Appendix for:

Target at the Right Level:

Aid, Spillovers and Growth in Sub-Saharan Africa

Firat Demir

University of Oklahoma

Department of Economics

436 CCD1, 308 Cate Center Drive

Norman, OK USA 73019

E-mail: fdemir@ou.edu

Yi Duan[1]

Marshall University

Division of Finance, Economics, and International Business

Corbly Hall, Room 254

One John Marshall Drive

Huntington, WV USA 25755

Email: yiduan@marshall.edu

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[1] Corresponding author. Tel: +1 (304) 696-2827

Appendix for:

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A. GIS Processing Details

Country boundary polygon data are from the Global Administrative Areas Database, which provides administrative boundaries data at different levels for each country (up to ADM5, which is only available for France and Rwanda at that level). Many countries have the data at a more aggregated administrative level (such as ADM1 or ADM2), but not at a less aggregated level (such as ADM4 or ADM5). For most Sub-Saharan countries, ADM2 is the optimal choice because that is the administrative level that could balance precision at sub-national level against availability of the data for most countries. The database provides boundaries for each individual country as a single map, and we use the Plugin "MMQGIS" in QGIS (Version 2.10.1) to merge the individual countries into a single continent.

To capture the spillover effects, a matrix containing the information on how one ADM2 is related to other ADM2s by using certain weights needs to be established. In this paper, we use adjacency weighting. The weighting matrices are calculated using R (Version 3.2.4 Revised). The package "spdep" provides the function "poly2nb", which can extract the information of the adjacent neighbors for each ADM2 to build the adjacency matrix. The aid data are from the World Bank Geocoded Research Release database (Level 1, Version 1.3) complied by AidData, which covers 5,881 projects (5,684 geocoded projects) with 61,243 locations (one project can have multiple locations) around the world over 1995-2014. Each record has a precision code value attached to indicate the precision of the aid-receiving location, as shown in Table 1:

Table A1: Precision Codes

Precision Code	Precision Code Description
1	Coordinates correspond to an exact location or populated place.
2	Coordinates correspond to a location that is known to be within 25km of the coordinates or a division smaller than ADM2.
3	Coordinates correspond to an ADM2 division.
4	Coordinates correspond to an ADM1 division.
5	Estimated coordinates of a large feature, such as rivers or national parks.
6	Coordinates correspond to the entire country, project operates in sub-national locales but they are not known.
8	Coordinates correspond to the entire country, it is likely that the funding goes to a government ministry or financial institution.

Source: AidData, World Bank Geocoded Research Release, Level 1, Version 1.3.

Notes: The precision code value "7" is lacking in the original data source.

We calculate the aid flowing to an ADM2 by summing the aid records with precision codes 1-3 within the boundary of that ADM2; the aid flowing to an ADM1 with precision code value 4; and the aid flowing to a country with precision codes 5-8. All the calculations are performed in R (Version 3.2.4 Revised).

This paper uses nightlights data as a proxy for economic activities, considering the unavailability of GDP data at sub-national level and poor quality of GDP data at the country-level in Sub-Saharan Africa. The nightlights dataset uses 30 arc-second pixels (1/120th of a degree of latitude and longitude, approximately 0.86 square kilometers at the equator) to represent the light intensity on the earth. Pixels are on a scale from 0 to 63, with 0 representing no light and 63 the highest lights intensity. The data shows the yearly average nightlight intensity over 1992-2013. For some years, two satellites were used and the data are reported separately. For the overlapping years, this paper takes the average of both satellites, which is consistent with the previous literature.[2] We use ArcGIS desktop (Version 10.3) to create a Model Builder, which incorporates the toolbox command "Zonal Statistics as Table" to sum and export the total lights falling within each ADM2.

The population count grid data are from CIESIN and CIAT, with 2.5 arc-minutes resolution (about 4.625 kilometers times 4.625 kilometers at the equator) in years 1990, 1995 and 2000, also the estimated data in 2005, 2010 and 2015. The dataset is based on national censuses and therefore reports data in five-year intervals. We use interpolation to calculate the population data for the rest of the years. We followed the same procedure as the night-lights data to calculate and export the population data in each ADM2: using ArcGIS desktop (Version 10.3) to create a Model Builder which incorporates the toolbox command "Zonal Statistics as Table" to sum the data up at ADM2-level. After having the nightlights and population data in each ADM2, the nightlights per capita is computed by dividing total nightlights by total population in that ADM2.

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[2] See, for example, "Night Lights and ArcGIS: A Brief Guide", https://darrylmcleod.com/wp-content/uploads/2016/06/Night-Lights-and-ArcGIS-A-Brief-Guide.pdf.

Air temperature and precipitation data are got from the databases "Terrestrial Air Temperature: 1900-2014 Gridded Monthly Time Series (Version 4.01)" and "Terrestrial Precipitation: 1900-2014 Gridded Monthly Time Series (Version 4.01)", which are available on the website of Center for Climatic Research, Department of Geography, University of Delaware. The data are monthly time-series data from 1900 to 2014, with 0.5 by 0.5 degree resolution (about 55.5 kilometers by 55.5 kilometers at the equator). Since the resolution is not very precise at ADM2-level, we use the "small" option from the function "extract" from "raster" package used in R (Version 3.2.4 Revised) to preserve more observations for the yearly average as well as the dispersion in one year of air temperature and precipitation in each ADM2.[3]

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[3] Otherwise no value would be returned if the polygon does not touch the center of any raster cells.

B. Robustness tests

Table A2: Effect of aid on growth: Net of ADM1-time and country-time FE

	(1)	(2)	(3)	(4)
Aid_{ijt-1}^{ADM2}	0.624***	0.414***	0.721***	0.515***
	(0.077)	(0.050)	(0.144)	(0.095)
Aid_{-ijt-1}^{ADM2}		0.387***		0.470***
		(0.047)		(0.087)
Aid_{ijt-1}^{ADM1}		-0.599***		-0.725***
		(0.070)		(0.132)
$Aid_{ijt-1}^{Country}$		-0.150***		-0.254***
		(0.021)		(0.048)
$Light_{jt-1}$	-10.75***	-18.76***	-14.93***	-24.19***
	(2.073)	(2.353)	(3.259)	(4.092)
$GovExp_{jt-1}$	-0.149***	-0.247***	-0.168***	-0.226***
	(0.021)	(0.032)	(0.034)	(0.043)
$Inflation_{jt-1}$	-0.029***	-0.046***	-0.035***	-0.057***
	(0.005)	(0.006)	(0.008)	(0.011)
$Openness_{jt-1}$	0.014***	0.011***	0.012***	0.021***
	(0.002)	(0.003)	(0.003)	(0.004)
$ICRG_{jt-1}$	-0.044***	0.015*		
	(0.009)	(0.009)		
Obs.	11,386	11,386	13,242	13,242
Number of ADM2	2,863	2,863	3,327	3,327
ADM2 FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000
Cragg-Donald	395.410	56.911	430.580	55.145
Kleibergen-Paap	78.689	21.690	46.301	13.600
Stock-Yogo	5.53	na	5.53	na

