

Supplemental Appendix for Dreher, Axel, Vera Eichenauer and Kai Gehring, Geopolitics, Aid and Growth: The Impact of UN Security Council Membership on the Effectiveness of Aid, *World Bank Economic Review*.

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Appendix S1: Definitions and sources

Variable	Definition	Original Source
UNSC Membership	Share of years a country has served as a temporary member on the UNSC in a given period.	Dreher et al. (2009b)
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 is 1 if the recipient is an African country.	World Bank (2012)
GDP p.c. growth	Average over annual growth rates of real GDP p.c. based on constant local currency.	World Bank (2007)*
Net ODA	Net total Official Development Assistance in % of GDP.	DAC (2007), Table DAC2a*, World Bank (2016) **
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 in % of GDP.	World Bank (2007, 2016**), IMF (2005)*
Inflation	Natural log of (1+ Consumer Price Inflation).	World Bank (2005, 2007), IMF (2005)*
M2 (% of GDP)	Money and Quasi-Money (M2) in % of GDP.	World Bank (2007)*
Assassinations	Average number of assassinations.	Banks (2012, 2007)*
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 Sachs and Warner (1995) Openness Index.	Wacziarg and Welch (2008), updated by Clemens et al. (2012)*
UNGA alignment U.S.	Voting alignment of recipient country with the U.S. on all votes in the United Nations General Assembly.	Strezhnev and Voeten (2012)
ICRG Institutions	Government Stability, Socioeconomic Conditions, Investment Profile, Internal	PRS group ICRG

	Conflict, External Conflict, Corruption, Military in Politics, Religion in Politics, Law and Order, Ethnic Tensions, Democratic Accountability, Bureaucracy Quality.	
US Bilateral Development Aid	Official Development Aid Disbursements from the US in % of GDP.	DAC (2012), Table DAC2a ODA Disbursements, February 2012
ODA Commitments/GDP	ODA commitments, total, in % of GDP.	DAC (2007), Table DAC3a
Total debt service	Total debt service, in % of gross national income.	World Bank (2012)
Short-term debt	Short-term debt, in % of total external debt.	World Bank (2012)
Imports/GDP	Imports of goods and services as share of GDP.	World Bank (2012)
Trade/GDP	Trade as share of GDP.	World Bank (2012)
FDI/GDP	Foreign Direct Investments net inflows as share of GDP.	World Bank (2012)

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. Data for the 2006-2009 period are from Minasyan (2015).

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, last accessed 12.05.2016.

** When updating the Clemens et al. data until 2009, we used data from the World Bank accessed via the "wbopendata" module, which cover more countries than Minasyan (2015). Due to data availability for the 2005-2009 period, the budget balance is defined as revenue (including grants) minus expense and minus net acquisition of nonfinancial assets.

Appendix S2: Descriptive statistics

Variables	Count	Mean	Standard Deviation	Min.	Max.
Net ODA/GDP	393	4.41	6.16	-0.13	42.52
UNSC membership, share	393	0.08	0.17	0.00	0.50
UNSC membership dummy	393	0.21	0.41	0.00	1.00
GDP p.c. growth	393	1.34	3.28	-12.96	17.05
Log Initial GDP/capita	393	8.04	0.80	6.14	10.06
Budget Balance	393	-0.16	1.12	-7.25	6.70
Inflation	229	0.28	0.45	-0.01	3.22
M2/GDP	393	4.50	16.01	0.02	135.78
Institutional Quality	393	4.34	1.48	1.58	8.14
Assassinations	393	0.46	1.30	0.00	11.50
Policy	393	1.60	1.32	-3.86	3.91
Openness	229	0.29	0.43	0.00	1.00
ODA Commitments/GDP	389	0.06	0.08	0.00	0.44
US Aid/GDP	393	0.68	1.22	0.00	12.48
Democracy (t-2)	386	0.41	0.49	0.00	1.00
Autocracy (t-2)	386	0.59	0.49	0.00	1.00
Imports/GDP	384	30.97	14.62	0.00	92.96
Trade/GDP	384	58.87	27.67	11.44	203.36
FDI/GDP	381	1.59	2.63	-28.62	15.59
Total debt service	367	67.15	67.73	4.22	939.35
Short-term debt	379	13.80	8.73	0.73	54.97
Average Voting Alignment with U.S.	389	33.62	10.69	14.20	64.55
Bureaucracy Quality	311	1.74	0.93	0.00	3.50
Corruption	311	2.60	0.93	0.00	5.00
Democratic Accountability	311	3.38	1.23	0.00	6.00
Law & Order	311	2.93	1.13	0.67	6.00
Political Risk Rating	310	57.11	11.36	26.96	80.83
Ethnic Tensions	311	3.72	1.49	0.33	6.00
Religious Tensions	311	4.32	1.37	0.00	6.00
Military in Politics	311	3.05	1.55	0.00	6.00
Internal Conflict	311	7.78	2.42	0.31	12.00
External Conflict	311	9.33	2.15	2.17	12.00
Government Stability	311	6.97	2.09	1.85	11.00
Investment Profile	311	6.39	1.91	1.17	11.50

