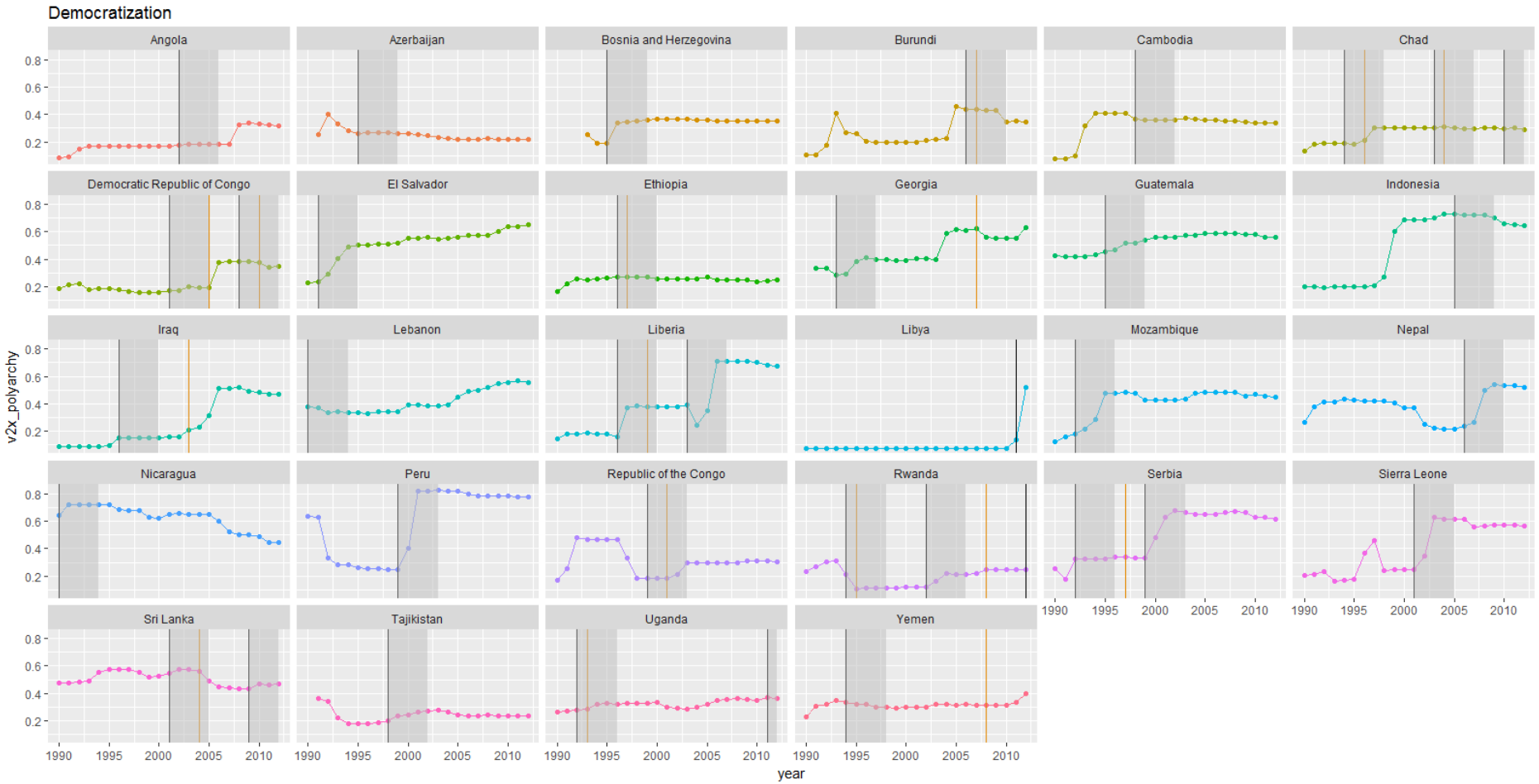
Disaggregating democracy support to explain peaceful democratization after civil wars

Online appendix

Content

Appendix 1: Operationalization of sample and outcome

Figure A1: Post-conflict democratization



V-dem's polyarchy measure plotted for each country after 1990. The dark vertical line indicates the end of a civil war, the red line a renewed outbreak.

Operationalization of sample: post-civil war democratizers

As detailed on p. 7 in the main paper, the population of post-conflict cases comprises all countries that experienced a major civil war (passing the established threshold of 1000 battle-related deaths) that ended in 1990 or later. A post-conflict episode indicates at least one year of peace, starting with the year after the original civil war ended (that is battle deaths dropped below 25). It ends in the year violence recurred or in 2015 (the most recent data available). To avoid a sample bias by this rather arbitrary, though established threshold originating from the Correlates of War project, I identified a broader set of cases that experienced severe violence using a slightly adapted threshold of fatalities, namely 1000 battle deaths within a period of two years, resulting in 36 post-conflict episodes. However, none of the additional cases experienced democratization in the post-war period.

The polyarchy index by V-Dem (Dataset v7.1) serves to measure an increase in democratization starting the year of war ending. The case selection is *not* limited to cases that have achieved full democracy, nor does it exclude cases which experienced a short improvement in their democracy levels followed by a deterioration within the 5-year period. Technically, this is implemented by using the polyarchy index which ranges from 0 to 1. Cases are considered as democratizers if they satisfy one of the following criteria: 1) the median over the up-to-five post-conflict peace years lies 0.2 points above the year of war ending, or 2) the last year of this period received a score of 0.2 points higher than the median. If recurrence occurred within the five-year period, the level of democracy in that year is still included if recurrence happened in the second half of that year (to avoid a bias if a potential increase in democratization caused the recurrence).

