Appendix 1
It is time for a closer look: The demise of regional party branches

October 10, 2017

1 Robustness to model specification

Table 1 shows the robustness of results to different model specifications. The first one is the original model presented in the main body of the article, with robust standard errors. Second model includes clustered effects by region and country. Third model accounts for heterogeneity, event dependence and other unmeasured party characteristics that influenced the hazard of the occurrence of the outcome, modelling them as a joint frailty model. In all cases results remain consistent in sign and significance. This increases confidence that results are not due model misspecification, as suggested by Box-Steffensmeier et al. (2007, 2014).

Models were fitted using the R packages survival 2.41-3 and frailtypack 2.12.4 for joint and nested frailty models. Each model includes 12 countries and 198 regions. 308 parties experienced demise.

2 Model Adequacy

The Cox proportional hazards model assumes that the covariates shift the underlying hazard proportionally. To address this problem, I estimate all models controlling for the time-varying variables of turnout, self and shared-rule and their interaction with time in its linear form. In all three cases the analysis of Shoenfield residuals indicates that we can reject the null hypothesis that the proportional hazards assumption is violated.

A potential problem when using Cox Proportional Hazard models derives of non-linearities, which is an incorrectly specified functional form in the parametric part of the model. Cox regression is semi-parametric but still, an incorrect specification will lead to biased estimations. Figure 1 shows the martingale residuals plotted against the main continuous covariates to detect non-linearity. Binary variables are not included. If the

Table 1: Model is robust to different specifications

	Robust SE	Clustered	Joint Frailty
Regional party	0.93*	0.93*	0.88*
	(0.37)	(0.38)	(0.41)
Vote share regional elections	−0.08***	−0.08***	−0.08***
	(0.01)	(0.01)	(0.01)
Party is in opposition	−0.81***	−0.81***	−0.85***
	(0.15)	(0.16)	(0.15)
Self-Rule	−0.02	−0.02	−0.02
	(0.05)	(0.04)	(0.06)
Shared-Rule	0.08**	0.08*	0.08*
	(0.03)	(0.03)	(0.03)
Changes in Regional Authority	0.07***	0.07**	0.07***
	(0.02)	(0.02)	(0.02)
Regional cleavages	−0.09	−0.09	−0.09
	(0.06)	(0.06)	(0.06)
Economic asymmetry	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
Diff. vote share national and regional elections	−0.01	−0.01	−0.01
	(0.01)	(0.02)	(0.01)
Turnout	−0.07***	−0.07***	−0.08***
	(0.01)	(0.01)	(0.02)
Majority	0.13	0.13	0.15
	(0.77)	(0.69)	(0.76)
Mixed	1.24	1.24*	1.28
	(0.65)	(0.53)	(0.68)
PR	1.00	1.00	1.05
	(0.62)	(0.54)	(0.64)
Party strength in other regions	−0.08***	−0.08***	−0.08***
	(0.01)	(0.01)	(0.01)
Decentralization in medium-sized and small t<3	0.53	0.53	0.54
	(0.35)	(0.37)	(0.35)
Decentralization in medium-sized and small t>3	−0.58***	−0.58***	−0.57**
	(0.16)	(0.17)	(0.18)
Self-Rule:election	0.03***	0.03**	0.03**
	(0.01)	(0.01)	(0.01)
Shared-Rule:Election	−0.01*	−0.01	−0.01
	(0.01)	(0.01)	(0.01)
Turnout:Election	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)
AIC	3303.23	3303.23	3296.63
R^2	0.08	0.08	0.10
Max. R^2	0.47	0.47	0.47
Num. events	308	308	308
Num. obs.	5801	5801	5801
Variance of random effect			0.26
			(0.02)
PH test	0.36	0.59	0.29

