Foreign Aid Allocation Tactics and Democratic Change in Africa*

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Abstract

Over the past two decades, donors increasingly link foreign aid to democracy objectives in Africa. This study investigates whether and how foreign aid influences specific outcomes associated with democratic transition and consolidation. Using an instrumental variables approach for the period from 1989 to 2008, we show that economic aid increases the likelihood of transition to multiparty politics, while democracy aid furthers democratic consolidation by reducing the incidence of multiparty failure and electoral misconduct. However, we find little evidence that either economic or democracy aid influences opposition support in multiparty elections. These findings have implications for how understanding how donors allocate aid and the political consequences of foreign assistance in Africa.

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Appendix A: Data

Table A-1: Multipartyism

Country	Start	End	Country	Start	End
Angola	1993	censored	Liberia	1986	1990
Benin	1992	censored	Liberia	1998	2002
Botswana	1967†	censored	Liberia	2006	censored
Burkina Faso	1993	censored	Madagascar	1994	censored
Burundi	1994	1994	Malawi	1995	censored
Burundi	2006	censored	Mali	1993	censored
Cameroon	1993	censored	Mauritania	1993	2005
Cape Verde	1992	censored	Mauritania	2007	2008
Central African Rep.	1994	2003	Mauritius	1969†	censored
Central African Rep.	2006	censored	Mozambique	1995	censored
Chad	1998	censored	Namibia	1995	censored
Comoros	1993	1996	Niger	1994	1996
Comoros	2005	censored	Niger	1997	1999
Congo Br.	1993	1997	Niger	2000	censored
Congo Br.	2003	censored	Nigeria	1993	1993
Côte d'Ivoire	1991	1999	Nigeria	2000	censored
Côte d'Ivoire	2001	censored	Rwanda	2004	censored
Congo DR	2007	censored	São Tome	1992	censored
Equatorial Guinea	1994	censored	Senegal	1979†	censored
Ethiopia	1996	censored	Seychelles	1994	censored
Gabon	1991	censored	Sierra Leone	1997	1997
Gambia	1967†	1994	Sierra Leone	2003	censored
Gambia	1998	censored	South Africa	1994	censored
Ghana	1997	censored	Sudan	1987†	1989
Guinea	1996	censored	Tanzania	1996	censored
Guinea-Bissau	1995	2003	Togo	1995	censored
Guinea-Bissau	2005	censored	Uganda	2007	censored
Kenya	1993	censored	Zambia	1992	censored
Lesotho	1999	censored	Zimbabwe	1981†	censored

Start year coded for first year when multipartyism is observed on January 1; this is typically the year *after* the first multiparty election. † indicates left-censored at 1989; *censored* $\equiv$ right-censored in 2008.

Table A-2: Multiparty failure events

Country	Date	Event description
Burundi	10 September 1994	Frodebu agrees to Government Convention to dampen threat of violence. The institutional change created a governing body, the Convention, that superceded the 1992 constitution and ended Frodebu's defacto 1993 legislative victory. Reyntjens (2009, 37) writes, "the constitution was shelved and the outcome of both the presidential and parliamentary elections was swept aside as the president and parliament were placed under the trusteeship of an unconstitutional body."
Central African Rep.	15 March 2003	Bozizé coup (Debos 2008, 229). His troops took Bangui, suspended the constitution, dissolved the National Assembly, and the elected leader (Patassé) fled.
Comoros	1 December 1996	The 1996 legislative elections were boycotted by opposition parties. Only 3 of 43 contested seats won by an alternative party which supported the ruling RND (Inter-parliamentary Union, 1996).
Congo-Brazzaville	14 October 1997	Sassou-Nguesso's militia, backed by Angolan troops, ousted the Lissouba government from the presidential palace (Clark 1998, 35). Sassou-Nguesso elected a transition advisory legislature in 1998 and announced a transition to democracy but no new legislature was elected.
Côte d'Ivoire	24 Demember 1999	Gen. Gueï ousts the Bédié government. Gueï amends the constitution in 2000 to exclude Outtara from the presidential contest (Daddieh 2001, 18). Gueï declares himself winner of the October 2000 elections, despite losing the vote.
Gambia	22 July 1994	The Armed Forces Provisional Ruling Council (AFPRC) seized power in a military coup, deposing the government of Sir Dawda Jawara. Lieutenant Jammeh, chairman of the AFPRC, suspended the Constitution, banned opposition parties, and held flawed elections in 1996 and 1997 (Saine 2002, 168).
Guinea-Bissau	14 September 2003	Coup ousts Yala. President Yala dissolves Parliament on 15 November 2012, promises and then postpones new elections (Election Guide; Malan 2005, 13). Transitional government under a military junta holds new elections in 2005.
Liberia	9 September 1990	Doe's government toppled when Prince Johnson's rebel forces kill Doe and capture Monrovia. An international interim government put in place, but Taylor controlled most of the territory (Reno 1999, 93).
Liberia	2 April 2002	Elections that were scheduled for 2003 never took place. A ban on political parties took effect on 2 April 2002 under February-September State of Emergency (Outram 2003, 604).
Mauritania	3 August 2005	President Taya was deposed in a bloodless coup (N'Diaye 2006). The ruling military council (CMJD) led by Colonel Vall dissolved Parliament (Pazzanita 2008, 132). New Constituent Assembly elected in November/December 2006.
Mauritania	6 August 2008	President Abdallahi was overthrown in a bloodless coup. The country was officially run by a 12-member High State Council (HSC) composed entirely of military officers (N'Diaye 2009).
Niger	27 January 1996	Baré Maïnassara coup replaces President Mahamane Ousmane. The ruling military council (Conseil de Salut National) suspended the Constitution and political parties, and dissolved the National Assembly (Englebert 2003, 794).
Niger	9 April 1999	Maïnassara assassinated by members of his predisential guard. Prime Minister Mayaki dissolved the assembly and political parties and two days later the military junta (CRN) led by Gen. Wanke "suspended the constitution and formally dissolved the government" (Political Handbook of the World, 2012).
Nigeria	16 June 1993	Babangida via the National Election Council (NEC) annuls 1993 presidential election. Babangida promises new elections (twice) but Abacha forces him to resign in November 1993 (Political Handbook of the World, 2012).
Sierra Leone	25 May 1997	The Armed Forces Revolutionary Council (AFRC), led by Maj. Johnny Paul Koroma, overthrow President Kabbah (Reno 1999, 138).
Sudan	30 June 1989	Coup led by Col al-Bashir and an Islamist faction of the military ousted the elected government (Burr and Collins 2003, 1).

