

Electronic Supplementary Material
Constitutional Renewals: The Lineage of Democratizing Constitutions

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Table A1
Political Pluralism and Citizen Participation in Constitution Making, 1900–2020

Region	Politically Plural Approval		Direct Citizen Participation	
	Yes	No	Yes (*)	No
Western Europe	17	5	10	12
Eastern Europe	17	5	12	10
Africa	13	13	20	6
Asia	6	8	8	6
Middle East	1	2	3	0
Latin America	13	19	17	15
Caribbean	2	5	3	4
Oceania	2	0	2	0
Total	71 (0.55)	57 (0.45)	75 (0.59)	53 (0.41)

(*) Non-electoral and electoral participation

Source: Authors, *Comparative Constitution Making Database*

Table A2. Descriptive statistics

	Obs.	Mean	Std. Dev.	Min	Max
<i>Outcome variables</i>					
<i>Formal design</i>					
Formal executive constraints	2,236	4.43	2.31	0	10
Formal power of legislature	2,246	0.32	0.12	0	0.57
Formal civil rights & liberties	2,227	25.02	10.9	0	53
Formal participatory institutions	2,367	1.03	1.56	0	6
Upper house formal blocking power	2,227	0.35	1.34	-1	2
<i>Compliance/enforcement</i>					
De facto executive constraints	2,066	4.56	2.19	1	7
Horizontal accountability	2,213	0.25	0.92	-1.99	2.33
Civil liberties index	2,353	0.61	0.26	0.03	0.97
Direct democracy utilization	2,214	0.49	0.82	0	3.62
<i>Explanatory variables</i>					
<i>Constitution-making variables</i>					
Plural approval	2,377	0.57	0.50	0	1
Citizen consultation	2,377	0.35	0.48	0	1
Citizen voting	2,377	0.37	0.48	0	1
<i>Electoral and social variables</i>					
Plural competition	2,181	34.74	24.65	0	80.37
Civil society strength	2,233	0.60	0.28	0.02	0.98
<i>Other variables</i>					
Age of democracy	2,350	7.9	18.55	0	163
GDP per capita (thousands)	2,317	7.119	31.721	0.425	540.68
Population (millions)	2,377	20.35	44.6	0.11	439

Dealing with multiple simultaneous treatments: restricting group comparisons

Table A3. Definition of groups by possible combinations of characteristics of the constitution-making process

Group	Plural approval (D1)	Citizen consultation (D2)	Citizen voting (D3)	Number of constitution-making processes
1	No	No	No	24
2	No	Yes	No	12
3	No	No	Yes	14
4	No	Yes	Yes	7
5	Yes	No	No	29
6	Yes	Yes	No	14
7	Yes	No	Yes	16
8	Yes	Yes	Yes	12
Total				128

- To identify the effect of the **plural approval** of constitutions (D1) on the outcome variables, we run our models in subsets of data with variation in treatment status with respect to D1 but no variation in D2 and D3. In other words, we make sure that the control group is composed of cases that differ in treatment status with respect to D1, and D1 only. Intuitively, we assume that, in order to identify the effect of the plural approval of constitutions, cases where the constitution was not approved plurally and other observed characteristics of the process (related to citizen participation) were the same as those in the plural group provide the adequate counterfactual.
- Following this logic, the first natural comparison is the one between groups 1 and 5 in the table. This identifies the effect of pluralism by comparing a group exclusively exposed to D1 (D2 and D3 = 0) with a group not exposed to any treatment.
- Alternatively, we could rely on an adjusted DiD strategy, where both the treatment and the control group are exposed to D2 and/or D3, but only the treatment group is exposed to D1. Intuitively, this identifies the effect of pluralism by netting it out from the other simultaneous treatments. In other words, the other treatments (D2 and D3) are neutralized at values other than zero. Under this strategy, the possible comparison groups are: 2 vs. 6, 3 vs. 7, and 4 vs. 8.

- The following table presents the DiD coefficient obtained when the estimation sample is restricted to the different relevant comparison groups. For simplicity, we only report the DiD estimate and the standard error obtained from each model.

Table A4. DiD estimates of the effect of plural approval on constitutional design and enforcement in different estimation subsamples

	Estimation sample (groups under comparison)				
	Full sample (plural vs. not)	1 vs. 5 (plural vs not, no consultation or voting)	2 vs. 6 (plural vs. not, consultation, no voting)	3 vs. 7 (plural vs. not, no consultation, voting)	4 vs. 8 (plural vs. not, consultation and voting)
<i>Constitutional design outcomes</i>					
Formal executive constraints	0.90*** (0.20)	0.93* (0.37)	0.44 (0.34)	0.96* (0.40)	1.36*** (0.33)
Formal power of legislature	0.74*** (0.19)	0.89** (0.29)	0.63+ (0.36)	0.85* (0.41)	0.34 (0.49)
Formal civil rights & liberties	0.62*** (0.17)	0.47* (0.22)	0.86* (0.40)	0.62 (0.40)	0.55 (0.45)
Formal participatory institutions	0.44* (0.18)	0.57* (0.27)	0.31 (0.37)	0.28 (0.31)	0.06 (0.60)
<i>Constitutional enforcement outcomes</i>					
Executive constraints (Polity IV)	0.66** (0.20)	0.61+ (0.31)	0.26 (0.37)	0.93+ (0.47)	0.87 (0.55)
Horizontal accountability index	0.48* (0.19)	0.57* (0.28)	0.27 (0.40)	0.25 (0.40)	0.85 (0.67)
Civil liberties index	0.51** (0.19)	0.60* (0.25)	0.40 (0.42)	0.14 (0.45)	0.84 (0.52)
Direct democracy utilization	-0.05 (0.15)	-0.05 (0.17)	-0.11 (0.19)	-0.58+ (0.31)	0.55 (0.52)