Appendix 2: Raw and calibrated data

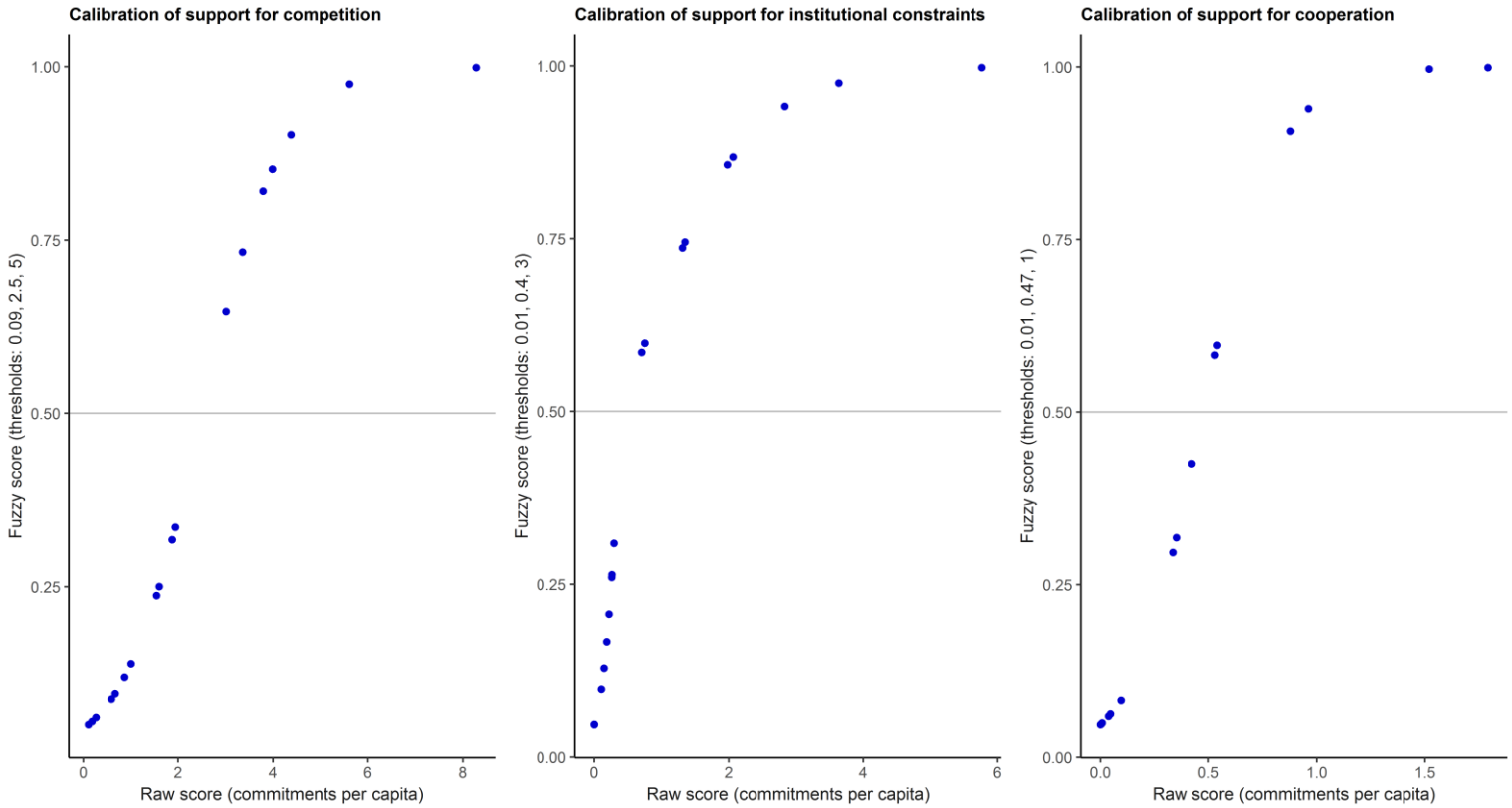
Table A1 : Data matrix

	Raw data	Calibrated set	Raw data	Calibrated set	Raw data	Calibrated set	Raw data	Calibrated set	Calibrated set
Case	**ODA commitments for competition** (USD per capita per year)	**Substantial support for competition**	**ODA commitments for institutional constraints** (USD per capita per year)	**Substantial support for institutional constraints**	**ODA commitments for cooperation** (USD per capita per year)	**Substantial support for cooperation**	**Battle-related deaths**	**Recurrent**	**Peaceful** (inverse of recurrence)
	(0.09, 2.5, 5)*		(0.01, 0.4, 3)*		(0.01, 0.47, 1)*		(25, 100, 1000)*		
Bosnia and Herzegovina	5.613	0.975	1.347	0.745	0.53	0.582	0	0.05	0.95
Chad95	0.108	0.051	0.264	0.264	0	0.047	989	0.948	0.052
DRC02	1.875	0.318	0.147	0.129	0.096	0.083	736	0.889	0.111
El Salvador	1.942	0.336	2.06	0.868	0.008	0.049	0	0.05	0.95
Georgia	0.871	0.12	0.751	0.598	0	0.047	621	0.846	0.154
Guatemala	3.011	0.646	2.834	0.94	1.52	0.997	0	0.05	0.95
Liberia97	3.357	0.733	0	0.047	0	0.047	1787	0.996	0.004
Liberia04	3.984	0.852	1.977	0.856	0.878	0.906	0	0.05	0.95
Libya	0.267	0.061	0.001	0.047	1.791	0.999	322	0.674	0.326
Mozambique	1.602	0.25	0.261	0.26	0.004	0.048	27	0.104	0.896
Nepal	0.673	0.097	0.107	0.099	0.54	0.596	0	0.05	0.95
Nicaragua	4.376	0.901	0.703	0.585	0.047	0.062	0	0.05	0.95
Peru	0.595	0.089	0.293	0.309	0.038	0.059	50	0.187	0.813
Rwanda03	1.545	0.238	1.309	0.737	0.335	0.296	1824	0.996	0.004
Serbia + Kosovo	8.277	0.999	5.768	0.998	0.351	0.318	0	0.05	0.95
Sierra Leone	3.789	0.82	3.639	0.975	0.961	0.939	0	0.05	0.95
Sri Lanka10	0.18	0.056	0.222	0.207	0.423	0.425	0	0.05	0.95
Tajikistan	1.011	0.139	0.187	0.167	0.004	0.048	98	0.485	0.515

***Qualitative anchors: (Full non-membership, point of indifference, full membership)**

Appendix 3: Calibration visualized

Figure A2: Calibration plotted against raw data (ODA commitments per capita per year)