Table A-3: Electoral misconduct during election years

Country	Year	Misconduct	Country	Year	Misconduct	Country	Year	Misconduct
Angola	1992	1	Gabon	1990	1	Mauritania	2006	0
Angola	2008	1	Gabon	1993	1	Mauritania	2007	1
Benin	1991	1	Gabon	1996	0	Mauritius	1991	0
Benin	1995	0	Gabon	1997	0	Mauritius	1995	0
Benin	1996	0	Gabon	1998	0	Mauritius	2000	0
Benin	1999	0	Gabon	2001	0	Mauritius	2005	0
Benin	2001	0	Gabon	2005	0	Mozambique	1994	0
Benin	2003	1	Gabon	2006	0	Mozambique	1999	0
Benin	2006	0	Gambia	1992	0	Mozambique	2004	0
Benin	2007	0	Gambia	1997	0	Namibia	1994	0
Botswana	1989	0	Gambia	2001	1	Namibia	1999	0
Botswana	1994	0	Gambia	2002	0	Namibia	2004	0
Botswana	1999	0	Gambia	2006	0	Niger	1993	1
Botswana	2004	0	Gambia	2007	0	Niger	1995	0
Burkina Faso	1992	0	Ghana	1996	1	Niger	2004	0
Burkina Faso	1997	0	Ghana	2000	1	Nigeria	1992	1
Burkina Faso	1998	0	Ghana	2004	1	Nigeria	1999	1
Burkina Faso	2002	0	Ghana	2008	0	Nigeria	2003	1
Burkina Faso	2005	0	Guinea	1995	1	Nigeria	2007	1
Burkina Faso	2007	0	Guinea	1998	1	Rwanda	2003	1
Burundi	1993	0	Guinea	2002	0	Rwanda	2008	0
Burundi	2005	0	Guinea	2003	1	Senegal	1993	1
Cameroon	1992	1	Guinea-Bissau	1994	0	Senegal	1998	1
Cameroon	1997	1	Guinea-Bissau	1999	1	Senegal	2000	0
Cameroon	2002	0	Guinea-Bissau	2000	1	Senegal	2001	0
Cameroon	2004	0	Guinea-Bissau	2004	0	Senegal	2007	0
Cameroon	2007	0	Guinea-Bissau	2005	0	Sierra Leone	1996	1
Central African Republic	1993	0	Guinea-Bissau	2008	1	Sierra Leone	2002	0
Central African Republic	1998	0	Kenya	1992	1	Sierra Leone	2007	1
Central African Republic	1999	1	Kenya	1994	1	South Africa	1994	1
Central African Republic	2005	1	Kenya	1997	1	South Africa	1999	0
Chad	1997	0	Kenya	2002	1	South Africa	2004	0
Chad	2001	0	Kenya	2007	1	Tanzania	1995	0
Chad	2002	0	Lesotho	1998	1	Tanzania	2000	0
Chad	2006	0	Lesotho	2002	0	Tanzania	2005	0
Comoros	1992	1	Lesotho	2007	1	Togo	1994	1
Comoros	1993	1	Liberia	1997	0	Togo	1998	1
Comoros	2004	0	Liberia	2005	0	Togo	1999	0
Comoros	2006	0	Madagascar	1993	0	Togo	2002	0
Congo	1992	0	Madagascar	1996	0	Togo	2003	1
Congo	1993	1	Madagascar	1998	0	Togo	2005	1
Congo	2002	1	Madagascar	2001	1	Togo	2007	0
Congo	2007	0	Madagascar	2002	0	Uganda	2006	1
Côte d'Ivoire	1990	1	Madagascar	2006	1	Zambia	1991	0
Côte d'Ivoire	1995	1	Madagascar	2007	1	Zambia	1995	0
Côte d'Ivoire	2000	1	Malawi	1994	1	Zambia	1996	1
Côte d'Ivoire	2001	1	Malawi	1999	1	Zambia	2001	1
Democratic Republic of Congo	2006	1	Malawi	2004	0	Zambia	2006	0
Equatorial Guinea	1993	1	Mali	1992	0	Zambia	2008	0
Equatorial Guinea	1996	1	Mali	1997	1	Zimbabwe	1990	1
Equatorial Guinea	1999	1	Mali	2002	0	Zimbabwe	1995	1
Equatorial Guinea	2002	1	Mali	2007	0	Zimbabwe	1996	0
Equatorial Guinea	2004	1	Mauritania	1992	1	Zimbabwe	2000	1
Equatorial Guinea	2008	1	Mauritania	1996	1	Zimbabwe	2002	1
Ethiopia	1995	1	Mauritania	1997	0	Zimbabwe	2005	1
Ethiopia	2000	1	Mauritania	2001	1	Zimbabwe	2008	1
Ethiopia	2005	1	Mauritania	2003	1			

Multiparty elections years: 1989-2008. Electoral misconduct source: NELDA13, NELDA 15, NELDA 31 and NELDA 33 from NELDA version 3.0, Hyde and Marinov (2012).

Table A-5: Democracy Aid, purposes defined by AidData (2010)

Economic and development policy and planning
Macro-economic, fiscal and monetary policy and planning
Institutional capacity building, Government
Support to other ministries and government departments when sector cannot be specified
Development planning and preparation of structural reforms
Public sector financial management
Improving financial management systems
Tax assessment procedures
Measures against waste, fraud and corruption
Legal and judicial development
Constitutional development, legal drafting
Institutional strengthening of legal and judicial systems
Legal training and education
Legal advice and services
Crime prevention
Government administration
General government services not elsewhere specified
Systems of government
Civil service reform
Government infrastructure
Strengthening civil society
Strengthening civil society, activity unspecified or does not fit elsewhere in group
Community participation and development
Cooperatives
Grassroots organizations
Other participatory planning and decision making procedures and institutions
Elections
Human rights
Free flow of information
Women's equality organizations and institutions
Conflict prevention and resolution, peace and security
Security system management and reform
Other security assistance
Civilian peace-building, conflict prevention and resolution
Support for civilian peace-building activities
Post-conflict peace-building (UN)
UN post-conflict peace-building activities
Reintegration and small arms, light weapons (SALW) control
Reintegration of demobilised military personnel into the economy
Conversion of production facilities from military to civilian outputs
Assistance to control, prevent and/or reduce the proliferation of SALW
Land mine clearance
Explosive mine removal
Child soldiers (Prevention and demobilisation)
Support to prevent the recruitment of child soldiers4
Support to demobilize child soldiers

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Table A-4: Incumbent electoral support

Country	Year	Candidate	Party	Incumbent share	Country	Year	Candidate	Party	Incumbent share
Benin	1996	Nicéphore Soglo	PRB	0.513	Mali	1997	Alpha Oumar Konaré	ADEMA	0.959
Benin	2001	Mathieu Kérékou	FARD-Alafia	0.626	Mali	2002	Soumala Cissé	ADEMA	0.426
Benin	2006	Daniel Tawma	FARD-Alafia	0.016	Mali	2007	Amadou Toumani Touré	ADP	0.788
Botswana	1989		BDP	0.707	Mauritania	1997	Ould Taya	PRDS	0.928
Botswana	1994		BDP	0.585	Mauritania	2003	Ould Taya	PRDS	0.782
Botswana	1999		BDP	0.688	Mauritania	2007	Zeine Ould Zeidane	military-backed	0.381
Botswana	2004		BDP	0.665	Mauritius	1991		MSM-MMM	0.952
Burkina Faso	1998	Blaise Compaoré	CDP	0.930	Mauritius	1995		MLP-MMM	0.968
Burkina Faso	2005	Blaise Compaoré	CDP	0.943	Mauritius	2000		MMM-MSM	0.900
Cameroon	1997	Paul Biya	RDPC	0.974	Mauritius	2005		MMM-MSM	0.367
Cameroon	2004	Paul Biya	RDPC	0.803	Mozambique	1999	Joaquim Chissano	FRELIMO	0.523
Cape Verde	2001	Carlos Veiga	MpD	0.496	Mozambique	2004	Armando Guebuza	FRELIMO	0.668
Cape Verde	2006	Pedro Pires	PAICV	0.510	Namibia	1999	Sam Nujoma	SWAPO	0.880
Central African Rep.	1999	Ange Félix Patassé	MLPC	0.727	Namibia	2004	Hifikepunye Pohamba	SWAPO	0.913
Chad	2001	Idriss Déby	MPS	0.794	Niger	2004	Mamadou Tandja	MNSD-Nassara	0.623
Chad	2006	Idriss Déby	MPS	0.810	Nigeria	2003	Olusegun Obasanjo	PDP	0.658
Côte d'Ivoire	1995	Henri Konan Bédié	PDCI-RDA	0.962	Nigeria	2007	Umaru Musa Yar'dua	PDP	0.789
Equatorial Guinea	1996	Obiang Nguema	PDGE	0.993	STP	1996	Miguel Trovoada	ADI	0.511
Equatorial Guinea	2002	Obiang Nguema	PDGE	0.978	STP	2001	Fradique de Menezes	ADI	0.580
Ethiopia	2000		EPRDF	0.929	STP	2006	Patrice Trovoada	ADI	0.391
Ethiopia	2005		EPRDF	0.750	Senegal	1993	Abdou Diouf	PS	0.646
Gabon	1993	Omar Bongo	PDG	0.659	Senegal	2000	Abdou Diouf	PS	0.571
Gabon	1998	Omar Bongo	PDG	0.802	Senegal	2007	Abdoulaye Wade	PDS	0.789
Gabon	2005	Omar Bongo	PDG	0.853	Seychelles	1998	France-Albert René	SPPF	0.773
Gambia	1992	Dawda Jawara	PP	0.799	Seychelles	2001	France-Albert René	SPPF	0.547
Gambia	2001	Yahya Jammeh	APRC	0.619	Seychelles	2006	James Michel	SPPF	0.540
Gambia	2006	Yahya Jammeh	APRC	0.716	Sierra Leone	2007	Solomon Berewa	SLPP	0.463
Ghana	2000	John Atta Mills	NDC	0.481	South Africa	1999		ANC	0.874
Ghana	2004	John Kufuor	NPP	0.460	South Africa	2004		ANC	0.849
Ghana	2008	Nana Akufo-Addo	NPP	0.506	Tanzania	2000	Benjamin Mkapa	CCM	0.815
Guinea	1998	Lansana Conté	PUP	0.695	Tanzania	2005	Jakaya Kikwete	CCM	0.873
Guinea	2003	Lansana Conté	PUP	0.953	Togo	1998	Gnassingbé Eyadéma	RPT	0.604
Guinea-Bissau	1999	Malam Bacai Sanhé	PAIGC	0.376	Togo	2003	Gnassingbé Eyadéma	RPT	0.632
Guinea-Bissau	2005	Kumba Ialé	PRS	0.414	Togo	2005	Faure Gnassingbé	RPT	0.611
Kenya	1997	Daniel arap Moi	KANU	0.563	Zambia	1996	Frederick Chiluba	MMD	0.851
Kenya	2002	Uhuru Kenyatta	KANU	0.335	Zambia	2001	Levy Mwanawasa	MMD	0.517
Kenya	2007	Mwai Kibaki	DP [PNU]	0.513	Zambia	2006	Levy Mwanawasa	MMD	0.594
Madagascar	1996	Albert Zafy	UNDD	0.390	Zambia	2008	Rupiah Banda	MMD	0.513
Madagascar	2001	Didier Ratsiraka	AREMA	0.411	Zimbabwe	1990	Robert Mugabe	ZANU-PF	0.831
Madagascar	2006	Marc Ravalomanana	TIM	0.825	Zimbabwe	1996	Robert Mugabe	ZANU-PF	0.951
Malawi	1999	Bakili Muluzi	UDF	0.537	Zimbabwe	2002	Robert Mugabe	ZANU-PF	0.572
Malawi	2004	Bingu wa Mutharika	UDF	0.560	Zimbabwe	2008	Robert Mugabe	ZANU-PF	0.475

