

Online Appendix to “Constitutional Origins and Liberal Democracy: A Global Analysis, 1900-2015”

(Not intended for print publication)

Table A1: Coding rules for constitutions with overlapping analysis periods (ten years before the beginning of constitution-making and ten years after enactment)

For each constitutional replacement, we considered at least five years before the beginning of the process for the diff-in-diff analysis (see footnote 17 in the main text). Remaining overlaps were coded as follows:

Constitution 1	Constitution 2	Rule
Years +1 to +5	Years -10 to -6	Coded as const 1
Year +6	Year -10, -9, -8, -7, -6	Coded as const 1
Year +7	Year -10, -9, -8, -7	Coded as const 1
	Year -6	Coded as const 2
Year +8	Year -10, -9, -8	Coded as const 1
	Year -7, -6	Coded as const 2
Year +9	Year -10, -9	Coded as const 1
	Year -8, -7, -6	Coded as const 2
Year +10	Year -10	Coded as const 1
	Year -9, -8, -7, -6	Coded as const 2

Table A2: Procedural rules in constitution-making

		Plural	Non-plural	Total
Constitution-making body type	Constituent convention	23	12	35
	Constituent legislature	42	31	73
	Constitutional conference	5	2	7
	Executive Body	1	15	16
	Other	0	1	1
Selection Method	Popular election	58	37	95
	Appointment	11	21	32
	Mixed	2	2	4
	Other	0	1	1
Electoral formula (for constitution-making bodies selected by popular vote or mixed methods)	Proportional	40	22	62
	Majoritarian	13	15	28
	Mixed	7	2	9
Decision rule (for constituent conventions, constituent legislatures, and constitutional conferences)	Simple majority	1	0	1
	Absolute majority	41	36	77
	Qualified majority	28	9	37

Table A3: Descriptive statistics

	Obs	Mean	Std. Dev.	Min	Max
<i>Outcome variables</i>					
Liberal democracy (V-Dem)	2,317	0.32	0.24	0.01	0.87
De facto legislative constraints (V-Dem)	2,017	0.54	0.29	0.02	0.98
De facto judicial constraints (V-Dem)	2,318	0.58	0.27	0.03	0.99
De facto executive constraints (Polity IV)	2,049	4.55	2.19	1	7
De jure legislative power	2,081	0.32	0.11	0	0.57
De jure executive power	2,080	4.19	1.52	1	7
Bicameral	1,905	0.476	0.50	0	1
Upper chamber relative dominance	929	-0.233	1.186	-2.61	2.11
% directly elected upper chamber members	903	51.16	48.58	0	100
<i>Constitution-making variables</i>					
Elite cooperation	2,376	0.57	0.50	0	1
Citizen consultation	2,376	0.35	0.48	0	1
Citizen voting	2,376	0.38	0.48	0	1
<i>Other variables</i>					
Age of democracy	2,349	7.90	18.55	0	163
Population (log)	2,322	15.82	1.39	11.62	19.90
GDP per capita (log)	2,317	8.11	0.98	6.05	13.22
Plural competition	1,976	0.51	0.35	0	1
Civil society strength	2,206	0.60	0.28	0.02	0.98

Table A4: Average liberal democracy index ten years before beginning of constitution-making process and ten years after enactment. Basic difference-in-differences.

	Before (1,168 country-years)	After (1,149 country-years)	Difference
Plural approval of new constitution (71 cases; 1,311 country-years)	0.234	0.503	0.269*** (0.012)
Non-plural approval of new constitution (57 cases; 1,006 country-years)	0.208	0.319	0.111*** (0.012)
Difference	0.026* (0.012)	0.184*** (0.013)	0.158*** (0.017)

* p <0.05 , ** p <0.01, *** p <0.001

Figure A1: Average liberal democracy index with and without plural approval of new constitution. Predictions with 95% CIs from Model 1, Table 3 in the main text.