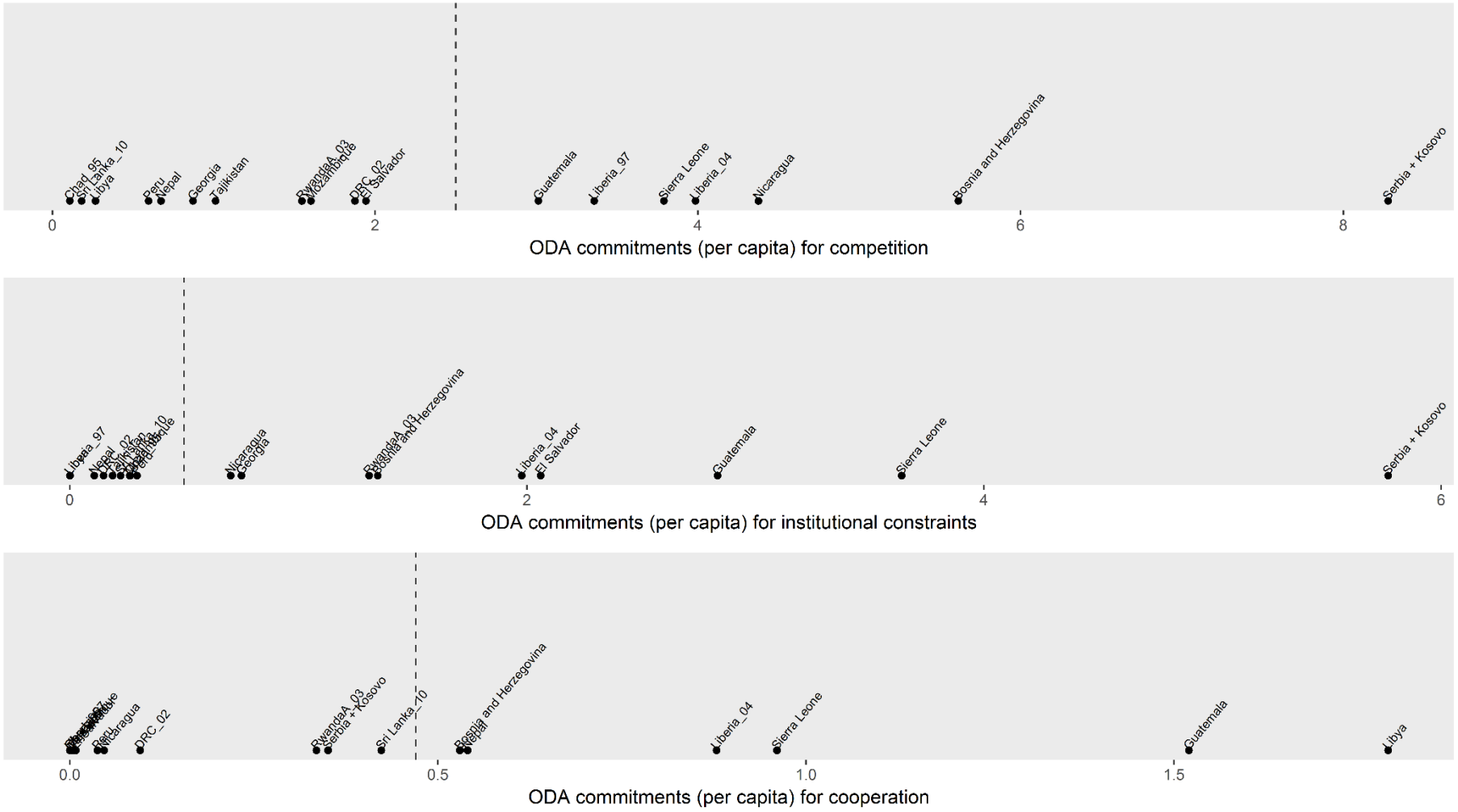


I calibrate the data using the direct method and a logistic function (See Dusa, 2018; Ragin, 2008; Schneider & Wagemann, 2012).[1] Since little existing theoretical guidance exists for what constitutes 'substantial support' in any of these areas, I use a combination of case knowledge, knowledge of development cooperation and

[1]Dusa, Adrian (2018) *QCA with R. A Comprehensive Resource.* Cham: Springer International Publishing. Ragin, Charles (2008). *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago: University of Chicago Press. Schneider, Carsten Q. & Wagemann, Claudius (2012). *Set-Theoretic Methods for the Social Sciences*. Cambridge: Cambridge University Press.

gaps in the data to set the anchors for full non-membership, the point of indifference and full membership. Where clearly identifiable, I use specific cases as "anchor cases" to determine what constitutes substantial support. With regard to cooperation, Nepal is a good example of substantial support provided in the area; e.g. Local Peace Committees were established throughout the country, and a dialogue facilitation mechanism created. With regard to institutional constraints, Nicaragua and Georgia can serve as anchor cases for substantial support. Nicaragua received strong attention in this area by a large number of major donors, to the extent that the Supreme Court even created an international assistance coordinator. Similarly, in post-war Georgia rule of law assistance was a key priority of key donors, including the US, Germany, the EU and the World Bank.

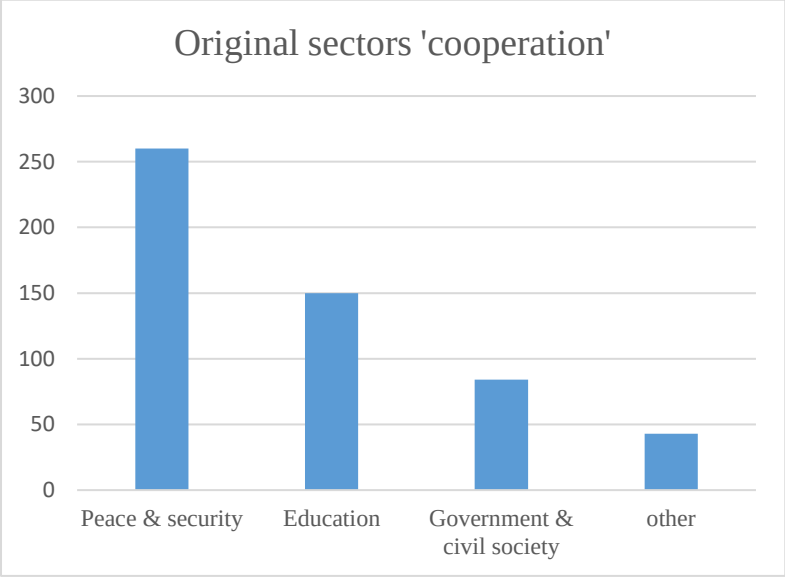
Figure A3: Range of ODA commitments (USD per capita per year)



Appendix 4: Background information on 'cooperation'

The condition ‘cooperation’ comprises projects that had been included under the codes for peace and security, education, and government and civil-society under the original CRS coding scheme. If these projects were among the codes related to two conditions, those commitments were subtracted from those, to capture the intended concepts more precisely and avoid double counting. The graph indicates the distribution of sectors of origin for the projects included in the condition ‘cooperation’.