Appendix S3: Tests for robustness

Table S3.1: Sensitivity to different coding of the UNSC variable and additional covariates

	(1) UNSC dummy	(2) UNSC differenced	(3) Lagged explanatory variables
Δ Aid (t-1)	0.484** [0.211]	0.404** [0.195]	0.379** [0.153]
Δ Aid squared (t-1)	-0.010** [0.004]	-0.009** [0.004]	-0.006* [0.003]
Dummy UNSC (t-2)	-0.511 [0.333]		
Dummy UNSC (t-2)* Δ Aid (t-1)	-0.626*** [0.165]		
Δ UNSC (t-2)		0.039 [0.844]	
Δ UNSC (t-2)* Δ Aid (t-1)		-0.384** [0.182]	
UNSC (t-2)			-1.814* [1.003]
UNSC (t-2)* Δ Aid (t-1)			-1.012** [0.402]
Adj. R-Squared	0.19	0.19	0.22
Number of Countries	54	54	54
Number of Observations	393	393	359

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years and include (first differences of) Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2009 period. Column 1 includes a dummy for temporary UNSC membership instead of the share of years on the Council. Column 2 uses the share of UNSC membership in first differences. In column 3, we lag all explanatory variables by one period (from (t) to (t-1)). Column 4 includes the International Country Risk Guide (ICRG) variables Bureaucracy Quality, Corruption, Democratic Accountability, Ethnic Tensions, External Conflict, Government Stability, Internal Conflict, Investment Profile, Law & Order, Military in Politics, Political Risk Rating, and Religious Tensions (available from 1984). Column 4 includes the recipient country's voting alignment with the United States in the UN General Assembly. The specification is similar to Table 1, column 2. Standard errors in brackets (clustered at the recipient country level).

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

Table S3.2: Sensitivity to using early impact aid

Δ Early Impact Aid (t-1)	0.576** [0.231]
Δ Early Impact Aid squared (t-1)	-0.032** [0.014]
UNSC (t-2)	-1.635 [0.980]
UNSC (t-2)* Δ Early Impact Aid (t-1)	-1.470* [0.750]
Adj. R-Squared	0.197
Number of Countries	54
Number of Observations	354

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years and include (first differences of) Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2005 period. 'Early impact' aid is defined following Clemens et al. (2012) and the specification also includes repayments/GDP its square as in their specifications, since 'early impact' ODA is a gross flow while aggregate aid is a net flow. Consistent with our modification of other regressions, we interact the linear repayment term with our UNSC variable. Otherwise, the specification is similar to Table 1, column 2. Standard errors in brackets (clustered at the recipient country level).

* p<0.10, ** p<0.05.

Table S3.3: Sensitivity to additional covariates

	(1)	(2)	(3)	(4)	(5)	(6)
	ICRG	Imports /GDP	Trade/GDP	FDI/GDP	UNGA	Debt/GNI
Δ Aid (t-1)	0.269*	0.464**	0.461**	0.325**	0.502**	0.453*
	[0.135]	[0.209]	[0.207]	[0.126]	[0.212]	[0.245]
Δ Aid squared (t-1)	-0.006**	-0.009**	-0.010**	-0.007***	-0.011**	-0.010**
	[0.002]	[0.004]	[0.004]	[0.002]	[0.004]	[0.005]
UNSC (t-2)	-2.251**	-1.573*	-1.553*	-1.64	-1.376	-1.347
	[1.077]	[0.896]	[0.889]	[1.020]	[0.840]	[0.865]
UNSC (t-2)* Δ Aid (t-1)	-0.975**	-1.254***	-1.261***	-1.125***	-1.260***	-1.397***
	[0.386]	[0.357]	[0.370]	[0.361]	[0.358]	[0.411]
Adj. R-Squared	0.28	0.19	0.18	0.23	0.19	0.18
Number of Countries	53	54	54	54	54	51
Number of Observations	214	378	378	317	385	367

