidence of the ineffectiveness of overall aid, but rather of politically motivated aid only. Kilby and Dreher (2010) do not directly test whether aid allocated for geopolitical reasons reduces the effectiveness of aid, leaving an important gap in

[1] A handful of studies consider the impact of donor behavior on aid effectiveness (Bobba and Powell 2007, Headey 2008, Bearce and Tirone 2010, Minoiu and Reddy 2010, Bermeo 2011).

[2] Overall aid is composed of an (unknown) share of politically motivated aid and, arguably, some share exclusively given for developmental purposes, among others.

the literature on aid effectiveness. In this paper, we aim to fill this gap and disentangle geopolitical aid from overall aid.

Temporary membership on the United Nations Security Council (UNSC) allows us to distinguish between overall aid and exclusively geopolitically motivated increase in aid caused by the membership. Thus, we investigate whether this additional aid given for short-term geopolitical reasons is less effective than the average aid in terms of promoting growth. In measuring the amount of aid received by a country that is motivated by short-term political interests, we connect to the recent literature investigating the effects of temporary membership on the UNSC. Bueno de Mesquita and Smith (2010) show that temporary members grow more slowly while serving on the UNSC (and in the two subsequent years). They attribute this to the adverse consequences of development aid, given that these temporary members receive substantial additional inflows of aid (Kuziemko and Werker 2006, Dreher et al. 2009a, 2009b). However, the results in Bueno de Mesquita and Smith reflect the effects of membership per se, and seem to be independent of the amount of aid received (Bashir and Lim 2013).[3] It thus remains unanswered whether aid granted while being a temporary member of the UNSC results in different developmental outcomes than aid disbursed at other times.

Dreher et al. (2012a) is most closely related to our paper. They focus on the effect of temporary UNSC membership on the evaluation of World Bank projects. The results show that project evaluations are not inferior, on average, for projects granted to countries while being on the UNSC. Only in times of macroeconomic crisis does politically motivated aid reduce the probability of a positive evaluation.[4] However, Dreher et al. focus on one (multilateral) donor only and investigate the effect of geopolitics on self-assessed project outcomes rather than on more objective policy measures or economic growth.

We take a broader approach and reconsider recent models of aid effectiveness separating aid given for short-term geopolitical considerations from aid granted for other, possibly including long-term strategic, reasons. Contrary to Dreher et al. (2012a), we look at overall aid and relate these aid flows to economic growth. Contrary to Bueno de Mesquita and Smith (2010) and Bashir and Lim (2013), we do not relate UNSC membership per se to the variables of

[3] As pointed out by Bueno de Mesquita and Smith (2013), the effects of "easy money" can take many routes, among them, as they show, loans to the temporary UNSC members.

[4] Kilby (2011a, b) examines possible transmission channels. He shows that politically motivated projects have shorter preparation periods, while shorter preparation reduces the probability that projects receive a successful evaluation.

interest, but exploit the quasi-random variation of aid granted while countries were temporary members of the UNSC, and investigate if the effectiveness of these specific flows is different from that of overall aid.

We find that the effect of aid on growth is reduced by donors' geopolitical motives, augmenting Clemens et al.'s (2012) permutations of Burnside and Dollar (2000) and Rajan and Subramanian (2008). This result holds when we focus on the model of Bueno de Mesquita and Smith (2010). It is more pronounced in autocratic recipient countries and holds if we restrict the sample to Africa, which follows the strictest norm of rotation on the UNSC and can thus most reliably regarded to be exogenous. Overall, we find that political favoritism reduces growth. This renders political variables invalid as instruments for aid.

The next section presents our theory on the channels through which political motivations change the effectiveness of development aid. Section 3 describes how we exploit temporary membership on the UNSC to identify the effects of political motives. In section 4, we outline our data and method of estimation, and present our results. The final section draws policy implications and concludes the paper.

2. A theory of politically motivated aid

How might political favoritism change the impact of foreign aid? It seems intuitive to assume that politically motivated aid is less effective than aid mainly given to promote development.[5] As Rajan and Subramanian (2008: 655) point out, however, "to characterize strategic aid as "bad" aid is mixing motives and consequences." According to Dreher et al. (2012a), there are indeed good reasons why politically motivated aid may be just as effective as other forms of aid. Cold War donors, for example, may have wanted not only to curry favor with their client states, but also to help their allies succeed economically. A case in point, the East Asian Tigers received tremendous amounts of politically motivated assistance during the Cold War that does not appear to have impeded their economic development (Dreher et al. 2012a).

Moreover, once an aid allocation decision has been made, aid must be delivered by the aid bureaucracy. The bureaucratic agents may want to implement effective programs regardless

[5] Consider as example Morgenthau (1962: 303, as cited in Werker 2012): "Bribery disguised as foreign aid for economic development makes of giver and recipient actors in a play which in the end they may no longer be able to distinguish from reality. In consequence, both may come to expect results in terms of economic development which in the nature of things may not be forthcoming."

of the motivations of the donor. When deciding how to allocate economic aid to Pakistan to increase political support for anti-Taliban operations, for example, a US aid official said, "We had to choose a method of funding that was most likely to produce results efficiently and effectively" (Perlez 2009). Thus, the existence of political favoritism in the allocation of aid need not imply its ineffectiveness. What is more, at any given time there may be a plethora of unfunded investment projects with similar potential effectiveness. Choosing among these projects according to political criteria, as opposed to developmental ones, may not necessarily reduce the average effectiveness of aid.

However, Dreher et al. (2012a) stress that there are also strong reasons to expect that politically motivated aid is less effective than average aid. The first is that a politically motivated allocation of aid potentially results in the approval of lower-quality aid projects in favored countries instead of more promising projects in other countries. This presumes that the allocation decision is made in the presence of declining marginal returns and political motivation results in projects with lower returns getting priority.[6]

A second argument supporting the hypothesis of ineffective political aid is that politically motivated projects reduce the motivation of the donor and/or recipient to invest as much in the success of the project as they would otherwise. On the donor side, bureaucrats will arguably take account of their employer's incentive structure to some extent, as that might help them to advance in their careers. To the extent that developmental outcomes do not enter the employer's utility function, less effort might be spent on the ground to promote developmental objectives. Favoritism might thus allow projects to be pursued where important preconditions are not met or might reduce time and resources devoted to the preparation of a project (Kilby 2011a, b). From the recipients' perspective, aid inflows may delay important policy reforms that would, among other things, also promote economic growth. Focusing on the IMF and the World Bank, Stone (2008), Kilby (2009) and Nooruddin and Vreeland (2010) suggest that political favoritism undermines the credibility of conditionality, rendering it ineffective.[7] Dreher and Jensen (2007)

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[6] Note that this is different from assuming that larger amounts of aid reduce its effectiveness. For any given amount of aid, we assume politically important recipients will be able to extract projects that would otherwise not be granted because of quality concerns.

[7] Nooruddin and Vreeland (2010) show that democratic countries under IMF programs increase public wages and salaries when they serve on the UNSC, while governments without UNSC-related political leverage have to reduce the wage bill. This suggests that politically important countries can avoid tough conditionality. Stone (2004) and Kilby (2009) show that IMF and World Bank conditions, respectively, are not rigorously enforced for politically important recipient countries (measured by UNGA voting patterns, among others).

find that the conditions attached to loans given to political allies of the IMF's most important shareholders are softer and less restrictive. The results of Nielsen (2013) show that donors punish human rights violations of non-allies by reducing aid, but not those of their political allies.

This does not imply that politically important countries necessarily follow unsound economic policy. Sometimes donors and recipients agree on policy; some recipient governments even invite policy conditionality (Vreeland 2003). Other times, governments may follow a different policy course than that recommended by the donor and still be successful. Still other times, however, politically important recipient countries may be unable or unwilling to follow the donor's conditions even though their economy could require adjustment. Because of political interests, however, the donor refrains from stopping aid flows to the partner country and thus allows the recipient to postpone the necessary and unpopular adjustments (Dreher et al. 2012a). Note that this channel might be particularly hard to measure empirically, because it could imply that softer conditions are attached to politically motivated-aid from the outset, but also that compliance is less strictly monitored when a country is politically important at the time the aid is disbursed (rather than committed).

A further channel through which politically motivated aid could reduce the effectiveness of aid is subtle: Faye and Niehaus (2012) show that such aid might help facilitate political business cycles, as incumbent political allies of the donors receive more aid prior to an election. Aid thus helps incumbent governments to distort their economy, which might reduce growth rates directly (after the immediate stimulating effect of expansionary electoral policies evaporates). More importantly, this type of aid makes it more difficult for voters to select the "best" politicians, as they receive distorted signals of competence. What is more, aid can be a valuable price to get, increasing the number of political actors who try to get access to the fungible part of aid by entering the political stage or even leading to coup d'états (Werker 2012). This will on average lead to less competent politicians and might thus reduce growth rates.

Finally, Bobba and Powell (2007) suggest that aid-receiving allies might feel more obliged to spend politically motivated aid in the donor country than recipients of developmentally-oriented aid, even if goods and services could be bought at a lower price or higher quality elsewhere.

In summary, there are good reasons to expect that political aid may be less effective, or just as effective, as aid intended to promote development. We therefore turn to the empirics to answer this question.

3. Measuring political motives in the allocation of aid

As Alesina and Dollar (2000: 7) suggest, "it is not easy to test whether politically motivated aid does not work as well" because "it is hard to find natural variation in the amount of politically motivated aid that is not correlated with its underlying potential effectiveness." Bearce and Tirone (2010: 840) equally stress that "it is hard to find a single variable which neatly and concisely measures the strategic content of Western foreign aid." Scholars have proposed several such variables. Among them are voting patterns in the UN General Assembly (Thacker 1999, Alesina and Dollar 2000, Bobba and Powell 2007, Faye and Niehaus 2012), formal alliances or military support (Kim and Urpeleinen 2012, Bermeo 2013), colonial relationships (Rajan and Subramanian 2008), stronger geopolitical constraints during the Cold War-period compared to more recent years (Dunning 2004, Berthélemy and Tichit 2004, Bräutigam and Knack 2004, Headey 2008, Bearce and Tirone 2010), ad hoc classifications of "good" versus "other" or "bad" donors (Minoiu and Reddy 2010, Werker et al. 2009, Bermeo 2011), and membership in international committees (Kuziemko and Werker 2006, Kaja and Werker 2009).

The first set of variables may be problematic. UN voting and formal alliances vary little and slowly over time, so that most of the variation in these measures comes from the cross-sectional dimension (Dreher et al. 2012a). Most colonial relationships are stable during the time period considered in aid effectiveness studies. The post-Cold War period is different in many respects, unrelated to the donors' geostrategic motives.[8] In order to derive causal estimates from largely or exclusively cross-sectional variation, clever instruments are needed that are correlated with politically motivated aid to a meaningful degree, but have no direct effect on the second-stage outcome, i.e., economic growth. This is a rather demanding requirement. Ad hoc classifications of donors as "good" or "bad" likely suffer from endogeneity. Those donors who are more successful ex post are more likely to be perceived as "good donors." What is more, the

[8] As one example, donors might have learned from past mistakes, so aid given more recently might be more successful than aid given during the Cold War-period.

consequences of geopolitical aid can hardly be separated from other differences in the way these groups of donors allocate their aid.[9]

Among the potential variables to proxy political influence, temporary membership on the UNSC poses the fewest problems.[10] This is because membership positions are scarce, the nature of service is temporary and not immediately renewable and the selection process is, though not random, exogenous to aid (Bueno de Mesquita and Smith 2010, Dreher et al. 2012b).[11]

We therefore focus on a crisply coded dichotomous measure that has been shown in previous research to induce political favoritism: temporary membership on the UN Security Council. The importance of temporary Security Council membership for the allocation of aid was first shown by Kuziemko and Werker (2006). Its role for aid is not entirely surprising: The UNSC is the most important organ of the United Nations. Its actions are visible to the public, sometimes receiving considerable press coverage, and its competence includes authorizing military action. Members of the UNSC are given a prominent voice on the most pressing issues of international security.

