Supplementary Appendices for

"Is Income Inequality Important for Foreign Aid Effectiveness?"

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Appendices

A Colonial Settlers and the Power of the Local Elite

Angeles and Neanidis (2009) argue that the local elite undermines aid effectiveness when the following two conditions hold:
(a) the elite is not benevolent towards the rest of the population. i.e. is not willing to help the other social groups;
(b) the elite holds too much of the country's political and economic power.

Condition (a) implies that the elite would prefer to extract foreign aid and use it to their own benefit, rather than allow it to effectively reach other social groups; condition (b) implies that the elite can easily do that. Angeles and Neanidis (2009) argue that in a subset of countries colonised by the European settlers during colonial times, the colonisers and their descendants formed powerful local elites that keep existing today and that lack the interest to contribute to other social groups. Thus, the conditions (a) and (b) are satisfied, and therefore aid is expected to be less effective in these countries.

More specifically, they distinguish between three types of countries:
(i) countries where the extent of the European settlement was very high, such that the settlers became the majority of the population; these countries – referred to as 'New Europes'– are Canada, New Zealand, Australia and the United States;
(ii) countries where the extent of the European settlement was intermediate, such that Europeans settled in large numbers, but did not become the majority of the population; these are represented by most countries in Latin America, Caribbean and southern Africa;
(iii) countries where European settlement was negligible and/or most colonisers left; such countries are many states in Africa and Asia, for example, Nigeria, Vietnam, Pakistan.

The authors argue that the conditions (a) and (b) are likely to be met in countries with the intermediate extent of European Settlement. The settlers there had an advantage with respect to the rest of the population in terms of human capital and beneficial cultural linkages to Europe, which allowed them to gather a large share of economic and political power. Besides the settlers in these countries were not concerned about the welfare of the rest of the population, one of the reasons being them belonging to a different ethnic group, which has been shown to matter in influencing attitudes of different groups towards each other (Alesina et al., 1999; Easterly and Levine, 1997; Luttmer, 2001).

The countries with negligible European settlement or that were never colonised, may not have developed a European elite, but could instead have local elites, which may or may not satisfy conditions (a) and (b). The authors hypothesise that one average these elites will concentrate less power and be more benevolent toward the rest of the population.

In countries with excessive European settlement, the conditions (a) and (b) do not hold, as the elites were sufficiently large to become the majority, so the power is not anymore in the hands of a minority and the European settlers do not mind contributing to the welfare of the rest of the population as most of them are belonging to their own social group.

Given the above, Angeles and Neanidis (2009) propose, a non-monotonous relationship between European settlement and elite's characteristics. Their theory is also consistent with a negative relationship between the proportion of European settlers and aid effectiveness, among the aid recipient countries which exclude the 'New Europes'. The authors compare their theory to the work of the Acemoglu et al. (2001, 2002), who propose a positive and monotonous relationship between European settlement and institutions, arguing that their theory should not clash with the theory of Acemoglu et al. (2001, 2002), as both mechanisms could exist simultaneously given the complexity of the phenomenon. In addition, European settlers can be argued to having established good institutions but limited their benefits to their own social group.

B Supplementary Results

Table 1: Foreign Aid and Growth: the Unconditional Model vs. the Model Conditional on Equality, Years 1971-2005

