Supplemental information for

"Conflict and Courts: Civil War and Judicial Independence Across Democracies"

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Descriptive statistics

Tables 1–5 present summary statistics of the various outcome and explanatory variables used in the main article: Table 1 for the three measures of change in de jure independence, Tables 2 and 3 for the three measures of change in de facto independence, Table 4 for the explanatory variables used in the de jure models, and Table 5 for the explanatory variables used in the de facto models. Tables 4 and 5 are presented separately due to the slight difference in the observations used across the de jure/de facto divide, a result of data availability in the response. Figure 1 plots the underlying distribution of the Linzer & Staton latent (de facto) judicial independence scores from which the changes are calculated, to better illustrate the variation in the democratic states analyzed.

Table 1: Three year differences in de jure judicial independence. Summary of the conventional and absolute differences in constitutional provisions securing de jure judicial independence, as well as whether any change occurred.

	-3	-2	-1	0	1	2	3	4	5
Conventional	2	9	43	2531	56	23	8	6	2
Absolute				2531	99	32	10	6	2
Any change				2510	171				

Table 2: Three year differences in de facto judicial independence. Summary of the conventional and absolute differences in Linzer & Staton latent judicial independence measure.

	Minimum	1st quartile	Median	Mean	3rd quartile	Maximum
Conventional	-0.273	-0.003	0.003	0.010	0.019	0.292
Absolute	0.000	0.003	0.012	0.024	0.030	0.292

Table 3: Categorical measure of changed de facto judicial independence. Summary of the categorical measure of differences in Linzer & Staton latent judicial independence measure, where change is greater than one standard deviation.

	0	1
Significant change	2193	585

Table 4: Descriptive statistics of covariates for de jure independence models.

	0	1
Civil war onset	2604	76
Autocratic transition	2670	10
Coup	2667	13

Table 5: Descriptive statistics of covariates for de facto independence models.

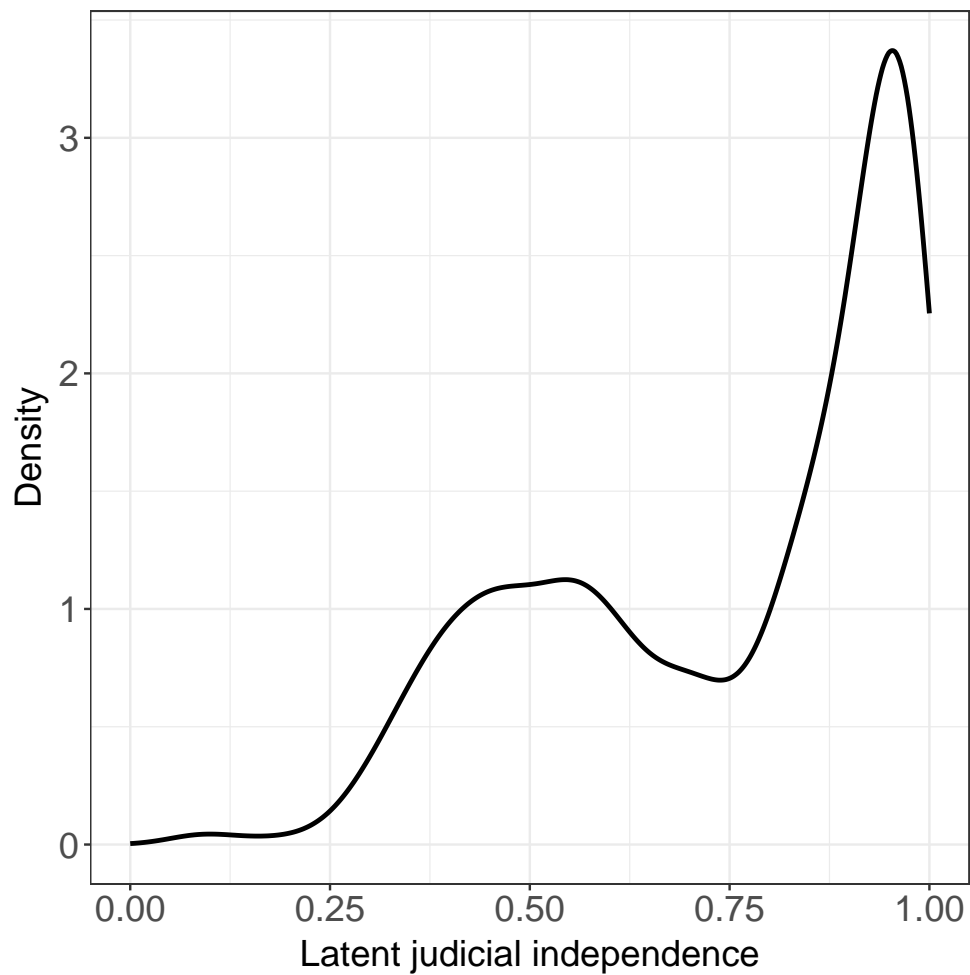|	0	1
Civil war onset	2687	91
Autocratic transition	2764	13
Coup	2762	16