DiD coefficients with plural approval as treatment variable. Each constitution-making process is observed ten years before initiation and ten years after constitutional approval. Standardized outcome variables (mean=0, SD=1). Standard errors in parentheses clustered at the constitution-making process level. All specifications include constitution-making process and year-in-process fixed effects. See Table A3 for composition of comparison groups and sample sizes. +p<0.1, *p<0.05, **p<0.01, ***p<0.001.

- Following the same logic as above, we now present diff-in-diff estimates from a series of models that isolate the treatment effects of **citizen consultation**. The relevant comparisons here are groups: 1 vs. 2, 3 vs. 4, 5 vs. 6, and 7 vs. 8.

Table A5. DiD estimates of the effect of citizen consultation on constitutional design and enforcement, in different subsamples

	Estimation sample (groups under comparison)				
	Full sample	1 vs. 2 (consultation vs not, non-plural, no voting)	3 vs. 4 (consultation vs. not, non-plural, voting)	5 vs. 6 (consultation vs. not, plural, no voting)	7 vs. 8 (consultation vs. not, plural, voting)
<i>Constitutional design outcomes:</i>					
Formal executive constraints	-0.42* (0.20)	-0.23 (0.38)	-0.56 (0.38)	-0.69* (0.33)	-0.19 (0.35)
Formal power of legislature	-0.22 (0.20)	-0.20 (0.34)	0.31 (0.48)	-0.50 (0.32)	-0.20 (0.42)
Formal civil rights & liberties	0.53** (0.19)	0.33 (0.31)	0.42 (0.45)	0.73* (0.33)	0.32 (0.42)
Formal participatory institutions	0.49* (0.20)	0.25 (0.22)	1.14+ (0.55)	-0.01 (0.40)	0.93* (0.40)
<i>Constitutional enforcement outcomes:</i>					
Executive constraints (Polity IV)	0.15 (0.20)	0.32 (0.38)	0.01 (0.63)	0.01 (0.30)	-0.01 (0.37)
Horizontal accountability index	0.09 (0.21)	0.32 (0.36)	-0.46 (0.65)	0.03 (0.33)	0.17 (0.42)
Civil liberties index	0.41* (0.19)	0.53 (0.39)	-0.10 (0.55)	0.37 (0.30)	0.62 (0.40)
Direct democracy utilization	0.33+ (0.17)	0.02 (0.14)	0.12 (0.47)	-0.03 (0.21)	1.25** (0.37)

DiD coefficients with citizen consultation as treatment variable. Each constitution-making process is observed ten years before initiation and ten years after constitutional approval. Standardized outcome variables (mean=0, SD=1). Standard errors in parentheses clustered at the constitution-making process level. All specifications include constitution-making process and year-in-process fixed effects. See Table A3 for composition of comparison groups and sample sizes. +p<0.1, *p<0.05, **p<0.01, ***p<0.001.

- Next, we present diff-in-diff estimates from a series of models that isolate the treatment effects of **citizen voting** in ratification referenda. The relevant comparison groups for this purpose are: 1 vs. 3, 2 vs. 4, 5 vs. 7, and 6 vs. 8.

Table A6. DiD estimates of the effect of citizen voting on constitutional design and enforcement, in different subsamples

	Estimation sample (groups under comparison)				
	Full sample	1 vs. 3 (voting vs not, non-plural, no consultation)	2 vs. 4 (voting vs. not, non- plural, consultation)	5 vs. 7 (voting vs. not, plural, no consultation)	6 vs. 8 (voting vs. not, plural, consultation)
<i>Constitutional design outcomes:</i>					
Formal executive constraints	-0.37+ (0.21)	-0.42 (0.40)	-0.76* (0.36)	-0.38 (0.37)	0.12 (0.31)
Formal power of legislature	-0.58** (0.20)	-0.65+ (0.35)	-0.13 (0.48)	-0.71+ (0.36)	-0.42 (0.39)
Formal civil rights & liberties	0.08 (0.19)	0.05 (0.27)	0.13 (0.47)	0.22 (0.37)	-0.19 (0.39)
Formal participatory institutions	0.14 (0.20)	-0.08 (0.25)	0.82 (0.54)	-0.37 (0.33)	0.58 (0.46)
<i>Constitutional enforcement outcomes:</i>					
Executive constraints (Polity IV)	-0.14 (0.21)	-0.31 (0.44)	-0.61 (0.58)	0.04 (0.34)	0.03 (0.33)
Horizontal accountability index	-0.15 (0.20)	0.07 (0.30)	-0.71 (0.68)	-0.24 (0.39)	-0.09 (0.37)
Civil liberties index	-0.18 (0.20)	0.04 (0.40)	-0.59 (0.55)	-0.39 (0.32)	-0.13 (0.39)
Direct democracy utilization	0.67*** (0.16)	0.65** (0.23)	0.75 (0.44)	0.13 (0.26)	1.41*** (0.34)

DiD coefficients with citizen voting as treatment variable. Each constitution-making process is observed ten years before initiation and ten years after constitutional approval. Standardized outcome variables (mean=0, SD=1). Standard errors in parentheses clustered at the constitution-making process level. All specifications include constitution-making process and year-in-process fixed effects. See Table A3 for composition of comparison groups and sample sizes. +p<0.1, *p<0.05, **p<0.01, ***p<0.001.