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	-0.156	-3.199*	-0.131	-6.393***	-0.107	-2.873	-0.050	-5.658	-0.253	-5.627**	-0.156	-7.133***
	(0.340)	(0.070)	(0.545)	(0.002)	(0.590)	(0.112)	(0.852)	(0.136)	(0.337)	(0.016)	(0.625)	(0.009)
Aid × Equality		5.907*		12.059***		5.369		10.666		10.257**		13.654**
		(0.082)		(0.002)		(0.127)		(0.123)		(0.020)		(0.015)
Equality		-7.167		-11.438		-7.725		9.683		-8.284		-26.753
		(0.232)		(0.243)		(0.256)		(0.475)		(0.553)		(0.265)
Income	-1.633***	-1.489***	-3.879***	-3.674***	-1.272**	-1.088**	-4.288***	-4.989***	-9.549***	-9.409***	-4.558	1.887
	(0.000)	(0.000)	(0.001)	(0.002)	(0.010)	(0.034)	(0.001)	(0.001)	(0.000)	(0.000)	(0.610)	(0.881)
Life expectancy	-0.019	-0.016	-0.026	-0.030	-0.023	-0.018	-0.014	0.013	-0.076	-0.078	-0.095**	-0.139
	(0.619)	(0.668)	(0.425)	(0.358)	(0.622)	(0.682)	(0.684)	(0.775)	(0.162)	(0.146)	(0.047)	(0.118)
Openness	0.759	0.612	-0.316	-0.671	0.664	0.583	-1.109*	-1.519**	-0.217	-0.555	0.276	0.395
	(0.128)	(0.214)	(0.515)	(0.181)	(0.173)	(0.244)	(0.075)	(0.015)	(0.725)	(0.364)	(0.805)	(0.777)
Inflation	-1.220***	-1.161***	-1.034***	-1.042***	-1.001***	-0.945***	-1.106***	-1.146***	-1.003***	-1.066***	-1.049***	-1.237***
	(0.000)	(0.000)	(0.003)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)
Broad money	-0.068	-0.411	-0.229	-0.032	0.859	0.356	-1.006	-1.997	-1.563	-1.611	-3.725	-5.847
	(0.963)	(0.767)	(0.925)	(0.989)	(0.638)	(0.840)	(0.711)	(0.457)	(0.597)	(0.576)	(0.461)	(0.317)
Budget balance	-0.157	-0.189	0.096	0.070	-0.214	-0.271	0.096	0.067	0.173	0.136	0.317	0.517
	(0.430)	(0.352)	(0.571)	(0.615)	(0.272)	(0.163)	(0.519)	(0.664)	(0.448)	(0.537)	(0.390)	(0.286)
Revolutions	-0.332	-0.418	-0.485*	-0.540**	-0.272	-0.398	-0.530*	-0.595**	-0.676**	-0.707**	-0.665**	-0.748**
	(0.282)	(0.155)	(0.089)	(0.046)	(0.390)	(0.169)	(0.076)	(0.023)	(0.026)	(0.015)	(0.019)	(0.041)
Financial crises	-1.032***	-1.093***	-1.026**	-1.213***	-1.170***	-1.268***	-1.378***	-1.539***	-0.988**	-1.114**	-0.960**	-1.075**
	(0.006)	(0.004)	(0.015)	(0.004)	(0.006)	(0.003)	(0.002)	(0.002)	(0.025)	(0.012)	(0.033)	(0.019)
Polity 2	0.006	-0.006	-0.035	-0.037	0.019	0.010	0.013	0.002	0.000	-0.005	0.001	-0.001
	(0.868)	(0.860)	(0.455)	(0.422)	(0.556)	(0.763)	(0.765)	(0.969)	(0.993)	(0.926)	(0.989)	(0.986)
FDI/GDP (%)	0.312***	0.347***	0.419**	0.399**	0.162	0.204*	0.256	0.201	0.402**	0.358*	0.461***	0.496**
	(0.007)	(0.002)	(0.018)	(0.024)	(0.157)	(0.064)	(0.218)	(0.306)	(0.043)	(0.061)	(0.009)	(0.019)
Institutions	0.321***	0.344***			0.362**	0.365**						
	(0.007)	(0.004)			(0.014)	(0.011)						
Sub-Saharan Africa	-1.665**	-1.639**			-1.096	-0.975						
	(0.040)	(0.040)			(0.221)	(0.233)						
East Asia	1.843***	2.047***			1.758***	1.941***						
	(0.001)	(0.002)			(0.004)	(0.005)						
Geography	0.969***	1.052***			0.874***	0.965***						
	(0.000)	(0.000)			(0.000)	(0.000)						
Ethnic franctionalisation	-0.272	-0.037			-0.535	-0.231						
	(0.778)	(0.971)			(0.632)	(0.843)						
Observations	257	257	257	257	200	200	200	200	200	200	200	200

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is effective aid as a percentage of recipient country's GDP, as defined in the section 2.3.1. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment×Equality (in the specifications with Aid×Equality interaction). For more details on the variables, see Table 2.

Table 2: Foreign Aid and Growth: the Unconditional Model vs. the Model Conditional on Equality with an Aid-Squared Term, Years 1971-2005