Notes: The dependent variable is growth residuals from the regression where we regressed the growth variable on ADM1-time and country-time fixed effects. 2SLS estimates with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. The data refer to four-year averages that are used in the regression analysis. Aid_{it-1}^{ADM2} and Aid_{-it-1}^{ADM2} refer to the amount of aid received by ADM2 and by ADM2's neighbors, respectively. Aid_{it-1}^{ADM1} is the average aid received by ADM2s at the ADM1 level (total aid divided by the number of ADM2s in a given ADM1, excluding the amount of aid received at ADM2 level). $Aid_{it-1}^{country}$ is the average aid received by ADM2 at the country level, excluding the amount of aid received at ADM2 and ADM1 levels. All aid variables are measured in current US dollars. *Growth* is the growth rate of nightlight density per capita. *Light is* the logarithm of lagged (one plus) nightlight density per capita. *GovExp* is government final consumption expenditure as a share of GDP, *Inflation* is the average annual inflation rate, *Openness* is share of total trade in GDP, *Fiscal* is the fiscal surplus as a share of GDP, and *ICRG* is the institutional development index. ADM2 FE and Year FE are ADM2 and year fixed effects. *Cragg-Donald* and *Kleibergen-Paap* are Cragg-Donald Wald F-statistic and Kleibergen-Paap rk Wald F-statistic. *Stock-Yogo* is the critical values provided by Stock and Yogo (2005). Na is not available.

Table A3: Effect of aggregate aid on growth

	(1)	(2)
$Aid_{jt-1}^{Aggregate}$	-0.127***	-0.111***
	(0.022)	(0.015)
$Light_{ijt-1}$	-28.26***	-19.77***
	(6.523)	(4.587)
$GovExp_{jt-1}$	0.012***	-0.003
	(0.004)	(0.003)
$Inflation_{jt-1}$	0.005***	0.006***
	(0.001)	(0.001)
$Openness_{jt-1}$	-0.004***	-0.008***
	(0.001)	(0.001)
$ICRG_{jt-1}$		0.012***
		(0.002)
Obs.	10,111	8,570
Number of ADM2	2,842	2,445
ADM2 FE	Yes	Yes
Year FE	Yes	Yes
F-statistics	0.000	0.000
Cragg-Donald	5.9e+04	6.3e+04
Kleibergen-Paap	1876.597	3903.438
Stock-Yogo	5.53	5.53

Notes: Table 5 in the text. To provide a rough comparison with previous studies on aid, $Aid_{jt-1}^{Aggregate}$ is the sum all four aid variables and captures the total aid flows to a given country. The dependent variable is growth rate at the ADM2 level. 2SLS estimates with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. For other variable definitions, refer to Table 2.

Table A4: Robustness tests: Excluding outliers and including ICRG

	(1) $1^{st}<$Growth$<99^{th}$	(2) Light>0	(3) Light$<99^{th}$	(4) Light$<95^{th}$	(5) Aid$<99^{th}$	(6) Aid$<95^{th}$
Aid_{ijt-1}^{ADM2}	0.152***	0.701***	0.429***	0.178***	0.672***	0.825***
	(0.009)	(0.082)	(0.047)	(0.0178)	(0.077)	(0.101)
Aid_{-ijt-1}^{ADM2}	0.145***	0.727***	0.403***	0.170***	0.611***	0.654***
	(0.009)	(0.085)	(0.044)	(0.0170)	(0.070)	(0.081)
Aid_{ijt-1}^{ADM1}	-0.230***	-1.027***	-0.631***	-0.271***	-0.959***	-1.131***
	(0.012)	(0.117)	(0.067)	(0.0260)	(0.107)	(0.134)
$Aid_{ijt-1}^{Country}$	-0.055***	-0.302***	-0.155***	-0.066***	-0.234***	-0.197***
	(0.005)	(0.040)	(0.020)	(0.008)	(0.032)	(0.034)
$Light_{ijt-1}$	-15.13***	-30.19***	-27.68***	-29.50***	-30.49***	-32.47***
	(1.300)	(3.627)	(3.441)	(2.201)	(3.535)	(3.871)
$GovExp_{jt-1}$	-0.095***	-0.535***	-0.258***	-0.113***	-0.405***	-0.598***
	(0.007)	(0.066)	(0.031)	(0.012)	(0.052)	(0.077)
$Inflation_{jt-1}$	-0.017***	-0.073***	-0.046***	-0.019***	-0.071***	-0.095***
	(0.002)	(0.011)	(0.006)	(0.002)	(0.009)	(0.013)
$Openness_{jt-1}$	0.003***	0.005	0.009***	0.004***	0.017***	0.025***
	(0.001)	(0.006)	(0.003)	(0.001)	(0.004)	(0.005)
$ICRG_{jt-1}$	0.012***	-0.014	0.024**	0.015***	0.034**	0.104***
	(0.003)	(0.018)	(0.009)	(0.004)	(0.015)	(0.020)
Obs.	11,208	9,678	11,311	10,995	11,015	9,952
Number of ADM2	2,848	2,507	2,847	2,778	2,843	2,719
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	216.460	47.508	82.025	182.169	53.432	41.582
Kleibergen-Paap	106.557	20.370	23.581	31.743	21.114	18.576
Stock-Yogo	na	na	na	na	na	na

Notes: 2SLS estimates with robust standard errors in parentheses. ***, **, and * refer to $p<0.01$, $p<0.05$, $p<0.1$, respectively. For other variable

definitions, refer to Table 2.

Table A5: Alternative model specifications

	(1)	(2)	(3)
	n≥2	n≥3	No first period aid
Aid_{ijt-1}^{ADM2}	1.235***	1.381***	0.599***
	(0.196)	(0.236)	(0.077)
Aid_{-ijt-1}^{ADM2}	1.593***	1.658***	0.577***
	(0.248)	(0.284)	(0.074)
Aid_{ijt-1}^{ADM1}	-2.513***	-2.755***	-1.056***
	(0.370)	(0.436)	(0.128)
$Aid_{ijt-1}^{Country}$	-1.429***	-1.459***	-0.075***
	(0.252)	(0.281)	(0.025)
$Light_{ijt-1}$	-34.640***	-36.090***	-46.280***
	(5.314)	(5.789)	(4.429)
$GovExp_{jt-1}$	-1.745***	-1.947***	-0.137***
	(0.271)	(0.327)	(0.037)
$Inflation_{jt-1}$	0.0571*	0.076*	-0.091***
	(0.033)	(0.039)	(0.014)
$Openness_{jt-1}$	0.223***	0.277***	0.025***
	(0.039)	(0.055)	(0.005)
$ICRG_{jt-1}$	0.069	0.306**	0.072**
	(0.083)	(0.147)	(0.029)
$Conflict_{ijt-1}$	0.0001	0.001	0.0001
	(0.002)	(0.003)	(0.0002)
Obs.	5,219	4,892	8,589
Number of ADM2	1,893	1,823	-18.476
ADM2 FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000
Cragg-Donald	13.820	11.530	46.714
Kleibergen-Paap	11.614	9.875	17.828
Stock-Yogo	na	na	na

Notes: 2SLS estimates with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. This table displays robustness checks to alternative model specifications of baseline regression of Equation (3) (Table 3, Column (6)). Columns (2) and (3) include 4-year averages with no less than 2 and 3 observations, respectively. Column (3) drops the observations using the first period aid. *Conflict* is conflict intensity, measured by the continuous intensity of conflict incidence in a given ADM2. It is from the Armed Conflict Location & Event Data Project (ACLED) and Uppsala Conflict Data Program (UCDP), which provide geocoded conflicts data.