Figure A4: Coding of support for cooperation



Appendix 5: Predisposition for conflict recurrence

Table A2: Subcomponents predisposition for conflict recurrence (calibrated)

	Case	High predisposition for conflict (calibrated)	Level of difficulty (raw = sum factors)	Low socio-economic development (GDP below 1000)[2]	Resource dependent (30% of GDP)	Not severe war (<0.7 battle deaths per 1000 population)	Short conflict (< 4,5 years)	Conflict in the neighbourhood	>1 fighting faction
Set of cases with a low predisposition for conflict recurrence	Mozambique	0	1	1	0	0	0	0	0
	Nicaragua	0	1	0	0	0	0	1	0
	Sri Lanka10	0	1	0	0	0	1	0	0
	El Salvador	0,3	2	0	0	0	0	1	1
	Guatemala	0,3	2	0	0	0	0	1	1
	Nepal	0,3	3	1	0	1	0	1	0
	Peru	0,3	3	0	0	1	0	1	1
	Rwanda03	0,3	3	1	0	1	0	1	0
	Serbia + Kosovo	0,3	3	0	0	1	1	1	0
	Sierra Leone	0,3	3	1	0	0	0	1	1
	Tajikistan	0,3	3	1	0	0	0	1	1
Set of cases with a high predisposition for conflict recurrence	Bosnia and Herzegovina	0,7	4	1	0	0	1	1	1
	Chad95	0,7	4	1	0	1	0	1	1
	Georgia	0,7	4	0	0	1	1	1	1
	Liberia97	0,7	4	1	0	1	0	1	1
	Serbia	0,7	4	0	0	1	1	1	1
	DRC02	0,7	4	1	0	1	0	1	1
	Libya	1	5	0	1	1	1	1	1
	Liberia04	1	5	1	1	0	1	1	1

[2] Using World Bank definition of low-income country

Table A3: Indicators predisposition for conflict recurrence

Variable	Indicator	Time of measurement	Assigning membership scores of 1, if	Data source
High resource dependency	Share of resource rents in % of GDP	Post-conflict year (of the first five) with highest gdp	> 30 % (Iraq as an anchor case)	WDI
Conflict in the neighbourhood	Neighbouring country experiencing conflict	Up to 5 post-conflict years	1 neighbour experiences conflict	UCDP (Conflict), Gleditsch & Ward (Neighborhood)
Multiple factions	No. of factions	Previous conflict	>= 2 factions	UCDP
Few battle deaths	Number of battle deaths	Previous conflict	<0.7 battle deaths per thousand of population & <10.000 absolute battle deaths	PRIO & Uppsala
Short prior conflict	Conflict years	Previous conflict	< 4.5 years	UCDP
Low income	GDP per capita	Last 2 conflict years	< 1005 USD (World Bank definition of low-income country)	WDI

Table A4: Subcomponents predisposition for conflict recurrence (raw)

	Case	Low socio-economic development (GDP below 1000)[3]	Resource dependence (% of GDP)	Conflict severity (battle deaths per 1000 population)	Conflict length (years)	Conflict in the neighbourhood	Fighting factions
Set of cases with a low predisposition for conflict recurrence	Mozambique	167.73	12.34	7.75	15	0	1
	Nicaragua	1156.4	2.02	7.03	8	1	1
	Sri Lanka10	2594.81	0.1	1.14	4	0	1
	El Salvador	2181.14	0.47	9.56	12	2	2
	Guatemala	2339.7	1.52	4.07	30	1	4
	Nepal	510.45	1.28	0.38	10	2	1
	Peru	3266.73	3.55	0.63	17	1	2
	Rwanda03	367.38	6.6	0.5	6	3	1
	Serbia + Kosovo	1680.89	1.65	0.29	2	1	1
	Sierra Leone	323.28	9.16	2.59	11	2	3
	Tajikistan	373.47	0.71	1.46	7	3	2
Set of cases with a high predisposition for conflict recurrence	Bosnia and Herzegovina	774.93	1.23	3.56	4	1	5
	Chad_95	479.57	14.22	0.42	6	3	4
	Georgia	1286.23	0.21	0.64	2	3	4
	Liberia97	118.96	23.46	0.62	7	2	2
	DRC02	264.03	24.25	0.27	5	8	2
	Libya	4509.26	50.86	0.31	1	3	2
	Liberia04	332.03	44.74	0.84	3	2	2

[3] Using World Bank definition of low-income country

Appendix 6: Contextual factors

Table A5: Background factors

Paths	Cases		Level of democracy at war end	Power division	Demobilisation process	GDP	Total population
Cooperative democratization		Guatemala	0.45	0.39	X	2339.7	11423901.14
		Nepal	0.23	0.46	X	510.45	26910301.57
Controlled competition		Sierra Leone	0.25	0.24	X	323.28	5023964.71
		Bosnia	0.19	0	X	774.93	3793037.43
		Guatemala	0.45	0.39	X	2339.7	11423901.14
		Liberia04	0.39	0.06	X	332.03	3544834.29
		Nicaragua	0.65	0.36	X	1156.4	4516432.71
		Serbia (incl Kosovo)	0.33	0.53	X	1680.89	9178465
		Sierra Leone	0.25	0.24	X	323.28	5023964.71
Not explained		El Salvador	0.24	0.46	X	2181.14	5577495.57
		Mozambique	0.18	0.25	X	167.73	16346736.9
		Peru	0.25	0.39	-	3266.73	26935570
		Sri Lanka (2010)	0.43	0.37	-	2594.81	20347750
		Tajikistan	0.2	0.31	X	373.47	6426051.86
Sources			V-Dem	V-Dem	Banholzer 2014	WDI	WDI

Appendix 7: Simplifying assumptions & different solution types

Table A6: Peaceful democratization (intermediate solution)

Conditions / Paths	*Substantial support for*							
	High conflict predisposition	Competition	Institutional constraints	Cooperation	Cases	Consis-tency	Raw cov	Uni cov
Cooperative democrati-zation	○	○		●	**Nepal**	0.86	0.18	0.08
Controlled competition	○	●	●		Guatemala, **Nicaragua, Serbia (incl Kosovo),** Sierra Leone	0.93	0.37	0.14
Controlled competition		●	●	●	**Bosnia,** Guatemala, **Liberia04,** Sierra Leone	0.93	0.34	0.11
Solution	**~PRED*IC*COMP + ~PRED*~COMP*COOP + IC*COMP*COOP => PEACE**					**0.95**	**0.56**	

Note: Empty circles depict a conditions absence (~), shaded circles its presence. Empty cells indicate that the condition does not help to explain the outcome, it can be either present or absent. Cases in bold are uniquely covered cases. The intermediate solutions include directional expectations that the absence of a high conflict predisposition leads to peace, as well as the presence of support for institutional constraints and cooperation. No expectation is included regarding support for competition.