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	0.440	-1.727	0.193	-5.980***	0.514	-1.275	-0.663	-5.475	0.274	-4.577*	0.557	-5.133**
	(0.279)	(1.878)	(0.413)	(2.108)	(0.327)	(1.989)	(0.605)	(3.956)	(0.559)	(2.644)	(0.865)	(2.332)
Aidˆ2	-0.073***	-0.061***	-0.043	-0.043	-0.075***	-0.065***	0.089	0.039	-0.065	-0.059	-0.089	-0.101
	(0.023)	(0.023)	(0.040)	(0.036)	(0.024)	(0.022)	(0.061)	(0.066)	(0.051)	(0.051)	(0.074)	(0.073)
Aid × Equality		4.017		11.873***		3.304		9.823		9.130*		11.250**
		(3.459)		(3.762)		(3.710)		(7.524)		(4.553)		(4.570)
Equality		-5.020		-11.450		-5.395		10.500		-8.055		-23.240
		(6.052)		(9.631)		(6.800)		(15.178)		(13.330)		(20.813)
Income	-1.461***	-1.395***	-3.691***	-3.486***	-1.082**	-0.972**	-4.516***	-5.070***	-9.159***	-9.092***	-4.487	0.619
	(0.322)	(0.341)	(1.123)	(1.145)	(0.474)	(0.479)	(1.387)	(1.539)	(1.542)	(1.593)	(9.047)	(11.707)
Life expectancy	-0.031	-0.026	-0.032	-0.036	-0.036	-0.030	-0.006	0.016	-0.098**	-0.098*	-0.125**	-0.163*
	(0.033)	(0.032)	(0.032)	(0.033)	(0.041)	(0.038)	(0.037)	(0.047)	(0.049)	(0.051)	(0.061)	(0.096)
Openness	0.544	0.486	-0.355	-0.720	0.443	0.438	-1.164*	-1.523**	-0.378	-0.665	0.031	0.081
	(0.477)	(0.472)	(0.509)	(0.508)	(0.489)	(0.493)	(0.651)	(0.629)	(0.646)	(0.612)	(1.029)	(1.238)
Inflation	-1.092***	-1.075***	-1.003***	-1.017***	-0.853***	-0.844***	-1.184***	-1.165***	-0.935***	-1.007***	-0.955***	-1.113***
	(0.227)	(0.241)	(0.336)	(0.339)	(0.247)	(0.263)	(0.307)	(0.306)	(0.293)	(0.292)	(0.292)	(0.330)
Broad money	-0.625	-0.859	-0.450	-0.311	0.282	-0.130	-1.052	-1.982	-2.008	-1.978	-4.128	-5.795
	(1.281)	(1.295)	(2.499)	(2.331)	(1.675)	(1.698)	(2.801)	(2.725)	(2.900)	(2.812)	(5.280)	(5.713)
Budget balance	-0.139	-0.188	0.094	0.064	-0.170	-0.249	0.103	0.083	0.184	0.130	0.321	0.450
	(0.180)	(0.182)	(0.167)	(0.134)	(0.175)	(0.172)	(0.143)	(0.157)	(0.225)	(0.217)	(0.374)	(0.452)
Revolutions	-0.365	-0.439	-0.484	-0.541*	-0.305	-0.413	-0.494*	-0.565**	-0.657**	-0.689**	-0.647**	-0.721**
	(0.313)	(0.298)	(0.291)	(0.273)	(0.317)	(0.288)	(0.285)	(0.256)	(0.306)	(0.289)	(0.292)	(0.347)
Financial crises	-1.043***	-1.089***	-1.074***	-1.274***	-1.158***	-1.242***	-1.397***	-1.537***	-1.086**	-1.195***	-1.091***	-1.212***
	(0.366)	(0.370)	(0.393)	(0.389)	(0.428)	(0.434)	(0.427)	(0.472)	(0.406)	(0.412)	(0.398)	(0.419)
Polity 2	0.006	-0.003	-0.035	-0.038	0.021	0.013	0.026	0.007	0.000	-0.004	0.001	0.000
	(0.033)	(0.033)	(0.046)	(0.046)	(0.032)	(0.031)	(0.048)	(0.045)	(0.051)	(0.050)	(0.049)	(0.055)
FDI/GDP (%)	0.343***	0.365***	0.403**	0.380**	0.199*	0.227*	0.270	0.211	0.383*	0.338*	0.429***	0.440**
	(0.112)	(0.108)	(0.172)	(0.170)	(0.119)	(0.116)	(0.212)	(0.197)	(0.192)	(0.184)	(0.162)	(0.180)
Institutions	0.372***	0.378***			0.423***	0.412***						
	(0.115)	(0.113)			(0.144)	(0.141)						
Sub-Saharan Africa	-1.978**	-1.919**			-1.476*	-1.340						
	(0.755)	(0.761)			(0.878)	(0.825)						
East Asia	2.046***	2.135***			1.963***	2.017***						
	(0.498)	(0.583)			(0.525)	(0.609)						
Geography	1.114***	1.152***			1.049***	1.094***						
	(0.242)	(0.250)			(0.216)	(0.226)						
Ethnic franctionalisation	-0.193	0.014			-0.459	-0.165						
	(0.916)	(0.999)			(1.036)	(1.119)						
Observations	257	257	257	257	200	200	200	200	200	200	200	200

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is effective aid as a percentage of recipient country's GDP, as defined in the section 2.3.1. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment×Equality (in the specifications with Aid×Equality interaction). For more details on the variables, see Table 2.

Table 3: Foreign Aid and Growth: the Unconditional Model vs. the Model Conditional on Equality with an Aid-Squared Term, Period 1971-2015