- Finally, we identify the joint, additive effect of all three treatments by comparing groups 1 and 8.

Table A7. DiD estimates of the effect of plural approval, citizen consultation, and citizen voting on constitutional design and enforcement

	Estimation sample /groups under comparison: 1 vs. 8 (all three treatments vs. no treatment)
<i>Constitutional design outcomes:</i>	
Formal executive constraints	0.35 (0.36)
Formal power of legislature	-0.02 (0.37)
Formal civil rights & liberties	1.00** (0.29)
Formal participatory institutions	1.14** (0.35)
<i>Constitutional enforcement outcomes:</i>	
Executive constraints (Polity IV)	0.65+ (0.33)
Horizontal accountability index	0.51 (0.32)
Civil liberties index	0.83* (0.34)
Direct democracy utilization	1.33*** (0.31)

DiD coefficients with plural approval, citizen consultation, and citizen voting as joint treatment. Each constitution-making process is observed ten years before initiation and ten years after constitutional approval. Standardized outcome variables (mean=0, SD=1). Standard errors in parentheses clustered at the constitution-making process level. All specifications include constitution-making process and year-in-process fixed effects. See Table A3 for composition of comparison groups and sample sizes. +p<0.1, *p<0.05, **p<0.01, ***p<0.001.

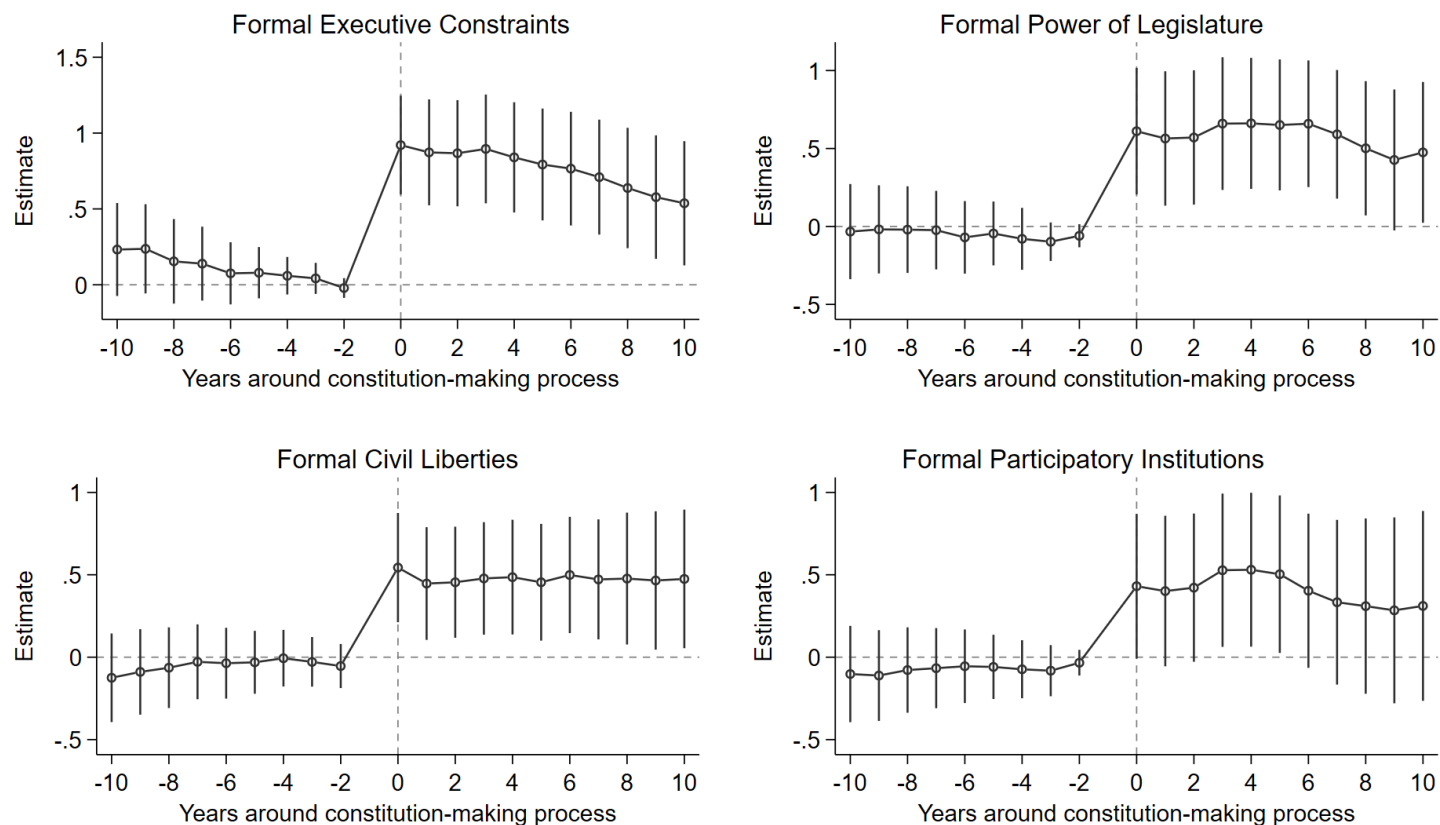
Table A8. Constitution-making and counter-majoritarian institutions: formal and de facto power of upper houses