First-round multiparty executive elections with an incumbent candidate or party: 1989-2008. Elections where the second round was never held (Angola 1992) or where the results were anulled (Nigeria 1993) are excluded. Data source: African Elections Database. Vote listed is the incumbent share of the combined vote percentages of the incumbent candidate/party and the leading opposition party/candidate. In some cases (e.g. Senegal 2000) the first-round winner loses to second round.

Table A-6: Summary statistics, Table 1

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
Multiparty	0.12	0.34	0	1	370
Economic aid	3.7	1	0.2	6.4	370
Democracy aid	0.9	0.7	0	2.9	370
Log GDP pc	6.9	0.8	4.8	9.6	370
Log population	8.6	1.5	4.2	11.7	370
Civil war	0.2	0.4	0	1	370
Duration	25.2	13.3	1	50	370
Duration^2	809.7	620.8	1	2500	370
Duration^3	28301	27742.7	1	125000	370
Inflation	2.9	1.1	1	7.8	370
WiP	16.2	5.1	4.4	31.8	370

Table A-7: Summary statistics, Table 2

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
Multiparty	0.97	0.16	0	1	583
Economic aid	3.9	0.8	0.5	6.2	583
Democracy aid	1.3	0.7	0	3.2	583
Log GDP pc	7.2	1	5.1	10.2	583
Log population	8.5	1.6	4.3	11.9	583
Civil war	0.1	0.2	0	1	583
Duration	9.2	7.5	0	39	583
Duration^2	141.5	229	0	1521	583
Duration^3	2919.2	7187.2	0	59319	583
Inflation	2.2	0.7	1.1	5.1	583
WiP	20.1	3.8	6.1	26.1	583

Table A-8: Summary statistics, Table 3

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**
Electoral misconduct	0.47	0.50	0	1
Economic aid	3.9	0.7	0.3	5.7
Democracy aid	1.2	0.6	0	3
Log GDP pc	7.1	0.9	5.1	9.8
Log population	8.7	1.3	6	11.9
IMF program	0.5	0.4	0	1
First multiparty election	0.1	0.3	0	1
Election monitor	0.9	0.3	0	1
Inflation	2.3	0.8	1.3	5.1
WiP	19.5	4	7	25.7
N		170		

Table A-9: Summary statistics, Table 4

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**
Opp vote share	-1	1.3	-4.9	4.1
Economic aid	4	0.8	2.3	5.9
Democracy aid	1.3	0.7	0.1	3
Log GDP pc	7.3	1.1	5.1	10
Log population	8.5	1.7	4.3	11.9
Growth	3.5	7.4	-14.6	38.2
IMF program	0.6	0.5	0	1
Inflation	2.1	0.6	1.1	4.7
WiP	20.4	3.5	10	25.7
N		84		

Appendix B: Additional results

Table B-1: Additional tests for multiparty transition

	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Econ aid	0.083*	0.117*	0.127*	0.107*	0.083*	0.094*	0.101*	0.103*	0.110*	0.106*	0.104*	0.106*	0.106*	0.107*	0.109*
	(0.04)	(0.03)	(0.07)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Log GDP pc	0.003	0.004	0.045	0.005		0.001	-0.018	0.007	0.004	-0.033*	0.002	-0.001	0.004	-0.019	0.011
	(0.02)	(0.02)	(0.09)	(0.02)		(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)
Log pop	0.031*	0.044*	0.518*	0.043*		0.045*	0.026	0.039*	0.042*	0.004	0.041*	0.044*	0.042*	0.000	0.046*
	(0.02)	(0.02)	(0.30)	(0.02)		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Civil war	-0.112*	-0.108*	-0.046	-0.110*		-0.124*	-0.100*	-0.110*	-0.110*	-0.094*	-0.109*	-0.109*	-0.110*	-0.120*	-0.118*
	(0.04)	(0.04)	(0.06)	(0.04)		(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Ethnic frac.						-0.047									
						(0.08)									
Oil rents pc							0.022*								
							(0.01)								
IMF program								0.027							
								(0.05)							
Growth									-0.000						
									(0.00)						
Trade										0.045*					
										(0.01)					
Intl NGO											0.020				
											(0.09)				
Dom. NGO												0.042			
												(0.09)			
Migrant stock													-0.004		
													(0.01)		
IO member														0.008*	
														(0.00)	
Alliance															0.128*
															(0.03)
(Intercept)	-0.297	-0.513*		-0.469	-0.041	-0.379	-0.183	-0.452	-0.467	-0.181	-0.439	-0.454	-0.451	-0.398	-0.583*
	(0.32)	(0.28)		(0.32)	(0.11)	(0.33)	(0.33)	(0.30)	(0.35)	(0.25)	(0.30)	(0.30)	(0.30)	(0.32)	(0.29)
F-statistic	19.8	15.1	10.0	20.4	14.8	16.6	20.8	26.3	25.6	22.5	18.9	19.5	21.8	23.6	23.7
C (p-value)		0.46		0.36	0.37	0.72	0.26	0.30	0.23	0.35	0.23	0.29	0.21	0.26	0.30
Countries	44	44	44	42	44	39	42	44	44	44	44	44	44	44	44
Observations	370	370	370	362	370	332	362	370	369	370	370	370	370	370	370

* p<0.10. IV models with clustered standard errors in parentheses. Duration polynomials included in all models but not reported. $a \equiv$ only Lewbel instruments (no *Inflation*); $b \equiv$ *Inflation* + Lewbel instruments based on duration polynomials; $c \equiv$ two-way fixed effects (time period and country); $d \equiv$ drop island countries; $e \equiv$ no control variables.