Table A6: Alternative model specifications, no *Conflict* variable

	(1)	(2)	(3)	(4)	(5)	(6)
	n≥2	n≥3	No first period aid	n≥2	n≥3	Drop first period aid
Aid^{ADM2}_{ijt-1}	1.235***	1.374***	0.649***	1.246***	1.426***	0.696***
	(0.195)	(0.234)	(0.074)	(0.195)	(0.242)	(0.092)
Aid^{ADM2}_{-ijt-1}	1.592***	1.652***	0.606***	1.617***	1.764***	0.659***
	(0.248)	(0.281)	(0.069)	(0.245)	(0.291)	(0.098)
Aid^{ADM1}_{ijt-1}	-2.512***	-2.743***	-0.945***	-2.528***	-2.820***	-1.141***
	(0.369)	(0.431)	(0.104)	(0.370)	(0.447)	(0.145)
$Aid^{Country}_{ijt-1}$	-1.428***	-1.452***	-0.234***	-1.432***	-1.472***	-0.180***
	(0.252)	(0.279)	(0.031)	(0.253)	(0.288)	(0.034)
$Light_{ijt-1}$	-34.63***	-35.98***	-30.27***	-34.37***	-35.71***	-51.41***
	(5.307)	(5.757)	(3.482)	(5.322)	(5.907)	(5.221)
$GovExp_{jt-1}$	-1.743***	-1.922***	-0.385***	-1.758***	-1.956***	-0.137***
	(0.267)	(0.316)	(0.048)	(0.270)	(0.327)	(0.027)
$Inflation_{jt-1}$	0.057*	0.073*	-0.069***	0.057*	0.064*	-0.089***
	(0.033)	(0.039)	(0.009)	(0.033)	(0.037)	(0.015)
$Openness_{jt-1}$	0.223***	0.274***	0.015***	0.220***	0.277***	0.034***
	(0.039)	(0.054)	(0.004)	(0.039)	(0.056)	(0.006)
$ICRG_{jt-1}$	0.069	0.300**	0.031**			
	(0.084)	(0.147)	(0.014)			
Obs.	5,219	4,892	11,386	5,219	4,892	9.981
Number of ADM2	1,893	1,823	2,863	1,893	1,823	3,327
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	13.850	11.651	56.911	13.668	10.893	45.126
Kleibergen-Paap	11.692	10.017	21.690	11.816	9.947	16.218
Stock-Yogo	na	na	na	na	na	na

Notes: 2SLS estimates with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. This table replicates Table A5 without including the *Conflict* variable.

Table A7: Non-linear effects: Include quadratic terms

	(1)
Aid_{ijt-1}^{ADM2}	3.511
	(3.761)
Aid_{-ijt-1}^{ADM2}	-6.183
	(18.81)
Aid_{ijt-1}^{ADM1}	8.353
	(19.65)
$Aid_{ijt-1}^{Country}$	4.743
	(18.87)
$(Aid_{ijt-1}^{ADM2})^2$	-0.250
	(0.262)
$(Aid_{-ijt-1}^{ADM2})^2$	0.529
	(1.495)
$(Aid_{ijt-1}^{ADM1})^2$	-0.798
	(1.707)
$(Aid_{ijt-1}^{Country})^2$	-0.430
	(1.734)
$Light_{ijt-1}$	8.599
	(98.31)
$GovExp_{jt-1}$	0.473
	(1.486)
$Inflation_{jt-1}$	0.173
	(0.718)
$Openness_{jt-1}$	-0.009
	(0.028)
Obs.	13,242
Number of ADM2	3,327
ADM2 FE	Yes
Year FE	Yes
F-statistics	0.000
Cragg-Donald	0.063
Kleibergen-Paap	0.033
Stock-Yogo	na

Notes: X-coordinates of the top/bottom most points for quadratic aid: 7.032, 5.847, 5.236, and 5.511. 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. For other variable definitions, refer to Table A2.

Table A8: Adjacent neighbors, not necessarily within the same country

	(1)	(2)
Aid_{ijt-1}^{ADM2}	0.796***	0.913***
	(0.087)	(0.130)
Aid_{-ijt-1}^{ADM2}	0.257***	0.286***
	(0.031)	(0.043)
Aid_{ijt-1}^{ADM1}	-0.873***	-0.996***
	(0.093)	(0.141)
$Aid_{ijt-1}^{Country}$	-0.215***	-0.338***
	(0.028)	(0.051)
$Light_{ijt-1}$	-30.07***	-36.39***
	(3.268)	(4.427)
$GovExp_{jt-1}$	-0.054***	-0.066***
	(0.008)	(0.011)
$Inflation_{jt-1}$	-0.054***	-0.066***
	(0.008)	(0.011)
$Openness_{jt-1}$	0.007*	0.021***
	(0.004)	(0.004)
$ICRG_{jt-1}$	0.037***	
	(0.013)	
Obs.	11,386	13,242
Number of ADM2	2,863	3,327
ADM2 FE	Yes	Yes
Year FE	Yes	Yes
F-statistics	0.000	0.000
Cragg-Donald	64.955	63.213
Kleibergen-Paap	23.274	13.068
Stock-Yogo	na	na

Notes: Aid_{-ijt-1}^{ADM2} includes aid flows to all locations that are adjacent to a given ADM2, independent of country borders. 2SLS results with robust standard errors in parentheses. ***, **, and * refer to $p<0.01$, $p<0.05$, $p<0.1$, respectively. For other variable definitions, refer to Table A2.

Table A9: Random adjacent neighbors within the same country

	(1)	(2)
Aid_{ijt-1}^{ADM2}	0.843***	0.948***
	(0.091)	(0.132)
Aid_{-ijt-1}^{ADM2}	0.022*	0.031**
	(0.014)	(0.015)
Aid_{ijt-1}^{ADM1}	-0.814***	-0.932***
	(0.086)	(0.129)
$Aid_{ijt-1}^{Country}$	-0.214***	-0.324***
	(0.028)	(0.048)
$Light_{ijt-1}$	-30.17***	-36.25***
	(3.245)	(4.380)
$GovExp_{jt-1}$	-0.304***	-0.226***
	(0.038)	(0.036)
$Inflation_{jt-1}$	-0.046***	-0.056***
	(0.007)	(0.009)
$Openness_{jt-1}$	0.006*	0.019***
	(0.004)	(0.004)
$ICRG_{jt-1}$	0.038***	
	(0.013)	
Obs.	11,386	13,242
Number of ADM2	2,863	3,327
ADM2 FE	Yes	Yes
Year FE	Yes	Yes
F-statistics	0.000	0.000
Cragg-Donald	68.779	68.299
Kleibergen-Paap	23.683	13.740
Stock-Yogo	na	na

Notes: Because of the randomness of generating random ADM2s, it is not possible to reproduce the exact coefficient estimates. 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. For other variable definitions, refer to Table A2.