While five members of the UNSC (China, France, Russia, the United Kingdom, and the United States) serve on a permanent basis, ten temporary members are elected by the United Nations General Assembly. These elected members serve two-year terms. While not random, membership appears to be largely idiosyncratic, with varying regional norms (Dreher et al.

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[9] Werker et al. (2009) investigate the effects of aid by Arab donors, which they argue is in large parts given for political reasons and do not find this aid to significantly impact economic growth. However, as Werker et al. point out, this aid likely had developmental motives also and thus provides no sharp test. Minoiu and Reddy (2010) use different groups of donors whose aid allocation they expect to be more or less developmentally oriented, based on the previous literature. Bermeo (2011) finds that aid from democratic donors improves democracy, while aid from autocratic donors does not. These results could reflect any differences between the different donors, including geostrategic motives, but also any other type of differences.

[10] Kaja and Werker (2010) instead focus on the World Bank's Executive Directors and find that countries being represented on the Board of Directors receive substantially more aid than other countries, controlling for other relevant determinants of World Bank support (see also Morrison 2013). Representation on the Board of Directors can hardly be considered to be exogenous, however.

[11] For our work, the importance of previous research on what determines election to the UNSC cannot be over-emphasized. If selection to the UNSC depends on those same variables that also affect aid and economic growth, our results would be biased. For example, countries might become politically or economically more important over time, potentially at the same time increasing the amount of aid they receive and their rates of economic growth. Countries being temporary members of the UNSC might be able to draw the world's attention to their legitimate developmental needs, giving them access to additional funds that are unrelated to political motives. Bueno de Mesquita and Smith (2010) and Dreher et al. (2012b) test for this possibility. They find that election to the UNSC is clearly not related to the variables that also affect the amount of development aid a country receives. Thus, controlled for the variables we include in our models, UNSC-membership can be considered as an exogenous instrument whose variation we can use to identify the temporary geopolitical importance of a country for exactly its two years of membership. See also Besley and Persson (2012).

2012b): African nations typically rotate; Latin America and Asia hold competitive elections where regional hegemons win election most often; Western Europe mixes rotation and competitive elections; and since the Cold War, Eastern Europe shows no systematic pattern. The two-year not immediately-renewable term reinforces the exogeneity of the selection process.

UNSC decisions on substantive matters require a majority of nine votes, with the five permanent members having the power to veto (non-procedural) decisions. Despite the low voting power of temporary members (O'Neill 1996), there are convincing arguments why their votes are considered important. Additional votes may be sought to ensure an oversized coalition (see, e.g., Volden and Carrubba 2004) or to increase the international legitimacy or domestic support for the proposal considered (Voeten 2001, 2005, Chapman and Reiter 2004, Hurd and Cronin 2008), as discussed in more detail in Dreher et al. (2009a, b).[12]

There is also plenty of evidence that important aid donors favor temporary members of the UNSC: during their terms they receive more aid from both the United States and the United Nations (Kuziemko and Werker 2006). They are more likely to receive a loan, and with fewer conditions, from the International Monetary Fund (Dreher et al. 2009b, 2010). UNSC membership also increases by 10 to 25 percent the number of World Bank projects awarded to a country (Dreher et al. 2009a). Additionally, temporary UNSC members receive larger loans from the Asian Development Bank (Lim and Vreeland 2013) and from Germany (Dreher et al. 2013).[13] Besley and Persson (2012) find that total aid disbursements by all DAC-donors – which we will focus on in this paper – are significantly related to temporary UNSC membership.[14] For these reasons, we consider temporary membership on the UNSC to be a good measure of a country's short-term geopolitical importance to the major donors.

Indeed, temporary membership has been used to test for the effects of development aid before. Bueno de Mesquita and Smith (2010) find that temporary members of the UNSC have lower rates of economic growth, and reduce their level of democracy and freedom of the press

[12] For example, Chapman and Reiter (2004: 886) show that "Security Council support significantly increases the rally behind the president (by as many as 9 points in presidential approval)."
[13] To the contrary, UNSC membership does not affect loans by the Inter-American Development Bank (Bland and Kilby 2012, Hernandez 2012).
[14] Besley and Persson show aid to increase with UNSC membership during the Cold War period and to decrease thereafter. When we regress (log) aid disbursements on dummies for the years of temporary UNSC membership, two years before, and two years after (as in Kuziemko and Werker 2006) in a specification similar to theirs, but excluding the interaction with the Cold War, we find a positive effect of UNSC-membership in the second year of membership, significant at the ten percent level. We separately investigate the Cold War-period and the time thereafter, as detailed in footnote 44.

during membership and in the two subsequent years. They argue that these effects must be attributed to development aid, given that temporary membership is idiosyncratic, and has been shown to substantially increase the amounts of aid a country receives. However, Bueno de Mesquita and Smith do not directly test for the effect of aid and simply *assume* that the significant effects of temporary UNSC membership they find are largely due to aid. As they clarify in Bueno de Mesquita and Smith (2013), the effects of membership can well capture other benefits, like any type of easy money associated with it. Temporary membership has been shown to have other effects besides increasing development aid.[15] Indeed, Bashir and Lim (2013) re-investigate the question and include aid among the variables used to match temporary UNSC members to non-members with similar characteristics. Given that aid is accordingly held constant, increased aid amounts cannot be responsible for the persistent negative effect of UNSC membership. However, Bashir and Lim do not test whether a given level of aid becomes less effective if granted for political reasons.[16]

Dreher et al. (2012a) are most closely related to this paper. They provide the blueprint for our identification strategy. Dreher et al. investigate whether political motives affect the evaluation of World Bank projects. Their main measure of political motivation is whether the recipient country has a temporary seat on the UNSC, and their quality measurement is the Bank's internal evaluation procedure. They propose to test for the impact of political motives on the effectiveness of aid by investigating whether projects that have been approved in years where the recipient was a UNSC member are of lower quality than the average project. The argument goes as follows: During temporary UNSC membership, a country will receive additional aid, which is potentially used less effectively. The aid approved in such years will thus be an average of aid the country would have received anyway (including developmental aid, but potentially also aid given for other strategic reasons) and aid given in addition because the country is a temporary member of the UNSC. The share of geopolitically motivated aid is thus higher. If short-term

[15] For example, Frey et al. (2011) find that temporary membership on the UNSC increases the number of a country's sites on the UNESCO's World Heritage List. Besley and Persson (2012) show that UNSC membership is related to political violence; Qian and Yanagizawa-Drott (2010) use it to show that the United States' strategic interests lead to underreporting of human rights violations during the Cold War. Arguably, reporting on human right violations might affect the level of violations and, thereby, indirectly affect economic growth as well.

[16] They argue that, holding aid constant, the effect of UNSC membership cannot reflect the consequences of political motives. However, as we argue, political motives can have many effects, unrelated to the sheer amount of aid. These channels can easily explain that the effect of membership on growth remains negative controlling for the level of aid.

geopolitical motivations reduce the effectiveness of aid, the average effectiveness of aid received during UNSC years would then be lower than those of the average aid received in non-UNSC years.

Dreher et al. find that the average World Bank project is not of lower quality if received while being on the UNSC. However, they find that in times of crises project quality is lower for politically motivated aid. That is, political motivations matter in specific circumstances only.[17] We use their method to test whether donors' political motivations reduce the effectiveness of aid looking at broader developmental outcomes and overall amounts of aid.

4. Data, Method, and main Results

A substantial amount of literature investigates the question of whether and to what extent aid affects growth. Many of the contributors to this literature are divided into different camps, with groups of supporters finding that aid is effective, while skeptics point to the lack of robustness of these results to the choice of control variables, samples, and methods of estimation (Doucouliagos and Paldam 2009). Rather than suggesting our own model, therefore, we closely follow the approach in Clemens et al. (2012), and add our variables of interest to some of their models. Clemens et al. show that the most prominent previous attempts to control for the potential endogeneity of aid rely on invalid instruments.[18] Instead of suggesting more valid ones, Clemens et al. address the potential endogeneity of aid by differencing the regression equation, using aid that is more likely to affect growth in the short-run, and lagging aid, so that it can reasonably be expected to cause growth rather than being its effect. Thus, they assume that the main (short-term) effects of aid on growth occur, on average, one period after its disbursement. We base our analysis on their permutations of Burnside and Dollar (2000) and Rajan and Subramanian (2008) – the two studies that arguably gained most attention in the recent literature on aid and growth. We also re-estimate Bueno de Mesquita and Smith (2010), which is closely related to the question we address here, and which gained considerable attention in the academic

[17] Note that this result holds when the size of the loan is held constant – project quality deteriorates for any given project volume.

[18] As Bazzi and Clemens (2009) show in more detail, previous papers in the aid effectiveness literature rely on weak instruments – especially, but not exclusively, those relying on internal instruments using "black box" GMM estimations. See also the literature cited in Bazzi and Clemens, in particular Hauk and Wacziarg (2009) and Acemoglu (2010).

literature and the media alike.[19] While we believe (as do Clemens et al. 2012) that OLS regressions are superior to 2SLS with questionable instruments, we stress that our estimate of whether aid affects growth could be biased in either direction,[20] and we largely refrain from interpreting it in a causal way. We have, however, no reason to expect a systematic bias for our variable of interest, the interaction of aid with UNSC membership for any given level of aid.[21] We thus follow the regression-based approaches of prominent previous analyses, and add development aid and its interaction with membership on the UNSC to their main equations.[22]

In terms of timing, it seems reasonable to assume that disbursed aid takes one four-year-period to become effective, in either increasing or decreasing economic growth, following Clemens et al. (2012).[23] We also assume that bottlenecks prevent aid from being disbursed immediately, so that the bulk of aid committed in one four-year-period is rather disbursed one period later, on average.[24] Thus, based on the assumptions about the lagged growth effects of aid in Clemens et al. (2012), we are then interested in the growth rates two periods after UNSC membership. Regarding the potentially harmful consequences of geopolitical motives, this would imply that aid committed in period (t-2), which is disbursed in period (t-1), is the less effective in promoting growth in period (t), the more years a country spent on the UNSC in (t-2). Arguably, UNSC membership can also have more instant, or even a contemporaneous effect on growth,

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[19] E.g., Hosli et al. (2011), Bashir and Lim (2013).

[20] For example, donors might grant more aid to a new reform-oriented government. Increased growth resulting from these reforms could then spuriously be attributed to the increases in aid. On the other hand donors might give more aid to countries where they anticipate shocks to reduce future growth rates.

[21] As shown in Nizalova and Murtazashvili (2012, p.2), "If all the regressors but the exogenous regressor and the interaction term between this exogenous regressor and an endogenous covariate are jointly independent of the exogenous regressor of interest, the OLS estimate of interaction term's coefficient is consistent."

[22] As an alternative approach, one could think of instrumenting for aid with the dummy for temporary membership on the UNSC. We do not pursue this route for two reasons. First, the dummy for temporary membership is different from one for a small subset of the observations only – the instrument thus has low power. Most importantly, instrumenting aid with UNSC membership can only give us the Local Average Treatment Effect – in this case, the effect of aid motivated by short-term geopolitical considerations (see Kilby and Dreher 2010). However, we are interested in the difference of the effectiveness of strategic aid compared to all aid.