Table B-2: Additional tests for multiparty failure

	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Democracy aid	0.055†	0.047††	0.059*	0.081*	0.052*	0.053*	0.043*	0.043*	0.044*	0.044*	0.046*	0.043*	0.047*	0.045*
	(0.03)	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Log GDP pc	0.022*	-0.026	0.018*		0.021*	0.019*	0.018*	0.019*	0.034*	0.016*	0.014*	0.019*	0.022*	0.022*
	(0.01)	(0.03)	(0.01)		(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Log population	0.015*	0.083	0.020*		0.013*	0.018*	0.013*	0.013*	0.024*	0.021*	0.023*	0.013*	0.017*	0.013*
	(0.01)	(0.18)	(0.01)		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Civil war	-0.052	-0.096	-0.056		-0.053	-0.056	-0.055	-0.055	-0.057	-0.059	-0.058	-0.054	-0.061	-0.052
	(0.06)	(0.07)	(0.06)		(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)
Ethnic frac.					-0.016									
					(0.03)									
Oil rents pc						0.000								
						(0.00)								
IMF program							-0.007							
							(0.02)							
Growth								0.000						
								(0.00)						
Trade									-0.014					
									(0.01)					
Intl. NGO										0.059*				
										(0.04)				
Domestic NGO											0.065*			
											(0.04)			
Migrant stock												0.001		
												(0.01)		
IO member													-0.001	
													(0.00)	
Alliance														-0.034
														(0.03)
(Intercept)	0.600*		0.571*	0.830*	0.628*	0.587*	0.654*	0.645*	0.536*	0.591*	0.585*	0.645*	0.623*	0.627*
	(0.15)		(0.15)	(0.07)	(0.13)	(0.14)	(0.15)	(0.14)	(0.16)	(0.15)	(0.15)	(0.14)	(0.15)	(0.14)
F-stat	21.8	5.9	16.4	12.0	11.8	15.6	24.8	22.4	21.7	25.2	24.8	21.4	19.7	23.7
C-stat (p-value)	0.772		0.897	0.727	0.951	0.596	0.827	0.947	0.843	0.980	0.983	0.917	0.834	0.951
Countries	44	43	41	44	40	42	44	44	44	44	44	44	44	44
Observations	583	582	531	583	526	551	583	583	583	583	583	583	583	583

†† p<0.18; † p<0.11; * p<0.10. IV models with clustered standard errors in parentheses. Duration polynomials included in all models but not reported. $a \equiv$ Inflation + Lewbel instruments based on duration polynomials; $b \equiv$ two-way fixed effects (time period and country); $c \equiv$ drop island countries; $d \equiv$ no control variables.

Table B-3: Linear probability models with unit FE

	(1)	(2)	(3)	(4)	(5)	(6)
Economic aid	0.065	0.123*	0.068*			
	(0.04)	(0.04)	(0.03)			
Democracy aid				0.050*	0.051*	0.039*
				(0.02)	(0.02)	(0.02)
(Intercept)	-0.031	-0.589*	-1.067*	0.800*	0.889*	0.926*
	(0.17)	(0.20)	(0.13)	(0.14)	(0.04)	(0.09)
Country FE	Y	Y	Y	Y	Y	Y
Year FE	Y	N	N	Y	N	N
Time trend	N	Y	N	N	Y	N
Country specific-time trend	N	N	Y	N	N	Y

* p<0.10. OLS with clustered standard errors in parentheses. Civil war control variable not reported.

An alternative approach to constructing causal estimates that does not rely on external instruments to identify the "exogenous" variation in foreign aid is to estimate fixed-effects models. This approach assumes that the unit fixed-effect "controls" for unobserved confounders. In our application, we model unit fixed effects in combination with three methods of accounting for a calendar time trend in the data: year fixed effects; a common time trend; and a country-specific time trend. Because we include subtantial cross-section variation in the unit-fixed effects, we drop GDP per capita and population as control variables, but retain the time-varying measure of civil war. To avoid separation issues that arise in a limited dependent variable model, we employ a linear probability model. In all specification reported in Table B-3, the main reported results from Tables 1 (multiparty transition) and 2 (multiparty failure) remain. We cannot employ this approach for the models of electoral misconduct and opposition electoral strength because there are too few observations per cross-section unit to reliably estimate a fixed effects model.

Table B-4: Additional tests for electoral misconduct

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)[a]	(13)[b]
Democracy aid	-0.174*	-0.154*	-0.170*	-0.179*	-0.215*	-0.149+	-0.200*	-0.167*	-0.172*	-0.138+	-0.186*	-0.218*	-0.146+
	(0.10)	(0.09)	(0.10)	(0.10)	(0.11)	(0.09)	(0.09)	(0.09)	(0.10)	(0.09)	(0.10)	(0.10)	(0.10)
Log GDP pc	-0.055	-0.049	-0.046	-0.055	-0.054	-0.183	-0.111*	0.003	-0.028	-0.062	-0.028	-0.029	-0.052
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.11)	(0.05)	(0.08)	(0.07)	(0.05)	(0.06)	(0.06)	(0.06)
Log population	0.019	0.033	0.024	0.023	0.034	-0.100	0.199*	-0.064	0.039	-0.054	0.014	0.011	0.017
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.09)	(0.07)	(0.10)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
IMF program	0.004	-0.022	0.008	0.004	-0.046	0.090	0.019	-0.027	0.044	0.031	-0.005	0.004	-0.003
	(0.12)	(0.12)	(0.13)	(0.13)	(0.12)	(0.10)	(0.12)	(0.12)	(0.13)	(0.10)	(0.12)	(0.13)	(0.13)
First election	0.092	0.073	0.069	0.071	0.034	0.080	0.091	0.035	0.027	0.075	0.065	0.053	0.024
	(0.11)	(0.11)	(0.12)	(0.12)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.12)	(0.12)
Monitor	-0.034	-0.036	-0.055	-0.058	-0.019	-0.006	-0.055	-0.081	-0.060	-0.014	-0.048	-0.100	-0.027
	(0.14)	(0.13)	(0.13)	(0.13)	(0.15)	(0.14)	(0.14)	(0.13)	(0.14)	(0.14)	(0.13)	(0.14)	(0.14)
Expect win	0.137												
	(0.09)												
Boycott		0.161											
		(0.10)											
Civil war			-0.007										
			(0.15)										
Growth				0.003									
				(0.01)									
Ethinc frac.					0.141								
					(0.25)								
Trade						0.157*							
						(0.08)							
Intl NGO							2.838*						
							(1.08)						
Domestic NGO								-1.130					
								(0.90)					
IO member									-0.004				
									(0.00)				
Migrant stock										0.138*			
										(0.04)			
Alliance											-0.181		
											(0.13)		
(Intercept)	0.844	0.707	0.824	0.901	0.763	1.707*	-0.486	1.485	0.800	1.186*	0.815	0.931	0.881
	(0.65)	(0.61)	(0.65)	(0.65)	(0.68)	(1.03)	(0.87)	(0.92)	(0.62)	(0.64)	(0.61)	(0.69)	(0.65)
F-statistic	10.4	9.8	10.6	10.3	9.5	10.3	11.5	11.0	11.7	10.7	10.4	9.8	10.5
C (p-value)	0.226	0.286	0.204	0.203	0.285	0.168	0.122	0.285	0.217	0.127	0.210	0.153	0.258
Countries	40	40	40	40	38	40	40	40	40	40	40	39	39
Observations	170	170	170.	170	159	170	170	170	170	170	170	166	158

+ p<0.15 * p<0.10. IV models with clustered standard errors in parentheses. $a \equiv$ drop island countries; $b \equiv$ drop civil war years.

Table B-5: Opposition vote share of total vote

	(1)	(2)	(3)[a]	(4)[a]
Economic aid	-0.122		-0.271	
	(0.27)		(0.20)	
Democracy aid		0.684*		0.054
		(0.38)		(0.27)
Log GDP pc	0.001	0.070	-0.098	-0.116
	(0.12)	(0.15)	(0.11)	(0.13)
Log population	-0.080	0.064	-0.179*	-0.076
	(0.16)	(0.12)	(0.08)	(0.08)
Growth	-0.034	-0.043*	-0.012	-0.014
	(0.02)	(0.02)	(0.02)	(0.02)
IMF program	0.037	-0.243	0.341	0.206
	(0.24)	(0.30)	(0.27)	(0.26)
(Intercept)	0.865	-2.030	3.164*	1.334
	(2.69)	(2.27)	(1.30)	(1.67)
F-statistic	22.5	19.0	15.4	12.8
C (p-value)	0.337	0.093	0.207	0.121
Countries	34	34	31	31
Election years	84	84	70	70

* p<0.10. IV models with clustered standard errors in parentheses. $a \equiv$ Incumbent vote share <90%.