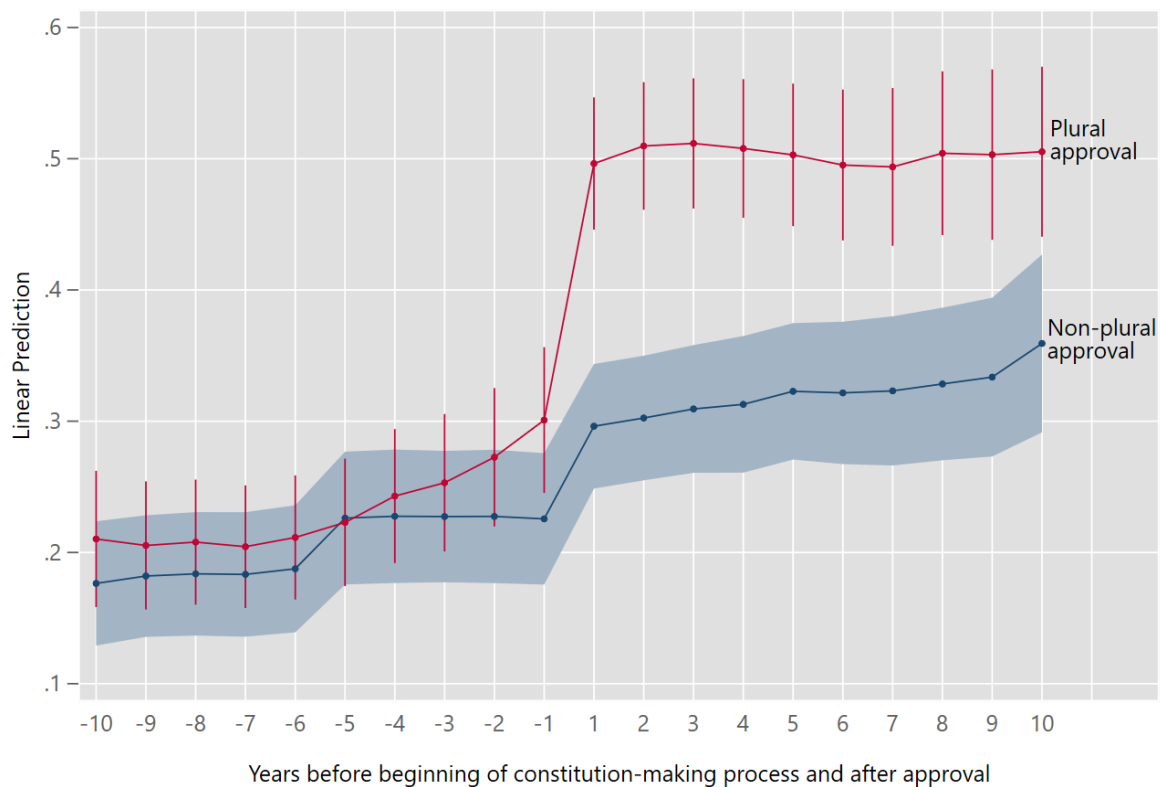


Table A5: Covariate Balance. Linear probability models.

	DV: Plural approval					
	(1)	(3)	(4)	(5)	(6)	(7)
Age of democracy (log)	0.016 (0.043)					
Population (log)		-0.021 (0.045)				
GDP per capita (log)			0.100** (0.038)			
Plural competition				0.033 (0.051)		
Civil society strength					0.059 (0.045)	
1900s						0.303*** (0.084)
1910s						0.178 (0.149)
1920s						0.136 (0.181)
1930s						-0.447 (0.242)
1940s						-0.259 (0.155)
1950s						-0.268 (0.214)
1960s						-0.364* (0.153)
1970s						-0.364* (0.153)
1980s						-0.152 (0.179)
2000s						-0.030 (0.185)
2010s						-0.030 (0.298)
N	128	126	128	100	121	128
R ²	0.001	0.002	0.04	0.004	0.014	0.14

* p<0.05, ** p<0.01; *** p<0.001. Robust standard errors in parentheses. Variables are standardized. The 1990s are the excluded category in model 7. Each variable enters the model with its average level in the pre-treatment period (ten years before the adoption of the constitution), except age of democracy which is taken at its maximum. Constitution-making processes were assigned to a decade based on the year in which the constitution was enacted.