	Formal blocking power			De facto blocking power		
	(1)	(2)	(3)	(4)	(5)	(6)
Plural approval × after constitution	-0.06 (0.21)			-0.08 (0.20)		
Citizen consultation × after constitution		-0.22 (0.23)			-0.09 (0.22)	
Citizen voting × after constitution			0.13 (0.24)			0.14 (0.20)
After constitution	-0.93** (0.35)	-0.92** (0.33)	-1.05** (0.33)	-0.63* (0.30)	-0.65* (0.29)	-0.76* (0.29)
Controls	✓	✓	✓	✓	✓	✓
Constitution-making process FE	✓	✓	✓	✓	✓	✓
Year-in-the-process FE	✓	✓	✓	✓	✓	✓
Historical-wave FE	✓	✓	✓	✓	✓	✓
Observations	2225	2225	2225	1771	1771	1771
Constitution-making processes	128	128	128	128	128	128
R-squared	0.12	0.13	0.13	0.16	0.16	0.16

Outcome variables standardized with mean zero and standard deviation one. Standard errors clustered at constitution-making process level shown in parentheses. Controls: age of democracy, GDP per capita (log), population (log), and interactions between previous regime type and the pre/post indicator. Models 4-6 also include plural competition and civil society strength. Historical waves: 1900-1919 (wave 1), 1920-1945 (wave 2), 1946-1973 (wave 3), 1974-1989 (wave 4), 1990-present (wave 5). +p<0.1, *p<0.05, **p<0.01, ***p<0.001.

Dynamic and heterogeneous treatment effects. Event studies.

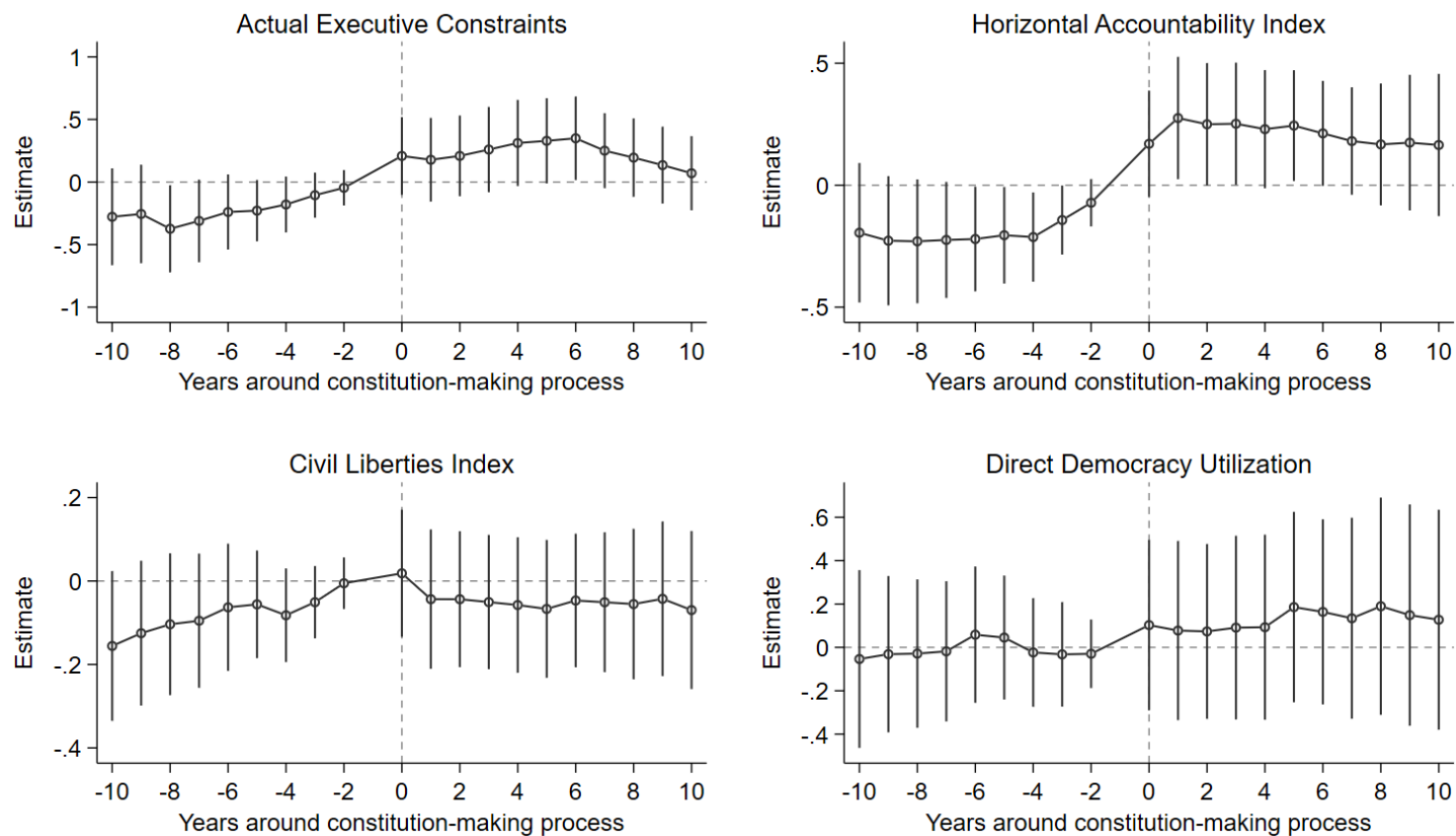
Figure A1. Effects of **plural approval** in constitution-making on **constitutional design**. Event study estimates with 95% CIs.