[23] As summarized in Headey (2008), aid affects growth most substantially 5-9 years after it has been disbursed, on average. If aid is disbursed evenly over time, the average positive distance between a dollar being disbursed and growth in the contemporaneous four-year-period is 16 months (Roodmann 2004, Headey 2008). Headey thus lags aid by one four-year period, so that the average positive distance between disbursements and their potential effects is 5 years and 4 months.

[24] For example, a 1999 report of the British House of Commons' Select Committee on International Development reports a delay between European Commission aid commitments and disbursements at the end of the 1990s of almost five years (cited in Odedokun 2003: 7). See OECD (2003) for an in-depth discussion of reasons for delayed disbursements.

depending on the exact channel by which membership on the UNSC reduces growth.[25] We test for the possibility of different timings in a series of additional regressions.

Figures 1-3 provide a first impression of the data. The patterns are in line with our assumptions about the most likely timing. Figure 1 shows aid commitments in constant 2000 US dollars from all DAC-donors in a specific four-year period according to whether or not the recipient served (one or two years) on the UNSC. As can be seen, aid commitments are substantially larger for countries that have been temporary members on the UNSC, compared to countries that did not serve at all. They are also larger compared to commitments the UNSC members received in the period prior to serving, and compared to one period after serving (these differences are statistically significant at the one percent level). Figure 2 shows net aid disbursements, also in constant 2000 US dollars, conditional on UNSC membership, but lags membership by one four-year-period as suggested by our theory. The data support the assumed pattern: Commitments increase in the contemporaneous four-year-period of membership; the accompanying disbursements, however, are mostly increasing in the period following UNSC membership. Thus, aid commitments during UNSC membership seem to be disbursed on average one period later. For both commitments and disbursements, we observe that they move back to initial levels in periods (t+1) and (t+2) respectively. Overall, the effects coincide with UNSC membership, and disappear after the temporary member loses its geopolitical importance.

[25] The reduced effectiveness of conditionality (i.e., non-compliance) might potentially prevail for countries being UNSC-member at the same time the aid is disbursed while the other channels we describe in the theory-section are more likely to affect growth with a lag (i.e., they dominate when a country has been a member of the UNSC at the time the aid has been committed).

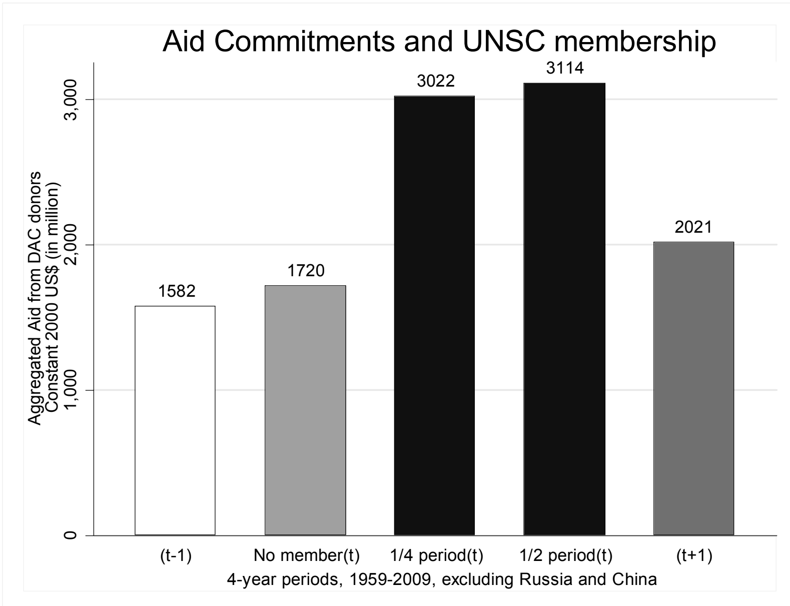

Figure 1: Aid commitments and UNSC membership

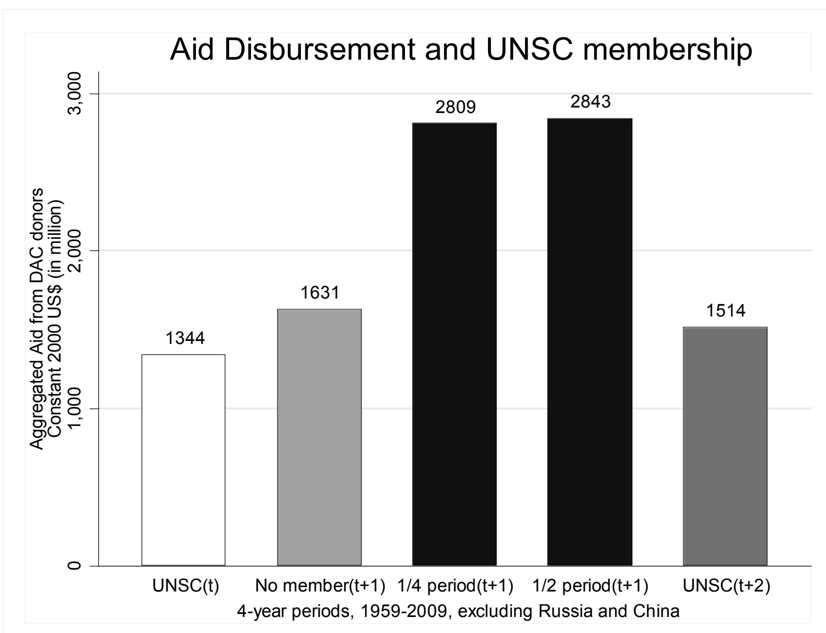

Figure 2: Aid disbursements and UNSC membership

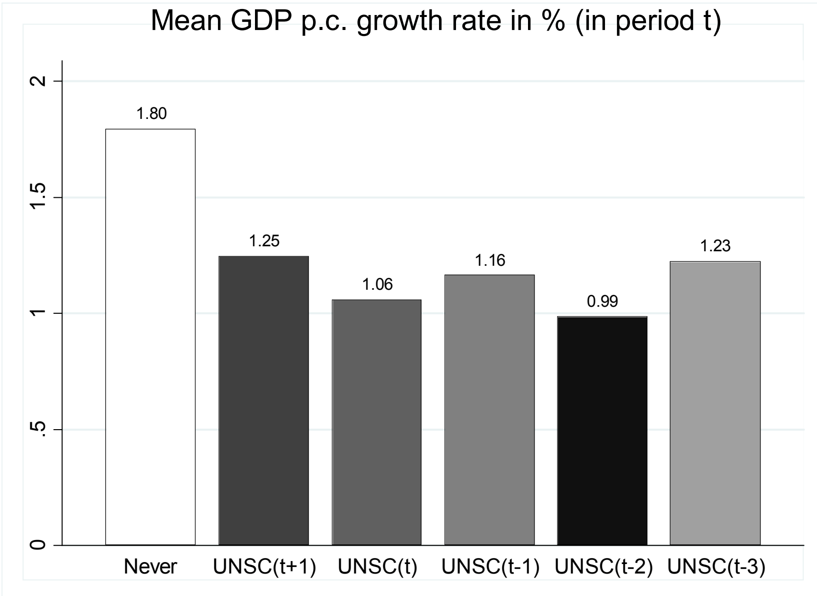

Figure 3: GDP per capita growth and UNSC membership

Figure 3 shows mean yearly growth rates of per capita GDP for different lags of UNSC membership. The first bar displays the growth rates for countries that have never been a member of the UNSC. The other bars show the growth rates for different lags of UNSC membership: Growth in countries that have served on the UNSC one period later, in the same period, one period before, two periods before, and three periods before. The figure supports the notion that UNSC members subsequently experience lower growth rates, compared to countries that have never served on the UNSC. That is, in line with Bueno de Mesquita and Smith (2010), we find that UNSC membership comes with lower immediate growth rates. As our theory suggests, the lowest growth rates are experienced two periods after UNSC membership, however. This pattern supports our hypothesis that the increased aid committed in period (t-2) during UNSC membership (see figure 1), which is disbursed in large parts in period (t-1) (figure 2), has an adverse effect on growth in period (t) (figure 3).

Also note that growth rates increase to almost the level of the pre-UNSC period in the period after UNSC membership. It thus seems that the commitments made while being on the UNSC are not disbursed in sufficient amounts in the next period, on average, to substantially decrease growth in that period. While these descriptive statistics imply no causality, their pattern lends support to our story. We illustrate the timeline derived from our theoretical considerations in figure 4. While we think this timing is most plausible, we test for different timings further below.

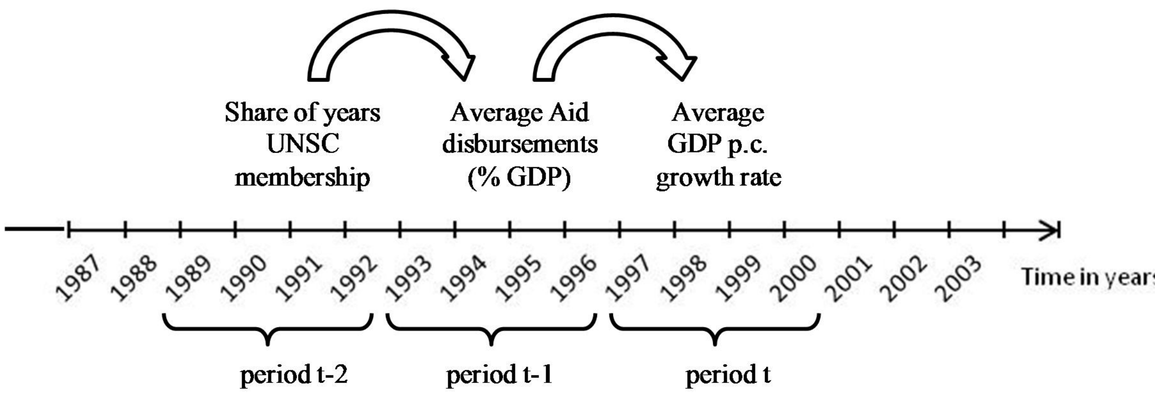

Figure 4: The proposed timeline

Next we turn to our econometric specifications. Following Clemens et al. (2012) our reduced-form empirical model is at the country-period level:

$$Growth_{i,t} = \alpha + \beta Aid_{i,t-1} + \gamma Aid^2_{i,t-1} + \delta UNSC_{i,t-2} + \zeta Aid_{i,t-1} * UNSC_{i,t-2} + \eta X_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $Growth_{i,t}$ is a country i's average yearly GDP growth in period t.[26] We denote the amount of aid as percent of GDP disbursed in the previous period as $Aid_{i,t-1}$.[27] $UNSC_{i,t-2}$ indicates the share of years country i has been a temporary member of the UNSC two periods before as we are interested in aid that was committed while countries served their term on the UNSC. For now we assume aid commitments are disbursed, on average, one period later, but we also test a number of different specifications. When using lagged aid we therefore twice-lag temporary membership on the UNSC ($UNSC_{i,t-2}$). All regressions include the control variables used by the previous

[26] Note that we exclude the permanent UNSC members from the analysis.

[27] We focus on aid from all donors for two reasons. First, UNSC membership has been shown to be important for the allocation of aid from most of the largest donors (see Vreeland and Dreher 2013 for an overview). Given that these donors account for the bulk of aid we do not want to exclude some donors on an ad hoc basis. To the extent that these donors do not provide more aid to countries on the UNSC this does not bias our results. Second, aid by single donors, or a subset of them, is usually not sufficiently large to be measurable in terms of growth. Still, we replicated our results focusing on aid from the largest donor – the United States – separately, as we describe in more detail in footnote 41.

studies, which we denote ***X***, and which we include contemporaneously.[28] Our preferred specifications include aid squared to test for decreasing returns to aid, again following Clemens et al. (2012). Finally, ε is an error term.