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	0.729**	-2.481	0.107	-5.733**	0.907**	-2.929	-0.403	-7.251**	0.184	-3.837*	0.571	-3.172*
	(0.287)	(1.915)	(0.380)	(2.251)	(0.338)	(2.258)	(0.522)	(3.346)	(0.449)	(2.050)	(0.632)	(1.801)
Aidˆ2	-0.062***	-0.046*	0.003	0.005	-0.075***	-0.059**	0.075	0.013	-0.013	-0.002	-0.044	-0.048
	(0.023)	(0.023)	(0.039)	(0.038)	(0.025)	(0.023)	(0.059)	(0.068)	(0.047)	(0.047)	(0.057)	(0.054)
Aid × Equality		5.962		11.234***		7.220		13.841**		7.555**		7.436**
		(3.572)		(4.186)		(4.329)		(6.517)		(3.729)		(2.896)
Equality		-6.419		-10.109		-4.711		5.214		-12.117		-27.232*
		(7.026)		(8.089)		(7.931)		(10.447)		(10.993)		(16.112)
Income	0.209	0.174	-3.932***	-3.721***	0.345	0.317	-5.327***	-5.508***	-9.507***	-9.297***	-3.811	-0.163
	(0.176)	(0.183)	(1.111)	(1.160)	(0.212)	(0.213)	(1.404)	(1.367)	(1.469)	(1.564)	(6.907)	(7.632)
Life expectancy	-0.021	-0.015	0.063	0.060	0.001	0.009	0.104***	0.127***	0.028	0.028	-0.003	-0.033
	(0.039)	(0.038)	(0.049)	(0.052)	(0.041)	(0.040)	(0.037)	(0.030)	(0.050)	(0.052)	(0.060)	(0.083)
Openness	1.181*	1.097	0.150	-0.147	0.706	0.653	-0.798	-1.179**	0.022	-0.163	0.473	0.553
	(0.664)	(0.673)	(0.518)	(0.521)	(0.623)	(0.625)	(0.579)	(0.569)	(0.614)	(0.596)	(0.813)	(0.893)
Inflation	-1.187***	-1.142***	-0.716*	-0.660*	-0.950***	-0.881**	-0.959***	-0.918***	-0.749***	-0.804***	-0.778***	-0.904***
	(0.320)	(0.330)	(0.390)	(0.389)	(0.315)	(0.333)	(0.270)	(0.261)	(0.271)	(0.266)	(0.298)	(0.334)
Broad money	-0.999	-1.067	-0.014	0.210	-0.766	-0.934	-0.739	-1.647	-1.093	-0.934	-3.386	-4.072
	(1.330)	(1.324)	(2.082)	(1.946)	(1.504)	(1.458)	(1.956)	(1.847)	(2.249)	(2.258)	(4.238)	(4.055)
Budget balance	0.334	0.324	0.315**	0.356**	0.084	0.078	0.174	0.188	0.399***	0.469***	0.511***	0.720***
	(0.248)	(0.269)	(0.151)	(0.157)	(0.161)	(0.182)	(0.128)	(0.130)	(0.100)	(0.121)	(0.163)	(0.226)
Revolutions	-0.369	-0.399	-0.722**	-0.735**	-0.422	-0.477	-0.690**	-0.760**	-0.732**	-0.750**	-0.669**	-0.678*
	(0.350)	(0.346)	(0.331)	(0.319)	(0.344)	(0.340)	(0.334)	(0.310)	(0.352)	(0.360)	(0.335)	(0.382)
Financial crises	-1.566***	-1.595***	-1.412***	-1.569***	-1.740***	-1.819***	-1.680***	-1.851***	-1.414***	-1.468***	-1.419***	-1.457***
	(0.416)	(0.421)	(0.402)	(0.407)	(0.461)	(0.468)	(0.410)	(0.439)	(0.388)	(0.390)	(0.381)	(0.384)
Polity 2	-0.029	-0.039	-0.048	-0.056	-0.018	-0.029	0.019	-0.005	-0.033	-0.038	-0.026	-0.025
	(0.036)	(0.034)	(0.038)	(0.037)	(0.039)	(0.035)	(0.046)	(0.043)	(0.048)	(0.047)	(0.048)	(0.052)
FDI/GDP (%)	0.210**	0.226**	0.315**	0.323***	0.174*	0.182*	0.160	0.114	0.290**	0.300**	0.351***	0.408***
	(0.094)	(0.097)	(0.121)	(0.116)	(0.097)	(0.098)	(0.135)	(0.128)	(0.137)	(0.135)	(0.120)	(0.120)
Institutions	0.105	0.136			0.162	0.192						
	(0.156)	(0.150)			(0.164)	(0.151)						
Sub-Saharan Africa	-1.310	-1.278			-0.649	-0.618						
	(0.978)	(0.989)			(1.043)	(1.035)						
East Asia	1.445**	1.640**			1.622**	1.784**						
	(0.620)	(0.726)			(0.606)	(0.733)						
Geography	0.679**	0.737**			0.655**	0.693**						
	(0.298)	(0.318)			(0.259)	(0.285)						
Ethnic franctionalisation	0.548	0.708			0.282	0.538						
	(0.966)	(1.018)			(1.081)	(1.107)						
Observations	289	289	289	289	232	232	232	232	232	232	232	232

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is effective aid as a percentage of recipient country's GDP, as defined in the section 2.3.1. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment×Equality (in the specifications with Aid×Equality interaction). For more details on the variables, see Table 2.

Table 4: Foreign Aid and Growth: the Unconditional Model (with and without Aid-squared term) with Equality, Years 1971-2015