Figure 1: Distribution of de facto independence. Distribution of the underlying scores of the Linzer & Staton latent judicial independence measure for the data analyzed, to better illustrate the variation observed in these democratic states.

(a) Δ de facto independence
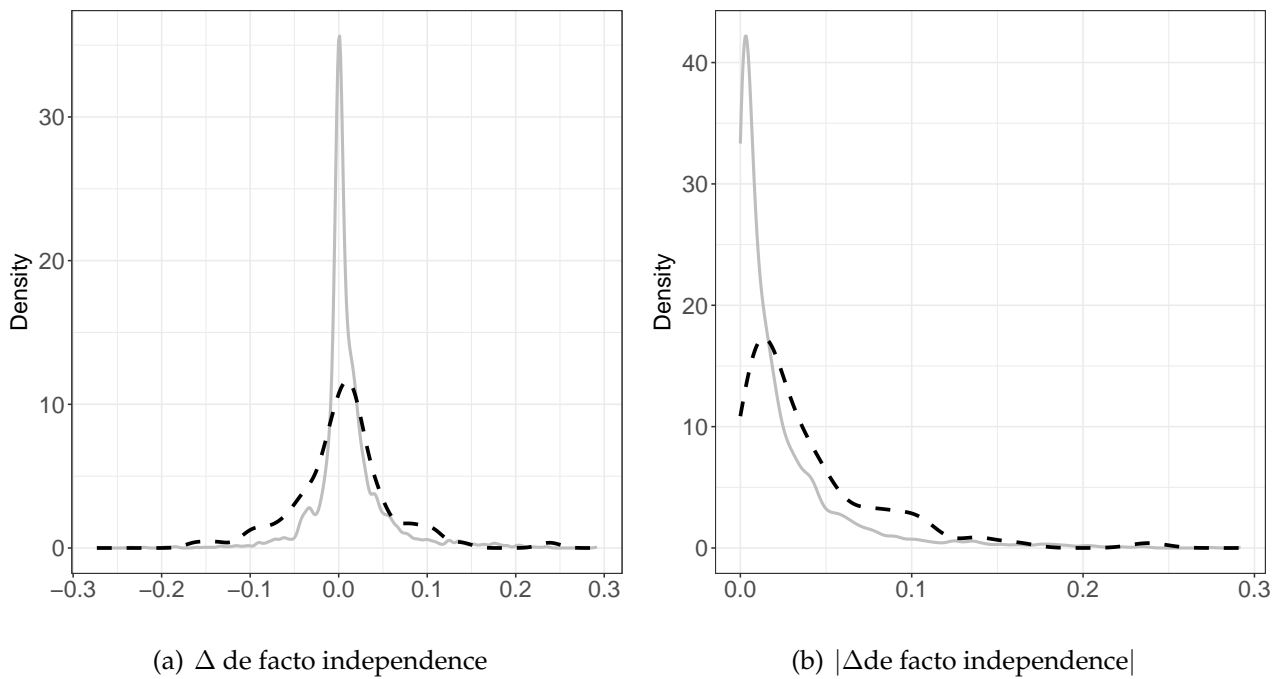
(b) $|\Delta$de facto independence$|$

Figure 2: Change in de facto independence. Two plots showing the distribution of change in de facto independence when onset is 1 (dotted black lines) and 0 (solid gray). Plot (a) shows the distribution of change in independence, plot (b) the distribution of the absolute value of change. Kolmogorov-Smirnov tests reject the null that both are drawn from the same distribution ($p < 0.01$).