Equation (1) is in levels and does thus not well address the potential endogeneity of aid to economic growth. We therefore base our conclusions mainly on a regression in first differences, as do Clemens et al. (2012). Equation (1) becomes:

$$\Delta Growth_{i,t} = \alpha+\beta\Delta Aid_{i,t-1}+\gamma\Delta(Aid_{i,t-1}^{2})+\delta UNSC_{i,t-2}+\zeta\Delta Aid_{i,t-1}*UNSC_{i,t-2}+\eta\Delta X_{i,t}+\varepsilon_{i,t} \qquad (2)$$

Again, we report specifications with and without aid squared included. According to Clemens et al. (2012), the appropriate method to test for the effect of aid on economic growth has to account for the non-linear effect of aid, has to remove country fixed-effects through first-differencing, and has to lag aid by one period. As they argue, this specification minimizes potential misspecification due to reversed causality between aid and growth, and omitted variables bias.[29] This is our preferred estimation strategy.[30]

The regression of Bueno de Mesquita and Smith (2010) is a slightly different one.[31] The dependent variable in Bueno de Mesquita and Smith is again the growth rate of per capita GDP

[28] To reduce clutter, we do not show them in all tables. Burnside and Dollar include: Initial GDP/capita, Ethnic fractionalization, Assassinations, Ethnic fractionalization*assassinations, dummies for Sub-Saharan Africa and East Asia, Institutional quality, M2/GDP (lagged), Policy, and period dummies. Rajan and Subramanian: Initial GDP/capita, Initial policy, (log) Initial life expectancy, Geography, Institutional quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, Ethnic fractionalization, and dummies for Sub-Saharan Africa and East Asia. Appendix A reports the sources and definitions of all variables, while we show descriptive statistics in Appendix B. Appendix C reports the full specifications for selected regressions.

[29] In addition, they seem to prefer a measure of early-impact aid over all aid. This measure has been shown to not be a robust predictor of growth elsewhere (Rajan and Subramanian 2008, Bjørnskov 2012). A major drawback with this measure is that disaggregated aid disbursements are not available for the entire period, so that disbursements have to be estimated based on commitments. We prefer our results to be comparable with the broader literature on aid effectiveness, and therefore focus on overall aid. To the extent that parts of aid are not systematically related to growth the larger noise reduces the probability that we find a significant effect. As outlined above, we lag disbursements by one period to account for timing.

[30] In addition, it could be argued that UNSC membership should be interacted with aid squared as well. Political motivation would then not only change the level of the marginal effect of aid, but also its slope. The interaction effect is however not significant in our preferred specification (the p-value being 0.82 in the BD sample and 0.22 in the RS sample). Detailed calculations are available on request. One could also argue that UNSC membership should be included in differences instead of levels. To us, it seems intuitive that the level rather than changes in UNSC membership conditions the effectiveness of changes in aid. When we nevertheless first-difference UNSC membership, the results are similar. The interaction remains significant at the one-percent level in the BD sample and negative of similar size, though marginally insignificant, in the RS sample.

[31] Bueno de Mesquita and Smith (2010) also use a matching algorithm to test their hypothesis (and find support for it). Bashir and Lim (2013) show that the finding of a negative effect of UNSC membership on economic growth is

over a four-year-period. However, they compare the difference in growth over these four years for countries that have been a temporary member of the UNSC in the first year of a period to those countries that have not been members in the same period. Most importantly, rather than including a measure of aid, they estimate the effect of a dummy indicating whether a four-year-period starts while a country has been elected to the UNSC and attribute its effect to foreign aid (or other types of loose money, see Bueno de Mesquita and Smith 2013). We use their baseline specification, and add the UNSC and aid variable, and their interaction to the equation. The lag structure replicates our approach above.[32]

Note that our test for effects of politically motivated aid on economic growth has a potentially strong bias against finding an effect from political motivation in a finite sample (Dreher et al. 2012a). As with any comparable investigation, the data might be too rough to show significant patterns. In our analysis, only a certain share of aid agreed on during a country's tenure on the UNSC is likely to be motivated by short-term political interests, on average (Kuziemko and Werker 2006, Dreher et al. 2009a, b). Even if this aid is of lower quality, it might not reduce the average effectiveness enough to be observed amidst the mass of other flows that are unaffected by this political motive. A further issue relates to the timing of the negative consequences of politically motivated aid. As outlined above, negative effects of political interference may not only relate to the selection of inferior projects or less care in preparing a particular project, but may as well materialize over the course of the projects, if, e.g., projects of close allies are maintained even though it becomes obvious they went off track, or policy conditionality might not be enforced when necessary. Dreher et al. (2012a) test for these possibilities and report that geopolitics measurably affects the evaluation of World Bank projects at the onset of a project only. We would thus like to know whether or not each individual dollar disbursed in the recipient country has been committed while the country has served on the UNSC. We do not have this information and can only use an estimated lag between the effect of aid disbursed in a certain period and political influences on aid commitments some time before.

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robust to the inclusion of aid in the matching procedure. The negative effect of UNSC membership in Bueno de Mesquita and Smith could then not be (solely) due to the level of aid. Note however that the way Bashir and Lim built their control-group is controversial (Bueno de Mesquita and Smith 2013).

[32] We use the share of UNSC membership two four-year periods lagged, aid disbursements as a percentage of GDP one period lagged, and their interaction. Consistent with the original setup, the four-year periods in this specification can be understood as moving averages, i.e., growth over four years [t – (t+3)] is regressed on aid in the four-year-period before [(t-4)-(t-1)] and UNSC membership two four-year-periods before [(t-5)-(t-8)]. For example, growth in the 1991-1994 period is related to aid disbursements in the 1987-1990 period.

Table 1: Politically motivated aid and growth, 1970-2005, OLS, BD and RS

	Burnside and Dollar		Rajan and Subramanian	
	(1)		(2)	
	Coef.	Std. err.	Coef.	Std. err.
Aid (t)	0.007	(0.034)	0.008	(0.034)
UNSC (t-1)	1.087	(1.059)	0.113	(0.852)
UNSC (t-1)*Aid (t)	-0.009	(0.126)	-0.335**	(0.148)
First difference?	No		No	
Adj. R-Squared	0.30		0.32	
Number of Observations	380		400	
	(3)		(4)	
Aid (t-1)	0.057	(0.039)	0.025	(0.050)
UNSC (t-2)	0.602	(0.953)	-0.273	(0.970)
UNSC (t-2)*Aid (t-1)	-0.352**	(0.151)	-0.006	(0.143)
First difference?	No		No	
Adj. R-Squared	0.32		0.32	
Number of Observations	380		400	
	(5)		(6)	
Aid (t-1)	0.098	(0.085)	0.149*	(0.085)
UNSC (t-2)	-1.741	(1.078)	-0.866	(1.445)
UNSC (t-2)*Aid (t-1)	-0.924**	(0.373)	-1.094	(0.726)
First difference?	Yes		Yes	
Adj. R-Squared	0.19		0.30	
Number of Observations	323		351	
	(7)		(8)	
Aid (t-1)	0.388**	(0.193)	0.356**	(0.149)
Aid (t-1) squared	-0.008**	(0.004)	-0.007	(0.004)
UNSC (t-2)	-1.709	(1.080)	-0.947	(1.442)
UNSC (t-2)*Aid (t-1)	-1.182***	(0.373)	-1.365*	(0.745)
First difference?	Yes		Yes	
Adj. R-Squared	0.21		0.31	
Number of Observations	323		351	

* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Notes: All "Burnside and Dollar" regressions include Initial GDP/capita, Ethnic fractionalization, Assassinations, Ethnic fractionalization*assassinations, dummies for Sub-Saharan Africa and East Asia, Institutional quality, M2/GDP (lagged), Policy, and period dummies. "Rajan and Subramanian" includes Initial GDP/capita, Initial policy, (log) Initial life expectancy, Geography, Institutional quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, Ethnic fractionalization, and dummies for Sub-Saharan Africa and East Asia.

Because we have neither details about the actual disbursement rate of UNSC-related commitments nor the exact duration of implementation lags, this measurement error increases the attenuation bias and we are less likely to find a significant effect.

Column 1 of Table 1 shows the results for the Burnside and Dollar (BD) regressions on the extended data of Clemens et al. (2012), covering the 1970-2005 period. All data are averaged over four years. The dependent variable is the average annual growth rate of real GDP per capita; aid is measured as net Official Development Assistance (ODA) in percent of GDP.[33] Column 2 focuses on Clemens et al.'s permutations of Rajan and Subramanian (RS) to test whether our results are due to the specific setup of the Burnside and Dollar specifications. These regressions use data averaged over five years, and the extended sample of Clemens et al. (2012) covers the 1971-2005 period.[34] Before we turn to testing specification (1) described above, we focus on the effect of contemporaneous aid disbursements, conditional on UNSC membership in the previous period, and omit aid squared. While the table reports the variables of interest only, we report the full model for our preferred specifications in Appendix C.

As can be seen, the interaction between aid and the share of years the recipient has been a temporary member of the UNSC in the previous period has the expected negative coefficient, but is not significant at conventional levels in column 1. This is intuitive, as we cannot expect the effect of disbursements on growth to be immediate (Clemens et al. 2012). However, the coefficient is significant at the five percent level according to column 2, suggesting a negative effect of political motivations even for contemporaneous aid. Clearly, part of the aid committed in the previous period might already be disbursed (and affect growth) in this one.

Columns 3 and 4 show how the timing of the aid-variable can affect the outcome. When we lag aid by one period, we consequently lag the share of years a country is a member on the UNSC by two periods (as shown in equation (1) above). As Clemens et al. argue, this should substantially raise the coefficient of aid. While the coefficients of the aid variable are not significant at conventional levels, the coefficients indeed increase. The resulting interaction between temporary UNSC membership and aid is again negative. However, while it is significant at the five-percent level in the Burnside-Dollar specification (column 3), it is not significant at conventional levels in the model of Rajan and Subramanian (column 4).

[33] The original source for GDP per capita growth is the World Bank's World Development Indicators; ODA is total net ODA from Table 2 of the OECD's Development Assistance Committee in current US$ in percent of GDP in current US$, taken from the World Development Indicators (see the technical appendix to Clemens et al. 2012).

[34] The data for per capita GDP growth are originally calculated based on the Penn World Tables, updated by Clemens et al. for the year 2005 using the World Development Indicators. Net ODA is measured in the same way as in the Burnside-Dollar regressions (again see the technical appendix to Clemens et al. 2012).

Note that aid by itself has not been significant at conventional levels in any of the four specifications. This is in line with the results in Clemens et al. (2012) and clearly does not imply that aid is ineffective. If more aid is given to countries with low growth rates, the insignificant coefficients could result from a positive effect of aid on growth, but more aid being allocated to countries in greater need. If aid and growth are persistent over time, this holds whether or not we use lagged values of aid.

We next turn to our preferred estimations (explained above), which first-differences the dependent and the explanatory variables (except membership on the UNSC), as shown in equation (2). This specification alleviates omitted variable bias, and takes account of systematic time-invariant differences between members and non-members of the UNSC and their effect on growth. We report specifications excluding aid squared (columns 5 and 6) and including it (columns 7 and 8), accounting for potentially diminishing returns to aid.