Table A6: DiD Estimates of the Effect of Constitution-Making Modalities on Liberal Democracy, 1900 - 2015. Ordinal coding of plural approval and popular participation variables.

	DV: Liberal democracy index			
	(1)	(2)	(3)	(4)
Non-plural approval × after constitution ¹	-0.165*** (0.045)			-0.166*** (0.045)
Plural approval by 3 or more forces × after constitution ¹	0.011 (0.061)			0.012 (0.060)
After constitution	0.311*** (0.037)	0.239*** (0.029)	0.263*** (0.029)	0.324*** (0.043)
One instance of citizen consultation × after constitution ²		0.040 (0.056)		0.037 (0.052)
Two instances of citizen consultation × after constitution ²		-0.025 (0.076)		-0.020 (0.066)
Three instances of citizen consultation × after constitution ²		0.001 (0.026)		-0.060 (0.167)
One referendum × after constitution ³			-0.047 (0.048)	-0.053 (0.046)
Two referendums × after constitution ³			-0.064 (0.160)	-0.029 (0.161)
Constant	0.202*** (0.012)	0.199*** (0.013)	0.199*** (0.013)	0.203*** (0.012)
Decade fixed effects	NO	NO	NO	NO
Year fixed effects	YES	YES	YES	YES
Constitution fixed effects	YES	YES	YES	YES
Constitution-making processes	128	128	128	128
N (Constitution-years)	2,317	2,317	2,317	2,317
R ²	0.41	0.36	0.36	0.42

* p<0.05, ** p<0.01; *** p<0.001. Robust standard errors clustered at the constitution-making process level in parentheses.

¹ Plural approval by two political forces is the excluded category. There is a positive and significant difference in the effect of constitutions approved by 2 or by 3+ forces and those approved by a single force, but not between approval by 2 or 3+ forces.

² No instances of citizen consultation is the excluded category.

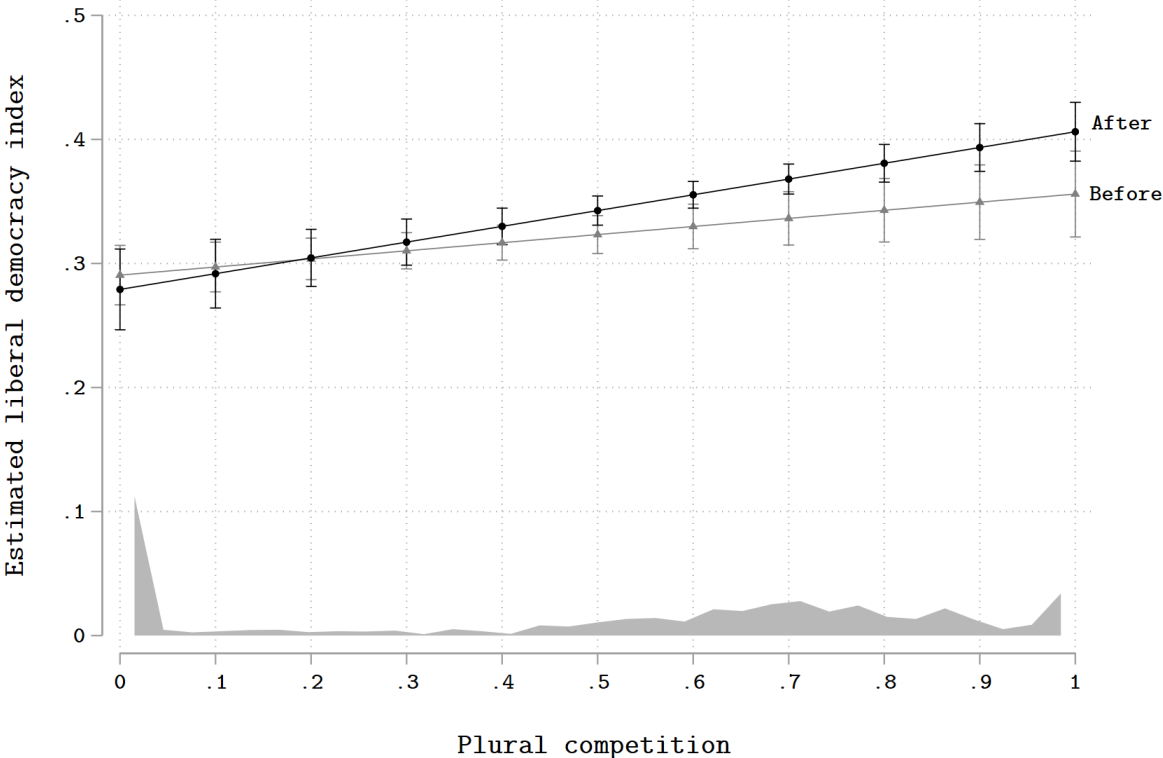
³ No referendums is the excluded category.