A further empirical test: including conflict duration

In the main article, we argue that conflict be best thought of as a critical juncture where the likelihood of institutional change—formal or informal—is higher. This implies that the *onset* of conflict should be of great importance, independent of the effects of the duration of conflict.[1] That is, if we are correct that onset ruptures existing equilibria and makes change more likely, then the empirical results of Tables 1 and 2 in the main article should be unaffected when including a covariate for conflict duration; it is the onset of violence, rather than it's perpetuation, that provides the shock increasing the likelihood of change. We test this empirical implication of our argument in six models presented in Table 6. These reproduce models in Table 1 and 2 of the main article, adding a duration covariate measuring the number of years conflict has been ongoing. We code duration as a continuous measure of the cumulative years of conflict (generated from the Armed Conflict Database), ranging from 0 (i.e. no conflict) to 48.

Similar to onset in conventional accounts, where conflict is suggested to have only negative effects, duration shows no statistical and substantively significant relationship with change in four of the six models, and in no models assessing our more nuanced account of onset and change in independence. Additionally, the direction of the duration coefficient is inconsistent across the form of independence, while the effect of onset in the four models testing our multidirectional account is consistently positive. These results provide further evidence for our argument that onset disrupts existing institutional equilibria, as its effects remain robust even after including conflict duration, suggesting that any shock produced by onset is a function of its emergence rather than duration.

Results are robust to using the natural log of conflict years rather than the absolute number: neither conflict onset nor years of conflict show changes in either substantive or statistical significance. Table 7 presents the results of these model specifications. Each model retains the same model number as the corresponding model in the main manuscript, and is subscripted *L*. Due to the nature of taking the natural log of zero, years without conflict are by necessity treated as having 1 year of conflict.

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[1]The degree to which ongoing conflict might produce institutional instability, while important, is beyond the theoretical scope assessed here.

Table 6: Six models of change in judicial independence including conflict duration. Models are similar to those in Tables 1 and 2 in the main article, and model numbers correspond to models found there, save for the subscripting of y to denote the inclusion of the conflict years covariate.

| | De jure | | | De facto | | |
	Model 1_y	Model 2_y	Model 5_y	Model 3_y	Model 4_y	Model 6_y
(Intercept)	0.04***	0.08***	−2.75***	0.01***	0.02***	−1.37***
	(0.01)	(0.01)	(0.08)	(0.00)	(0.00)	(0.05)
Conflict onset	−0.01	0.05	0.86*	−0.00	0.02***	0.99***
	(0.04)	(0.04)	(0.37)	(0.01)	(0.00)	(0.23)
Conflict duration	−0.02	−0.02	0.33*	−0.01***	−0.00*	−0.10
	(0.01)	(0.01)	(0.14)	(0.00)	(0.00)	(0.10)
Autocratic interregnum	0.05	0.33	3.03*	0.02	0.04	1.20
	(0.23)	(0.20)	(1.22)	(0.04)	(0.03)	(0.89)
Coup	−0.13	−0.11*	−1.69	0.01	0.02	0.67
	(0.07)	(0.06)	(1.31)	(0.02)	(0.01)	(0.58)
AIC	2889.97	2793.67	1261.93	−9870.72	−10812.55	2846.35
Observations	2680	2680	2680	2778	2778	2778

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

Table 7: Logged conflict years. Six models replicating the results in Table 6 above, logging the number of conflict years rather than using the absolute number.