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	0.244	0.723**	0.134	0.102	0.310	0.909***	0.065	-0.419	0.100	0.192	0.287	0.659
	(0.157)	(0.292)	(0.186)	(0.380)	(0.197)	(0.337)	(0.226)	(0.511)	(0.226)	(0.451)	(0.271)	(0.681)
Aidˆ2		-0.062**		0.004		-0.075***		0.073		-0.011		-0.046
		(0.023)		(0.039)		(0.024)		(0.057)		(0.047)		(0.057)
Equality	-2.539	-1.166	-3.585	-3.785	-0.407	0.899	9.692	9.329	-5.673	-5.786	-17.181	-16.933
	(6.171)	(6.199)	(7.283)	(7.372)	(7.217)	(7.162)	(9.725)	(9.935)	(8.826)	(8.784)	(16.597)	(16.148)
Income	0.150	0.205	-3.872***	-3.833***	0.277	0.347	-5.503***	-5.693***	-9.400***	-9.299***	-2.403	-2.237
	(0.175)	(0.182)	(1.092)	(1.166)	(0.218)	(0.217)	(1.327)	(1.437)	(1.455)	(1.522)	(8.083)	(8.241)
Life expectancy	-0.017	-0.021	0.058	0.059	0.007	0.001	0.108***	0.115***	0.027	0.023	-0.009	-0.024
	(0.042)	(0.039)	(0.051)	(0.052)	(0.044)	(0.042)	(0.034)	(0.034)	(0.051)	(0.053)	(0.065)	(0.079)
Openness	1.340*	1.169*	0.162	0.136	0.910	0.712	-0.795	-0.839	0.081	0.036	0.716	0.591
	(0.697)	(0.677)	(0.516)	(0.521)	(0.634)	(0.637)	(0.539)	(0.568)	(0.582)	(0.612)	(0.928)	(0.855)
Inflation	-1.332***	-1.190***	-0.710*	-0.713*	-1.141***	-0.949***	-0.962***	-0.994***	-0.784***	-0.769***	-0.894***	-0.841***
	(0.324)	(0.323)	(0.383)	(0.387)	(0.306)	(0.317)	(0.268)	(0.262)	(0.264)	(0.270)	(0.338)	(0.324)
Broad money	-0.501	-0.964	0.196	0.154	-0.268	-0.796	-1.596	-1.467	-0.866	-0.967	-3.094	-3.407
	(1.404)	(1.334)	(1.894)	(1.944)	(1.589)	(1.498)	(1.756)	(1.833)	(2.249)	(2.187)	(4.050)	(4.238)
Budget balance	0.285	0.338	0.327**	0.332**	0.022	0.082	0.119	0.123	0.439***	0.438***	0.646**	0.644**
	(0.265)	(0.259)	(0.150)	(0.153)	(0.175)	(0.161)	(0.142)	(0.146)	(0.100)	(0.099)	(0.257)	(0.256)
Revolutions	-0.320	-0.368	-0.727**	-0.717**	-0.359	-0.422	-0.739**	-0.687**	-0.752**	-0.739**	-0.701*	-0.680*
	(0.350)	(0.351)	(0.331)	(0.331)	(0.339)	(0.343)	(0.334)	(0.335)	(0.362)	(0.361)	(0.377)	(0.363)
Financial crises	-1.535***	-1.556***	-1.388***	-1.403***	-1.745***	-1.748***	-1.676***	-1.707***	-1.383***	-1.405***	-1.327***	-1.394***
	(0.427)	(0.429)	(0.425)	(0.406)	(0.470)	(0.477)	(0.420)	(0.415)	(0.385)	(0.378)	(0.406)	(0.373)
Polity 2	-0.031	-0.029	-0.048	-0.048	-0.024	-0.018	0.008	0.017	-0.031	-0.032	-0.020	-0.022
	(0.036)	(0.036)	(0.038)	(0.039)	(0.038)	(0.039)	(0.042)	(0.045)	(0.048)	(0.048)	(0.051)	(0.050)
FDI/GDP (%)	0.169*	0.210**	0.315**	0.319**	0.127	0.172*	0.118	0.136	0.301**	0.298**	0.399***	0.385***
	(0.097)	(0.095)	(0.125)	(0.121)	(0.101)	(0.097)	(0.131)	(0.128)	(0.137)	(0.138)	(0.140)	(0.127)
Institutions	0.063	0.109	0.000	0.000	0.094	0.160						
	(0.160)	(0.158)	(.)	(.)	(0.174)	(0.168)						
Sub-Saharan Africa	-1.051	-1.296	0.000	0.000	-0.339	-0.666						
	(1.024)	(1.001)	(.)	(.)	(1.092)	(1.067)						
East Asia	1.442*	1.493**	0.000	0.000	1.481*	1.584**						
	(0.737)	(0.704)	(.)	(.)	(0.774)	(0.722)						
Geography	0.596*	0.686**	0.000	0.000	0.520*	0.649**						
	(0.311)	(0.305)	(.)	(.)	(0.294)	(0.268)						
Ethnic franctionalisation	0.477	0.494	0.000	0.000	0.341	0.320						
	(0.977)	(0.977)	(.)	(.)	(1.092)	(1.087)						
Observations	289	289	289	289	232	232	232	232	232	232	232	232

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is effective aid as a percentage of recipient country's GDP, as defined in the section 2.3.1. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment$\times$Equality (in the specifications with Aid$\times$Equality interaction). For more details on the variables, see Table 2.