Table A10: Polity4 score as a measure of institutional development and risk premium

	(1)	(2)	(3)
Aid_{ijt-1}^{ADM2}	0.597***	1.102***	0.790***
	(0.177)	(0.246)	(0.102)
Aid_{-ijt-1}^{ADM2}	0.679***	0.908***	0.620***
	(0.204)	(0.203)	(0.081)
Aid_{ijt-1}^{ADM1}	-1.158***	-1.611***	-1.182***
	(0.343)	(0.354)	(0.146)
$Aid_{ijt-1}^{Country}$	-0.806***	-0.602***	-0.463***
	(0.239)	(0.135)	(0.062)
$Light_{jt-1}$	-41.54***	-31.14***	-22.03***
	(7.145)	(7.329)	(3.768)
$GovExp_{jt-1}$	-0.085**	-0.908***	-0.681***
	(0.041)	(0.204)	(0.090)
$Openness_{jt-1}$	0.056***	-0.251***	-0.230***
	(0.017)	(0.055)	(0.031)
$Inflation_{jt-1}$	0.005		
	(0.021)		
$Polity4_{jt-1}$	0.504***		
	(0.157)		
$ICRG_{jt-1}$			0.037
			(0.027)
$Risk_{jt-1}$		-0.024**	-0.023***
		(0.009)	(0.008)
$M2_{jt-1}$		-0.215***	-0.152***
		(0.051)	(0.023)
Obs.	3,366	9,093	8,487
Number of ADM2	858	2,477	2,255
ADM2 FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
F-statistics	0.001	0.000	0.000
Cragg-Donald	7.275	28.488	38.373
Kleibergen-Paap	2.971	5.292	16.842
Stock-Yogo	na	na	na

Notes: *Polity4* scores are not available for many low-income countries, causing a significant drop in the number of observations. *M2* is the M2 money supply level as a percentage of GDP and *Risk* is risk premium on lending (lending rate minus treasury bill rate, %) from WDI. 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. For other variable definitions, refer to Table A2.