Overall, the results support the hypothesis that politically motivated aid is less effective. When we do not account for diminishing returns to aid by including aid squared, the coefficient of the interaction term is marginally insignificant in the Rajan-Subramanian specification of column 6 (t-value: 1.51). It is significant at the five percent level when we focus on Burnside-Dollar (in column 5). When we include aid squared (which a part of the literature on the effect of aid on growth argues has to be included in a meaningful growth regression),[35] the interaction is significant at the one-percent level in the Burnside-Dollar specification (column 7), and at the ten percent level for Rajan-Subramanian (column 8).[36] Figures 5 and 6 report the corresponding marginal effects and their 90%-confidence intervals.[37]

[35] E.g., Durbarry et al. (1998). However, see Doucouliagos and Paldam (2009) for a critique.

[36] We also tested whether the effect differs when we take only important years of UNSC membership into account, as suggested in Kuziemko and Werker (2006). The results for the BD specification remain unchanged; in the RS specification the interaction term becomes insignificant, however. This is not surprising given that their measure is based on US-newspapers and thus measures the importance of the UNSC predominantly for the United States rather than the average donor.

[37] We also used the Anderson-Hsiao estimator, instrumenting for the contemporaneous difference in initial GDP per capita with its lagged difference. The results for the BD specifications remain unchanged. In the RS specifications, the coefficient for the interaction term remains unchanged; however its standard error nearly doubles. In both cases the Hansen J statistic rejects the null-hypothesis of valid instruments, thus the estimator is not valid for our specification. We also replaced the continuous UNSC variable with a dummy for any membership on the UNSC in a certain period. The results for BD remain unchanged with the interaction being significant at the one percent level. In the RS specification the coefficient of the interaction term remains negative, but becomes smaller and insignificant at conventional levels.

Burnside and Dollar Specification (1970–2005)

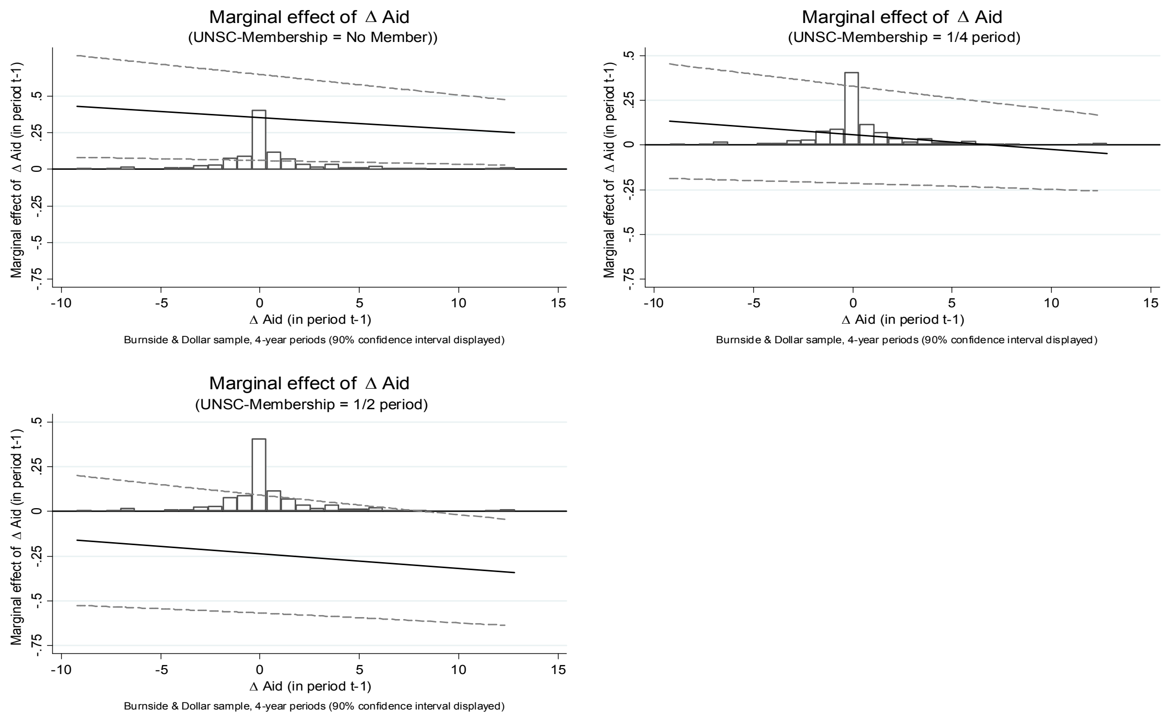

Figure 5: Marginal effect of changes in aid disbursements on economic growth conditional on changes in aid disbursements and varying UNSC membership (based on Table 1, column 7). The histogram shows the distribution of ΔAid in the regression sample.

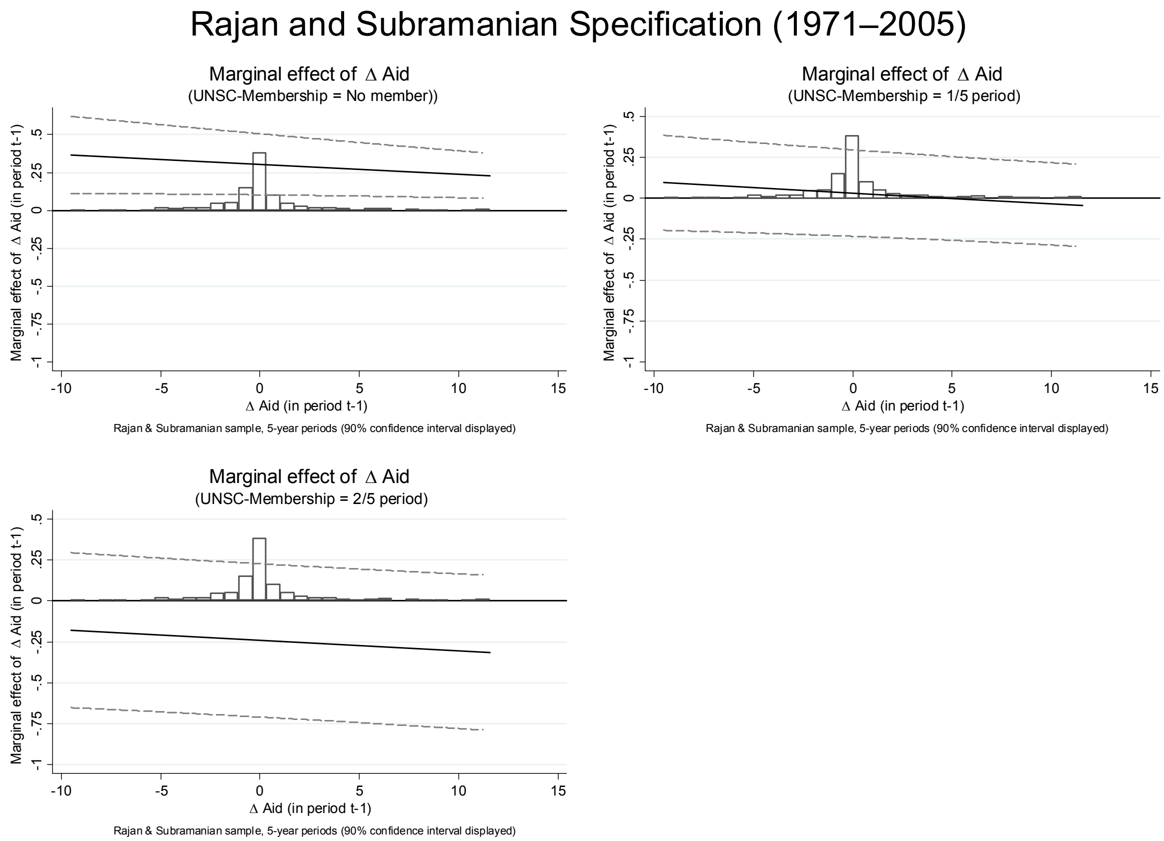

Figure 6: Marginal effect of changes in aid on economic growth conditional on changes in aid disbursements and varying UNSC membership (based on Table 1, column 8). The histogram shows the distribution of ΔAid in the regression sample.

As can be seen in the figures, the marginal effect of changes in aid on growth depends on the magnitude of the change in aid and on membership on the UNSC. All figures show that the effect declines for higher values of ΔAid, reflecting diminishing returns to aid.[38] For any value of ΔAid, the effectiveness of aid decreases with the number of years the recipient country has spent on the UNSC in the period before (i.e., when the aid has been committed). According to figure 5,

[38] The marginal effect of a change in aid is linear in the lagged and twice-lagged level of aid. This can be derived as follows, starting with the first-differenced equation:

$$[Y_{i,t} - Y_{i,t-1}] = \beta_0 + \beta_1 * [Aid_{i,t-1} - Aid_{i,t-2}] + \beta_2 * [Aid_{i,t-1}{}^2 - Aid_{i,t-2}{}^2] + \beta_3 * [Aid_{i,t-1} - Aid_{i,t-2})] * UNSC_{i,t-1} + \beta_4 * Controls_{i,t} + \varepsilon_{i,t}$$

$$[Y_{i,t} - Y_{i,t-1}] = \beta_0 + \beta_1 * [Aid_{i,t-1} - Aid_{i,t-2}] + \beta_2 * [Aid_{i,t-1} + Aid_{i,t-2}] * [Aid_{i,t-1} - Aid_{i,t-2}] + \beta_3 * [Aid_{i,t-1} - Aid_{i,t-2})] * UNSC_{i,t-1} + \beta_4 * Controls_{i,t} + \varepsilon_{i,t}$$

$$[Y_{i,t} - Y_{i,t-1}] = \beta_0 + \beta_1 * [Aid_{i,t-1} - Aid_{i,t-2}] + \beta_2 * [Aid_{i,t-1} - Aid_{i,t-2} + Aid_{i,t-2} + Aid_{i,t-2}] * [Aid_{i,t-1} - Aid_{i,t-2}] + \beta_3 * [Aid_{i,t-1} - Aid_{i,t-2})] * UNSC_{i,t-1} + \beta_4 * Controls_{,t} + \varepsilon_{i,t}$$

Replacing $Aid_{i,t-1} - Aid_{i,t-2} = \Delta Aid_{i,t-1}$:

$$[Y_{i,t} - Y_{i,t-1}] = \beta_0 + \beta_1 * [\Delta Aid_{i,t-1}] + \beta_2 * [\Delta Aid_{i,t-1} + Aid_{i,t-2} + Aid_{i,t-2}] * [\Delta Aid_{i,t-1}] + \beta_3 * [\Delta Aid_{i,t-1})] * UNSC_{i,t-1} + \beta_4 * Controls_{,t} + \varepsilon_{i,t}$$

$$\frac{\delta [Y_{i,t} - Y_{i,t-1} y]}{\delta \Delta Aid_{i,t-1}} = \beta_1 + \beta_2 * 2 * Aid_{i,t-2} + \beta_2 * \Delta Aid_{i,t-1} + \beta_3 * UNSC_{i,t-1}$$

$$\frac{\delta [Y_{i,t} - Y_{i,t-1} y]}{\delta \Delta Aid_{i,t-1}} = \beta_1 + \beta_2 * 2 * \phi Aid_{i,t-2} + \beta_2 * \Delta Aid_{i,t-1} + \beta_3 * UNSC_{i,t-1}$$

average yearly economic growth increases by 0.59 percentage points when aid in percent of GDP is increased by 1 percentage point and the recipient has not served on the UNSC compared to it having served two years (i.e., 1/2 of the four-year-period). The effect of changes in aid on growth is positive[39] for countries not serving on the UNSC when the aid has been committed, largely insignificant when the country served one year, and significantly negative for changes in aid exceeding 8 percent for countries that have served two years. Figure 6 shows a similar picture for the Rajan and Subramanian specification. Here, the difference in growth rates that can be attributed to aid (in percent of GDP) amounting to 1 percentage point is 0.55 percentage points when UNSC membership is increased from zero to serving for 2/5 of the period under consideration. Note that the marginal effect of aid depends again on the amount of aid being disbursed and the share of time the recipient has served on the UNSC. For countries not serving on the UNSC it is positive and significant, while it turns negative and insignificant for temporary members. Overall, the marginal effects illustrate that politically motivated aid is less effective in supporting growth.