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years, include variables in first differences (except for the UNSC variable) and include period dummies. Control variables are Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2009 period. Column 1 adds imports of goods and services (as a share of GDP), column 2 adds Trade (as a share of GDP), column 3 adds net Foreign Direct Investments inflows (FDI, as a share of GDP), and column 4 adds debt service (as a share of GNI). The specification is similar to Table 1, column 2. Standard errors in brackets (clustered at the recipient country level).

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

Table S3.4: Results for democracies and autocracies

	(1)		(2)		(3)		(4)	
	Democracy (t-2)		Autocracy (t-2)		Democracy (t-1)		Autocracy (t-1)	
Δ Aid (t-1)	0.078	[0.089]	0.156	[0.125]	0.118	[0.074]	0.137	[0.141]
UNSC (t-2)	0.416	[0.823]	-2.677*	[1.412]	0.184	[0.784]	-2.157	[1.392]
UNSC (t-2)* Δ Aid (t-1)	-0.006	[0.306]	-1.273***	[0.335]	-0.452	[0.518]	-1.221***	[0.433]
Adj. R-Squared	0.256		0.149		0.238		0.162	
Number of Countries	32		46		36		45	
Number of Observations	157		236		180		213	
	(5)		(6)		(7)		(8)	
Δ Aid (t-1)	0.632***	[0.209]	0.406	[0.246]	0.596***	[0.142]	0.411	[0.290]
Δ Aid squared (t-1)	-0.013***	[0.004]	-0.008	[0.005]	-0.012***	[0.003]	-0.009	[0.006]
UNSC (t-2)	0.293	[0.807]	-2.645*	[1.430]	0.066	[0.769]	-2.167	[1.404]
UNSC (t-2)* Δ Aid (t-1)	-0.731*	[0.422]	-1.407***	[0.322]	-0.701**	[0.320]	-1.578**	[0.541]
Adj. R-Squared	0.288		0.158		0.274		0.171	
Number of Countries	32		46		36		45	
Number of Observations	157		236		180		213	

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years and include (first differences of) Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2009 period. A regime is defined as democratic if it is classified as such in at least half a period by Cheibub et al. (2010). In columns 3 and 4 the regime type refers to the period of aid disbursement (t-1). Otherwise, the specification is similar to Table 1, column 2. Standard errors in brackets (clustered at the recipient country level).

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

Table S3.5: Politically motivated aid commitments and aid disbursements, OLS

	(1)	(2)	(3)	(4)	(5)
Aid disbursements (t-1)	0.499**		0.105		0.487**
	[0.236]		[0.091]		[0.226]
Aid disbursements squared (t-1)	-0.011**				-0.011**
	[0.005]				[0.004]
Aid commitments (t-2)	-10.140**	-9.299**	-9.084**	8.455	6.324
	[4.244]	[4.596]	[4.494]	[11.931]	[12.221]
Aid commitments squared (t-2)				-41.872*	-40.826*
				[23.343]	[23.117]
UNSC (t-2)	-1.28	-1.645*	-1.378	-1.516*	-1.234
	[0.860]	[0.888]	[0.825]	[0.897]	[0.825]
UNSC (t-2)*Aid disbursements (t-1)	-1.306***		-0.955**		-1.343***
	[0.400]		[0.438]		[0.380]
UNSC (t-2)*Aid commitments (t-2)		10.66	10.039	5.527	6.573
		[24.061]	[23.374]	[20.583]	[18.801]
Adj. R-Squared	0.195	0.164	0.171	0.171	0.201
Number of Observations	383	383	383	383	383

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years and include (first differences of) Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2009 period. The table adds aid commitments (and their interaction with UNSC membership) to the regression from Table 1, column 2. Standard errors in brackets (clustered at the recipient country level).