Table A11: Exclude one country at a time, including ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no KEN	no COG	no RWA	no ETH	no ERI	no LBR	no SSD	no SOM
Aid_{ijt-1}^{ADM2}	0.656***	0.618***	0.649***	0.649***	0.649***	0.627***	0.649***	0.649***
	(0.075)	(0.071)	(0.074)	(0.074)	(0.074)	(0.070)	(0.074)	(0.074)
Aid_{-ijt-1}^{ADM2}	0.606***	0.579***	0.606***	0.606***	0.606***	0.554***	0.606***	0.606***
	(0.069)	(0.067)	(0.069)	(0.069)	(0.069)	(0.063)	(0.069)	(0.069)
Aid_{ijt-1}^{ADM1}	-0.939***	-0.876***	-0.945***	-0.945***	-0.945***	-0.952***	-0.945***	-0.945***
	(0.103)	(0.097)	(0.104)	(0.104)	(0.104)	(0.103)	(0.104)	(0.104)
$Aid_{ijt-1}^{Country}$	-0.260***	-0.224***	-0.234***	-0.234***	-0.234***	-0.298***	-0.234***	-0.234***
	(0.034)	(0.030)	(0.031)	(0.031)	(0.031)	(0.036)	(0.031)	(0.031)
$Light_{ijt-1}$	-30.27***	-29.02***	-30.27***	-30.27***	-30.27***	-29.05***	-30.27***	-30.27***
	(3.473)	(3.503)	(3.482)	(3.482)	(3.482)	(3.442)	(3.482)	(3.482)
$GovExp_{jt-1}$	-0.383***	-0.389***	-0.385***	-0.385***	-0.385***	-0.418***	-0.385***	-0.385***
	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.049)	(0.048)	(0.048)
$Inflation_{jt-1}$	-0.071***	-0.067***	-0.069***	-0.069***	-0.069***	-0.062***	-0.069***	-0.069***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
$Openness_{jt-1}$	0.016***	0.013***	0.015***	0.015***	0.015***	-0.050***	0.015***	0.015***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.009)	(0.004)	(0.004)
$ICRG_{jt-1}$	0.024*	0.038***	0.031**	0.031**	0.031**	0.018	0.031**	0.031**
	(0.014)	(0.014)	(0.014)	(0.014)	(0.0142)	(0.014)	(0.014)	(0.014)
Obs.	11,194	11,194	11,386	11,386	11,386	11,188	11,386	11,386
Number of ADM2	2,815	2,815	2,863	2,863	2,863	2,797	2,863	2,863
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	56.009	57.885	56.911	56.911	56.911	59.413	56.911	56.911
Kleibergen-Paap	21.568	21.064	21.690	21.690	21.690	22.509	21.690	21.690
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A12: Exclude one country at a time, including ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no ZAF	no SLE	no SDN	no SEN	no MRT	no MOZ	no MDG	no MWI
Aid_{ijt-1}^{ADM2}	0.335***	0.653***	0.646***	0.650***	0.649***	0.696***	0.652***	0.646***
	(0.054)	(0.074)	(0.074)	(0.074)	(0.074)	(0.079)	(0.074)	(0.074)
Aid_{-ijt-1}^{ADM2}	0.333***	0.599***	0.608***	0.607***	0.606***	0.666***	0.605***	0.699***
	(0.053)	(0.068)	(0.069)	(0.069)	(0.069)	(0.075)	(0.069)	(0.079)
Aid_{ijt-1}^{ADM1}	-0.578***	-0.961***	-0.952***	-0.950***	-0.945***	-0.942***	-0.943***	-0.943***
	(0.090)	(0.106)	(0.105)	(0.104)	(0.104)	(0.104)	(0.104)	(0.104)
$Aid_{ijt-1}^{Country}$	-0.106***	-0.223***	-0.228***	-0.225***	-0.234***	-0.297***	-0.241***	-0.403***
	(0.019)	(0.030)	(0.031)	(0.031)	(0.031)	(0.037)	(0.032)	(0.048)
$Light_{ijt-1}$	-25.71***	-30.49***	-30.35***	-30.20***	-30.27***	-30.67***	-30.34***	-30.88***
	(4.313)	(3.516)	(3.507)	(3.477)	(3.482)	(3.585)	(3.487)	(3.576)
$GovExp_{jt-1}$	-0.226***	-0.414***	-0.374***	-0.384***	-0.385***	-0.382***	-0.387***	-0.452***
	(0.037)	(0.050)	(0.048)	(0.047)	(0.048)	(0.048)	(0.048)	(0.055)
$Inflation_{jt-1}$	-0.040***	-0.073***	-0.077***	-0.069***	-0.069***	-0.085***	-0.069***	-0.123***
	(0.007)	(0.009)	(0.011)	(0.009)	(0.009)	(0.011)	(0.009)	(0.016)
$Openness_{jt-1}$	0.008***	0.015***	0.016***	0.015***	0.015***	0.022***	0.015***	0.028***
	(0.002)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.0056)
$ICRG_{jt-1}$	0.037***	0.057***	0.039**	0.033**	0.031**	0.090***	0.029**	-0.077***
	(0.009)	(0.015)	(0.016)	(0.014)	(0.014)	(0.017)	(0.014)	(0.019)
Obs.	9,970	11,330	11,066	11,206	11,386	10,866	11,302	10,410
Number of ADM2	2,509	2,849	2,783	2,818	2,863	2,733	2,842	2,619
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	77.717	57.301	54.960	56.195	56.911	53.583	56.444	50.718
Kleibergen-Paap	11.033	21.619	21.394	21.728	21.690	21.557	21.672	21.412
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A13: Exclude one country at a time, including ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no MLI	no AGO	no COD	no CIV	no CMR	no TCD	no CAF	no BEN
Aid_{ijt-1}^{ADM2}	0.664***	0.649***	0.649***	0.659***	0.702***	0.649***	0.649***	0.649***
	(0.076)	(0.074)	(0.074)	(0.075)	(0.080)	(0.074)	(0.074)	(0.074)
Aid_{-ijt-1}^{ADM2}	0.606***	0.606***	0.606***	0.610***	0.654***	0.606***	0.606***	0.606***
	(0.069)	(0.069)	(0.069)	(0.069)	(0.075)	(0.069)	(0.069)	(0.069)
Aid_{ijt-1}^{ADM1}	-0.954***	-0.945***	-0.945***	-0.956***	-0.992***	-0.945***	-0.945***	-0.945***
	(0.105)	(0.104)	(0.104)	(0.106)	(0.110)	(0.104)	(0.104)	(0.104)
$Aid_{ijt-1}^{Country}$	-0.239***	-0.234***	-0.234***	-0.229***	-0.248***	-0.234***	-0.234***	-0.234***
	(0.033)	(0.031)	(0.031)	(0.031)	(0.033)	(0.031)	(0.031)	(0.031)
$Light_{ijt-1}$	-30.40***	-30.27***	-30.27***	-30.57***	-30.36***	-30.27***	-30.27***	-30.27***
	(3.509)	(3.482)	(3.482)	(3.514)	(3.500)	(3.482)	(3.482)	(3.482)
$GovExp_{jt-1}$	-0.403***	-0.385***	-0.385***	-0.392***	-0.397***	-0.385***	-0.385***	-0.385***
	(0.050)	(0.048)	(0.048)	(0.049)	(0.050)	(0.048)	(0.048)	(0.048)
$Inflation_{jt-1}$	-0.071***	-0.069***	-0.069***	-0.071***	-0.077***	-0.069***	-0.069***	-0.069***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.011)	(0.009)	(0.009)	(0.009)
$Openness_{jt-1}$	0.015***	0.015***	0.015***	0.016***	0.019***	0.015***	0.015***	0.015***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
$ICRG_{jt-1}$	0.027*	0.031**	0.031**	0.032**	-0.006	0.031**	0.031**	0.031**
	(0.014)	(0.014)	(0.014)	(0.016)	(0.015)	(0.014)	(0.014)	(0.014)
Obs.	11,186	11,386	11,386	11,186	11,154	11,386	11,386	11,386
Number of ADM2	2,813	2,863	2,863	2,813	2,805	2,863	2,863	2,863
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	55.350	56.911	56.911	55.008	52.152	56.911	56.911	56.911
Kleibergen-Paap	21.415	21.690	21.690	21.360	21.241	21.690	21.690	21.690
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A14: Exclude one country at a time, including ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no BFA	no BWA	no BDI	no GHA	no GIN	no GNB	no GAB	no GMB
Aid_{ijt-1}^{ADM2}	0.660***	0.619***	0.649***	0.691***	0.663***	0.674***	0.602***	0.665***
	(0.075)	(0.071)	(0.074)	(0.079)	(0.075)	(0.077)	(0.070)	(0.076)
Aid_{-ijt-1}^{ADM2}	0.625***	0.578***	0.606***	0.593***	0.604***	0.655***	0.579***	0.630***
	(0.072)	(0.066)	(0.069)	(0.068)	(0.068)	(0.075)	(0.067)	(0.072)
Aid_{ijt-1}^{ADM1}	-0.989***	-0.907***	-0.945***	-0.968***	-0.974***	-0.974***	-0.886***	-0.962***
	(0.109)	(0.100)	(0.104)	(0.107)	(0.106)	(0.108)	(0.099)	(0.107)
$Aid_{ijt-1}^{Country}$	-0.228***	-0.222***	-0.234***	-0.251***	-0.228***	-0.222***	-0.221***	-0.234***
	(0.031)	(0.030)	(0.031)	(0.034)	(0.031)	(0.031)	(0.030)	(0.032)
$Light_{ijt-1}$	-30.94***	-29.69***	-30.27***	-31.06***	-30.75***	-29.96***	-28.99***	-30.40***
	(3.548)	(3.583)	(3.482)	(3.569)	(3.484)	(3.508)	(3.585)	(3.541)
$GovExp_{jt-1}$	-0.413***	-0.372***	-0.385***	-0.401***	-0.370***	-0.446***	-0.361***	-0.405***
	(0.051)	(0.047)	(0.048)	(0.050)	(0.046)	(0.054)	(0.046)	(0.050)
$Inflation_{jt-1}$	-0.069***	-0.065***	-0.069***	-0.072***	-0.056***	-0.063***	-0.065***	-0.072***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)	(0.009)	(0.010)
$Openness_{jt-1}$	0.015***	0.014***	0.015***	0.007*	0.016***	0.019***	0.013***	0.017***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
$ICRG_{jt-1}$	0.043***	0.033**	0.031**	0.051***	0.021	0.006	0.029**	0.024
	(0.015)	(0.013)	(0.014)	(0.015)	(0.014)	(0.014)	(0.013)	(0.015)
Obs.	11,206	11,286	11,386	10,838	11,250	11,238	11,238	11,238
Number of ADM2	2,818	2,838	2,863	2,726	2,829	2,826	2,826	2,826
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	54.812	57.921	56.911	53.283	56.093	54.109	60.734	54.844
Kleibergen-Paap	21.392	21.465	21.690	21.313	21.840	21.310	20.776	21.206
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A15: Exclude one country at a time, including ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no ZMB	no ZWE	no NAM	no NER	no NGA	no TZA	no TGO	no UGA
Aid_{ijt-1}^{ADM2}	0.649***	0.663***	0.620***	0.700***	0.838***	0.695***	0.670***	0.687***
	(0.074)	(0.076)	(0.073)	(0.081)	(0.122)	(0.081)	(0.076)	(0.078)
Aid_{-ijt-1}^{ADM2}	0.606***	0.634***	0.580***	0.642***	0.649***	0.644***	0.628***	0.588***
	(0.069)	(0.073)	(0.068)	(0.074)	(0.097)	(0.075)	(0.072)	(0.067)
Aid_{ijt-1}^{ADM1}	-0.945***	-0.932***	-0.908***	-1.035***	-1.467***	-1.034***	-0.957***	-0.962***
	(0.104)	(0.103)	(0.103)	(0.116)	(0.204)	(0.116)	(0.106)	(0.106)
$Aid_{ijt-1}^{Country}$	-0.234***	-0.253***	-0.232***	-0.179***	-1.080***	-0.191***	-0.230***	-0.179***
	(0.031)	(0.034)	(0.032)	(0.028)	(0.157)	(0.029)	(0.031)	(0.029)
$Light_{ijt-1}$	-30.27***	-29.22***	-30.44***	-30.55***	-38.07***	-30.69***	-30.25***	-30.03***
	(3.482)	(3.469)	(3.611)	(3.554)	(4.636)	(3.570)	(3.503)	(3.472)
$GovExp_{jt-1}$	-0.385***	-0.316***	-0.384***	-0.417***	0.258***	-0.470***	-0.393***	-0.365***
	(0.048)	(0.042)	(0.049)	(0.052)	(0.061)	(0.059)	(0.049)	(0.047)
$Inflation_{jt-1}$	-0.069***	-0.084***	-0.064***	-0.085***	0.135***	-0.083***	-0.073***	-0.065***
	(0.009)	(0.011)	(0.009)	(0.011)	(0.022)	(0.011)	(0.010)	(0.009)
$Openness_{jt-1}$	0.015***	0.013***	0.013***	0.017***	0.033***	0.018***	0.015***	0.015***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.007)	(0.004)	(0.004)	(0.004)
$ICRG_{jt-1}$	0.031**	0.037**	0.034**	0.022	0.102***	0.045***	0.029**	0.031**
	(0.014)	(0.016)	(0.014)	(0.015)	(0.024)	(0.016)	(0.015)	(0.014)
Obs.	11,386	11,146	10,978	11,242	8,290	10,838	11,302	10,694
Number of ADM2	2,863	2,803	2,761	2,827	2,089	2,726	2,842	2,690
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	56.911	54.912	56.619	52.196	21.957	50.530	54.879	54.190
Kleibergen-Paap	21.690	21.403	20.287	21.751	13.158	20.601	21.405	21.690
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A16: Exclude one country at a time, including ICRG