Note: Plural approval indicates two or more distinct political forces were required for constitutional approval. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogeneous treatment effects across constitution-making processes occurring at different historical times. For each process (N=128), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of non-plural processes only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

- We find significant effects of plural constitution-making on formal executive constraints, the formal powers of the legislature, and the number of civil rights and liberties enshrined in constitutions. Relative to non-plural constitution-making processes, units with plural approval display a sharp and statistically significant increase in these three variables. The estimated effects are substantial, of between 0.5 and 1 standard deviations. This is clear evidence that pluralism matters for constitutional design.
- For the formal powers of the legislature and the number of civil liberties, the positive effect of plural approval is of about 0.5 standard deviations and remains stable across the observed post-constitution period. For executive constraints, the effect is initially stronger—about 0.9 standard deviations during the first few years after constitutional enactment—and declines gradually starting about four years into the post-constitution period. However, the effects remain statistically significant throughout the observed window of ten years. For formal participatory institutions, the estimates are positive but imprecisely estimated, compared to the other institutional dimensions that we consider.
- The plots also show that there are no significant pre-trends for any of the constitutional design outcomes—the leads are essentially flat and not statistically significant. This supports the parallel trends assumption.

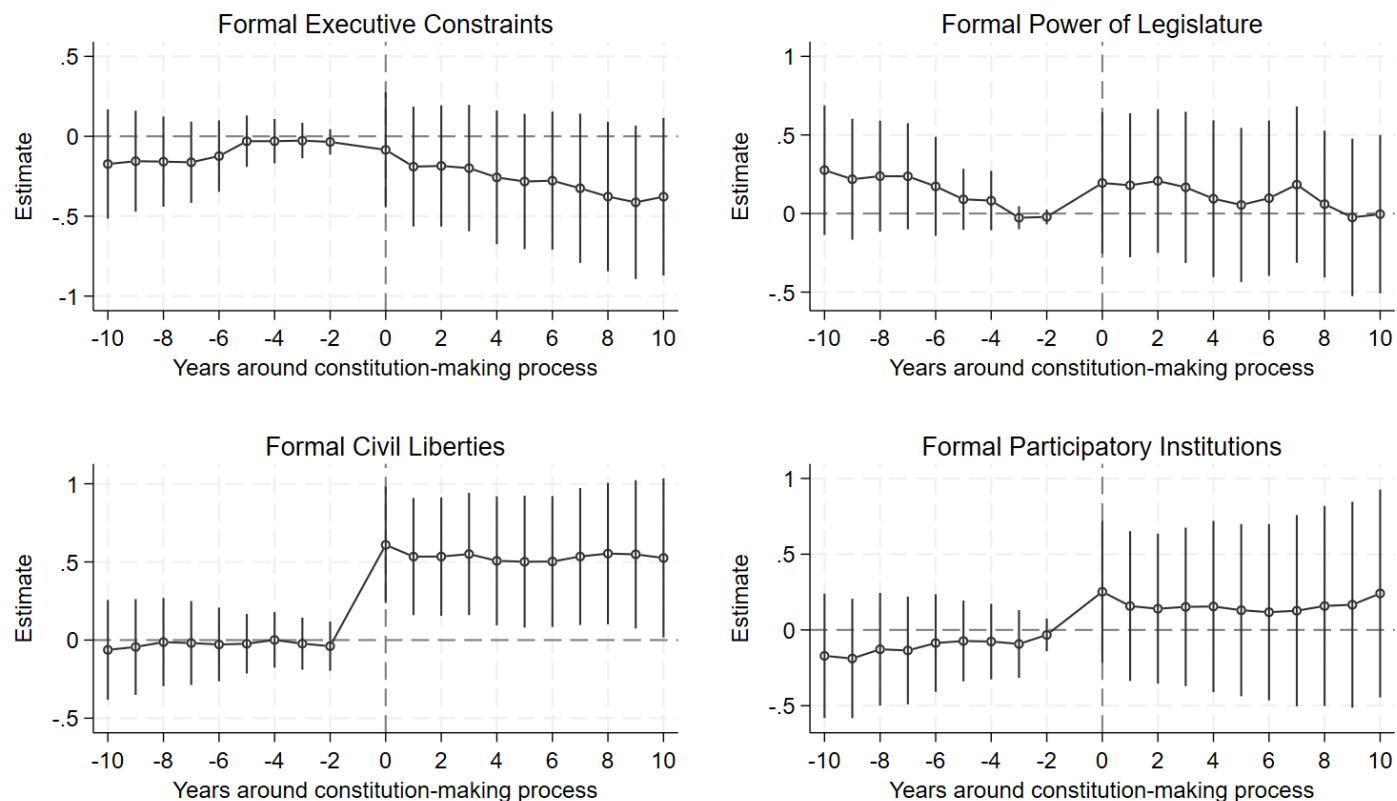
Figure A2. Effects of **plural approval** in constitution-making on **constitutional enforcement**. Event study estimates with 95% CIs.