Table 5: Dynamic GMM Estimation: Testing for Weakness of Instruments (Windmeijer, 2021)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Aid	-0.973**	-0.970**	-0.845**	-0.887**	-0.831*	-0.753**	-0.785**	-0.804**
	(0.012)	(0.029)	(0.016)	(0.037)	(0.057)	(0.022)	(0.020)	(0.034)
Aid × Equality	1.640**	1.618*	1.359*	1.434*	1.335	1.172*	1.250*	1.282*
	(0.035)	(0.071)	(0.051)	(0.093)	(0.125)	(0.072)	(0.059)	(0.087)
Equality	-1.341	-1.175	-0.095	-0.202	0.086	-0.143	0.550	0.687
	(0.763)	(0.801)	(0.981)	(0.962)	(0.983)	(0.965)	(0.877)	(0.857)
Life expectancy	-0.029	-0.029	-0.038	-0.035	-0.024	-0.036*	-0.027	-0.024
	(0.205)	(0.261)	(0.106)	(0.167)	(0.292)	(0.087)	(0.174)	(0.284)
Openness	-0.200	-0.216	-0.169	-0.197	-0.238	-0.177	-0.209	-0.207
	(0.253)	(0.229)	(0.317)	(0.264)	(0.156)	(0.233)	(0.175)	(0.223)
Inflation	0.147	0.100	0.143	0.091	0.082	0.133	0.135	0.113
	(0.398)	(0.503)	(0.425)	(0.543)	(0.565)	(0.387)	(0.419)	(0.494)
Broad money	0.375	0.139	0.502	0.227	-0.022	0.221	0.242	0.136
	(0.783)	(0.919)	(0.661)	(0.850)	(0.984)	(0.795)	(0.813)	(0.904)
Budget balance	0.091	0.077	0.099*	0.083	0.085	0.106**	0.103*	0.101*
	(0.154)	(0.218)	(0.079)	(0.152)	(0.132)	(0.033)	(0.058)	(0.069)
Revolutions	0.212*	0.197*	0.269**	0.241**	0.224**	0.235***	0.257***	0.255**
	(0.051)	(0.071)	(0.012)	(0.031)	(0.035)	(0.010)	(0.007)	(0.014)
Financial crises	0.039	0.031	0.045	0.037	0.046	0.056	0.059	0.053
	(0.558)	(0.662)	(0.485)	(0.595)	(0.488)	(0.360)	(0.332)	(0.405)
Polity 2	-0.010	-0.006	-0.013	-0.008	-0.007	-0.011	-0.012	-0.010
	(0.642)	(0.781)	(0.503)	(0.682)	(0.725)	(0.512)	(0.474)	(0.598)
FDI/GDP (%)	-0.107**	-0.090**	-0.102***	-0.086**	-0.079**	-0.097***	-0.099***	-0.090**
	(0.011)	(0.026)	(0.006)	(0.022)	(0.038)	(0.005)	(0.005)	(0.017)
Institutions	0.154	0.134	0.154	0.133	0.131	0.177	0.158	0.143
	(0.203)	(0.280)	(0.184)	(0.263)	(0.256)	(0.113)	(0.159)	(0.211)
Sub-Saharan Africa	-1.922***	-1.864***	-2.042***	-1.955***	-1.789***	-1.899***	-1.880***	-1.816***
	(0.000)	(0.001)	(0.000)	(0.001)	(0.003)	(0.001)	(0.001)	(0.002)
East Asia	0.530	0.584	0.398	0.485	0.587	0.510	0.494	0.494
	(0.357)	(0.283)	(0.489)	(0.375)	(0.190)	(0.221)	(0.278)	(0.292)
Geography	0.735***	0.797***	0.622***	0.716***	0.680***	0.545***	0.559***	0.612***
	(0.001)	(0.000)	(0.007)	(0.002)	(0.001)	(0.003)	(0.005)	(0.003)
Ethnic franctionalisation	1.656**	1.783**	1.398*	1.603**	1.718**	1.202**	1.486**	1.688**
	(0.045)	(0.032)	(0.058)	(0.033)	(0.016)	(0.048)	(0.027)	(0.015)
Settlers	-0.021	-0.022	-0.026*	-0.026*	-0.026*	-0.026*	-0.024	-0.026*
	(0.175)	(0.113)	(0.098)	(0.066)	(0.075)	(0.076)	(0.120)	(0.095)
No. of IVs	33	34	32	33	32	31	31	31
Observations	289	289	289	289	289	289	289	289
Groups	53	53	53	53	53	53	53	53
Hansen test	10.057	12.532	8.607	11.399	8.624	3.258	4.283	6.840
P-value (Hansen)	0.039	0.028	0.035	0.022	0.035	0.196	0.117	0.033
AR(2) (ser. cor.)	0.692	0.694	0.657	0.621	0.570	0.662	0.575	0.519
AR(3)	0.600	0.432	0.645	0.469	0.296	0.546	0.426	0.311
AR(4)	0.193	0.177	0.164	0.145	0.175	0.168	0.181	0.187
Lags as IVs	2-4	2-5	3-4	3-5	4-5	3	4	5

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Based on the GMM system estimator with a collapsed instrument matrix; income is instrumented, all other variables assumed to be exogenous. Measure of aid is effective ODA, as defined in the section section 2.3.1. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment×Equality.