	(1) no COM	(2) no CPV	(3) no SWZ	(4) no STP	(5) no GNQ	(6) no MUS	(7) no LSO	(8) no SYC
Aid^{ADM2}_{ijt-1}	0.649***	0.649***	0.649***	0.649***	0.649***	0.649***	0.649***	0.649***
	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)
Aid^{ADM2}_{-ijt-1}	0.606***	0.606***	0.606***	0.606***	0.606***	0.606***	0.606***	0.606***
	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)
Aid^{ADM1}_{ijt-1}	-0.945***	-0.945***	-0.945***	-0.945***	-0.945***	-0.945***	-0.945***	-0.945***
	(0.104)	(0.104)	(0.104)	(0.104)	(0.104)	(0.104)	(0.104)	(0.104)
$Aid^{Country}_{ijt-1}$	-0.234***	-0.234***	-0.234***	-0.234***	-0.234***	-0.234***	-0.234***	-0.234***
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
$Light_{ijt-1}$	-30.27***	-30.27***	-30.27***	-30.27***	-30.27***	-30.27***	-30.27***	-30.27***
	(3.482)	(3.482)	(3.482)	(3.482)	(3.482)	(3.482)	(3.482)	(3.482)
$GovExp_{jt-1}$	-0.385***	-0.385***	-0.385***	-0.385***	-0.385***	-0.385***	-0.385***	-0.385***
	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)	(0.048)
$Inflation_{jt-1}$	-0.069***	-0.069***	-0.069***	-0.069***	-0.069***	-0.069***	-0.069***	-0.069***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
$Openness_{jt-1}$	0.015***	0.015***	0.015***	0.015***	0.015***	0.015***	0.015***	0.015***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
$ICRG_{jt-1}$	0.031**	0.031**	0.031**	0.031**	0.031**	0.031**	0.031**	0.031**
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Obs.	11,386	11,386	11,386	11,386	11,386	11,386	11,386	11,386
Number of ADM2	2,863	2,863	2,863	2,863	2,863	2,863	2,863	2,863
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	56.911	56.911	56.911	56.911	56.911	56.911	56.911	54.190
Kleibergen-Paap	21.690	21.690	21.690	21.690	21.690	21.690	21.690	21.690
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A17: Exclude one country at a time without ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no KEN	no COG	no RWA	no ETH	no ERI	no LBR	no SSD	no SOM
Aid_{ijt-1}^{ADM2}	0.762***	0.735***	0.770***	0.757***	0.769***	0.742***	0.757***	0.757***
	(0.107)	(0.107)	(0.109)	(0.106)	(0.108)	(0.104)	(0.106)	(0.106)
Aid_{-ijt-1}^{ADM2}	0.692***	0.672***	0.718***	0.691***	0.695***	0.670***	0.691***	0.691***
	(0.098)	(0.098)	(0.102)	(0.097)	(0.099)	(0.095)	(0.097)	(0.097)
Aid_{ijt-1}^{ADM1}	-1.060***	-1.018***	-1.123***	-1.070***	-1.073***	-1.066***	-1.070***	-1.070***
	(0.147)	(0.146)	(0.156)	(0.148)	(0.149)	(0.147)	(0.148)	(0.148)
$Aid_{ijt-1}^{Country}$	-0.409***	-0.355***	-0.334***	-0.373***	-0.389***	-0.402***	-0.373***	-0.373***
	(0.0602)	(0.055)	(0.051)	(0.055)	(0.057)	(0.059)	(0.055)	(0.055)
$Light_{ijt-1}$	-36.50***	-36.97***	-36.63***	-36.46***	-36.42***	-35.80***	-36.46***	-36.46***
	(4.333)	(4.805)	(4.354)	(4.324)	(4.333)	(4.285)	(4.324)	(4.324)
$GovExp_{jt-1}$	-0.328***	-0.326***	-0.320***	-0.328***	-0.429***	-0.336***	-0.328***	-0.328***
	(0.049)	(0.051)	(0.049)	(0.049)	(0.063)	(0.051)	(0.049)	(0.049)
$Inflation_{jt-1}$	-0.085***	-0.083***	-0.095***	-0.082***	-0.074***	-0.082***	-0.082***	-0.082***
	(0.014)	(0.014)	(0.015)	(0.013)	(0.012)	(0.013)	(0.013)	(0.013)
$Openness_{jt-1}$	0.029***	0.027***	0.029***	0.028***	0.023***	0.016***	0.028***	0.028***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Obs.	13,050	13,050	13,122	13,242	13,042	13,044	13,242	13,242
Number of ADM2	3,279	3,279	3,297	3,327	3,277	3,261	3,327	3,327
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	54.676	55.427	52.998	55.145	54.402	56.662	55.145	55.145
Kleibergen-Paap	13.527	12.573	13.444	13.600	13.466	13.570	13.600	13.600
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Tables A18: Exclude one country at a time without ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no ZAF	no SLE	no SDN	no SEN	no MRT	no MOZ	no MDG	no MWI
Aid_{ijt-1}^{ADM2}	0.485***	0.768***	0.758***	0.760***	0.766***	0.821***	0.760***	0.737***
	(0.102)	(0.108)	(0.107)	(0.107)	(0.108)	(0.115)	(0.107)	(0.103)
Aid_{-ijt-1}^{ADM2}	0.456***	0.690***	0.695***	0.693***	0.695***	0.761***	0.689***	0.755***
	(0.097)	(0.097)	(0.098)	(0.098)	(0.098)	(0.107)	(0.097)	(0.106)
Aid_{ijt-1}^{ADM1}	-0.773***	-1.090***	-1.078***	-1.076***	-1.071***	-1.079***	-1.067***	-1.051***
	(0.162)	(0.150)	(0.150)	(0.149)	(0.148)	(0.148)	(0.147)	(0.144)
$Aid_{ijt-1}^{Country}$	-0.225***	-0.361***	-0.370***	-0.367***	-0.369***	-0.446***	-0.383***	-0.530***
	(0.049)	(0.054)	(0.055)	(0.055)	(0.055)	(0.065)	(0.057)	(0.075)
$Light_{ijt-1}$	-34.83***	-36.58***	-36.57***	-36.41***	-36.41***	-36.82***	-36.57***	-37.27***
	(5.443)	(4.336)	(4.353)	(4.321)	(4.323)	(4.347)	(4.332)	(4.371)
$GovExp_{jt-1}$	-0.218***	-0.338***	-0.321***	-0.328***	-0.304***	-0.325***	-0.329***	-0.397***
	(0.047)	(0.051)	(0.049)	(0.049)	(0.047)	(0.049)	(0.049)	(0.058)
$Inflation_{jt-1}$	-0.057***	-0.087***	-0.091***	-0.083***	-0.081***	-0.101***	-0.082***	-0.130***
	(0.013)	(0.014)	(0.015)	(0.013)	(0.013)	(0.016)	(0.013)	(0.019)
$Openness_{jt-1}$	0.021***	0.029***	0.029***	0.028***	0.026***	0.036***	0.029***	0.036***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)
Obs.	11,826	13,186	12,922	13,062	13,066	12,722	13,158	12,266
Number of ADM2	2,973	3,313	3,247	3,282	3,283	3,197	3,306	3,083
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	65.037	54.759	53.292	54.366	54.587	50.712	54.786	52.097
Kleibergen-Paap	5.994	13.600	13.481	13.583	13.563	13.731	13.626	13.774
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A19: Exclude one country at a time without ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no MLI	no AGO	no COD	no CIV	no CMR	no TCD	no CAF	no BEN
Aid_{ijt-1}^{ADM2}	0.770***	0.757***	0.757***	0.767***	0.800***	0.770***	0.755***	0.763***
	(0.108)	(0.106)	(0.106)	(0.108)	(0.113)	(0.108)	(0.106)	(0.107)
Aid_{-ijt-1}^{ADM2}	0.690***	0.691***	0.691***	0.694***	0.732***	0.698***	0.699***	0.703***
	(0.098)	(0.097)	(0.097)	(0.098)	(0.104)	(0.099)	(0.099)	(0.099)
Aid_{ijt-1}^{ADM1}	-1.074***	-1.070***	-1.070***	-1.081***	-1.109***	-1.079***	-1.068***	-1.116***
	(0.149)	(0.148)	(0.148)	(0.150)	(0.154)	(0.149)	(0.148)	(0.154)
$Aid_{ijt-1}^{Country}$	-0.384***	-0.373***	-0.373***	-0.370***	-0.396***	-0.371***	-0.376***	-0.349***
	(0.057)	(0.055)	(0.055)	(0.055)	(0.059)	(0.055)	(0.056)	(0.053)
$Light_{ijt-1}$	-36.58***	-36.46***	-36.46***	-36.76***	-36.68***	-36.60***	-36.50***	-36.47***
	(4.341)	(4.324)	(4.324)	(4.358)	(4.345)	(4.339)	(4.329)	(4.328)
$GovExp_{jt-1}$	-0.337***	-0.328***	-0.328***	-0.332***	-0.350***	-0.336***	-0.340***	-0.310***
	(0.051)	(0.049)	(0.049)	(0.050)	(0.053)	(0.051)	(0.051)	(0.047)
$Inflation_{jt-1}$	-0.083***	-0.083***	-0.083***	-0.084***	-0.088***	-0.083***	-0.082***	-0.085***
	(0.014)	(0.013)	(0.013)	(0.014)	(0.014)	(0.014)	(0.013)	(0.014)
$Openness_{jt-1}$	0.028***	0.028***	0.028***	0.029***	0.031***	0.029***	0.028***	0.025***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)
Obs.	13,042	13,242	13,242	13,042	13,010	13,022	13,038	12,938
Number of ADM2	3,277	3,327	3,327	3,277	3,269	3,272	3,276	3,251
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	54.017	55.145	55.145	53.588	51.959	53.820	54.387	54.092
Kleibergen-Paap	13.559	13.600	13.600	13.521	13.494	13.538	13.575	13.649
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A20: Exclude one country at a time without ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no BFA	no BWA	no BDI	no GHA	no GIN	no GNB	no GAB	no GMB
Aid_{ijt-1}^{ADM2}	0.774***	0.732***	0.637***	0.803***	0.770***	0.777***	0.718***	0.772***
	(0.109)	(0.105)	(0.071)	(0.113)	(0.108)	(0.109)	(0.104)	(0.109)
Aid_{-ijt-1}^{ADM2}	0.710***	0.668***	0.581***	0.685***	0.687***	0.732***	0.670***	0.712***
	(0.100)	(0.096)	(0.065)	(0.097)	(0.097)	(0.104)	(0.097)	(0.101)
Aid_{ijt-1}^{ADM1}	-1.114***	-1.040***	-0.889***	-1.097***	-1.098***	-1.096***	-1.022***	-1.086***
	(0.154)	(0.147)	(0.096)	(0.152)	(0.151)	(0.152)	(0.145)	(0.150)
$Aid_{ijt-1}^{Country}$	-0.367***	-0.358***	-0.294***	-0.388***	-0.370***	-0.359***	-0.358***	-0.373***
	(0.055)	(0.054)	(0.0361)	(0.058)	(0.055)	(0.054)	(0.055)	(0.056)
$Light_{ijt-1}$	-37.05***	-36.56***	-30.66***	-37.06***	-37.01***	-36.25***	-35.63***	-36.60***
	(4.371)	(4.530)	(3.298)	(4.384)	(4.348)	(4.317)	(4.495)	(4.356)
$GovExp_{jt-1}$	-0.342***	-0.315***	-0.299***	-0.330***	-0.323***	-0.369***	-0.313***	-0.343***
	(0.052)	(0.049)	(0.037)	(0.050)	(0.049)	(0.055)	(0.049)	(0.052)
$Inflation_{jt-1}$	-0.083***	-0.079***	-0.069***	-0.089***	-0.069***	-0.075***	-0.078***	-0.085***
	(0.014)	(0.013)	(0.009)	(0.014)	(0.012)	(0.013)	(0.013)	(0.014)
$Openness_{jt-1}$	0.029***	0.027***	0.025***	0.023***	0.029***	0.031***	0.027***	0.029***
	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)
Obs.	13,062	13,142	12,746	12,694	13,106	13,094	13,094	13,094
Number of ADM2	3,282	3,302	3,203	3,190	3,293	3,290	3,290	3,290
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	53.036	55.887	62.203	51.606	54.503	53.277	57.820	53.594
Kleibergen-Paap	13.569	12.949	22.597	13.554	13.696	13.467	12.788	13.508
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A21: Exclude one country at a time without ICRG