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

Table S3.6: Politically motivated aid and growth, OLS, Rajan & Subramanian specification

	(1)	(2)
Δ Aid (t-1)	0.149* [0.085]	0.356** [0.148]
Δ Aid squared (t-1)		-0.007 [0.004]
UNSC (t-2)	-0.866 [1.420]	-0.947 [1.402]
UNSC (t-2)* Δ Aid (t-1)	-1.094* [0.590]	-1.365** [0.647]
Adj. R-Squared	0.30	0.31
Number of Countries	64	64
Number of Observations	351	351

Notes: The dependent variable is growth of real GDP per capita. The regressions use averages over five years and include (first differences of) Initial GDP/capita, Initial Policy, (log) Initial Life Expectancy, Institutional Quality, (log) Inflation, Initial M2/GDP, Budget Balance/GDP, Revolutions, period dummies. The dependent variable covers the 1966-2005 period (using the full extended sample provided by Clemens et al. 2012, Table 9). Standard errors in brackets (clustered at the recipient country level).

* p<0.10, ** p<0.05.

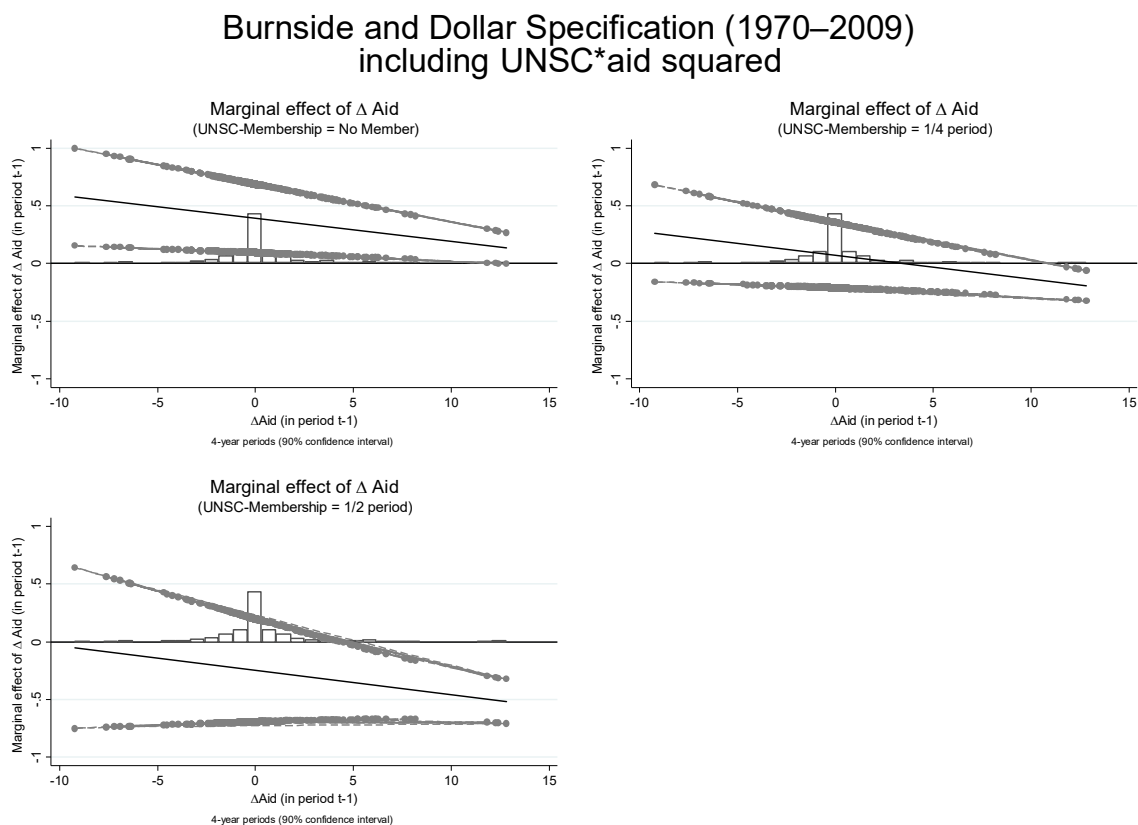
Table S3.7: Sensitivity to the addition of a triple interaction between aid squared and the share of UNSC membership

Δ Aid (t-1)	0.476** [0.213]
Δ Aid squared (t-1)	-0.010** [0.004]
UNSC (t-2)	-1.228 [0.835]
UNSC (t-2)* Δ Aid(t-1)	-1.302 [0.799]
UNSC (t-2)* Δ Aid squared (t-1)	-0.000 [0.021]
Adj. R-Squared	0.184
Number of Countries	54
Number of Observations	393

Notes: The dependent variable is growth of real GDP per capita. All regressions use averages over four years and include (first differences of) Initial GDP/capita, Assassinations, Ethnic Fractionalization*Assassinations, M2/GDP (lagged), Policy, and period dummies. The dependent variable covers the 1970-2009 period. Standard errors in brackets (clustered at the recipient country level).