Table 6: Foreign Aid and Growth: the Unconditional Model vs. the Model Conditional on Equality, Early Impact Aid as Aid Measure

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	0.110	-2.095	0.017	-3.710**	0.103	-1.945	-0.017	-5.527**	-0.063	-2.135	0.058	-2.072
	(0.100)	(1.296)	(0.123)	(1.792)	(0.139)	(1.783)	(0.151)	(2.598)	(0.167)	(1.564)	(0.182)	(1.353)
Aid × Equality		4.270*		7.173**		3.987		10.510**		3.973		4.249
		(2.541)		(3.424)		(3.582)		(4.904)		(3.041)		(2.651)
Equality		-7.923		-8.138		-7.531		6.921		-9.892		-24.229
		(7.148)		(9.095)		(8.068)		(9.569)		(10.864)		(17.993)
Income	0.157	0.140	-4.047***	-3.869***	0.250	0.243	-5.212***	-5.658***	-9.708***	-9.511***	-4.045	-1.230
	(0.170)	(0.171)	(1.060)	(1.122)	(0.207)	(0.204)	(1.356)	(1.317)	(1.410)	(1.479)	(6.883)	(7.974)
Life expectancy	-0.014	-0.008	0.075	0.069	0.001	0.008	0.097**	0.121***	0.043	0.038	0.024	-0.003
	(0.044)	(0.042)	(0.046)	(0.050)	(0.047)	(0.045)	(0.039)	(0.032)	(0.050)	(0.050)	(0.048)	(0.065)
Openness	1.381**	1.261*	0.121	-0.072	0.827	0.762	-0.794	-1.092*	0.009	-0.097	0.516	0.627
	(0.670)	(0.687)	(0.520)	(0.532)	(0.618)	(0.645)	(0.558)	(0.566)	(0.574)	(0.575)	(0.862)	(0.936)
Inflation	-1.383***	-1.294***	-0.773**	-0.743*	-1.215***	-1.110***	-0.984***	-0.986***	-0.843***	-0.878***	-0.900***	-1.001***
	(0.331)	(0.324)	(0.374)	(0.378)	(0.304)	(0.297)	(0.272)	(0.271)	(0.260)	(0.265)	(0.294)	(0.344)
Broad money	-0.464	-0.540	-0.087	0.110	-0.485	-0.622	-0.907	-1.668	-1.093	-0.966	-3.133	-3.448
	(1.417)	(1.383)	(1.998)	(1.916)	(1.656)	(1.616)	(1.786)	(1.787)	(2.276)	(2.249)	(4.044)	(3.920)
Budget balance	0.258	0.255	0.311**	0.322**	0.050	0.017	0.171	0.165	0.389***	0.414***	0.504***	0.667***
	(0.232)	(0.265)	(0.143)	(0.142)	(0.167)	(0.188)	(0.124)	(0.122)	(0.098)	(0.126)	(0.161)	(0.250)
Revolutions	-0.324	-0.376	-0.759**	-0.774**	-0.342	-0.426	-0.740**	-0.768**	-0.786**	-0.802**	-0.733**	-0.749*
	(0.341)	(0.341)	(0.328)	(0.322)	(0.341)	(0.343)	(0.334)	(0.318)	(0.359)	(0.364)	(0.353)	(0.388)
Financial crises	-1.499***	-1.546***	-1.363***	-1.491***	-1.631***	-1.726***	-1.602***	-1.758***	-1.367***	-1.423***	-1.332***	-1.359***
	(0.422)	(0.425)	(0.420)	(0.425)	(0.462)	(0.467)	(0.412)	(0.438)	(0.400)	(0.403)	(0.418)	(0.418)
Polity 2	-0.027	-0.036	-0.048	-0.053	-0.024	-0.030	0.011	-0.004	-0.027	-0.030	-0.021	-0.020
	(0.035)	(0.034)	(0.037)	(0.036)	(0.037)	(0.036)	(0.044)	(0.041)	(0.046)	(0.046)	(0.048)	(0.051)
FDI/GDP (%)	0.162*	0.188*	0.317**	0.306**	0.142	0.173*	0.150	0.092	0.287**	0.280*	0.355***	0.390***
	(0.094)	(0.099)	(0.130)	(0.127)	(0.098)	(0.099)	(0.139)	(0.131)	(0.140)	(0.141)	(0.138)	(0.147)
Institutions	0.066	0.108			0.106	0.133						
	(0.159)	(0.156)			(0.174)	(0.168)						
Sub-Saharan Africa	-0.835	-0.843			-0.332	-0.269						
	(1.016)	(1.016)			(1.137)	(1.120)						
East Asia	1.277**	1.521**			1.493**	1.695**						
	(0.626)	(0.720)			(0.666)	(0.791)						
Geography	0.612**	0.706**			0.539*	0.634**						
	(0.302)	(0.317)			(0.286)	(0.302)						
Ethnic franctionalisation	0.689	0.818			0.348	0.554						
	(0.970)	(1.012)			(1.095)	(1.107)						
Observations	288	288	288	288	232	232	232	232	231	231	231	231

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is early impact ODA given by all donors as a percentage of recipient country's GDP, as in Clemens et al. (2012). Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies and the control variables – Repayment, Repayment×Equality (in the specifications with Aid×Equality interaction). For more details on the variables, see Table 2. The sample has observations over the years 1971-2015.