	Model 1_L	Model 2_L	Model 5_L	Model 3_L	Model 4_L	Model 6_L
(Intercept)	0.04***	0.09***	−2.77***	0.01***	0.02***	−1.36***
	(0.01)	(0.01)	(0.09)	(0.00)	(0.00)	(0.05)
Conflict onset	−0.01	0.05	0.93*	−0.00	0.02***	0.99***
	(0.04)	(0.04)	(0.37)	(0.01)	(0.00)	(0.23)
log(conflict years)	−0.01*	−0.02**	0.11	−0.00**	−0.00	−0.05
	(0.01)	(0.01)	(0.09)	(0.00)	(0.00)	(0.05)
Autocratic interregnum	0.07	0.19	3.03*	0.04*	0.04*	2.01*
	(0.16)	(0.15)	(1.22)	(0.02)	(0.02)	(0.89)
Coup	−0.15	−0.11	−1.64	−0.00	0.01	−0.29
	(0.09)	(0.08)	(1.31)	(0.01)	(0.01)	(0.87)
Adj. R^2	−0.00	0.00		0.01	0.01	
Num. obs.	2680	2680	2680	2778	2778	2778
AIC	2889.83	2793.07	1266.06	−9871.63	2232.50	2842.47

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

Autocratic transition rather than interregnum

As noted in the main article, the results present are robust to including those states that experienced an autocratic transition during the three-year period, not simply an autocratic interregnum. Tables 8, 9, and 10 replicate Tables 1–2 in the main article and Table 6 in the previous section, this time including observations where the three-year window analyzed included a transition to autocracy without a subsequent return to democracy in that time period, rather than brief autocratic interregnums.

Table 8: Including autocratic transitions. Estimated coefficients from four linear models of change in judicial independence with robust standard errors in parentheses, replicating the results of Table 1 in the main article when using autocratic transitions rather than simply interregnums. Models 1 and 2 are fit to changes in de jure independence, 3 and 4 to de facto. Models 1 and 3 are fit to the conventional operationalization of change, while Models 2 and 4 are fit to absolute changes.

| | *De jure* | | De facto | |
	Model 1 (Conventional)	Model 2 (Absolute)	Model 3 (Conventional)	Model 4 (Absolute)
(Intercept)	0.04^{***}	0.08^{***}	0.01^{***}	0.02^{***}
	(0.01)	(0.01)	(0.00)	(0.00)
Conflict onset	0.03	0.01	-0.01	0.01^{*}
	(0.05)	(0.05)	(0.01)	(0.01)
Autocratic transition	0.25	0.40^{**}	-0.08^{***}	0.06^{***}
	(0.16)	(0.15)	(0.01)	(0.01)
Coup	-0.66^{***}	0.09	-0.05^{**}	0.05^{***}
	(0.19)	(0.17)	(0.02)	(0.02)
AIC	3496.95	3355.02	-9261.85	-10158.51
Num. obs.	2756	2756	2897	2897

$^{***}p < 0.001, ^{**}p < 0.01, ^{*}p < 0.05$

Table 9: Including autocratic transitions. Estimated coefficients from three models of change as a categorical measure, with robust standard errors in parentheses, replicating the results of Table 2 in the main article when using autocratic transitions rather than simply interregnums. Model 5 is fit to a dichotomous measure indicating those country-years that evidenced any constitutional change affecting the judiciary, Model 6 to any change in latent judicial independence greater than one standard deviation from the mean.

	De jure Model 5	De facto Model 6
(Intercept)	−2.73***	−1.84***
	(0.08)	(0.06)
Conflict onset	0.91***	0.83***
	(0.31)	(0.23)
Autocratic transition	1.49***	1.57***
	(0.45)	(0.36)
Coup	−0.03	0.87*
	(0.51)	(0.38)
AIC	1357.70	2424.70
Num. obs.	2756	2897

$^{***}p < 0.001, ^{**}p < 0.01, ^{*}p < 0.05$

Table 10: Including autocratic transitions. Estimated coefficients of six models of change in judicial independence including conflict duration, with robust standard errors in parentheses, replicating the results of Table 6 above when using autocratic transitions rather than simply interregnums.