The intermediate solution demonstrates very well that the parsimonious solution does not conflict with the theoretical expectation that the absence of a high predisposition for conflict recurrence contributes to peace. This is confirmed by the robustness check with the alternative method CNA that avoids drawing on untenable assumptions by using a different minimization algorithm to identify causal dependencies.

Table A7: Simplifying assumptions parsimonious solution (for peace)

Predisposition for recurrence	Institutional constraints	Competition	Cooperation
0	0	1	1
0	1	0	1
1	1	1	0

Note: 0 indicates the absence of the respective condition, 1 its presence. Each row represents a combination of conditions that is used in the minimization process.

Table A8: Simplifying assumptions intermediate solution (for peace)

Predisposition for recurrence	Institutional Constraints	Competition	Cooperation
0	1	0	1
Directional expectation specified:			
0	1	--	1

Note: 0 indicates the absence of the respective condition, 1 its presence. Each row represents a combination of conditions that is used in the minimization process.

The intermediate solutions and the simplifying assumptions used demonstrate that the parsimonious solutions do not contradict the assumption that the presence of a high predisposition contributes to recurrence, while its absence contributes to peace. Moreover, the simplifying assumptions that were used for deriving the parsimonious solution are theoretically plausible (See table 2). Tables 8 and 9 display the counterfactuals for the PS and the IS, respectively, and we can see that the latter are a subset of the former.

Table A9: Peaceful democratization (conservative solution)

Conditions / Paths	High conflict predisposition	*Substantial support for* Competition	Institutional constraints	Cooperation	Cases	Consistency	Raw cov	Uni cov
Cooperative democratization	○	○	○	●	**Nepal**	0.84	0.14	0.08
Controlled competition	○	●	●		Guatemala, **Nicaragua, Serbia (incl Kosovo),** Sierra Leone	0.93	0.37	0.14
Controlled competition		●	●	●	**Bosnia,** Guatemala, **Liberia04,** Sierra Leone	0.93	0.34	0.11
Solution	**~PRED*IC*COMP + ~PRED*~COMP*COOP + IC*COMP*COOP => PEACE**					**0.95**	**0.56**	

Note: Empty circles depict a conditions absence (~), shaded circles its presence. Empty cells indicate that the condition does not help to explain the outcome, it can be either present or absent. Cases in bold are uniquely covered cases.

Table A10: Democratization with recurrence (intermediate solution)

Conditions / Path	High conflict predisposition	Substantial support for: Competition	Institutional constraints	Cooperation	Cases	Consis-tency	Cove rage
Disregarded democrati-zation	●			○	**Chad_95, DRC_02, Georgia, Liberia_97**		
Solution	HIGH_PRED*~COMP*~IC*~COOP => RECURRENCE					**0.75**	**0.59**

Note: Empty circles depict a conditions absence (~), shaded circles its presence. Empty cells indicate that the condition does not help to explain the outcome, it can be either present or absent. The Intermediate solutions include directional expectations that the absence of a high conflict predisposition leads to peace, as well as the presence of support for institutional constraints and cooperation. No expectation is included regarding support for competition.

Table A11: Simplifying assumptions parsimonious solution (for recurrence)

Predisposition for recurrence	Institutional constraints	Competition	Cooperation
1	1	1	0

Note: 0 indicates the absence of the respective condition, 1 its presence. Each row represents a combination of conditions that is used in the minimization process.

Table A12: Simplifying assumptions intermediate solution (for recurrence)

Predisposition for recurrence	Institutional Constraints	Competition	Cooperation
1	1	1	0
Directional expectation specified:			
1	0	--	0

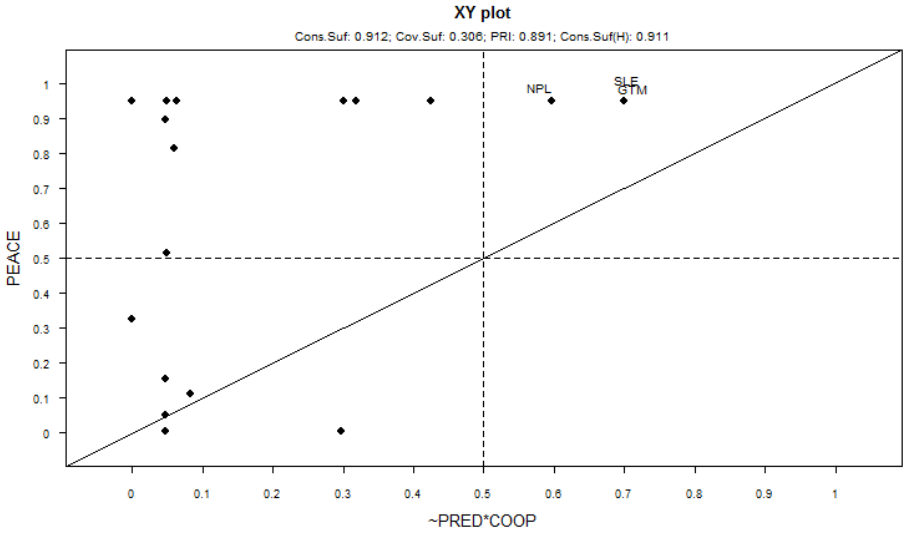
Note: 0 indicates the absence of the respective condition, 1 its presence. Each row represents a combination of conditions that is used in the minimization process.

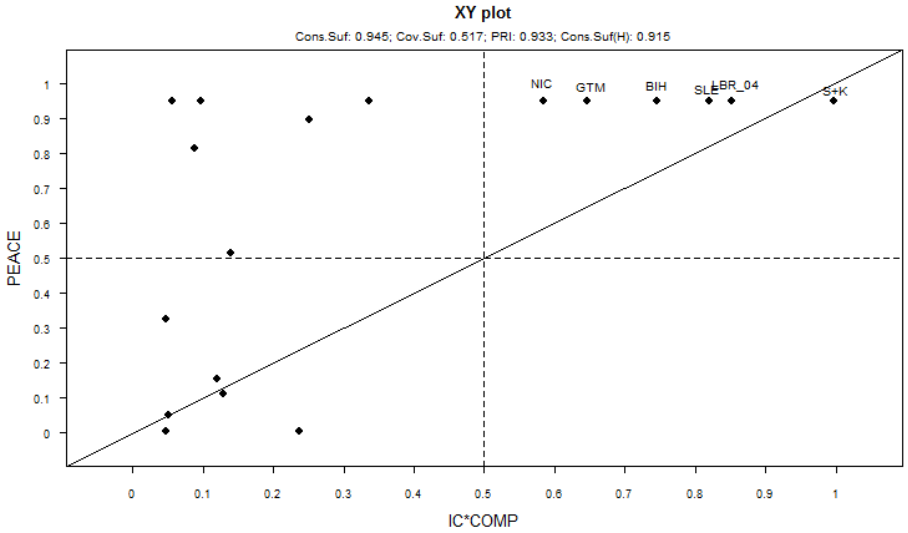
Table A13: Democratization with recurrence (conservative solution)