Table B-5 reports result from models that use the largest opposition vote total as a *share of the total vote*. Initially, we find that *Economic aid* is associated with lower opposition vote shares, even when dropping the most lopsided elections (column 3). However, this result is much weaker when we include the full set of Lewbel instruments to the increase efficiency of the estimate (the F-statistic increases from 5.7 in column 3 to 15.5 in column 5). The estimate for *Economic aid* in column 5 can be interpreted to mean that a one-standard deviation increase in economic aid is associated with a roughly 5 percent decrease in opposition vote share, which is statistically significant at the 0.17 level in a sample with only 70 observations. Using the full set of Lewbel instruments to increase the efficiency of the estimate for *Democracy aid* (column 6) reduces the estimate for this type of aid to almost zero.

Table B-6: Lagged DV models for opposition vote

Opposition vote	Share of 2-party vote			Share of total vote		
	(1)	(2)	(3)[a]	(4)	(5)	(6)[a]
Lag DV	0.458*	0.394*	0.209*	0.356*	0.343*	0.155
	(0.11)	(0.11)	(0.09)	(0.19)	(0.17)	(0.19)
Economic aid	-0.012			0.222		
	(0.27)			(0.41)		
Democracy aid		0.563	0.194		0.476	0.206
		(0.42)	(0.27)		(0.36)	(0.31)
Log GDP pc	-0.109	-0.002	-0.186*	-0.101	0.051	-0.116
	(0.10)	(0.13)	(0.11)	(0.13)	(0.14)	(0.14)
Log population	-0.112	-0.017	-0.113	0.003	0.022	-0.051
	(0.10)	(0.11)	(0.08)	(0.14)	(0.09)	(0.09)
Growth	-0.034*	-0.042*	-0.021	-0.036*	-0.045*	-0.018
	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
IMF program	-0.045	-0.206	-0.115	-0.159	-0.118	-0.025
	(0.41)	(0.36)	(0.29)	(0.50)	(0.35)	(0.33)
(Intercept)	1.708	-0.609	1.954	0.061	-0.939	1.206
	(1.50)	(1.97)	(1.28)	(2.20)	(1.75)	(1.62)
F-statistic	15.0	28.2	22.1	8.4	32.3	25.3
Countries	30	30	26	30	30	26
Elections	50	50	44	50	50	44

* p<0.10. IV models with clustered standard errors in parentheses. $a \equiv$ Incumbent vote share <90%.

Table B-6 reported results from lagged dependent variable models to account for the history of voting in prior elections. The first three columns use the dependent variable reported in the manuscript: the opposition share of the 2-party vote. The latter three columns use the same depedent variable as in Table B-5: all opposition parties' share of the total vote. We find little evidence that aid influences either of these outcomes in the lagged DV models.

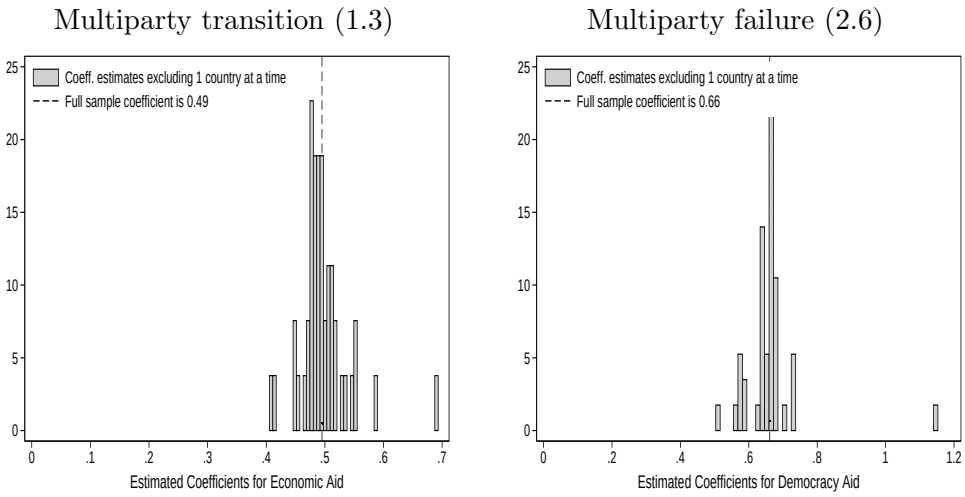

Figure B-1: Distribution of estimates from IV probit models for *Economic aid* (Table 1, column 3) and *Democracy aid* (Table 2, column 6) when excluding one country at a time from the sample.

Appendix C: Identification strategy

Constructing the "outside" instruments

To construct the "outside" excluded instruments, we use a donor characteristic $V^a_{d,t}$, which is one of two donor variables (*Inflation* or *WiP*, denoted by the superscript a), and which varies by donor d and year t. For each recipient i and donor d in each year t, we multiply $V^a_{d,t}$ by the inverted geographic distance in kilometers (denoted by $k_{d,i}$) between donor d and recipient i: $V_{d,t} \times k_{d,i}$. Then we sum these to create the instrument, for each donor characteristic $a \in (Inflation, WiP)$

$$Z^a_{i,t} = \sum_d (V^a_{d,t} \times k_{d,i})$$

For the binary dependent variable model (dropping the superscript a on Z), the resulting specification in an "exactly" identified equation would be:

$$\begin{aligned} Pr(Y_t = 1 | Y_{t-1} = 0) &= \widehat{Aid_{i,t}} + X_{i,t} + \zeta_{i,t} + \epsilon^1_{i,t} \\ Aid_{i,t} &= Z_{i,t} + X_{i,t} + \zeta_{i,t} + \epsilon^2_{i,t} \end{aligned}$$

where $Aid_{i,t}$ and $Z_{i,t}$ are three-year lagged moving averages of aid and the instrument, $\widehat{Aid_{i,t}}$ is the predicted value of aid from the first stage, $X_{i,t}$ are control variables, and $\zeta_{i,t}$ are duration polynomials.

Figure C-1 shows the partial correlation between different categories of aid and the two outside excluded instruments (*Inflation* and WiP), in the full sample. From these partial correlation plots, we can see that donor inflation is strongly and positively correlated with economic aid but weakly and negatively correlated with democracy aid. We find just the opposite pattern for women in parliament: *WiP* is strongly and positively correlated with democracy aid but negatively correlated with economic aid. One possible explanation for these patterns could be that during times of inflation, donors are likely to focus the aid portfolio on critical development sectors – at the expense of democracy promotion – while more women in parliament might shift aid portfolios towards more democracy-oriented sectors. Based on these partial correlations and expectations that each outside instrument should be *positively* correlated with foreign aid, we employ *Inflation* as an excluded instrument for economic aid and *WiP* as an excluded instrument for democracy aid.

Finally, we note that there are some potential outliers in the first stage partial correlation between *Inflation* and *Economic aid*, as observed in the lower right corner of the upper left panel of Figure C-1. These three observations come from South Africa prior to the multiparty transition in 1994 (South Africa received less Western foreign aid from fewer OECD donor countries). This helps explains the low partial correlation between *Inflation* and *Economic aid* in the transition sample used in Table 1 of the main text. Dropping South Africa and using *Inflation* in a just identified equation (i.e. without the Lewbel instruments) yields a strong first-stage (partial) correlation between *Inflation* and *Economic aid* (F-statistic= 17.8), with similar second stage results.