	De jure			De facto		
	Model 1_y	Model 2_y	Model 5_y	Model 3_y	Model 4_y	Model 6_y
(Intercept)	0.03***	0.08***	−2.74***	0.01***	0.02***	−1.84***
	(0.01)	(0.01)	(0.08)	(0.00)	(0.00)	(0.06)
Conflict onset	0.05	0.01	0.73*	−0.01	0.01*	0.87***
	(0.06)	(0.05)	(0.32)	(0.01)	(0.01)	(0.23)
Conflict years	−0.05**	0.00	0.38**	−0.00*	−0.00	−0.08
	(0.02)	(0.02)	(0.13)	(0.00)	(0.00)	(0.10)
Autocratic transition	0.25	0.40**	1.51***	−0.08***	0.06***	1.57***
	(0.16)	(0.15)	(0.45)	(0.01)	(0.01)	(0.36)
Coup	−0.66***	0.09	−0.05	−0.04**	0.05**	0.88*
	(0.19)	(0.17)	(0.51)	(0.02)	(0.02)	(0.38)
AIC	3491.28	3356.99	1350.55	−9264.69	−10158.62	2426.11
Num. obs.	2756	2756	2756	2897	2897	2897

$^{***}p < 0.001, ^{**}p < 0.01, ^{*}p < 0.05$

Temporal trends

As we discuss in the main manuscript, in existing analyses of civil conflict and the rule of law, the focus is on differences between the five or ten year periods before the onset and after the resolution of the conflict. We raise the issue that if there exist secular trends towards increasing rule of law in the world, the results of such analyses over- or under-report the effects of conflict, depending on the nature of the temporal trend. While we do not attempt to assess other rule of law institutions here, and cannot speak to temporal trends therein, we can assess the degree to which a secular trend exists for judicial independence; here we focus on de facto independence, as this is the form assessed in existing work such as Haggard and Tiede (2014).
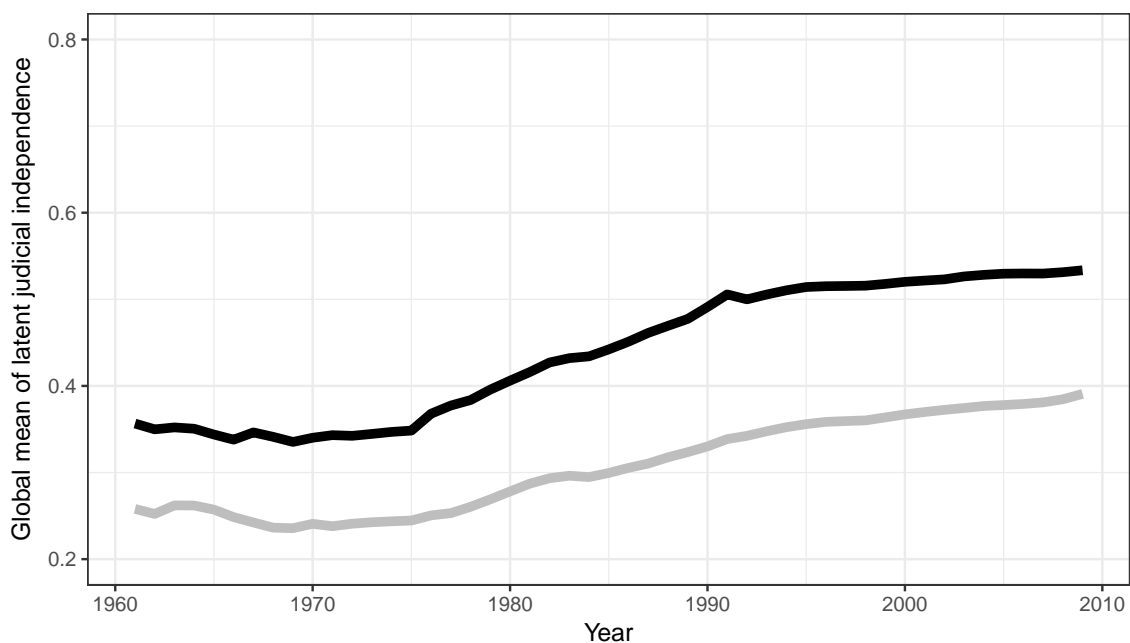

Figure 3: Global mean of the Linzer & Staton latent judicial independence measure by year. The black line is the global mean, the gray line shows those countries that experienced civil conflict during the 1960–2010 period.