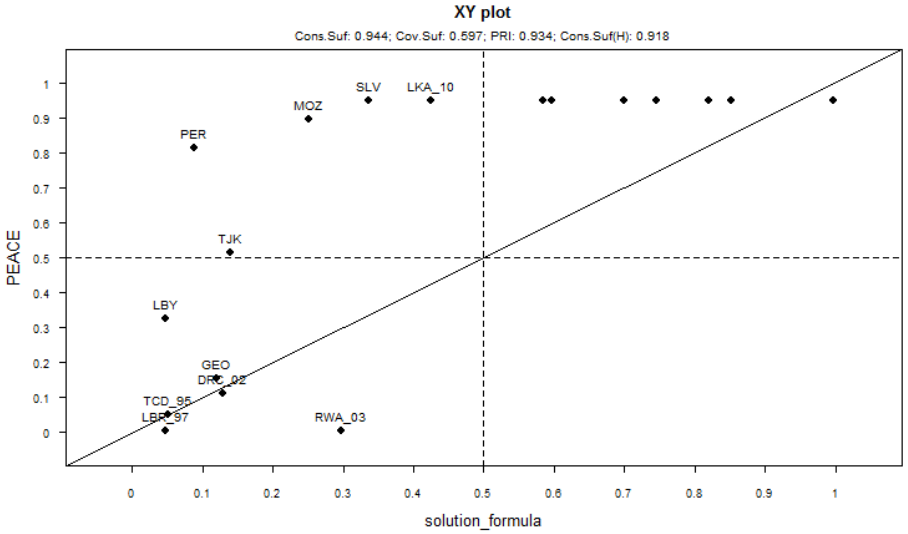
Conditions / Path	High conflict predisposition	Substantial support for: Competition	Institutional constraints	Cooperation	Cases	Consistency	Coverage	Unicov
Disregarded democratization	●		○	○	Chad_95, DRC_02, **Liberia_97**	0.83	0.78	0.07
Disregarded democratization	●	○		○	Chad_95, DRC_02, **Georgia**	0.83	0.78	0.06
Solution	**HIGH_PRED*~IC*~COOP+ HIGH_PRED*~COMP*~COOP => RECURRENCE**					**0.82**	**0.58**	

Appendix 8: Membership of cases in solution

Figure A5: XY-plots of sufficiency for the solution







These graphs plot the membership of all cases in the individual paths and the solution against the outcome.

No cases covered by the solution experienced renewed violence (deviant cases consistency). The graphs illustrate this, although Serbia + Kosovo seems to slightly contradict the statement of sufficiency, which is caused by a fuzzy-set score for peace of 0.95 (due to the direct method of calibration). Yet, since no battle deaths are reported, the case must be considered as entirely peaceful.

Liberia is a typical and uniquely covered case explained by the combination IC*COMP. Liberia is particularly interesting since it is a recurrent case in an earlier peace period.

Appendix 9: Analysis of Necessity

No condition (or combination of conditions) reaches sufficiently high consistency, relevance and coverage scores to be interpreted as necessary. To claim a relation of necessity, it needs to pass a test of accuracy (consistency level >= 0.9), explanatory scope (coverage >= 0.6) and trivialness (indicated by the relevance of necessity). In the graphic representation, all cases would need to be below the diagonal to indicate a relationship of necessity.

Figure A6: XY-plots of necessity for individual conditions

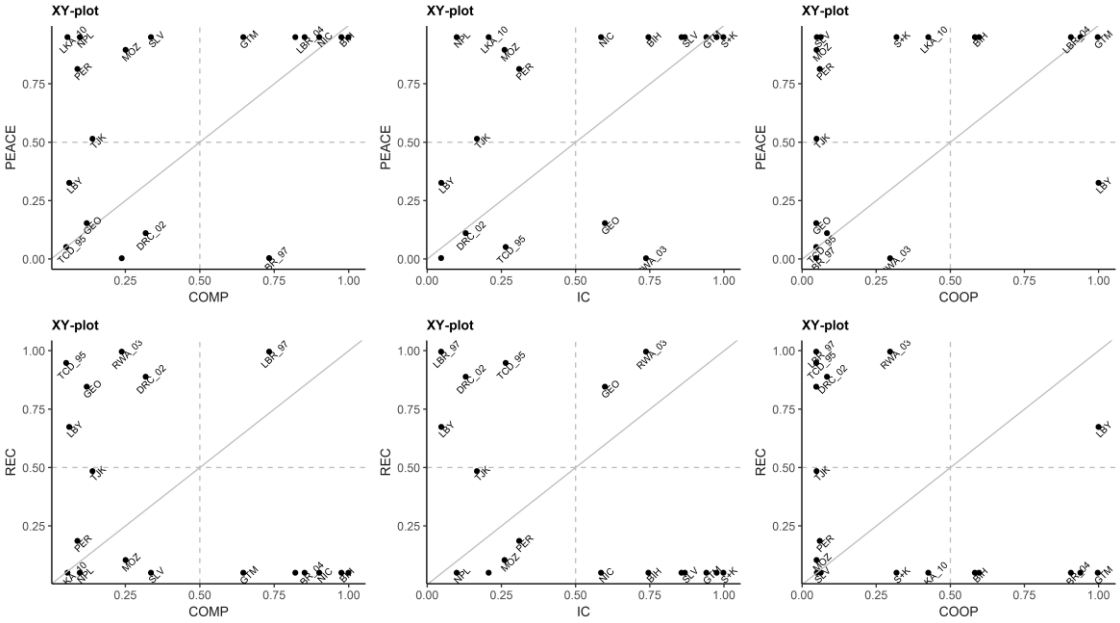


Table *A14*: Necessary conditions

	PEACE			*RECURRENCE*		
conditions	incl	RoN	cov.r	incl	RoN	cov.r
PRED				0.701	0.754	0.584
~PRED + IC	0.910	0.688	0.814			
~PRED + COMP	0.881	0.686	0.802			
~PRED + COOP	0.887	0.658	0.791			
~IC				0.768	0.682	0.551
~COMP				0.811	0.606	0.517

For illustration, listed here are the conditions or combinations of conditions with the highest scores. That regards all conditions or conbinations with a consistency (incl) > 0.8 and coverage (cov.r) and Relevance of Necessirty (RoN) >0.6 for PEACE and consistency (incl) > 0.7 and coverage >0.55 for recurrence (since higher thresholds yield no results).