Table 2 reproduces the regressions in first differences (and including aid squared) focusing on Africa only. The reason is that African nations follow the strictest norm of rotation on the UNSC among all regional election caucuses, so that the exogeneity of UNSC membership would be particularly hard to challenge (Vreeland and Dreher 2014). The results are similar to those for all countries, as shown above. The coefficient on the interaction term is significant at the one percent level in the Burnside and Dollar regressions, with coefficients about 50 percent larger compared to the overall samples above.[40] The coefficients in the Rajan and Subramanian specification are, however, no longer significant at conventional levels (which – given the substantially smaller sample – is easy to understand).[41]

[39] This holds for about eight percent of the country-period observations in our sample.

[40] This difference is however not significant at conventional levels.

[41] A substantial share of politically motivated aid inflows come from the United States. We therefore replicated the analysis focusing on US aid exclusively. This comes with two potential problems that might bias against finding a significant interaction: First, overall US aid might be politically motivated to a larger extent than ODA from all donors. It could then be difficult to identify differential growth-effects from short-term political motives. Second, it might not be possible to detect significant effects when focusing on aid from one donor exclusively as such aid might be insufficiently large to measurably affect growth. Our results are similar to those for all aid, but generally weaker: The interaction terms remain negative in the main regressions, but fail to be significant at conventional levels in the BD and RS specifications. They are significant at the one and ten percent level respectively for autocratic countries and significant at the one percent level in the BD specification in the Africa-sample.

Table 2: Politically motivated aid and growth in Africa, 1970-2005, OLS, BD and RS

	Burnside and Dollar		Rajan and Subramanian	
	(1)		(2)	
	Coef.	Std. err.	Coef.	Std. err.
Aid (t-1)	0.161	(0.103)	0.026	(0.135)
UNSC (t-2)	-1.583	(1.860)	-1.506	(3.848)
UNSC (t-2)*Aid (t-1)	-1.451***	(0.547)	0.092	(1.492)
First difference?	Yes		Yes	
Adj. R-Squared	0.14		0.31	
Number of Observations	95		94	
	(3)		(4)	
Aid (t-1)	0.285	(0.182)	0.247	(0.266)
Aid (t-1) squared	-0.003	(0.003)	-0.006	(0.004)
UNSC (t-2)	-1.583	(1.878)	-1.411	(3.904)
UNSC (t-2)*Aid (t-1)	-1.491***	(0.559)	-0.333	(1.553)
First difference?	Yes		Yes	
Adj. R-Squared	0.14		0.31	
Number of Observations	95		94	

* p<0.10, ** p<0.05, *** p<0.01

Notes: All "Burnside and Dollar" regressions include Initial GDP/capita, Ethnic fractionalization, Assassinations, Ethnic fractionalization*assassinations, dummies for Sub-Saharan Africa and East Asia, Institutional quality, M2/GDP (lagged), Policy, and period dummies. "Rajan and Subramanian" includes Initial GDP/capita, Initial policy, (log) Initial life expectancy, Geography, Institutional quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, Ethnic fractionalization, and dummies for Sub-Saharan Africa and East Asia.

In Table 3 we turn to the model of Bueno de Mesquita and Smith (BdM/Smith).[42] Column 1 includes fixed effects for years and regions, but not for countries. As can be seen, countries that had been temporary members of the UNSC at the beginning of a four-year-period grew more slowly, at the one percent level of significance. In order for this significant effect to possibly be due to some adverse consequences of additional foreign aid, we would have to assume that the additional aid being committed over the first two years of the four-year period are disbursed within this same four-year-period and reduce growth instantaneously. This is at odds with the timing proposed above, where we expect a lagged effect of aid disbursements on growth. Thus,

[42] Their source for GDP per capita growth is the World Bank's World Development Indicators (2007), measured in constant 2000 US$. Aid is measured as net official development assistance in percent of GDP and comprises aid from all sources (also taken from the World Development Indicators 2007). All regressions include as explanatory variables: (log) population size, (log) per capita GDP, the level of democracy and its interaction with UNSC membership, as do the main specifications in Bueno de Mesquita and Smith (2010). Note that contrary to Bueno de Mesquita and Smith we exclude high-income countries (as defined by the World Bank) from the sample, as they do not receive any aid. Again, we restrict the table to the variables of main interest and report the full specification for our preferred model in Appendix C.

in column 2 we lag temporary membership on the UNSC by two periods. Column 2 shows that the twice-lagged effect of UNSC membership does reduce growth, also at the one percent level of significance (but with a smaller coefficient).

Table 3: Politically motivated aid and growth, 1960-2005, OLS, BdM/Smith

	(1)		(2)		(3)		(4)	
	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.
UNSC (t)	-1.234*	(0.727)						
UNSC (t-2)			-1.643**	(0.755)	-0.307	(0.899)	3.449**	(1.674)
Aid (t-1)					0.493***	(0.050)	0.434***	(0.072)
UNSC (t-2)*Aid (t-1)					-0.199**	(0.079)	-0.382***	(0.115)
Sample	all		all		all		Africa	
Country Fixed Effects	No		No		No		No	
Region Fixed Effects	Yes		Yes		Yes		Yes	
Year Dummies	Yes		Yes		Yes		Yes	
Regional Trend Variables	No		No		No		No	
Adj. R-Squared	-0.08		-0.08		-0.04		0.01	
Number of Observations	3516		3516		3378		1272	
	(5)		(6)		(7)		(8)	
UNSC (t)	-0.523	(0.999)						
UNSC (t-2)			-0.763	(1.180)	-0.93	(1.299)	2.774*	(1.568)
Aid (t-1)					0.273***	(0.103)	0.247	(0.170)
UNSC (t-2)*Aid (t-1)					-0.024	(0.077)	-0.175***	(0.060)
Sample	all		all		all		Africa	
Country Fixed Effects	Yes		Yes		Yes		Yes	
Region Fixed Effects	No		No		No		No	
Year Dummies	Yes		Yes		Yes		Yes	
Regional Trend Variables	Yes		Yes		Yes		Yes	
Adj. R-Squared	0.43		0.43		0.45		0.41	
Number of Observations	3516		3516		3378		1272	

* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Notes: All regressions include (log) population size, (log) per capita GDP, the level of democracy and its interaction with UNSC membership.

In accordance with our theory, we again assume that aid which is committed while a country is on the UNSC gets disbursed with a lag of about one period and affects economic growth on average one period later. Hence, our estimations follow the same theory as the specifications above, and should thus be comparable. Column 3 adds aid, lagged by one period, and its interaction with UNSC membership to the equation. Column 4 shows the same specification, but restricts the sample to Africa.[43] The results are in line with those above, with the interaction between UNSC membership and aid being significant at the one percent level. Again, the coefficient for the African subsample is larger, the difference being significant at the five percent level.

In columns 5-8 we replace the region-fixed effects with dummies for each country and add regional quartic time trends (as in Bueno de Mesquita and Smith 2010). It is thus the more rigorous specification, as it accounts for potential time-invariant omitted variables, different forms of regional trends, and common yearly shocks. The results are broadly in line with those above, but generally less significant. While the interaction between aid and membership on the UNSC is not significant at conventional levels for the overall sample (column 7), it is significant at the five percent level in the regressions focusing on Africa (column 8). As explained above, African countries provide the most reliably exogenous variation in politically motivated aid; thus a causal interpretation of this result is most warranted. Overall, our results support the hypothesis of an adverse effect of political interests on aid effectiveness. That is, politics matter.

In the next set of regressions we investigate the effect of politically motivated aid in democracies and autocracies separately, measured according to the indicator of Cheibub et al. (2010).[44] As Nooruddin and Vreeland (2010) argue, UNSC votes of democratic countries are more valuable than those of non-democratic ones, as they provide greater legitimacy. Democracies should thus have particular leverage while serving on the UNSC, potentially reducing the effectiveness of aid more strongly than aid given to autocracies. To the contrary, Bueno de Mesquita and Smith (2010) report the adverse effects of UNSC membership to be stronger in autocracies. As they explain, a large share of the increase in aid during UNSC membership is due to turning countries that did not previously receive aid into aid-recipient countries. They thus argue that autocratic countries, who would otherwise not receive any aid, receive larger increases in aid during their UNSC membership. As this is mainly due to political

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[43] Again, we test whether aid committed for political reasons in t-2 affects disbursements mainly in t-1, and potentially reduces growth in t.

[44] We also run separate regressions for the period of the Cold War and the post-Cold War period. As Berthélemy and Tichit (2004) show, the importance of colonial ties is diminished since the end of the Cold War. Headey (2008) also shows that bilateral aid became more effective after the end of the Cold War, in line with Dunning's (2004) analysis on how aid affected the spread of democracy. If donors gained greater leverage to enforce conditions after the end of the Cold War, and the accompanying risk of losing an ally to the opposing bloc, we would expect the effect of geopolitical aid to be particularly harmful during the Cold War era. However, we find no consistent differences for the two periods. We also tested whether politically motivated aid is particularly harmful in times of economic crises, as suggested in Dreher et al. (2012a). We find no systematic difference.

interests, the share of aid that is politically motivated should be particularly high in autocratic countries, and the higher variance makes it easier to identify a statistically significant effect. On average, the potential to misuse aid is also higher in autocracies. Hence, on balance, we expect a more pronounced interaction effect in autocracies.

Table 4: Politically motivated aid and growth, 1970-2005, OLS, BD and RS, by democracy

	Democracy				Autocracy			
	Burnside and Dollar		Rajan and Subramanian		Burnside and Dollar		Rajan and Subramanian	
	(1)		(2)		(3)		(4)	
	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.
Aid (t-1)	0.054	(0.087)	0.247**	(0.124)	0.149	(0.127)	0.082	(0.106)
UNSC (t-2)	-0.144	(1.214)	0.381	(1.323)	-2.093	(1.599)	-1.119	(2.172)
UNSC (t-2)*Aid (t-1)	-0.117	(0.454)	0.712	(1.271)	-1.131***	(0.330)	-0.781	(0.763)
First difference?	Yes		Yes		Yes		Yes	
Adj. R-Squared	0.31		0.35		0.14		0.26	
Number of Observations	122		115		195		230	
	(5)		(6)		(7)		(8)	
Aid (t-1)	0.400*	(0.217)	0.498*	(0.251)	0.391*	(0.235)	0.238	(0.177)
Aid (t-1) squared	-0.008*	(0.004)	-0.007	(0.005)	-0.008*	(0.004)	-0.005	(0.005)
UNSC (t-2)	-0.149	(1.227)	0.225	(1.333)	-2.037	(1.603)	-1.183	(2.175)
UNSC (t-2)*Aid (t-1)	-0.582	(0.556)	0.174	(1.429)	-1.244***	(0.323)	-0.973	(0.790)
First difference?	Yes		Yes		Yes		Yes	
Adj. R-Squared	0.32		0.36		0.15		0.26	
Number of Observations	122		115		195		230	

* p<0.10, ** p<0.05, *** p<0.01

Notes: All "Burnside and Dollar" regressions include Initial GDP/capita, Ethnic fractionalization, Assassinations, Ethnic fractionalization*assassinations, dummies for Sub-Saharan Africa and East Asia, Institutional quality, M2/GDP (lagged), Policy, and period dummies. "Rajan and Subramanian" includes Initial GDP/capita, Initial policy, (log) Initial life expectancy, Geography, Institutional quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, Ethnic fractionalization, and dummies for Sub-Saharan Africa and East Asia.