Table A7: Interacting plural competition with post-enactment period. DiD Estimates of the Effect of Constitution-Making Modalities on Liberal Democracy, 1900 - 2015.

	DV: Liberal democracy	
	(1)	(2)
	All constitutions	Democratic constitutions
Plural approval × after constitution	0.065** (0.024)	0.088** (0.029)
Citizen consultation × after constitution	-0.034 (0.025)	-0.031 (0.030)
Citizen voting × after constitution	-0.021 (0.023)	-0.044 (0.028)
After constitution	-0.020 (0.032)	-0.020 (0.037)
Age of democracy	0.001 (0.001)	0.001 (0.001)
Population (log)	-0.075 (0.058)	-0.066 (0.064)
GDP per capita (log)	0.055* (0.024)	0.037 (0.029)
Plural competition	0.064* (0.026)	0.037 (0.035)
Plural competition × after constitution	0.064* (0.029)	0.054 (0.038)
Civil society strength	0.512*** (0.039)	0.579*** (0.044)
Constant	0.667 (0.916)	0.673 (0.991)
Decade fixed effects	YES	YES
Year fixed effects	YES	YES
Constitution fixed effects	YES	YES
Constitution-making processes	127	91
N (Constitution-years)	1,972	1,375
R ²	0.81	0.85

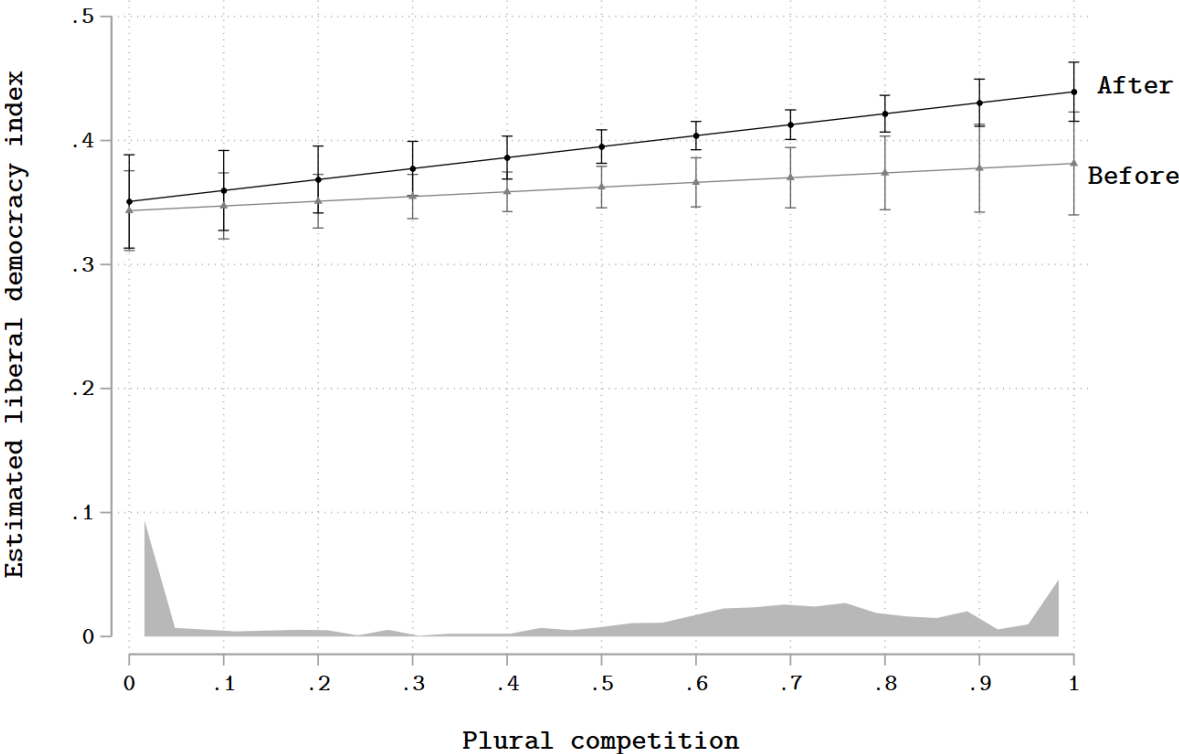
* p<0.05, ** p<0.01; *** p<0.001. Robust standard errors clustered at the constitution-making process level in parentheses.