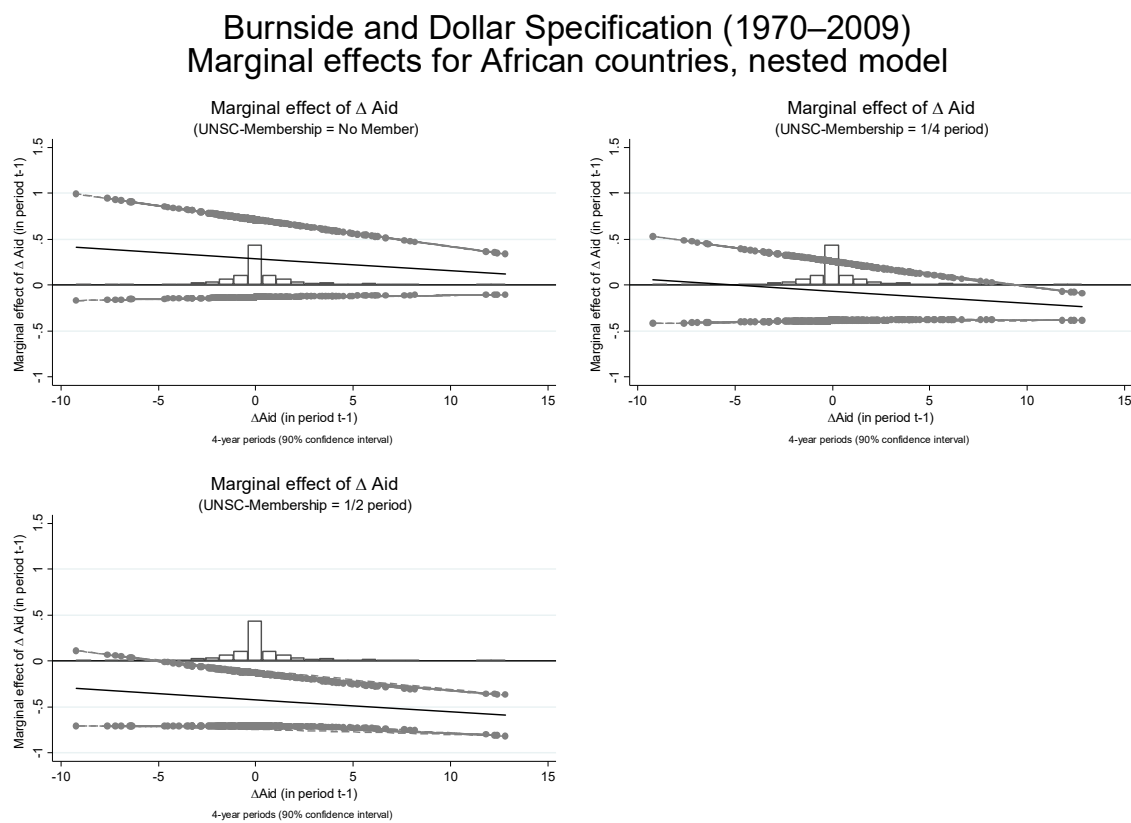
* p<0.10, ** p<0.05, *** p<0.01.

Figure S3.1: Sensitivity of marginal effects to the addition of a triple interaction between aid squared and the share of UNSC membership



Notes: Marginal effect of changes in aid disbursements on changes in economic growth conditional on varying temporary UNSC membership. The marginal effect is based on a regression that includes aid, aid squared, the interaction between aid and UNSC membership and between aid squared and UNSC membership. The histogram shows the distribution of ΔAid in the regression sample.

Figure S3.2: Marginal effects for the subsample of Africa countries resulting from a nested model



Notes: Marginal effect of changes in aid disbursements on changes in economic growth in African countries conditional on varying temporary UNSC membership. The marginal effect is based on a nested model that includes the interaction between the Africa indicator and all explanatory variables. The point estimate for $[\text{UNSC}(t-2) * \Delta \text{Aid}(t-1) * \text{Africa}]$ is negative but insignificant, suggesting that the growth effect of politically motivated aid is not significantly different in Africa. The histogram shows the distribution of ΔAid in the regression sample.