Identification with the Lewbel approach

The approach proposed by Lewbel (2012) identifies a two-equation model by using the presence of heteroskedasticity (or a correlation between residuals and some exogenous covariates) in the "first-

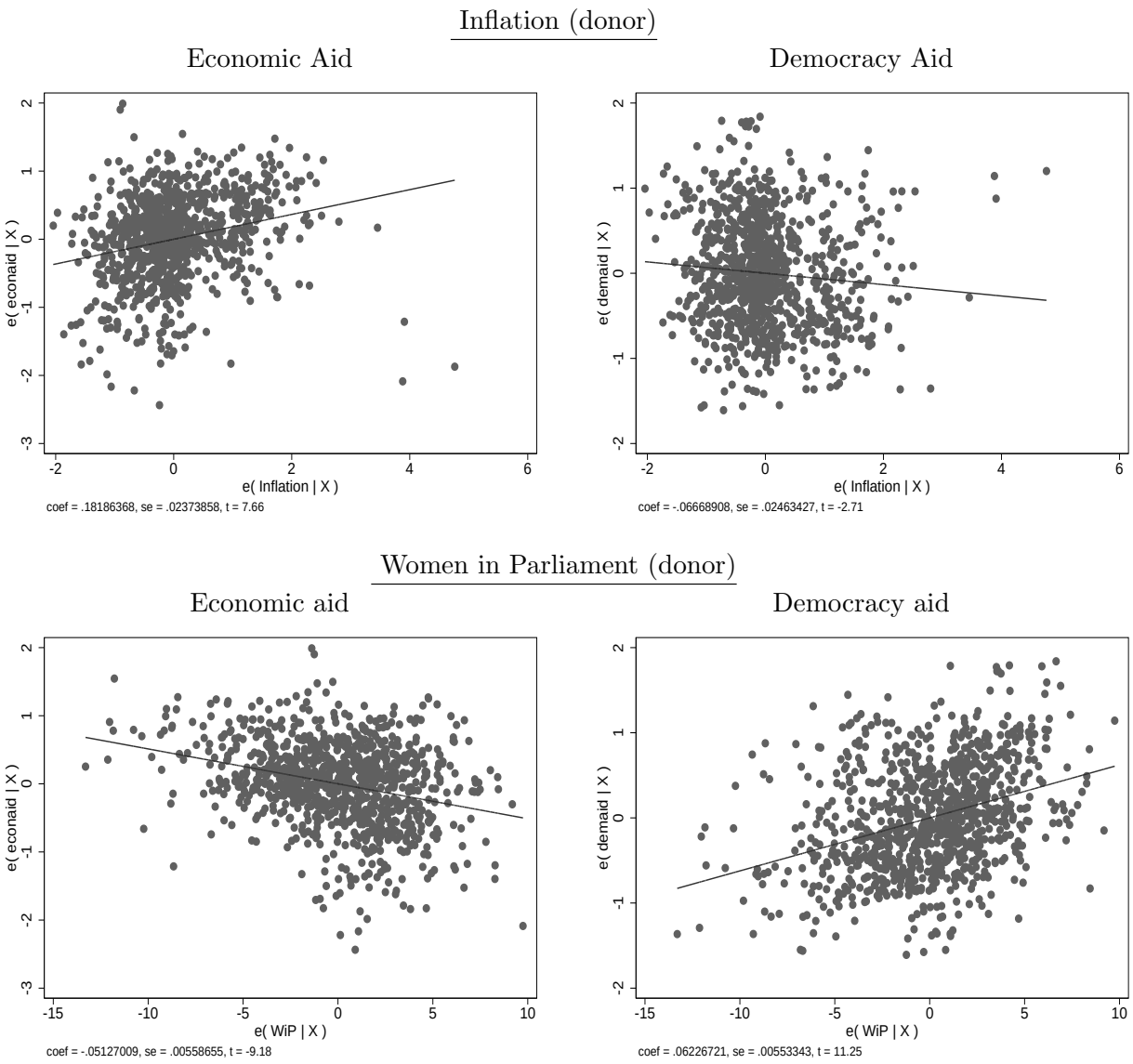

Figure C-1: **Partial correlations for "outside" instruments and foreign aid.**

stage" linear regression. Identification exploits the fact that covariance between the "first-stage" errors and the exogenous variables (X) is not necessarily zero but rather heteroskedastic. Consider the following two-equation model for our application:

$$Y_1 = \beta_1 X + \gamma_1 Aid + \epsilon^1$$
$$Aid = \beta_2 X + \gamma_2 Z + \epsilon^2$$

The main outcome variable of interest (Y_1) is a function of covariates (X) and (Aid), which is endogenous (mismeasured). If Z is correlated with aid but unrelated to Y_1, then Z may used as an "outside" excluded instrument to generate predicted values of Aid. If, however, the $cov(X, \epsilon_2^2) \neq 0$, the "first stage" residuals can be exploited as an "inside" excluded instrument. Because the heteroskedasticity arises from the "first stage", this does not threaten inferences from the estimate of γ_1. In practice, the construction of an "internal," model-based excluded instrument is the following: (1) calculated the residual from a "first-stage" regression ($\epsilon_{i,t}$); (2) calculate the in-sample deviation from the mean for each independent variable in the first stage regression ($X_{i,t,} - \mu_X$); and finally (3) multiply the two: $I = \epsilon_{i,t} \times (X_{i,t,} - \mu_X)$. Note that we can construct one "inside" instrument from each of the independent variables in the first stage equation. Throughout the manuscript, we refer to these "internal" excluded instruments as "Lewbel" instruments.

Since this approach requires the presence of heteroskedastic errors in the first-stage equation, we examine the main model (for each type of aid) from each of the reported tests in the manuscript. As Lewbel (2012) notes, it is easy to examine the scale-related heteroskedasticity with a Breusch-Pagan type test in an OLS context, such as the first-stage equations in the present application. Table C-1 reports these. The null in these tests is that the variance is constant (i.e. there is no heteroskedasticity). Thus a large test statistic (χ^2) indicates a rejection of the null, or the presence of heteroskedasticity; and this means the Lewbel approach is likely to enhance the efficiency of the IV estimator. When the test statistic is small, indicating little heteroskedasticity, including "Lewbel" instruments is unlikely to improve model efficiency.

Table C-1: Heteroskedasticity in the first-stage regressions

Model	**Aid type**	χ^2	**p-value**
Table 1, column 2	Economic	86.1	0.000
Table 1, column 5	Democracy	11.2	0.001
Table 2, column 2	Economic	0.4	0.528
Table 2, column 5	Democracy	8.8	0.003
Table 3, column 2	Economic	12.2	0.001
Table 3, column 5	Democracy	1.2	0.281
Table 4, column 2	Economic	0.06	0.804
Table 4, column 5	Democracy	0.56	0.455

The "inside" instruments are only likely to increase the efficiency of the IV estimator in four of the eight main models where the test statistic is large. This same result can be seen by looking at the F-statistic for all excluded instruments for each model and comparing it with the F-statistic for Z (the outside instrument) only. For example, the complete instrument set in column 2 of Table

1 has an F-statistic of 22.6, but the F-statistic for *Inflation* is only 9.5.[1] This indicates that the "inside" instruments substantially help the "explain" economic aid in that sample. This is another way of showing the same information contained in the large χ^2 statistic in the first row of Table C-1. In contrast, the "inside" instruments do little to explain economic aid in the samples used in Tables 2 and 4. Indeed the F-statistics for all excluded instruments in model 2 is not appreciably larger than the F-statistic for Z only. In fact, for the model in Table 2 column 2, the F-statistic for all excluded instruments is lower than the F-statistic for Z only, meaning that adding "inside" instruments hurts efficiency in the IV estimator. Again, this information is also reflected in the very low χ^2 statistic in the third row of Table C-1.

To provide a consistent estimator across all models and specifications in the main text and robustness checks, we include the "inside" (or "Lewbel") instruments in all reported tests. However, Table C-2 reports results from each of the main models where there is very little heteroskedasticity present in the first stage errors (implying that the "Lewbel" instruments are not very useful). These results parallel those reported in the main text, but the IV estimator is more efficient in the two models, reflected in a larger F-statistic than when using the "Lewbel" instruments as well.

Table C-2: Results without Lewbel instruments

Model	Table 2 column 2	Table 3 column 5	Table 4 column 2	Table 4 column 3	Table 4 column 5	Table 5 column 6
Dependent variable	Mulitparty failure	Electoral misconduct		Opposition vote share		
Economic aid	-0.037		-1.657*	-0.848		
	(0.04)		(0.80)	(0.79)		
Democracy aid		-0.303*			2.373*	0.963
		(0.14)			(1.02)	(0.66)
Log GDP pc	0.012	-0.051	0.052	-0.153	0.133	-0.078
	(0.01)	(0.06)	(0.25)	(0.15)	(0.31)	(0.18)
Log population	-0.007	0.005	-0.594*	-0.426*	0.294	0.036
	(0.02)	(0.05)	(0.31)	(0.25)	(0.20)	(0.14)
Civil war	-0.069					
	(0.06)					
IMF program		0.047	0.617	0.492	-0.814	-0.230
		(0.14)	(0.50)	(0.31)	(0.61)	(0.31)
First multiparty election		0.055				
		(0.12)				
Monitor		-0.067				
		(0.14)				
Growth			-0.040	-0.002	-0.058*	-0.021
			(0.04)	(0.02)	(0.03)	(0.02)
(Intercept)	1.054*	1.171	10.140*	7.362	-6.808	-1.362
	(0.29)	(0.74)	(5.51)	(4.52)	(4.27)	(2.98)
Observations	583	170	84	70	84	70
F-stat	56.4	36.2	8.4	5.7	7.4	3.6

* p<0.10. IV linear models with clustered standard errors in parentheses. Duration polynomials not reported in column 1.