Figure 3 shows the yearly mean for the Linzer & Staton latent judicial independence measure, with the global mean shown in the black line, whereas the gray line shows the yearly mean for the subset of countries that experienced civil conflict during the time period plotted. It demonstrates visually what we note in the main manuscript, that there clearly exists a positive secular trend. Because of this secular trend—especially pronounced during the third wave of democratization from ~1975 to ~1990—inferring any effects of conflict by just comparing averages in the 5 or 10 year periods before and after conflict (which, given the average duration of civil conflict is thus either a 16 or 26 year time period in total) might

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Table 11: Accounting for any effects of a secular trend in judicial independence. Six models replicating the results in Tables 1 and 2 in the main manuscript, each with the inclusion of a covariate accounting for the secular trend in judicial independence.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	0.04***	0.08***	0.01***	0.02***	−2.84***	−1.38***
	(0.01)	(0.01)	(0.00)	(0.00)	(0.09)	(0.05)
Conflict onset	−0.02	0.03	−0.01	0.02***	1.06**	0.94***
	(0.04)	(0.04)	(0.01)	(0.00)	(0.34)	(0.22)
Autocratic interregnum	0.05	0.31	0.02	0.04	2.91**	1.99*
	(0.24)	(0.19)	(0.04)	(0.03)	(1.10)	(0.91)
Coup	−0.13	−0.09	0.01	0.02	−1.41	−0.24
	(0.07)	(0.05)	(0.02)	(0.01)	(1.21)	(0.89)
Year	−0.00	0.07***	−0.01***	−0.00	1.02***	0.31***
	(0.01)	(0.01)	(0.00)	(0.00)	(0.21)	(0.09)
Num. obs.	2681	2681	2779	2779	2681	2779
AIC	2891.79	2776.80	−9881.60	−10811.87	1237.74	2833.05

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

produce false inferences due to secular changes unrelated to conflict.

Given we are assessing the effect of onset itself, rather than comparing before/after averages, such an issue should not, if present, affect our analyses (as much). Regardless, to address any potential issues Table 11 replicates the results of Tables 1 and 3 in the main analysis with the addition of a time covariate to account for any confounding from the clear secular trend towards increasing judicial independence. Each model retains the same model number as the corresponding model in Tables 1 and 3 in the main manuscript, and is subscripted y. As Table 11 shows, the inclusion of a year covariate to address any secular trend does not change the results of the models presented in the main manuscript.

Count models

As the absolute number of changes in constitutional, de jure rules affecting judicial independence are more accurately a count process (of the number of changes) as opposed to continuous, Table 12 contains two zero-inflated Poisson models. Model 7 replicates Model 2 from Table 1 of the main manuscript, Model 8 replicates Model 5 from Table 2, and Model 9 replicates Model 2_y from Table 3. As can be seen, the overall results are consistent with the results of these tables, with similar levels of significance, and, for Model 8, a highly similar coefficient estimate.

Table 12: Zero-inflated count models. Three models replicating Model 2 from Table 1, Model 5 from Table 2, and Model 2_y from Table 3 in the main manuscript. Rather than treating absolute change in the number of constitutional rules as continuous, these treat them more appropriately as a (zero-inflated) count process via Poisson regression.

	Model 7	Model 8	Model 9
(Intercept)	−0.08	−2.80***	−0.08
	(0.11)	(0.08)	(0.11)
Conflict onset	−0.22	0.95**	−0.21
	(0.38)	(0.30)	(0.37)
Autocratic interregnum	0.18	1.80**	0.18
	(0.93)	(0.92)	(0.93)
Coup	−0.57	−1.26	−0.21
	(1.38)	(1.30)	(1.52)
Conflict years			−0.22
			(0.16)
(Intercept, zero model)	2.28***	−11.94	2.28***
	(0.11)	(152.86)	(0.11)
AIC	1458.15	1282.79	1457.98
Num. obs.	2680	2680	2680

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

Alternative temporal specifications

Tables 13 and 14 replicate the models contained in Tables 1 and 2 of the main manuscript, only rather than using the three year period discussed in the manuscript they employ two and four year periods, respectively. The results are largely consistent with the results presented in the manuscript, despite shifting the time period significantly. Two year periods are a difficult test of the framework proposed because they give substantially less time for potential changes in response to conflict to occur, and in the case of de facto independence, be observed. Four year periods, on the other hand, increase the possibility that random factors unrelated to conflict might be affecting the changed levels of independence. It should be noted that due to the restricted number of observations in the de jure models in Table 13, the covariate for autocratic interregnums is removed: only three countries observe such an interregnum in the two year period.