Table 4 reports the results for the Burnside and Dollar and Rajan and Subramanian specifications, while Table 5 shows them according to the specification of Bueno de Mesquita and Smith. In table 4 we focus on those regressions that to some extent control for omitted variables by first-differencing the equation. For the Burnside and Dollar sample the negative interaction is significant at the one percent level only in autocracies. In democracies, the effect is negative, though not significant at conventional levels. The Rajan and Subramanian specifications show a similar picture, but generally insignificant coefficients.

Table 5 shows a similar picture, where only the interactions in autocracies have a negative coefficient. The negative effect is significant when we control for regional and time fixed effects (column 3), however, while still negative it turns insignificant when we add time trends and country fixed effects in column 4. In democracies the interaction turns *positive*, and significant at the 10 percent level in column 1. Overall, effects other than the greater legitimacy of democratic countries' votes on the UNSC seem to dominate in our sample. Potentially, autocratic countries have less interest in promoting development, so the reduced pressure to use development aid for developmental purposes might be particularly harmful there. In addition, if autocratic countries receive larger increases in aid while being a UNSC member, as Bueno de Mesquita and Smith (2010) have argued, a larger share of aid is politically motivated. Thus, the adverse effects of political motivation on aid effectiveness seem to be particularly pronounced in autocracies. Given that these are, on average, those countries where the potential role of the donor in pushing for change is most prevalent, the adverse consequences of politically motivated aid are particularly unfortunate.

Table 5: Politically motivated aid and growth, 1960-2005, OLS, BdM/Smith, by democracy

	Democracy				Autocracy			
	(1)		(2)		(3)		(4)	
	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.
UNSC (t-2)	-2.084***	(0.766)	-2.066**	(1.015)	-0.767	(1.101)	-0.816	(1.138)
Aid (t-1)	-0.001	(0.052)	0.032	(0.119)	0.381***	(0.057)	0.249	(0.318)
UNSC (t-2)*Aid (t-1)	0.188*	(0.114)	0.028	(0.185)	-0.222**	(0.104)	-0.061	(0.085)
Country Fixed Effects	No		Yes		No		Yes	
Region Fixed Effects	Yes		No		Yes		No	
Year Dummies	Yes		Yes		Yes		Yes	
Regional Trend Variables	No		Yes		No		Yes	
Adj. R-Squared	-0.17		0.71		-0.06		0.55	
Number of Observations	838		838		1595		1595	

* p<0.10, ** p<0.05, *** p<0.01

Notes: All regressions include (log) population size, (log) per capita GDP, the level of democracy and its interaction with UNSC membership.

The results so far provide some support for our proposed timeline in how political motives change the effectiveness of aid. However, this does not preclude other timings to be potentially important either. Thus, Table 6 reports results from regressions which examine whether and to what extent other potential timings are also supported by the data. We test if the effectiveness of aid disbursed in different periods is affected by UNSC membership in the same period, one period before, and two periods before. For this matter, we replicate the regressions of Table 1, columns 7 and 8, for the Burnside and Dollar and, respectively, Rajan and Subramanian specifications. For Bueno de Mesquita and Smith we focus on the specification of column 7 in

Table 3. Other timings are very well possible. That aid disbursed in the previous period is less effective if the country has been on the UNSC in this same period, for example, would be likely if contemporaneous membership affects compliance with conditions. The other regressions allow for a longer lag in the effectiveness of aid and report the interaction of aid disbursed two periods before on growth in a specific period, conditional on UNSC membership in that period.

Table 6: Politically motivated aid and growth, different timelines

	Burnside-Dollar (1)		Rajan-Subramanian (2)		Bueno de Mesquita-Smith (3)	
	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.
Aid(t) * UNSC(t)	-0.388	(0.466)	0.074	(0.351)	0.05	(0.076)
Aid(t) * UNSC(t-1)	-0.253	(0.344)	0.014	(0.660)	-0.042	(0.115)
Aid(t) * UNSC(t-2)	0.196	(0.193)	-0.217	(0.505)	0.02	(0.101)
Aid(t-1) * UNSC(t-1)	-0.032	(0.400)	0.479	(0.558)	-0.167***	(0.056)
Aid(t-1) * UNSC(t-2)	-1.182***	(0.373)	-1.365*	(0.745)	-0.005	(0.077)
Aid(t-2) * UNSC(t-2)	-0.021	(0.446)	-0.104	(0.338)	-0.048	(0.090)

* p<0.10, ** p<0.05, *** p<0.01

Notes: All "Burnside-Dollar" regressions include Initial GDP/capita, Ethnic fractionalization, Assassinations, Ethnic fractionalization*assassinations, dummies for Sub-Saharan Africa and East Asia, Institutional quality, M2/GDP (lagged), Policy, and period dummies. "Rajan-Subramanian" includes Initial GDP/capita, Initial policy, (log) Initial life expectancy, Geography, Institutional quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, Ethnic fractionalization, and dummies for Sub-Saharan Africa and East Asia. "Bueno de Mesquita-Smith" includes (log) population size, (log) per capita GDP, the level of democracy and its interaction with UNSC membership. All regressions also include the appropriate aid and UNSC variables themselves.

While the table shows the coefficients and standard errors of the interaction terms only, note that the respective aid and UNSC variables are also included in each regression (as are the remaining control variables). We also report the coefficients following our previously proposed and theoretically most likely timeline (Aid(t-1)*UNSC(t-2)) for comparison. As can be seen, most of the other interactions are not significant at conventional levels. The exception is the specification following Bueno de Mesquita and Smith (column 3), when we include aid disbursed in the previous period, UNSC membership in the previous period, and their interaction. The table shows that the interaction is significant at the five percent level, with a negative coefficient. The result for this specification implies that part of the aid committed in a certain period gets disbursed in the same period and is thus less effective. Overall, and in particular for the BD and RS specifications that employ a more rigorous set of control variables than BdM, the regressions support our proposed timeline, and thus the theoretical considerations underlying it.

What can explain these results? As we outlined above, the previous literature identified a number of transmission channels for individual donors. Dreher et al. (2012a) showed that political motives reduce the quality of World Bank projects. Also for the World Bank, Kilby (2011a, b) reported that political allies are allowed to pursue projects where important preconditions are not met, and with inferior preparation. Stone (2008) found that political favoritism undermines the credibility of IMF conditionality. In order to test for these transmission channels in our sample of aid by all DAC donors, we would require data on aid conditionality and compliance with these conditions, project success, and time and resources invested in project preparation. These data do not exist for a broad sample of donors. Alternatively, we suggest to investigate whether aid modalities and sectoral compositions differ across countries on and off the UNSC.[45] While a detailed analysis is beyond the scope of this paper, Table 7 reports the amount of aid committed to the individual sectors while countries have been member of the UNSC and at other times (in constant million 2011 US$). As can be seen, with only three exceptions larger amounts of aid are committed to all sectors for UNSC members. The exceptions are emergency aid, reconstruction relief, and the costs for refugees – which are all related to emergency situations and thus unlikely to be predominantly politically motivated. Table 7 also reports a t-test for equality of means in the amounts committed to UNSC members and non-members. The results show that the increase is significant at conventional levels (and positive) in 16 of the 25 sectors. UNSC members receive larger general budget support and more aid for education; the largest increases prevail in the industry and mining sector (increase of 159.3%), in environmental aid (158.9%), and aid for agriculture and fishing (158.0%).

Strong differences also arise when we focus on the type of aid, as we show in Table 8. The results indicate increases in all types of aid for temporary members of the UNSC. In particular, budget aid increases about 190% during UNSC membership, while the increase in project aid is 95%. Loans increase by about 137% and grants by about 30%. These differences are all statistically significant at the one-percent level.

While we leave further explorations of the exact channels that explain the differences in aid effectiveness for politically motivated aid identified in this paper for future research, these

[45] Bayer et al. (2012) provide initial evidence. Their results show that countries prefer to work with UN agencies rather than the World Bank in implementing projects under the Global Environment Facility while being on the UNSC.

results show striking differences in how certain types of aid and aid to specific sectors increase as a consequence of political motives.

Table 7: Aid and UNSC membership according to sectors

Sectoral allocation of total aid committments
(in constant million 2011 US$)

	Mean			P-value
Sector	No UNSC member	UNSC member	Increase in %	T-Test
Education	26.75	69.36	159%	0.000
Health	14.48	37.49	159%	0.000
Population	53.73	138.6	158%	0.000
Water and Sanitation	18.44	37.74	105%	0.000
Government /Civil Society	33.78	64.37	91%	0.002
Other Social Infrastructure	10.38	19.7	90%	0.001
Transport and Storage	36.62	68.99	88%	0.000
Communication	53.87	100.6	87%	0.000
Banking and Financial Services	7.033	12.79	82%	0.012
Banking and Financial Services	29.1	46.36	59%	0.010
Business and other Services	25.79	40.38	57%	0.014
Agriculture and Fishing	62.16	93.57	51%	0.002
Industry/Mining	37.62	56.36	50%	0.000
Trade/Tourism	81.13	118.4	46%	0.094
Environment	78.08	110	41%	0.464
Other Multisector	32.96	45.04	37%	0.014
General budget support	13.3	16.93	27%	0.280
Food Aid	27.48	34.7	26%	0.093
Debt	1.726	2.118	23%	0.428
Debt	47.78	56.19	18%	0.427
Emergency Reponse	10.14	11.15	10%	0.784
Reconstruction Relief	4.851	5.327	10%	0.771
Disaster Prevention	14.47	11.37	-21%	0.708
Admin of Donors	27.5	16.86	-39%	0.154
Unspecified	3.33	1.919	-42%	0.332

Notes: Differences in aid commitments by sectors for UNSC and Non-UNSC members. Data source: DAC Creditor Reporting System (CRS) aid activities database.

Table 8: Aid and UNSC membership according to type

Allocation of total aid committments (in constant million 2011 US$)				
	Mean		P-values	
Type of Aid	No UNSC member	UNSC member	Increase in %	T-Test
Budget Aid	69.71	203.6	192%	0.000
Project Aid	240.2	469.4	95%	0.002
Tied Aid	66.44	121.2	82%	0.000
Partially tied Aid	85.4	181	112%	0.000
Untied Aid	189.7	308.5	63%	0.002
Loans	229.6	545.1	137%	0.000
Grants	268.8	354.6	32%	0.028

Notes: Differences in aid commitments by aid type for UNSC and Non-UNSC members. Data source: DAC Creditor Reporting System (CRS) aid activities database.

5. Conclusions

In this paper we addressed the question of whether political motives reduce the effectiveness of aid. We made use of a straightforward instrument for the share of aid disbursed in a certain period that was given for political reasons. Specifically, we exploited the quasi-random variation in aid commitments resulting from the recipient being of extraordinary geopolitical importance during its temporary membership on the UNSC. The previous literature has shown that temporary members of the UNSC receive substantial and unusual increases in aid (Kuziemko and Werker 2006, Dreher et al. 2009a, 2009b). To the extent that political motives for the allocation of aid affect its consequences, the aid a country receives while serving on the UNSC should be less effective on average.