	(1) no ZMB	(2) no ZWE	(3) no NAM	(4) no NER	(5) no NGA	(6) no TZA	(7) no TGO	(8) no UGA
Aid_{ijt-1}^{ADM2}	0.757***	0.778***	0.732***	0.804***	0.950***	0.807***	0.778***	0.793***
	(0.106)	(0.110)	(0.106)	(0.114)	(0.151)	(0.115)	(0.110)	(0.112)
Aid_{-ijt-1}^{ADM2}	0.691***	0.730***	0.668***	0.723***	0.752***	0.728***	0.713***	0.679***
	(0.098)	(0.104)	(0.097)	(0.103)	(0.123)	(0.104)	(0.101)	(0.096)
Aid_{ijt-1}^{ADM1}	-1.070***	-1.057***	-1.036***	-1.152***	-1.576***	-1.154***	-1.081***	-1.079***
	(0.148)	(0.147)	(0.147)	(0.161)	(0.247)	(0.162)	(0.150)	(0.150)
$Aid_{ijt-1}^{Country}$	-0.373***	-0.410***	-0.365***	-0.326***	-1.304***	-0.335***	-0.371***	-0.339***
	(0.055)	(0.061)	(0.056)	(0.050)	(0.208)	(0.052)	(0.056)	(0.052)
$Light_{ijt-1}$	-36.46***	-35.32***	-36.80***	-36.77***	-44.05***	-36.81***	-36.43***	-36.22***
	(4.324)	(4.284)	(4.492)	(4.382)	(5.715)	(4.389)	(4.332)	(4.311)
$GovExp_{jt-1}$	-0.328***	-0.281***	-0.321***	-0.355***	0.035	-0.374***	-0.335***	-0.319***
	(0.049)	(0.044)	(0.049)	(0.054)	(0.029)	(0.057)	(0.051)	(0.049)
$Inflation_{jt-1}$	-0.083***	-0.098***	-0.079***	-0.096***	0.141***	-0.095***	-0.086***	-0.081***
	(0.013)	(0.016)	(0.013)	(0.015)	(0.025)	(0.015)	(0.014)	(0.013)
$Openness_{jt-1}$	0.028***	0.024***	0.027***	0.029***	0.055***	0.031***	0.028***	0.028***
	(0.005)	(0.005)	(0.005)	(0.006)	(0.010)	(0.006)	(0.005)	(0.005)
Obs.	13,242	13,002	12,834	13,098	10,146	12,694	13,158	12,550
Number of ADM2	3,327	3,267	3,225	3,291	2,553	3,190	3,306	3,154
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	55.145	52.825	54.905	51.488	24.602	49.646	53.455	52.575
Kleibergen-Paap	13.600	13.367	12.800	13.299	10.448	13.148	13.500	13.507
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.