Table 7: Foreign Aid and Growth: the Unconditional Model vs. the Model Conditional on Equality, Net ODA as Aid Measure

	I		II		III		IV		V		VI	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Estimator	OLS	OLS	F-E	F-E	OLS	OLS	F-E	F-E	OLS	OLS	A-H	A-H
First-difference data?	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Aid	0.142**	-1.096**	0.059	-0.759	0.113*	-1.181**	0.069	-0.897	-0.064	-0.238	-0.034	-0.365
	(0.059)	(0.496)	(0.065)	(0.528)	(0.066)	(0.544)	(0.073)	(0.919)	(0.070)	(0.412)	(0.074)	(0.380)
Aid × Equality		2.401**		1.605		2.535**		1.774		0.342		0.680
		(0.936)		(1.047)		(1.053)		(1.708)		(0.858)		(0.829)
Equality		-13.982**		-10.926		-8.828		4.411		-5.554		-14.398
		(5.999)		(8.179)		(6.347)		(10.543)		(9.783)		(18.485)
Income	0.299*	0.264	-3.901***	-3.591***	0.365*	0.349*	-5.031***	-5.396***	-9.864***	-9.680***	-6.823	-5.206
	(0.162)	(0.169)	(0.939)	(1.017)	(0.201)	(0.197)	(1.208)	(1.228)	(1.350)	(1.375)	(6.313)	(8.070)
Life expectancy	0.012	0.021	0.067	0.063	0.014	0.024	0.097**	0.114***	0.039	0.034	0.028	0.010
	(0.038)	(0.037)	(0.048)	(0.050)	(0.041)	(0.039)	(0.036)	(0.032)	(0.051)	(0.053)	(0.051)	(0.065)
Openness	1.375**	1.117*	0.173	0.055	0.867	0.747	-0.818	-0.963*	-0.017	-0.040	0.253	0.305
	(0.643)	(0.628)	(0.500)	(0.519)	(0.584)	(0.580)	(0.545)	(0.559)	(0.550)	(0.553)	(0.767)	(0.820)
Inflation	-1.706***	-1.566***	-0.828**	-0.782*	-1.330***	-1.218***	-0.925***	-0.973***	-0.855***	-0.870***	-0.924***	-0.990***
	(0.461)	(0.417)	(0.394)	(0.392)	(0.350)	(0.332)	(0.298)	(0.280)	(0.259)	(0.263)	(0.318)	(0.380)
Broad money	-0.904	-0.990	-0.612	-0.162	-0.629	-0.740	-1.284	-1.768	-2.125	-1.970	-3.250	-3.277
	(1.322)	(1.234)	(1.920)	(1.830)	(1.481)	(1.386)	(1.733)	(1.787)	(2.021)	(2.055)	(3.687)	(3.766)
Budget balance	0.459**	0.465*	0.320*	0.347**	0.188	0.176	0.192	0.137	0.401***	0.430***	0.475***	0.579**
	(0.222)	(0.266)	(0.161)	(0.170)	(0.158)	(0.175)	(0.127)	(0.129)	(0.109)	(0.101)	(0.171)	(0.272)
Revolutions	-0.282	-0.352	-0.706**	-0.732**	-0.338	-0.431	-0.737**	-0.760**	-0.776**	-0.786**	-0.751**	-0.769**
	(0.353)	(0.363)	(0.342)	(0.330)	(0.341)	(0.354)	(0.329)	(0.318)	(0.348)	(0.357)	(0.331)	(0.355)
Financial crises	-1.441***	-1.479***	-1.348***	-1.430***	-1.793***	-1.855***	-1.717***	-1.814***	-1.377***	-1.390***	-1.364***	-1.381***
	(0.398)	(0.390)	(0.392)	(0.403)	(0.461)	(0.449)	(0.414)	(0.442)	(0.355)	(0.357)	(0.351)	(0.337)
Polity 2	-0.042	-0.045	-0.046	-0.048	-0.028	-0.029	0.015	0.011	-0.025	-0.025	-0.019	-0.018
	(0.034)	(0.034)	(0.035)	(0.035)	(0.035)	(0.034)	(0.044)	(0.042)	(0.043)	(0.043)	(0.043)	(0.045)
FDI/GDP (%)	0.112	0.152*	0.373***	0.368***	0.086	0.109	0.177	0.152	0.318**	0.320**	0.353***	0.373***
	(0.083)	(0.087)	(0.119)	(0.119)	(0.083)	(0.084)	(0.132)	(0.128)	(0.137)	(0.138)	(0.133)	(0.143)
Institutions	0.082	0.155			0.130	0.181						
	(0.138)	(0.135)			(0.158)	(0.145)						
Sub-Saharan Africa	-1.023	-0.895			-0.366	-0.259						
	(0.953)	(0.954)			(1.014)	(0.973)						
East Asia	1.289*	1.899**			1.468**	1.868**						
	(0.743)	(0.833)			(0.699)	(0.788)						
Geography	0.218	0.416			0.342	0.441						
	(0.304)	(0.315)			(0.270)	(0.287)						
Ethnic franctionalisation	0.923	0.694			0.483	0.503						
	(0.891)	(0.955)			(1.017)	(1.029)						
Observations	305	305	305	305	245	245	245	245	245	245	245	245

Note: Robust standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Measure of aid is total (aggregate) net ODA given by all donors as a percentage of recipient country's GDP. Dependent variable is annual % change in real economic growth (5 year average). Regressions also include the following variables the coefficients on which are not reported: a constant, time period dummies. For more details on the variables, see Table 2. The sample has observations over the years 1971-2015.

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