[1]This latter F-statistic reflects the partial correlation between *Inflation* and economic aid, conditional on the covariates *and* the "inside" instruments.

Exploring the exclusion restriction of the "outside" instruments

Overidentification tests

A method for exploring the strength of exclusion assumption is a test of overidentification (Baum, Schaffer and Stillman, 2003). This approach assumes that the "inside" instruments are valid – in the sense of meeting the exclusion restriction – and tests whether the "outside" instruments are orthogonal to the error process in the outcome equation. For each model in the main text, we report the C-statistic, which tests whether "outside" instrument is orthogonal to the errors in the outcome equation, conditional on the "inside" instruments being valid. In all models, the p-value of the C-statistic is greater than the conventional cut-point of 0.10, suggesting that *Inflation* and *WiP* are valid excluded instruments.

Alternative channel of influence

While the C-statistic provides some information on the exclusion restriction for the "outside" instruments, it still assumes some valid excluded instruments to conduct the overidentification tests. Theoretically, there may be alternative factors that are correlated with (even if not causally related to) donor inflation and women in parliament. And these additional, unmodeled (perhaps unobserved) factors may be causally related to the outcomes of interest. To explore this possibility, we examine the partial correlation (i.e. conditional on covariates) between the outside instruments and plausible alternative channels: trade; international and domestic non-governmental organizations; the stock of recipient-country migrants in donor countries; alliances with donors; and the number of international organizations to which the recipient government belongs.

We select these variables because they represent key areas of a country's foreign policy which could potentially be influenced by or correlated with female legislative representation or inflation. These areas include trade, immigration, membership in international organizations, non-governmental organizations, and security. We do not have theoretical priors about the direction through which an increase in the number of women in parliament might influence these foreign policy areas. We thus focus our attention on the variables' statistical association with our instruments.

<u>Measures and data sources</u>

- *Trade*: The data for trade come from the IMF's DOT database. We focus on trade, measured as a logged sum of exports and imports from the aid-receiving country and donor countries in the sample. It could be that female legislators are systematically more/less likely to push for trade increase with democratizing countries than their male counterpart. This leads to the conjecture that an increase in women in parliament affects democratic change in the recipient country through the trade channel.

- *Immigration*: The data for immigration are from the OECD's International Migration Databse. We utilize a migrant stock measure, which captures the annual stock of people whose country of origin is the aid-receiving African country and who currently reside in an OECD donor country. It could be that female legislators are systematically more/less likely than their male counterparts to lobby for increased immigration flows from countries where democratic change occurs. This could imply that women in parliament affects democratic change in the aid receiving country through the channel of immigration.

- *Membership in international organizations*: We use IO membership data to capture "soft" diplomacy. The data for IO membership come from Pevehouse 2006. We create a count of international organizations to whom aid receipient countries belong as members. If women are more/less likely to promote integration through international institutions, then democratic change in the recipient country could be affected through the channel of diplomacy.

- *Alliances*: We use membership in security alliances to capture the security channel. The data for alliance membership come from the Correlates of War Project. We create a count of alliances that are shared between aid recipient countries and OECD countries in the donor sample. If women are more/less likely than men to promote security relations through military alliances then democratic change in the recipient country could be affected through the security channel

- *IGO and NGO Presence*: We use the logged number of international and local non-governmental organizations in aid-receiving countries as proxy for a donor governments' level of partnership with international and local NGOs. The data are drawn from the Yearbook of International Organizations.

Table 3: Bivariate correlations

Alternative Channels	Inflation	Women in Parliament
Trade	-0.012	0.234
International NGOs	-0.004	-0.225
Domestic NGOs	0.002	-0.203
Migrants	0.068	0.172
Alliance	-0.010	0.004
IO membership	-0.302	0.327

If the outside instruments are correlated with these factors, which might be causally related to the outcome variable, then the exclusion assumption is weaker. The partial correlation plots in Figure C-2 show that three of these variables are (partially) correlated with *Inflation*: trade; migrant stock; and IO membership. For trade and IO membership the correlation with *Inflation* is driven in large part by a handful of outliers: recipient countries with low trade and membership relatively few IOs. None of the proxies for alternative channels, however, are (partially) correlated with women in parliament. Thus there is little empirical connection between the *WiP* and these alternative channels. In Appendix B, we report robustness tests in which the specification adds each of these variables as a control. In each of these tests, the main reported result holds.

Treating the "outside" instruments as "plausibly" exogenous

In this section, we relax the exogeneity assumption to assess how doing so influences the estimate of interest. In the spirit of treating the outside instruments as "plausibly exogenous", we examine whether inference from the reported tests wiil still be valid even if these variables (Z) are weakly related to the outcome. Conley, Hansen and Rossi (2012) introduce an approach that allows researchers to assess how the estimate of interest in an outcome equation changes as an excluded

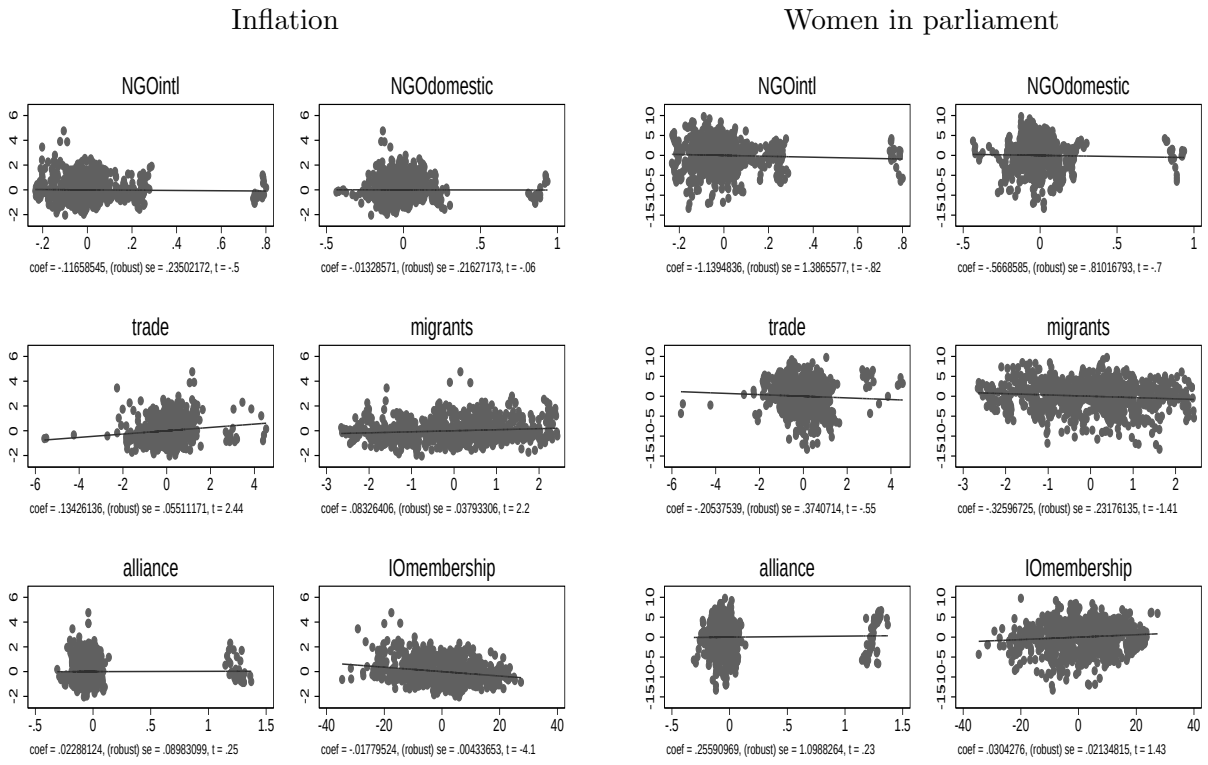

Figure C-2: **Partial correlation between outside instruments and alternative channels.**

instrument becomes more highly correlated with the errors in the outcome equation. Consider the following equation, where Y is the outcome variable, X are (potentially endogenous) covariates and Z is a (potentially) excluded instrument.

$$Y = \beta X + \gamma Z + \epsilon$$

The exogeneity restriction amounts to assuming that $\gamma = 0$. Conley, Hansen and Rossi (2012) examine several approaches to relaxing this assumption by allowing $\gamma \neq 0$ and assessing how do so influences estimates of β.