Appendix 10: Robustness tests

Table A15: Overview over robustness tests

Change	**incl, PRI, cov**	**Parsimonious solution peace**	**incl, PRI, cov**	**Parsimonious solution recurrence**	Relation robustness test to standard model (solution for peace) =	**Superset**	**Subset**
standard model	0.944, 0.934, 0.597	~PRED*COOP + IC*COMP	0.752, 0.683, 0.592	PRED*~COOP			
		1) Changing calibration & raw consistency thresholds					
raw consistency 0.85	0.946, 0.934, 0.523	IC*COMP	0.871, 0.825, 0.537	PRED*~IC*~COOP			X
		Changing calibration thresholds of conditions					
		Point of **I**ndifference (0.5 threshold): **H**igher & **L**ower					
COMP_PIH	0.941, 0.93, 0.563	~PRED*COOP + IC*COMP_PIH	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_PIH	0.941, 0.93, 0.537	~PRED*COOP + IC_PIH*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_PIH	0.95, 0.94, 0.584	~PRED*COOP_PIH + IC*COMP		~IC*COMP + PRED*~COMP*~COOP_PIH	X		
COMP_PIL	0.931, 0.918, 0.633	~PRED*COOP + IC*COMP_PIL	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_PIL	0.932, 0.919, 0.602	~PRED*COOP + IC_PIL*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_PIL	0.932, 0.92, 0.616	~PRED*COOP_PIL + IC*COMP	0.766, 0.7, 0.592	PRED*~COOP_PIL	X		
		Full inclusion threshold: **I**nclusion **H**igher & **L**ower					
COMP_IH	0.944, 0.933, 0.585	~PRED*COOP + IC*COMP_IH	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_IH	0.945, 0.934, 0.584	~PRED*COOP + IC_IH*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_IH	0.944, 0.934, 0.593	~PRED*COOP_IH + IC*COMP	0.827, 0.766, 0.54	PRED*~IC*~COOP_IH	X		
COMP_IL	0.945, 0.936, 0.61	~PRED*COOP + IC*COMP_IL	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_IL	0.945, 0.935, 0.603	~PRED*COOP + IC_IL*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_IL	0.945, 0.934, 0.599	~PRED*COOP_IL + IC*COMP	0.76, 0.695, 0.589	PRED*~COOP_IL	X		
		Full exclusion threshold: **E**xclusion **H**igher & **L**ower					

COMP_EH	0.944, 0.934, 0.597	~PRED*COOP + IC*COMP_EH	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_EH	0.945, 0.935, 0.597	~PRED*COOP + IC_EH*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_EH	0.95, 0.941, 0.596	~PRED*COOP_EH + IC*COMP	0.752, 0.683, 0.592	PRED*~COOP_EH	X		
COMP_EL	0.942, 0.933, 0.569	~PRED*COOP + IC*COMP_EL	0.752, 0.683, 0.592	PRED*~COOP	X		
IC_EL	0.943, 0.933, 0.598	~PRED*COOP + IC_EL*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
COOP_EL	0.944, 0.934, 0.598	~PRED*COOP_EL + IC*COMP	0.752, 0.683, 0.592	PRED*~COOP_EL	X		
Changing calibration of outcome							
PEACE_IL	0.931, 0.919, 0.598	~PRED*COOP + IC*COMP	0.752, 0.693, 0.576	PRED*~COOP	X		
PEACE_IH	0.944, 0.934, 0.597	~PRED*COOP + IC*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
PEACE_PIL	0.944, 0.934, 0.604	~PRED*COOP + IC*COMP	0.764, 0.694, 0.59	PRED*~COOP	X		
PEACE_PIH	0.944, 0.934, 0.604	~PRED*COOP + IC*COMP	0.748, 0.68, 0.598	PRED*~COOP	X		
2) Changing case selection							
Changing definition of democratizers & min peaceful period							
vdem periods democratization	0.932, 0.92, 0.6	~PRED*COOP + COMP*IC	0.782, 0.73, 0.597	PRED*~COOP	X		
Using UDS	0.892, 0.863, 0.546	~PRED*COOP + IC*COMP	0.739 0.625 0.722	PRED*~COMP + PRED*~IC^{x}	X		
peace min 3 years	0.944, 0.934, 0.597	~PRED*COOP + IC*COMP	0.752, 0.683, 0.592	PRED*~COOP	X		
Dropping cases							
dropped: BIH	0.938, 0.926, 0.581	~PRED*COOP + IC*COMP	0.807, 0.751, 0.588	PRED*~COOP	X		
dropped: TCD_95	0.944, 0.934, 0.596	~PRED*COOP + IC*COMP	0.713, 0.623, 0.567	PRED*~COOP	X		
dropped: DRC_02	0.946, 0.937, 0.593	~PRED*COOP + IC*COMP	0.713, 0.63, 0.561	PRED*~COOP	X		
dropped: SLV	0.942, 0.931, 0.62	~PRED*COOP + IC*COMP	0.708, 0.63, 0.701	PRED*~COOP + IC*~COMP	X		
dropped: GEO	0.943, 0.934, 0.595	~PRED*COOP + IC*COMP	0.713, 0.634, 0.557	PRED*~COOP	X		
dropped: GTM	0.938, 0.926, 0.585	~PRED*COOP + IC*COMP	0.751, 0.683, 0.596	PRED*~COOP	X		
dropped: LBR_97	0.892, 0.873, 0.812	~PRED*~IC + COMP	0.713, 0.618, 0.572	PRED*~COOP			
dropped: LBR_04	0.937, 0.924, 0.57	~PRED*COOP + IC*COMP	0.756, 0.691, 0.588	PRED*~COOP	X		