Figure A2: Estimated effect of plural competition on liberal democracy before and after constitution-making. Full sample (all constitutions). 95% CIs.



Note: The density histogram at the bottom of the graph shows the distribution of the data along the plural competition variable, for all cases of constitution making. The graph is based on a specification identical to column 1 in Table A7, except that fixed effects for each year in the constitution-making process (ten before and ten after) were dropped to make the adjusted predictions estimable, due to high collinearity with the plural competition variable.

Figure A3: Estimated effect of plural competition on liberal democracy before and after constitution making. Restricted sample (constitutions enacted under democracy). 95% CIs.



Note: The density histogram at the bottom of the graph shows the distribution of the data along the plural competition variable, for constitution-making processes in which the constitution was enacted under democracy. The graph is based on a specification identical to column 2 in Table A7, except that fixed effects for each year in the constitution-making process (ten before and ten after) were dropped to make the adjusted predictions estimable, due to high collinearity with the plural competition variable.

Figure A4: Estimated effects of plural versus non-plural approval of new constitutions on liberal democracy, with 99% and 95% confidence intervals. Restricted sample (constitutions enacted under democracy). Diff-in-Diff estimates from Table 3, column 6 in the main text.

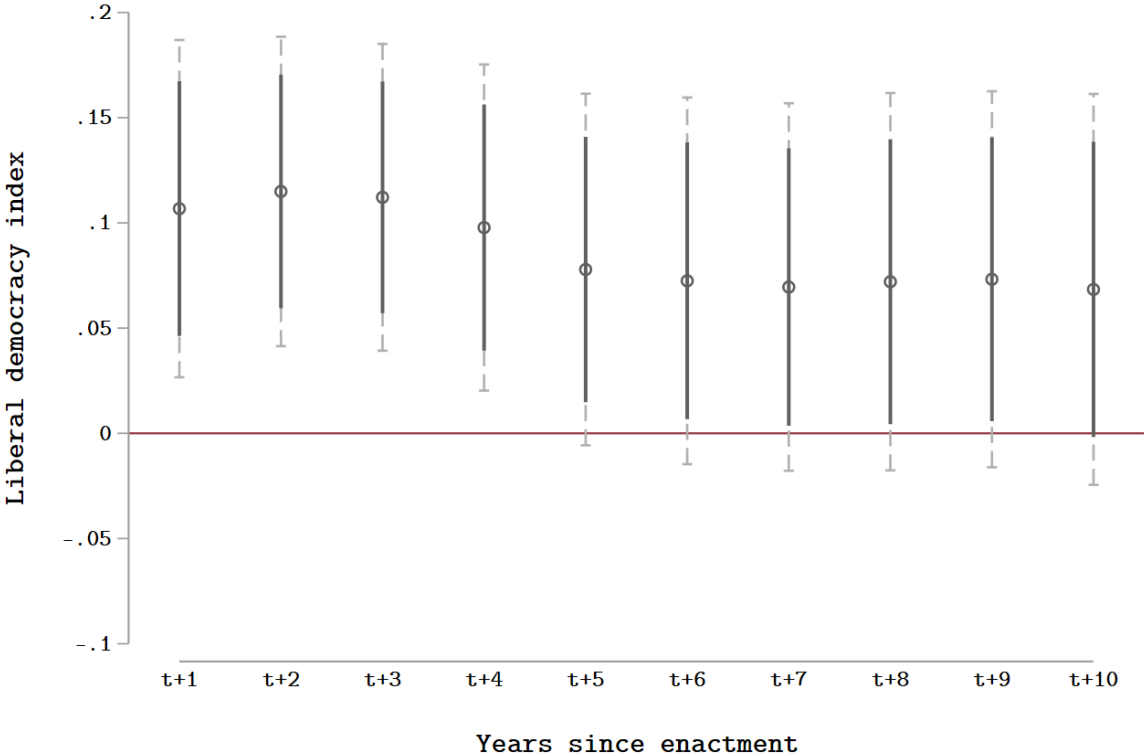


Table A8: Baseline DiD Estimates of the Effect of Constitution-Making Modalities on Executive Constraints, 1900 - 2015.

	DV: De facto legislative constraints (V-Dem)		DV: De facto judicial constraints (V-Dem)		DV: De facto executive constraints (Polity IV)	
	(1)	(2)	(1)	(2)	(1)	(2)
	All constitutions	Democratic constitutions	All constitutions	Democratic constitutions	All constitutions	Democratic constitutions
Plural approval × after const.	0.172** (0.060)	0.153+ (0.085)	0.170*** (0.045)	0.132* (0.059)	1.454** (0.437)	1.036* (0.499)