Note: Plural approval indicates two or more distinct political forces were required for constitutional approval. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogeneous treatment effects across constitution-making processes occurring at different historical times. For each process (N=128), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of non-plural processes only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

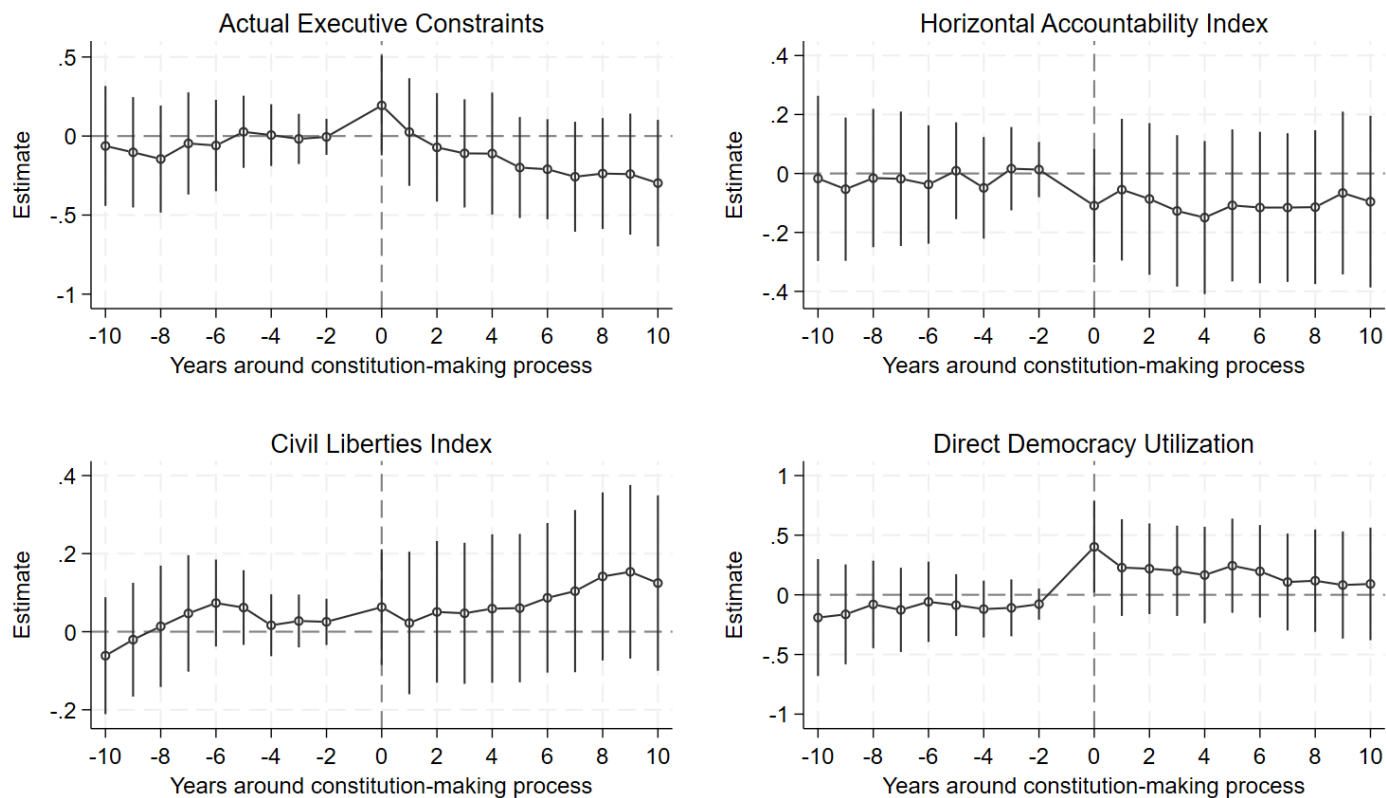
- With respect to constitutional enforcement outcomes, we find that the plural approval of constitutions is associated with extra increases in actual constraints on the executive and in V-Dem's horizontal accountability index, relative to non-plural processes. Again, the leads show no significant pre-trends, consistent with the common trends assumption.
- Accounting for potential treatment effects across cohorts, the average post-treatment effect on executive constraints is estimated at 0.23 standard deviations (std. error=0.12, p-value=0.06). The estimate is very similar to the one we report in the main text (0.24). The event study plot suggests that the effect may vary over time within the observed post-constitution period: the effect appears to increase in the first few years after enactment, peak around year 6, and decline thereafter. Within this overall pattern, the yearly estimates are statistically significant approximately from years 4-7 after adoption, but not in the immediate aftermath or later years.
- As for the horizontal accountability index, the average post-treatment effect is estimated at 0.22 (std. error=0.11, p-value=0.05) once we account for potential heterogeneous treatment effects using Sun and Abraham's interaction-weighted estimator. Similar to executive constraints, the event study plot suggests that the effects are dynamic: the estimates for the lags are larger in the first few years but start to weaken and stop being statistically significant at conventional levels around year six.
- We find no significant effects of plural approval on either the civil liberties index or the utilization of direct democracy mechanisms. Whereas pluralism during constitution-making was associated with more formal civil rights and liberties in the new text, this positive effect does not appear to carry over to actual, effective implementation.
- Finally, we note that enforcement effects are generally weaker than effects on formal design. Whereas formal executive constraints were stronger in approximately one standard deviation in plural vs non-plural cases, the average effect on actual executive constraints peaks at around one third of a standard deviation. As in the case of civil liberties, this speaks to the gap between formal provisions and actual practice.