Table A22: Exclude one country at a time without ICRG

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	no COM	no CPV	no SWZ	no STP	no GNQ	no MUS	no LSO	no SYC
Aid_{ijt-1}^{ADM2}	0.757***	0.757***	0.736***	0.757***	0.756***	0.761***	0.760***	0.757***
	(0.106)	(0.106)	(0.106)	(0.106)	(0.106)	(0.107)	(0.107)	(0.106)
Aid_{-ijt-1}^{ADM2}	0.691***	0.691***	0.672***	0.691***	0.691***	0.696***	0.690***	0.691***
	(0.098)	(0.0978)	(0.097)	(0.097)	(0.098)	(0.098)	(0.097)	(0.098)
Aid_{ijt-1}^{ADM1}	-1.069***	-1.070***	-1.040***	-1.070***	-1.067***	-1.074***	-1.072***	-1.070***
	(0.148)	(0.148)	(0.147)	(0.148)	(0.148)	(0.148)	(0.148)	(0.148)
$Aid_{ijt-1}^{Country}$	-0.373***	-0.373***	-0.363***	-0.373***	-0.370***	-0.371***	-0.372***	-0.373***
	(0.055)	(0.055)	(0.055)	(0.055)	(0.055)	(0.055)	(0.055)	(0.055)
$Light_{ijt-1}$	-36.45***	-36.46***	-35.93***	-36.46***	-36.43***	-36.48***	-36.46***	-36.46***
	(4.325)	(4.324)	(4.357)	(4.324)	(4.408)	(4.328)	(4.325)	(4.324)
$GovExp_{jt-1}$	-0.328***	-0.328***	-0.319***	-0.328***	-0.328***	-0.330***	-0.329***	-0.328***
	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)
$Inflation_{jt-1}$	-0.083***	-0.083***	-0.080***	-0.083***	-0.084***	-0.084***	-0.083***	-0.083***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.014)	(0.014)	(0.013)	(0.013)
$Openness_{jt-1}$	0.028***	0.028***	0.027***	0.028***	0.032***	0.029***	0.028***	0.028***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)
Obs.	13,230	13,242	13,226	13,242	13,214	13,202	13,202	13,242
Number of ADM2	3,324	3,327	3,323	3,327	3,320	3,317	3,317	3,327
ADM2 FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cragg-Donald	55.093	55.145	56.294	55.145	55.169	54.711	54.954	55.145
Kleibergen-Paap	13.585	13.600	13.039	13.600	13.523	13.584	13.598	13.600
Stock-Yogo	na	na	na	na	na	na	na	na

Notes: 2SLS results with robust standard errors in parentheses. ***, **, and * refer to p<0.01, p<0.05, p<0.1, respectively. Each column drops one country at a time, marked by the ISO code of that country. For other variable definitions, refer to Table A2.