Appendix S.4: Assumptions for consistent estimation of the interaction term

In the following, we sketch the two alternative sets of assumptions that assure the consistent estimation of the interaction term. The first set of assumptions is based on Bun and Harrison (2014) and Nizalova and Murtazashvili (2016). For consistency of presentation, we keep the notation as in our paper but refer directly to the relevant assumptions in Bun and Harrison (2014). For clarity of presentation, we omit exogenous control variables, period-fixed effects and aid squared, all of which do not affect the result about the consistency of the interaction term. As Bun and Harrison (2014: 4) note, the addition of the other control variables “does not change the theoretical results. The analysis below holds exactly when we replace y , w and x [their notation] by the residuals of their projection on these additional exogenous regressors.”

Notation

The simplified version of our main model is

$$\Delta Growth_{i,t} = \alpha + \beta \Delta Aid_{i,t-1} + \delta UNSC_{i,t-2} + \zeta UNSC_{i,t-2} * \Delta Aid_{i,t-1} + \Delta \varepsilon_{it}$$

where i refers to the countries and t to the 4-year periods. $\Delta Aid_{i,t-1}$ is the endogenous variable, referred to as x_i in the notation of Bun and Harrison (2014).

The error can be written as:

$$\Delta \varepsilon_{it} = \lambda \Delta Z_{i,t-k} + \Delta v_{i,t} \quad ,$$

with $Z_{i,t-k}$ being a potentially time- and country-varying unobserved effect, $k \in \{0, 1, 2, 3, \dots\}$, and $(\Delta Aid_{i,2}, \dots, \Delta Aid_{i,T-1}, UNSC_{i,1}, \dots, UNSC_{i,T-2}, \Delta \varepsilon_{i,3}, \dots, \Delta \varepsilon_{i,T})$ being i.i.d.

Assumption set 1

Assumption 1.1

$$E[\Delta \varepsilon_{it} | UNSC_{i,t-2}] = 0,$$

i.e., UNSC membership is exogenous (cf., Bun and Harrison 2014: 4). In their notation, the exogenous regressor is $\omega_{i,t}$.

Assumption 1.2

$$E[\Delta Aid_{i,t-1} \Delta \varepsilon_{it} | UNSC_{i,t-2}] = E[\Delta Aid_{i,t-1} \Delta \varepsilon_{it}],$$

i.e., the “degree of endogeneity” (direction and extent of omitted variable bias) of the endogenous variable does not depend on the exogenous variable (cf., Bun and Harrison 2014: 5, Eq. 2.5). Then we have:

$$Cov(UNSC_{i,t-2}\Delta Aid_{i,t-1}, \Delta \varepsilon_{it}) = E[UNSC_{i,t-2}] \cdot E[\Delta Aid_{i,t-1} \Delta \varepsilon_{it}] = 0,$$

assuming that $E[UNSC_{i,t-2}] = 0$ (cf., Bun and Harrison 2014: 5, Eq. 2.6).¹ Assumption 1.2 is a relatively weak condition, present in various statistical data generating processes. In our setting, the assumption is plausible because temporary UNSC membership is quasi-exogenously assigned.² Moreover, the assumption is also reasonable in the case of relevant omitted variables as discussed by Bun and Harrison (2014: 6) because the endogeneity in our case is not caused by simultaneity.

The OLS estimator of the coefficient of the interaction is consistent under additional reasonable conditions. Bun and Harrison (2014) derive the following term as part of the expression for the inconsistency of the interaction term:³

$$E[\Delta Aid_{i,t-1} UNSC_{i,t-2}]E[\Delta Aid_{i,t-1} UNSC_{i,t-2}^2] - E[UNSC_{i,t-2}^2]E[\Delta Aid_{i,t-1} UNSC_{i,t-2}]$$

This term equals zero under typical conditions regarding higher-order dependencies between the endogenous and the exogenous variables of interest.⁴ So in many empirical applications, the term leading to inconsistent estimation of the interaction term is zero. For example, it holds in all cases when the relation between $\Delta Aid_{i,t-1}$ and $UNSC_{i,t-2}$ follows a linear form (c.f., Bun and Harrison 2014: 7-8). Note that the coefficient δ for UNSC membership, assumed to be exogenous, is also consistently estimated under Assumptions 1.1 and 1.2.