Citizen consultation × after const.	0.026 (0.064)	0.035 (0.088)	0.077 (0.050)	0.063 (0.069)	0.317 (0.429)	-0.009 (0.510)
Citizen voting × after const.	-0.047 (0.061)	-0.064 (0.074)	-0.059 (0.048)	-0.049 (0.061)	-0.341 (0.445)	-0.391 (0.488)
After constitution	0.205*** (0.051)	0.222** (0.075)	0.082* (0.039)	0.113* (0.055)	1.096* (0.420)	1.557** (0.461)
Constant	0.376*** (0.020)	0.404*** (0.026)	0.483*** (0.015)	0.479*** (0.019)	3.387*** (0.179)	3.396*** (0.221)
Decade fixed effects	NO	NO	NO	NO	NO	NO
Year fixed effects	YES	YES	YES	YES	YES	YES
Constitution fixed effects	YES	YES	YES	YES	YES	YES
Constitution-making processes	128	91	128	91	127	90
N (Constitution-years)	2,017	1,461	2,318	1,648	2,049	1,449
R ²	0.40	0.40	0.29	0.31	0.31	0.38

+ p<0.10, * p<0.05, ** p<0.01; *** p<0.001. Robust standard errors clustered at the constitution-making process level in parentheses.

Table A9: DiD Estimates of the Effect of Constitution-Making Modalities on Constitutional Design, 1900 - 2015.

	DV: De jure legislative power		DV: De jure executive power	
	(1) All constitutions	(2) Democratic constitutions	(3) All constitutions	(4) Democratic constitutions
Plural approval × after constitution	0.079** (0.026)	0.074* (0.031)	-0.593+ (0.347)	-0.748+ (0.402)
Citizen consultation × after constitution	-0.039 (0.027)	-0.040 (0.035)	0.613 (0.380)	0.124 (0.423)
Citizen voting × after constitution	-0.047+ (0.025)	-0.053+ (0.031)	0.142 (0.333)	0.406 (0.387)
After constitution	0.005 (0.041)	0.020 (0.047)	1.971*** (0.416)	2.286*** (0.532)
Age of democracy	0.001 (0.001)	0.001 (0.001)	-0.007 (0.011)	0.003 (0.008)
Population (log)	-0.015 (0.068)	0.004 (0.067)	-2.507*** (0.693)	-2.299** (0.739)
GDP per capita (log)	-0.006 (0.027)	0.008 (0.031)	-0.410 (0.515)	-0.991+ (0.584)
Plural competition	0.016 (0.019)	0.024 (0.029)	0.070 (0.208)	-0.113 (0.297)
Civil society strength	-0.006 (0.033)	-0.023 (0.046)	0.168 (0.414)	0.307 (0.462)
Constant	0.563 (1.094)	0.169 (1.053)	47.338*** (10.876)	48.994*** (11.900)
Decade fixed effects	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES
Constitution fixed effects	YES	YES	YES	YES
Constitution-making processes	125	90	125	90
N (Constitution-years)	1,784	1,260	1,784	1,260
R ²	0.25	0.29	0.32	0.42