Table 13: Two year periods. Six models replicating models from Tables 1 and 2 in the main manuscript. Rather than three year periods being analyzed, however, two preceding years are assessed.

	Model 1_2	Model 2_2	Model 5_2	Model 3_2	Model 4_2	Model 6_2
(Intercept)	−0.02*	0.11***	−2.62***	−0.01***	0.02***	−1.42***
	(0.01)	(0.01)	(0.08)	(0.00)	(0.00)	(0.05)
Conflict onset	−0.18	0.10	0.87*	−0.00	0.02***	1.20***
	(0.09)	(0.09)	(0.39)	(0.01)	(0.00)	(0.24)
Coup	0.02*	−0.11***	−11.94	0.01	−0.00	−12.49***
	(0.01)	(0.01)	(0.39)	(0.01)	(0.01)	(0.69)
Autocratic interregnum				−0.05*	0.03	13.91***
				(0.02)	(0.02)	(0.75)
Num. obs.	2660	2660	2661	2912	2912	2912
AIC	3854.29	3738.13	1338.83	−12129.02	−13067.33	2902.66

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

    As Tables 13 and 14 illustrate, there is little reason to worry results are primarily driven by our choice of a three year period. In both two and four year specifications, results for conventional and absolute levels of change in de facto independence are highly similar. Similarly, results for de jure independence are also highly similar, in both Tables 13 and 14 conflict is strongly associated with absolute and bivariate changes.

Directionality of change

As noted in the main article, we assess how three potential factors predict the directionality of change *once conflict onset has occurred*; in doing so we assert that there is no reason to expect these factors to confound the relationship between onset and absolute change, for both

Table 14: Four year periods. Six models replicating models from Tables 1 and 2 in the main manuscript. Rather than three year periods being analyzed, however, two preceding years are assessed.

	Model 1_4	Model 2_4	Model 5_4	Model 3_4	Model 4_4	Model 6_4
(Intercept)	-0.05^{***}	0.19^{***}	-2.05^{***}	0.01^{***}	0.03^{***}	-1.80^{***}
	(0.01)	(0.01)	(0.07)	(0.00)	(0.00)	(0.06)
Conflict onset	-0.25^{*}	0.22^{*}	1.11^{***}	-0.01^{*}	0.01^{*}	0.40
	(0.10)	(0.10)	(0.26)	(0.01)	(0.00)	(0.25)
Autocratic interregnum	-0.08	0.33	1.64	-0.00	0.02	-0.46
	(0.45)	(0.37)	(0.98)	(0.03)	(0.02)	(0.78)
Coup	0.07	0.02	-0.65	0.03	0.04^{*}	1.54^{**}
	(0.30)	(0.26)	(0.97)	(0.02)	(0.02)	(0.49)
Num. obs.	2432	2432	2432	2651	2651	2651
AIC	5124.39	4933.18	1774.21	-8350.29	-9275.70	2205.90

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{.}p < 0.1$

theoretical as well as statistical reasons. To demonstrate the latter, we report the association between each of these factors and the onset of conflict in the full data used for the main analyses, as well as between each and change in de facto Independence. We report Pearson correlation coefficients for continuous/continuous relationships, biserial correlations for continuous/dichotomous, Φ coefficients for dichotomous/dichotomous relationships, and Spearman's ρ for rank (de jure) data. As the onset of conflict is by definition related to the type of challenger in a civil conflict, this potential relationship is not assessed.

Table 15: Association between factors used to assess directionality of change. Correlations between the three factors used to assess directionality of change and both conflict onset and judicial independence in the full data used in the main analyses. Pearson correlation coefficients are reported for continuous/continuous relationships, biserial correlations for continuous/dichotomous, Φ coefficients for dichotomous/dichotomous relationships, and Spearman's ρ for ordered (de jure) data.

	Conflict onset	Δ de facto	Δ de jure
Federalism	0.03	-0.10	-0.05
Age of democracy	-0.11	-0.10	-0.05
Type of challenger	$-$	-0.14	0.01