In our application, we use the unified confidence interval approach, which makes no prior assumption about the distribution of γ but only specifies the possible values for γ. As Conley, Hansen and Rossi (2012) show, this is the most conservative approach insofar as making assumptions about the distribution reduces the coverage area, thus narrowing the errors bands for the estimate of interest.[2] We adopt this approach because we do not have a theoretically informed prior belief about the possible causal relationship between donor inflation (and female parliamentary representation) and political change in African aid recipient countries.[3] We do, however, have an estimate of γ from the reduced-form equation, which we use as a "plausible" upper bound for γ. That is, if the outside instruments are not completely exogenous, then the worst case scenario is that γ is approximately as large as the reduced-form estimate of γ.

Figure C-3 shows how the estimates for *Economic aid* and *Democracy aid* change (for the models reported in Table 1, column 2 and Table 2, column 5, respectively) as we vary γ from zero ("exogenous") up to the reduced form estimate of γ. The differing horizontal scales in each panel of the figure reflect the fact that the estimates of the reduced-form coefficients differ for each model. In the multiparty transition model, the reduced-form estimate of $\gamma_{Inflation}$ is 0.038, while the reduced-form estimate of γ_{WiP} in the multiparty failure model is 0.0037. We might think of these as plausible upper bounds for the extent to which the outside instrument is not exogenous but simply "plausibly exogenous."

When $\gamma_{Inflation}$ equals zero, the left panel depicts the estimate of *Economic aid*, assuming a perfectly exogenous outside instrument. As $\gamma_{Inflation}$ increases, this assumption is less plausible. The left panel shows that even if $\gamma_{Inflation}$ exceeds the reduced-form estimate, then the coverage area for the estimate of *Economic aid* does not contain zero. The right panel of C-3 shows that the exogeneity assumption must be stronger for *WiP* for the estimate of *Democracy aid* to remain valid: the error band contains zero once γ_{WiP} reaches about 0.0006 – or about one-sixth of the size of the reduced-form estimate.

We reiterate that these tests are not tests of instrument exogeneity, but rather simulations of the estimate of interest *if* we assume that the exogeneity assumption is only "plausible" and not "perfect." These tests do not tell us whether we have a "weak" instrument but rather conservatively assess how the causal estimates for foreign aid would change if the "outside" excluded instruments

[2]Conley, Hansen and Rossi (2012, 260) note that "[i]nterval estimates for β, the treatment parameter of interest, can be obtained conditional on any potential value of γ. Taking the union of these interval estimates across different γ values provides a conservative (in terms of coverage) interval estimate for β. A virtue of this method is that it requires only specification of a range of plausible values for β without requiring complete specification of a prior distribution. Its chief drawback is that the resulting interval estimates may be wide."

[3]We set the priors on the "Lewbel" instruments to zero, thus assuming they are exogenous.

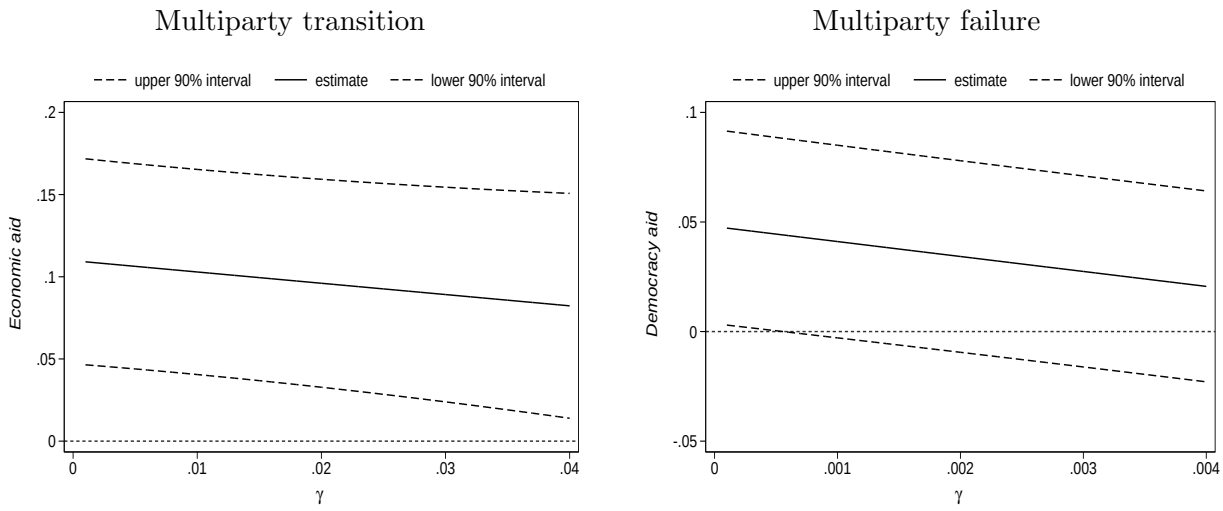

Figure C-3: **Coefficient estimates and 90 percent Unified Confidence Intervals.** Estimates for models reported in Table 1, column 2 (multiparty transition) and Table 2, column 5 (multiparty failure).

are correlated with the errors in the outcome equation.

Finally, we find these tests informative when we consider them alongside the information in Figure C-2, which shows that some plausible alternative channels are correlated with *Inflation* but not with *WiP*. While the union of confidence intervals are not as robust for *WiP*, we believe that this external instrument is more likely to be plausibly exogenous in the first place, as evidenced by the partial correlation plots in the right panel of Figure C-2.

Exploring possible heterogeneous treatment effects

For the IV estimate to recover the average treatment effect of the treated, treatment assignment cannot be heterogeneous. In other words, if the instrument set is only correlated with foreign aid in part of the sample and not another, then the treatment – in this case, the excluded instrument set – is not homogenous and the reported estimates in the outcome equation will not reflect the average treatment effect.

One way to explore for hetereogenous treatment effects is to (randomly) divide the sample in half and estimate the first-stage equation in each sub-sample to see if the partial correlation between the instrument set and the endogenous (foreign aid) variable is present in each. If there is a strong correlation in both sub-samples, then this provides some evidence consistent with the homogenous treatment effect assumption.

For the samples in Tables 1 and 2 of the main text, we randomly split each into two (half) sub-samples. Then we estimate the first stage equation and report the F-statistic for the joint signficance of the excluded instrument set. The top panel of Table C-4 shows the F-stastics from this exercise. For each model, the (random) split-samples each yield F-statistics greater than 10.0. Next, we divide each sample by the median year; and again the F-statistics are large for each sub-sample in each model. The only F-statistic that is less than 10 is the one for the earlier years in the

multiparty transition sample. (Note that the earlier sub-sample contains lagged aid information from the late 1980s.) Finally, when we split each sample geographically (roughly along northern versus southern parts of sub-Saharan Africa), the sub-samples again yield large F-statistics. This exercise suggests that, at least when we divide each of these samples in half, there is evidence of strong treatment assignment in each.

Table C-4: F-statistics from split samples

Model	**Aid type**	**F-stat 1**	**F-stat 2**
		Random sub-samples	
Table 1, column 2	Economic	11.7	15.6
Table 2, column 5	Democracy	15.8	36.1
		Divide by year	
Table 1, column 2	Economic	30.1	9.1
Table 2, column 5	Democracy	12.9	148.9
		Divide by country	
Table 1, column 2	Economic	27.1	17.6
Table 2, column 5	Democracy	35.2	14.6

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