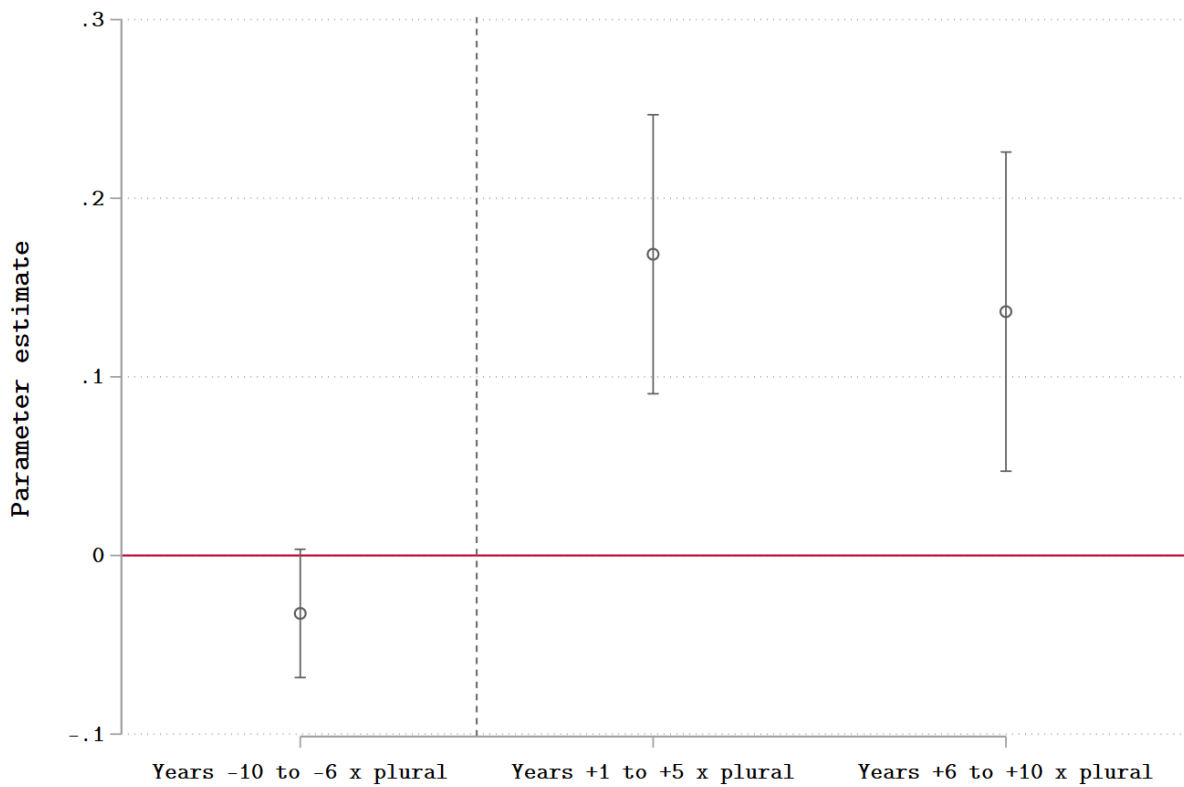
+ p<0.10; * p<0.05, ** p<0.01; *** p<0.001. Robust standard errors clustered at the constitution-making process level in parentheses.

Table A10: Baseline DiD Estimates of the Effect of Constitution-Making Modalities on Bicameralism and Upper-chamber Characteristics, 1900 - 2015.