Figure A3. Effects of **citizen consultation** in constitution-making on **constitutional design**. Event study estimates with 95% CIs.



Note: Citizen consultation indicates the constitution-making process included mechanisms for direct popular input such as public hearings or proposal submissions, excluding voting in referenda. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogenous treatment effects across constitution-making processes occurring at different historical times. For each process (N=128), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of processes without citizen consultation mechanisms only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

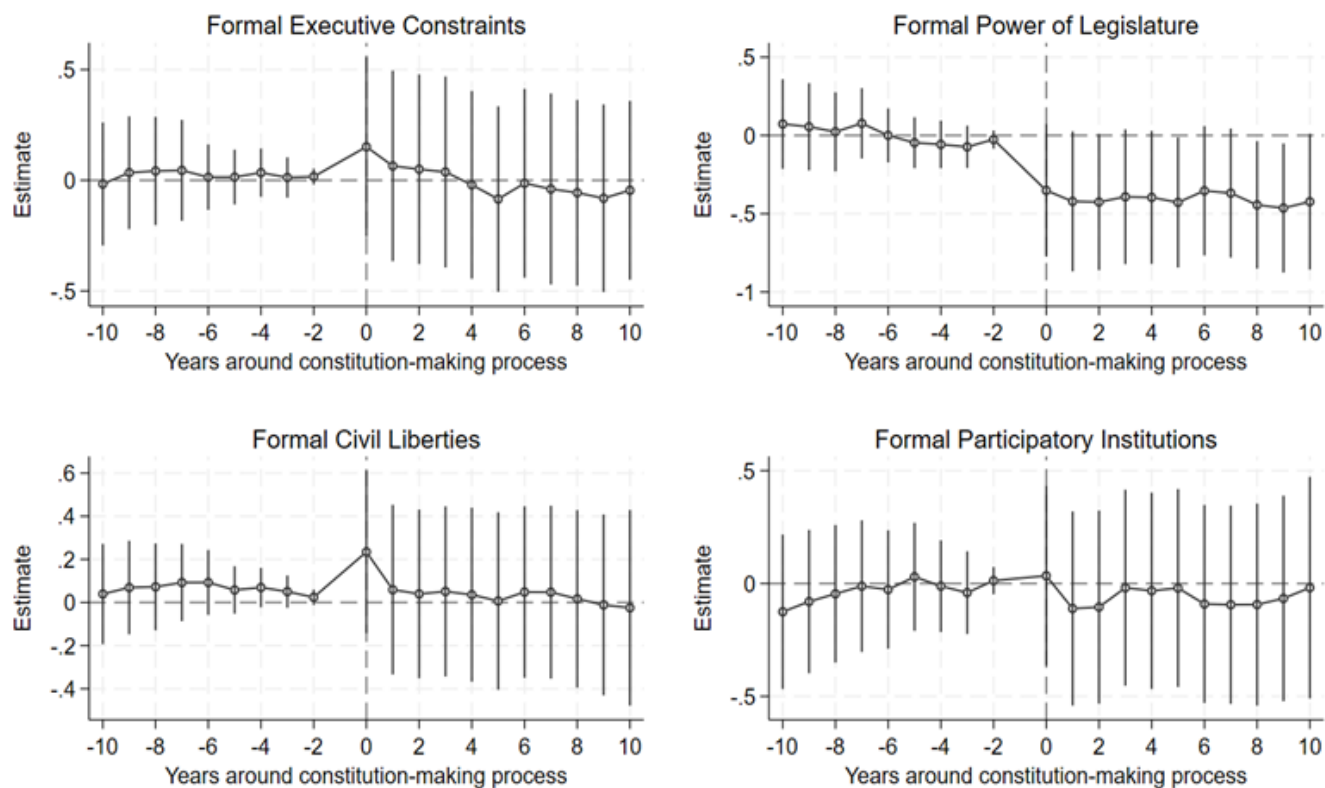
Figure A4. Effects of **citizen consultation** in constitution-making on **constitutional enforcement**. Event study estimates with 95% CIs.



Note: Citizen consultation indicates the constitution-making process included mechanisms for direct popular input such as public hearings or proposal submissions, excluding voting in referenda. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogeneous treatment effects across constitution-making processes occurring at different historical times. For each process ($N=128$), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of processes without citizen consultation mechanisms only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