(Continued on the next page)

¹ The assumption of a mean of zero comes without loss of generality and is made to simplify the analysis. Because we always include a constant in the regression, all results also hold with rescaling of these variables (Kiviet and Niemczyk, 2012).

² See discussion about randomly assigned treatment in Bun and Harrison (2014:5, last paragraph).

³ See Proposition 1 in Bun and Harrison (2014: 7).

⁴ As Bun and Harrison (2014: 7) note “multivariate elliptical distributions are sufficient, but not necessary, for these higher-order dependencies to vanish.”

While we are convinced that UNSC membership positions are quasi-randomly allocated among UN members and exogenous to growth two 4-year periods after UNSC membership, the following assumptions would assure the consistency of our interaction term even if UNSC membership would not be exogenous.⁵ Note that this second set of assumptions is weaker than the first set of assumption because they do not imply consistent estimation of the UNSC coefficient.

Assumption set 2

If Assumption 1.1 is violated, i.e., $UNSC_{i,t-2}$ is not exogenous to growth

$$E[\Delta\varepsilon_{it}|UNSC_{i,t-2}] \neq 0$$

we need to assume that:

Assumption 2:

We need that $E[\Delta Aid_{i,t-1} UNSC_{i,t-2} \Delta\varepsilon_{it}] = 0$ to consistently estimate the coefficient of the interaction term. This condition is fulfilled if the “degree of endogeneity” of one endogenous variable of interest is independent of the other endogenous variable of interest. Note that the endogeneity of the two variables might therefore not be caused by the same omitted variable. Formally,

Assumption 2.1 (equivalent to Assumption 1.2):

$$E[\Delta Aid_{i,t-1} \Delta\varepsilon_{it} | UNSC_{i,t-2}] = E[\Delta Aid_{i,t-1} \Delta\varepsilon_{it}],$$

i.e., the correlation of aid with the error term is independent of UNSC membership.

Assumption 2.2

$$E[UNSC_{i,t-2} \Delta\varepsilon_{it} | \Delta Aid_{i,t-1}] = E[UNSC_{i,t-2} \Delta\varepsilon_{it}],$$

The correlation of UNSC with the error term is independent of changes in aid flows.

Framed in terms of the structure of potential omitted variables

$$E[\Delta Aid_{i,t-1} \Delta Z_{i,t-k} | UNSC_{i,t-2}] = E[\Delta Aid_{i,t-1} \Delta Z_{i,t-k}],$$

i.e., the correlation between the omitted variable and the dependent variable is independent of UNSC membership (e.g., the effect of institutions on growth is not affected by past UNSC membership)

and

$$E[UNSC_{i,t-2} \Delta Z_{i,t-k} | \Delta Aid_{i,t-1}] = E[UNSC_{i,t-2} \Delta Z_{i,t-k}],$$

⁵ This second set of assumptions is inspired by Bun and Harrison (2014), but is not explicitly derived there.

i.e., the relationship between the omitted variable and the regressor does not depend on the level of aid.

Additional Reference

Kiviet, J.F. and J. Niemczyk, 2012, The asymptotic and finite sample (un)conditional distributions of OLS and simple IV in simultaneous equations, *Journal of Computational Statistics and Data Analysis* 56, 3567-3586.

Appendix S5: Marginal effect of a change in aid

$$[Growth_{i,t} - Growth_{i,t-1}] = \alpha + \beta[Aid_{i,t-1} - Aid_{i,t-2}] + \gamma[Aid_{i,t-1}^2 - Aid_{i,t-2}^2] + \delta UNSC_{i,t-2} + \zeta[Aid_{i,t-1} - Aid_{i,t-2}] * UNSC_{i,t-2} + [X_{i,t} - X_{i,t-1}] \eta + \mu_{i,t}$$

$$[Growth_{i,t} - Growth_{i,t-1}] = \alpha + \beta[Aid_{i,t-1} - Aid_{i,t-2}] + \gamma[Aid_{i,t-1} + Aid_{i,t-2}] * [Aid_{i,t-1} - Aid_{i,t-2}] + \delta UNSC_{i,t-2} + \zeta[Aid_{i,t-1} - Aid_{i,t-2}] * UNSC_{i,t-2} + [X_{i,t} - X_{i,t-1}] \eta + \mu_{i,t}$$