	(1) DV: Bicameralism	(2) DV: Upper chamber relative dominance	(3) DV: % of directly elected upper chamber members
Plural approval × after constitution	-0.041 (0.110)	-0.332 (0.268)	39.550* (15.929)
Citizen consultation × after constitution	-0.002 (0.115)	0.547* (0.254)	-39.777* (17.994)
Citizen voting × after constitution	0.009 (0.110)	0.680** (0.253)	-6.676 (15.396)
After constitution	0.087 (0.084)	-0.593** (0.195)	0.772 (10.213)
Constant	0.431*** (0.037)	-0.036 (0.082)	45.155*** (4.985)
Decade fixed effects	YES	YES	YES
Constitution fixed effects	YES	YES	YES
Constitution-making processes	128	81	76
N (Constitution-years)	1,905	929	903
R ²	0.018	0.35	0.21

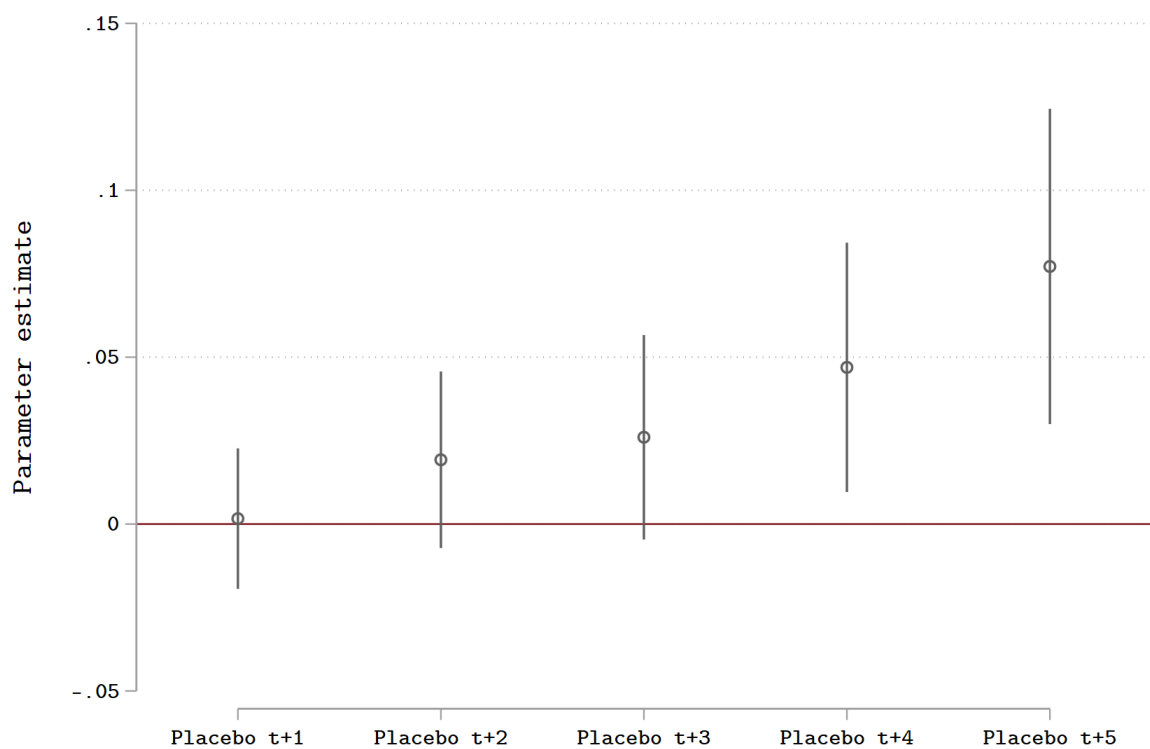
* p<0.05, ** p<0.01; *** p<0.001. Robust standard errors clustered at the constitution-making process level in parentheses.

Figure A5: Feasibility of the Parallel Trends Assumption. 95% CI



Note: Figure reports coefficients of the interaction quinquennium \times plural approval in constitution making. The second quinquennium (years -5 to -1) is the omitted category. Plural approval is an indicator variable. Standard errors are clustered at the constitution level.

Figure A6: Placebo test



Note: Figure reports coefficients of the interaction between plural approval and a placebo post-treatment period. Years -5 to -1 before the beginning of the constitution-making period are artificially taken as years +1 to +5 post-enactment. See main text.