Rather than suggesting our own econometric model, we augmented three widely cited specifications from the literature (Burnside and Dollar 2000, Rajan and Subramanian 2008, Bueno de Mesquita and Smith 2010) with our measure of politically motivated aid. Our results show that aid committed while a recipient has been a member of the UNSC is less effective in terms of increased economic growth. This holds in particular in autocratically governed recipient countries. It also holds when we restrict our sample to African countries, which follow the strictest norm of rotation on the UNSC. That is, foreign aid granted for short-term geopolitical motives is less effective than other types of aid in those places where development would be most needed.

While we did not aim to rigorously test whether aid is effective, but rather, whether aid effectiveness is reduced by the short-term political motivations of donors, our findings have direct implications for the existing and future aid effectiveness literature. To the extent the reader accepts the regressions presented in Clemens et al. (2012) and Bueno de Mesquita and Smith (2010) as causal tests for the effectiveness of aid, our results show that politically motivated aid tends to reduce growth, while other aid seems to enhance it. In any case, politically motivated aid is less effective than average aid. When donors allocate a fixed aid budget according to different motives, political motives channel more aid to temporary UNSC members whose growth rates might increase to the extent that the marginal effect of aid remains positive. This increase would however come at the cost of reduced aid and larger losses of growth elsewhere.

An important implication of our results relates to the identification strategy in the previous aid effectiveness literature, much of which tries to identify the causal effects of aid by instrumenting for aid using political variables. As already argued in Kilby and Dreher (2010) and Faye and Niehaus (2012), our results show that geopolitical variables are invalid as instruments for aid when "political aid" is different, as we find here.[46] The results of previous studies identifying the effect of aid on growth relying on variation caused by changing political alliances thus have to be treated with caution.

In terms of increasing the effectiveness of aid, there are arguably two possibilities. First, foreign aid could be separated from political motives, so that it truly becomes "development aid." Given the incentives of donors to use aid to achieve their geopolitical goals this is unlikely to happen. Second, the exact channels by which geopolitical motives reduce the effectiveness of aid should be identified. The choice of a suitable remedy would depend upon which of the channels outlined above is responsible for the reduced effectiveness of aid. We leave such analysis for future research.

[46] See also Fleck and Kilby (2006), Headey (2008), Bearce and Tirone (2010), Minoiu and Reddy (2010).

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Appendix A: Definitions and sources

Variable	Definition	Original Source
UNSC membership	Share of years a country has served on the UNSC in a given period.	Dreher et al. (2009b)
US bilateral development aid	Official Development Aid Disbursements from the US in percent of GDP.	DAC (2012), Table DAC2a ODA Disbursements, February 2012
Democracy	Dummy that is 1 if the country is a democracy during at least half the period under consideration.	Cheibub et al. (2010)
Dummy for Africa	Dummy that 1 if the recipient is an African country.	World Bank (2012)
Burnside and Dollar specification (4-year periods)		
GDP p.c. growth	Average over annual growth rates of real GDP p. c. based on constant local currency.	World Bank (2007)*
Net ODA	ODA (OA) total net in percent of GDP.	DAC (2007), Table DAC2a*
Region Dummies	Dummies for Sub-Saharan Africa and East Asia.	Clemens et al. (2012)
Log Initial GDP/capita	Logarithm of initial GDP p.c. in International prices.	Penn World Tables 6.2*
Budget Balance	Overall budget balance, including grants. Measured as cash surplus/deficit (% of GDP).	World Bank (2005, 2007), IMF (2005)*
Inflation	Natural log of (1+consumer price inflation).	World Bank (2005, 2007), IMF (2005)*
M2/GDP	Money and quasi-money (M2) in percent of GDP.	World Bank (2007)*
Institutional Quality	First non-missing value of the ICRG composite index [0, 10].	ICRG*
Assassinations	Average number of assassinations in a given phase.	Banks (2012, 2007)*
Ethnolinguistic Fractionalization	Ethnolinguistic Fractionalization in a country in a given period.	Easterly and Levine (1997), Roeder (2001)*
Assassinations x Ethnolinguistic Fractionalization	Interaction between Assassinations and Ethnolinguistic Fractionalization.	Banks (2012, 2007), Easterly and Levine (1997), Roeder (2001)*

Policy	Good policy index based on budget balance/GDP, inflation and trade openness (cf. Burnside and Dollar 2000).	Clemens et al. (2012)
Openness	Wacziarg-Welch (2008) extension of the initial Sachs and Warner (1995) openness index.	Wacziarg and Welch (2008), updated by Clemens et al. (2012)*

Rajan and Subramanian specification (5-year periods)

GDP p.c. growth	Average annual growth rate of real GDP p.c. in constant international dollars.	Penn World Tables 6.2 and World Bank (2007) for the year 2005*
Net ODA	ODA total net in percent of GDP.	DAC (2007), Table DAC2a*
Log Initial GDP/capita	Logarithm of initial GDP p.c. in international prices.	Penn World Tables 6.2*
Institutional Quality	Period averages of the sum of three components (bureaucratic quality, rule of law and corruption) of the ICRG index, normalized to one.	ICRG*
Geography	Combination of the average number of frost days per month in winter and the fraction of a country's area in the tropics.	Bosworth and Collins (2003)*
Revolutions	Average number of revolutions in a period.	Banks (2007)*
Initial Life Expectancy	Natural logarithm of first non-missing value in each period of total life expectancy.	World Bank (2007)*
Inflation	Natural log of (1+consumer price inflation).	World Bank (2005, 2007), IMF (2005)*
Budget Balance	Overall budget balance, including grants. Measured as cash surplus/deficit in percent of GDP.	World Bank (2005, 2007), IMF (2005)*
Ethnolinguistic Fractionalization	Ethnolinguistic Fractionalization in a country in a given period.	Easterly and Levine (1997), Roeder (2001)*
Initial policy	First non-missing value of the Wacziarg-Welch openness dummy.	Wacziarg and Welsh (2008)*
M2/GDP	Money and quasi-money (M2) in percent of GDP	World Bank (2007)*

Bueno de Mesquita and Smith specification

Democracy	POLITY IV Democracy Index, in the last year of the previous period,	Marshall and Jaggers (2003)**

	transformed to a [0,1] scale.	
Democracy* UNSC membership (t-2)	Interaction between Democracy Index and the share of years the country was on the UNSC in the respective period.	
Population	Logarithm of population size.	World Bank (2007)**
Log Initial GDP	Logarithm of initial GDP p.c. (in constant 2000 US$).	World Bank (2007)**
Aid	Total aid (bilateral and multilateral) in percent of GDP.	World Bank (2007)**
GDP p.c. growth	GDP p.c. growth rate over a four-year-period in constant 2000 US$.	World Bank (2007)**

Notes:

DAC is the OECD's Development Assistance Committee; ICRG is the International Country Risk Guide.

* Our source is Clemens et al. (2012), http://www.cgdev.org/doc/Working%20Papers/CRBB-Replication-Files.zip, accessed 06.06.2012.
More details are provided in "Technical Appendix to Counting chickens when they hatch: Timing and the effects of aid on growth," http://www.cgdev.org/doc/Working%20Papers/counting_chickens_technical_appendix.pdf, accessed 06.06.2012.

** Our source is Bueno de Mesquita and Smith (2010), http://politics.as.nyu.edu/staging/IO/5347/PerniciousEffectUNSC.zip, accessed 08.12.2012.

Appendix B: Descriptive Statistics

Variable	Count	Mean	Standard deviation	Minimum	Maximum
Burnside and Dollar specification (4-year-periods)					
GDP p.c. growth	323	1.03	3.28	-12.96	9.88
Net ODA	323	4.80	6.52	-0.13	42.52
Log Initial GDP/capita	323	8.03	0.79	6.14	9.62
Budget Balance	323	-0.09	0.68	-7.25	4.71
Inflation	323	0.29	0.48	-0.01	3.22
M2/GDP	323	0.29	0.15	0.02	1.02
Institutional Quality	323	4.35	1.49	1.58	8.14
Assassinations	323	0.50	1.33	0	11.50
Ethnolinguistic Fractionalization	323	0.46	0.30	0	0.93
Policy	323	1.34	1.43	-5.54	3.31
Openness	323	0.31	0.44	0	1
Rajan and Subramanian specification (5-year-periods)					
GDP p.c. growth	351	1.48	3.06	-12.30	9.36
Net ODA	351	4.28	6.05	-0.06	40.27
Log Initial GDP/capita	351	8.16	0.85	5.85	10.27
Institutional Quality	351	4.57	1.68	1.58	9.50
Geography	351	-0.50	0.77	-1.04	1.53
Revolutions	351	0.26	0.42	0	2.60
Initial Life Expectancy	351	61.92	10.04	36.55	79.41
Inflation	351	0.23	0.49	0	4.19
Budget Balance	351	-0.09	0.52	-5.51	2.35
Ethnolinguistic Fractionalization	351	0.44	0.30	0	0.90
Initial policy	351	0.45	0.50	0	1
M2/GDP	351	3.01	7.64	0	49.85

Bueno de Mesquita and Smith specification

Democracy	3378	0.44	0.35	0	1
Population	3378	15.82	1.53	12.27	20.96
Log Initial GDP	3378	6.69	1.08	4.49	9.71
Aid	3378	6.25	8.29	0	68.30
GDP p.c. growth	3378	6.89	17.81	-80.73	246.22

Appendix C: Full regression specifications

Table C.1: Burnside and Dollar & Rajan and Subramanian

	Burnside and Dollar (1)		Rajan and Subramanian (2)	
Aid	0.388**	[0.193]	0.356**	[0.149]
Aid^2	-0.008**	[0.004]	-0.007	[0.004]
UNSC(t-1)	-1.709	[1.080]	-0.947	[1.442]
UNSC(t-1)*Aid(t)	-1.182***	[0.373]	-1.365*	[0.745]
GDP p.c. growth	-4.753*	[2.481]	-9.920***	[1.584]
Assassinations	-0.296	[0.252]		
Assassinations * Ethnolinguistic Fractionalization	0.515	[0.476]		
M2/GDP	0.501	[3.892]		
Policy	0.867***	[0.204]		
Initial Life Expectancy			-0.009	[0.072]
Initial policy			0.675	[0.461]
Inflation			-1.486***	[0.415]
M2/GDP			-0.023	[0.033]
Budget Balance			0.131	[0.137]
Revolutions			-0.767**	[0.361]
Constant	2.219***	[0.444]	1.786**	[0.756]
Aid lagged?	Yes		Yes	
First difference?	Yes		Yes	
Adj. R-Squared	0.205		0.308	
Number of Observations	323		351	

Notes: Full regression results corresponding to Table 1, columns 5 and 6. Note that time-invariant variables are dropped in the regressions using first differences.
Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table C.2: Bueno de Mesquita and Smith

	(1)		(2)	
	Coef.	Std. err.	Coef.	Std. err.
UNSC (t-2)	-0.93	(1.299)	2.774*	[1.568]
Aid (t-1)	0.273***	(0.103)	0.247	[0.170]
UNSC (t-2)*Aid (t-1)	-0.024	(0.077)	-0.175***	[0.060]
Democracy	-4.634**	[2.221]	-1.671	[2.203]
Democracy* UNSC membership (t-2)	0.343	[1.871]	-6.063	[4.494]
Population	-41.526***	[12.218]	-13.386	[15.991]
Log Initial GDP	-23.804***	[4.735]	-16.265***	[5.373]
Constant	665.484***	[237.767]	172.752	[265.732]
Sample	all		Africa	
Country Fixed Effects	Yes		Yes	
Region Fixed Effects	No		No	
Year Dummies	Yes		Yes	
Regional Trend Variables	Yes		Yes	
Adj. R-Squared	0.45		0.41	
Number of Observations	3378		1272	

Notes: Full regression results corresponding to Table 3, columns 7 and 8.
Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01