dropped: LBY	0.941 0.932 0.649	COOP + ~PRED*COMP[x]	0.751, 0.683, 0.659	PRED*~COOP			X
dropped: MOZ	0.942, 0.933, 0.624	~PRED*COOP + IC*COMP	0.752, 0.683, 0.601	PRED*~COOP	X		
dropped: NPL	0.944, 0.933, 0.554	IC*COMP		PRED*~IC + PRED*~COMP			X
dropped: NIC	0.94, 0.928, 0.596	~PRED*COOP + IC*COMP	0.752, 0.683, 0.596	PRED*~COOP	X		
dropped: PER	0.944, 0.934, 0.635	~PRED*COOP + IC*COMP	0.759, 0.703, 0.58	PRED*~COOP	X		
dropped: RWA_03	0.882 0.862 0.862	~PRED + IC*COMP[x]	0.736, 0.658, 0.643	PRED*~COOP		X	
dropped: S+K	0.943, 0.931, 0.561	~PRED*COOP + IC*COMP	0.787, 0.728, 0.588	PRED*~COOP	X		
dropped: SLE	0.937, 0.925, 0.573	~PRED*COOP + IC*COMP	0.751, 0.685, 0.588	PRED*~COOP	X		
dropped: LKA_10	0.941, 0.93, 0.611	~PRED*COOP + IC*COMP	0.752, 0.683, 0.596	PRED*~COOP	X		
dropped: TJK	0.943, 0.934, 0.613	~PRED*COOP + IC*COMP	0.736, 0.683, 0.589	PRED*~COOP	X		
3) Alternative operationalization of the outcome							
REC as soon as 25 bd	1, 1, 0.778	~PRED_CS*COOP_CS + IC_CS*COMP_CS	1.000 1.000 0.556	PRED_CS*~IC_CS + PRED_CS*~COMP_CS[x]	X		
Using HIIK	0.767, 0.653, 0.755	IC + ~PRED*COOP		High model ambiguity		X	
4) Changing model specifications							
Changing periods of analysis (+ / - 1 year)							
period 6 years	0.944, 0.934, 0.589	~PRED*COOP + IC*COMP	0.814 0.760 0.582	PRED*~IC*~COOP + PRED*~COMP*~COOP[x]	X		
period 8 years	0.945, 0.935, 0.608	~PRED*COOP + IC*COMP	0.742, 0.672, 0.592	PRED*~COOP	X		
Transforming fuzzy-sets to crisp-sets							
all crisp (recur at 25bd)	1, 1, 0.778	~PRED_CS*COOP_CS + IC_CS*COMP_CS	1.000 1.000 0.556	PRED_CS*~IC_CS + PRED_CS*~COMP_CS[x]	X		
Removing PRED / Including additional condition capturing overall democracy support							
without PRED	0.946, 0.934, 0.523	IC*COMP	0.768, 0.629, 0.346	~IC*COMP			X
added: DEMSUP	0.949, 0.942, 0.58	~PRED *COOP + IC*COMP	0.788, 0.734, 0.532	PRED*~COOP*~IC	X		
[x]indicates that the specifications resulted in a model ambiguity. Only the model with the highest consistency score is presented							

The results hold against a wide range of robustness tests, including and going beyond those proposed as standards of good practice for QCA.

1) **Changing calibration thresholds**

Calibration thresholds of conditions and outcome. A standard test is to slightly alter the position of the calibration thresholds. Given the set theoretic logic, meaningful alteration will have an impact on the results, but should not make a substantive difference to robust results. Raising or lowering the thresholds for full inclusion, full exclusion and the point of indifference[4] for each aspect of support one at the time strongly confirms the original findings. With only minor variations in consistency and coverage scores, the solution for peace remains identical in all instances. For recurrence, alterations also yield mostly the same solution, and except for one model always include absences of democracy support that explain recurrence.

Consistency threshold. Another standard robustness test in QCA is changing the consistency threshold for inclusion of a truth table row in the minimization process. Applying a more stringent "raw consistency" threshold (0.85) excludes Nepal (with a consistency of 0.84). As a consequence, the first path disappears from the solution for peace, and only the path 'controlled competition' remains.

2) **Changing case selection**

Democratizers. Changing the definition of democratizers using the period-finding algorithm by V-Dem yields identical results. Using the Unified Democracy Scores (UDS) to identify democratizers yield the same solution formula for peace and a superset for recurrence.

Peace periods. The same holds for including peace periods only if peace lasted for at least three years.

Dropping cases constitutes another test. Removing all cases one at the time again strongly confirms the findings. In most cases, it results in the same solution with only marginal variation in consistency levels. Without Nepal – the case, which are uniquely covered by the first path – "cooperative democratization" disappears. When Liberia_97 is removed, the first path changes into ~PRED*~IC.

3) **Alternative operationalization of the outcome.**

Outcome. Lowering the threshold for recurrence to the minimum (the UCDP/PRIO dataset includes battle deaths from 25 onwards) and transforming all conditions into crisp-sets to match the crisp-outcome yields the same results. Using an alternative, qualitative measure of peace with the Heidelberg Conflict Barometer slightly changes the solution, but does not contradict it.

4) **Changing model specifications**

[4] Gaps in the data guided the changed calibration thresholds for the robustness test.

Period of analysis. Similarly, changing the period of analysis – including democracy support provided over a period of fewer or more years in the analysis – does not alter the results.

Crisp set. Converting all conditions as well as the outcome to crisp sets (regarding an outbreak of violence with at least 25 battle deaths as recurrence) yields the same findings, at very high consistency and coverage scores (cons. 1.0 and cov. 0.8).

Adding / removing conditions. Another test includes a new condition (DEMSUP), which captures the overall sum of democracy support, confirms that it is indeed the pattern of specific types of support that explains peaceful democratization, and not simply whether a case received a high overall amount. Running the QCA without PRED yields only the path where PRED is not included (as was to be expected) thus yielding a subset of the standard solution formula.

In sum, the results are highly robust across all model specifications. The second path is particularly robust – not only does no specification contradict that path, it is mostly present and identical in all models. Therefore, the combination of support for institutional constraints and competition can be interpreted with particularly high confidence.

Appendix 11: Background of interview partners

Table 6: Interview partners

Origin of interviewee	Organizational affiliation	Identifier & date
domestic	civil society	5_20-11-2017
		8_21-11-2017
		15_24-11-2017
		21_28-11-2017
		22_28-11-2017
		25_30-11-2017
		26_30-11-2017
		27_30-11-2017
		32_01-12-2017
		35_04-12-2017
		37_04-12-2017
		1_16-11-2017
		9_21-11-2017
		17_27-11-2017
	government	12_23-11-2017
		4_20-11-2017
		10_22-11-2017
		39_05-12-2017
	INGO	11_22-11-2017
		20_28-11-2017
	international agency	28_30-11-2017
		31_01-12-2017
		33_04-12-2017
international	government	2_17-11-2017
		23_29-11-2017
		29_01-12-2017
		30_01-12-2017
		34_04-12-2017
		36_04-12-2017
		38_05-12-2017
	INGO	3_17-11-2017
		7_20-11-2017
		16_25-11-2017
	international agency	6_20-11-2017
		13_23-11-2017
		14_23-11-2017
		19_28-11-2017
		24_29-11-2017
		40_26-01-2018*
One interview* was conducted via skype, all others in Monrovia, Liberia.		