$$[Growth_{i,t} - Growth_{i,t-1}] = \alpha + \beta[Aid_{i,t-1} - Aid_{i,t-2}] + \gamma[Aid_{i,t-1} - Aid_{i,t-2} + Aid_{i,t-2} + Aid_{i,t-2}] * [Aid_{i,t-1} - Aid_{i,t-2}] + \delta UNSC_{i,t-2} + \zeta[Aid_{i,t-1} - Aid_{i,t-2}] * UNSC_{i,t-2} + [X_{i,t} - X_{i,t-1}] \eta + \mu_{i,t}$$

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

$$[Growth_{i,t} - Growth_{i,t-1}] = \alpha + \beta[\Delta Aid_{i,t-1}] + \gamma[\Delta Aid_{i,t-1} + Aid_{i,t-2} + Aid_{i,t-2}] * [\Delta Aid_{i,t-1}] + \delta UNSC_{i,t-2} + \zeta[\Delta Aid_{i,t-1}] * UNSC_{i,t-2} + [X_{i,t} - X_{i,t-1}] \eta + \mu_{i,t}$$

$$\frac{\partial [Growth_{i,t} - Growth_{i,t-1}]}{\partial [\Delta Aid_{i,t-1}]} = \beta + \gamma * 2 * (Aid_{i,t-2} + \Delta Aid_{i,t-1}) + \zeta * \Delta Aid_{i,t-1} * UNSC_{i,t-2}$$

Appendix S6: Transmission channels

Table S6.1: Sectoral allocation of total aid committed, 1973-2011, constant million 2011 US\$

Sector	Non-UNSC member (mean)	UNSC member (mean)	Increase in %	t-test (p-value)
Education	37.62	56.36	50%	0.00
Health	27.48	34.70	26%	0.09
Population	25.79	40.38	57%	0.01
Water and Sanitation	36.62	68.99	88%	0.00
Government /Civil Society	47.78	56.19	18%	0.43
Other Social Infrastructure	18.44	37.74	105%	0.00
Transport and Storage	62.16	93.57	51%	0.00
Communication	10.38	19.70	90%	0.00
Energy Generation and Supply	53.87	100.60	87%	0.00
Banking and Financial Services	13.30	16.93	27%	0.28
Business and other Services	10.14	11.15	10%	0.78
Agriculture and Fishing	53.73	138.60	158%	0.00
Industry/Mining	26.75	69.36	159%	0.00
Trade/Tourism	4.85	5.33	10%	0.77
Environment	14.48	37.49	159%	0.00
Other Multisector	32.96	45.04	37%	0.01
General Budget support	81.13	118.40	46%	0.09
Food Aid	29.10	46.36	59%	0.01
Other Commodity Assistance	33.78	64.37	91%	0.00
Debt	78.08	110.00	41%	0.46
Emergency Reponse	27.50	16.86	-39%	0.15
Reconstruction Relief	14.47	11.37	-21%	0.71
Disaster Prevention	3.26	1.95	-40%	0.57
Admin of Donors	1.73	2.12	23%	0.43
Refugees	3.33	1.92	-42%	0.33
Unspecified	7.03	12.79	82%	0.01

Notes: Differences in aid commitments by aid type for temporary UNSC and non-UNSC members. The t-value indicates significance of the difference between the shares of the respective aid type for UNSC and non-UNSC members.

Source: OECD DAC Creditor Reporting System (CRS) aid activities database.

Table S6.2: Allocation of total aid committed, 1973-2011, constant million 2011 US\$

Type of Aid	Non-UNSC member (mean)	UNSC member (mean)	Increase in %	t-test (p-value)
Budget Aid	69.71	203.60	192%	0.00
Project Aid	240.20	469.40	95%	0.00
Tied Aid	66.44	121.20	82%	0.00
Partially tied Aid	85.40	181	112%	0.00
Untied Aid	189.7	308.5	63%	0.00
Loans	229.60	545.10	137%	0.00
Grants	268.80	354.60	32%	0.03

Notes: Differences in aid commitments by aid type for UNSC members and non-members. The t-value indicates significance of the difference between the shares of the respective aid type for UNSC members and non-members.

Source: OECD DAC Creditor Reporting System (CRS) aid activities database.