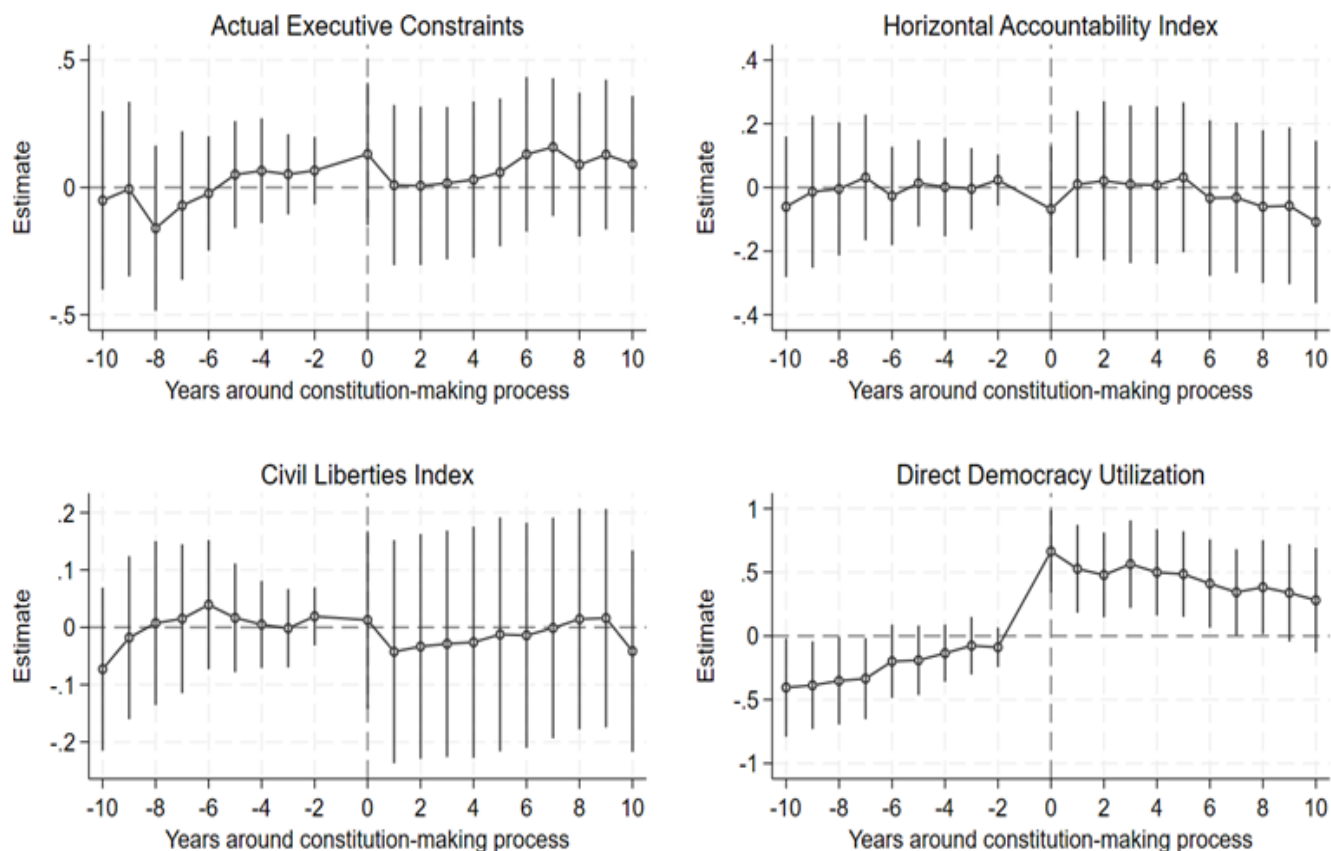
- Turning to citizen consultation, event studies accounting for treatment heterogeneity produce similar results to those presented in the main text. Constitution-making processes that incorporate citizen input through consultation mechanisms are associated with the inclusion of more rights and liberties in constitutions (about 5.8 more, or half a standard deviation). The average post-treatment effect from the event study is similar to the one reported in the main text (0.53 vs. 0.56) and in both cases, statistically significant at the 1% level.
- Citizen consultation is not systematically associated with any of the other constitutional design outcomes, with negative lag estimates for executive constraints and the formal power of the legislature, and positive but imprecise for participatory institutions.
- As for constitutional enforcement, the event studies do not show statistically significant results, although consistent with the results in the main text, the estimates for the civil liberties index are positive.

Figure A5. Effects of **citizen voting** in constitution-making on **constitutional design**. Event study estimates with 95% CIs.



Note: Citizen voting indicates the constitution-making process included ratification or other types of referenda. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogenous treatment effects across constitution-making processes occurring at different historical times. For each process (N=128), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of processes without citizen voting mechanisms only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

Figure A6. Effects of **citizen voting** in constitution-making on **constitutional enforcement**. Event study estimates with 95% CIs.



Note: Citizen voting indicates the constitution-making process included ratification or other types of referenda. Estimates obtained using the interaction-weighted estimator from Sun and Abraham (2021), which accounts for potentially heterogeneous treatment effects across constitution-making processes occurring at different historical times. For each process (N=128), observations span ten years before the beginning of the process, the year of constitutional approval, and ten subsequent years. Year -1 (the year before process initiation) serves as the reference period. The control group consists of processes without citizen voting mechanisms only (never-treated units). Event studies include constitution-making process and calendar-year fixed effects plus controls for the age of democracy, GDP per capita (log), population size (log), and regime-specific trends (through an interaction between pre-constitution regime type and the post-constitution indicator). Standard errors clustered by constitution-making process.

- When we run event studies robust to heterogenous treatment effects, citizen voting during constitution-making does not yield statistically significant results with respect to most constitutional design outcome. However, the estimates for the formal power of the legislature are negative and significant for some post-treatment years. This pattern is consistent with non-plural, plebiscitarian processes of constitutional replacement placing power on the executive at the expense of the legislative branch.
- With respect to constitutional enforcement, the use of referenda during constitution-making produces more frequent use of direct democracy mechanisms post-enactment, with a strong positive effect that is initially as large as two thirds of a standard deviation. The event study plot shows a declining but still positive effect several years into the post-constitution period. In other words, there is evidence that the use of referenda in the constitution-making phase begets more intensive use of direct democracy mechanisms from then on.