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

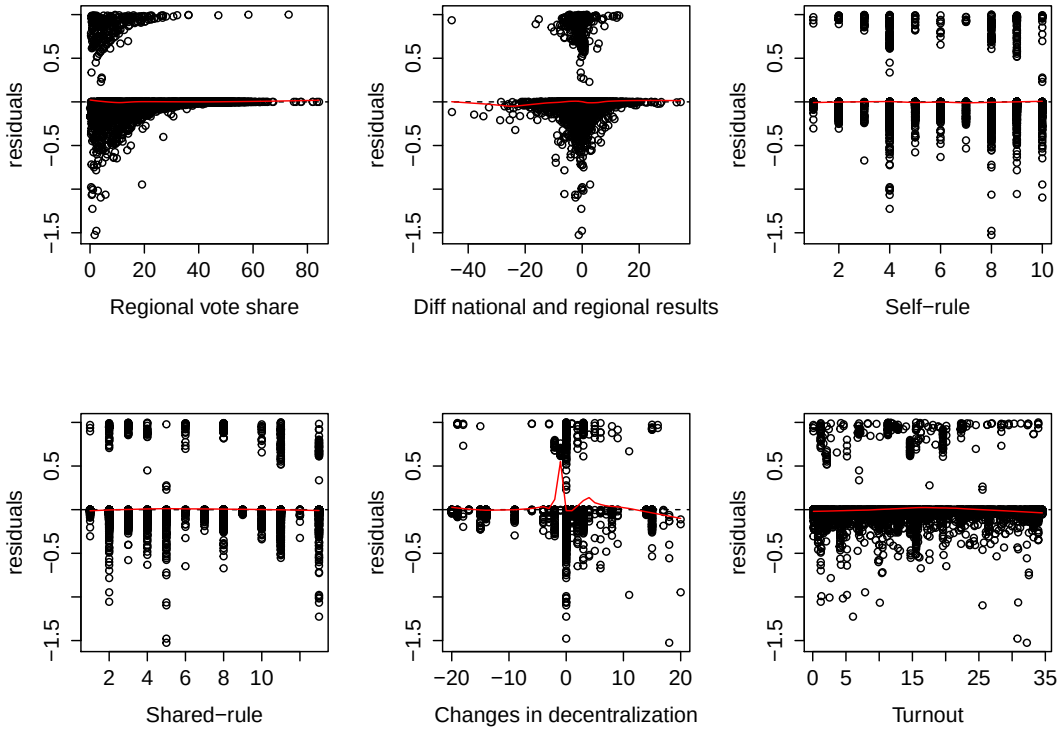

Figure 1: Martingale residual plots of selected variables

currently specified functional form is acceptable, the regression line (in red) should have a slope and intercept of zero. As shown, no further adjustments of the functional form need to be done. Figure 2 shows component-plus-residuals plot, fitted using linear least-squares, they corroborate the notion that the assumption of linearity is met. Both graphs allow to conclude that non-linearity is in general, not a problem.

There is a clear separation between two groups of observations for all variables. Those in the lower part of both graphs are the censored observations and in the upper part are the uncensored cases.

3 The immediate effect of decentralization on vote share in national elections

This section provides further support for the reliability of the sample. It shows that the argument made by other scholars using the second order election framework holds on the sample used in the paper.

The literature on second-order elections argues that niche parties can use regional elections to signal to voters the viability of their policies and gain visibility, which in turn, boosts their national electoral performance. Scholars have traditionally used niche parties vote-share in national elections as the dependent variable. In this section, I will

Table 2: Vote share in national elections

	Vote share in national election	Vote share niche	Vote share mainstream
Intercept	6.40***	6.92**	5.14***
	(1.10)	(2.16)	(1.38)
Regional party	1.25	1.81	0.50
	(2.52)	(3.44)	(2.95)
Vote share regional elections	0.73***	0.49***	0.74***
	(0.01)	(0.02)	(0.01)
Party is in opposition	0.11	−0.44	0.69*
	(0.25)	(0.33)	(0.33)
Self-Rule	0.27**	0.03	0.30**
	(0.08)	(0.12)	(0.11)
Shared-Rule	0.13*	0.24*	0.09
	(0.05)	(0.12)	(0.06)
Changes in Regional Authority	−0.01	−0.03	0.01
	(0.02)	(0.03)	(0.02)
Regional cleavages	−0.07	0.17	−0.05
	(0.10)	(0.21)	(0.11)
Economic asymmetry	0.00	−0.02***	0.02***
	(0.00)	(0.00)	(0.00)
Turnout	0.03**	0.12***	0.01
	(0.01)	(0.02)	(0.02)
Majority	−8.01***	−7.36**	−7.94***
	(1.33)	(2.83)	(1.57)
Mixed	−4.94***	−4.89*	−4.72***
	(0.97)	(2.30)	(1.09)
PR	−5.30***	−2.77	−5.65***
	(0.86)	(2.04)	(0.98)
Party strength in other regions	0.03*	0.38***	−0.00
	(0.01)	(0.04)	(0.01)
AIC	27274.38	6203.91	20713.13
BIC	27396.48	6299.56	20829.80
Log Likelihood	-13618.19	-3082.95	-10337.57
Num. obs.	4566	1135	3431
Num. groups: region	192	171	190
Num. groups: party	99	22	78
Num. groups: election	16	12	16
Num. groups: country	12	11	12
Var: region	0.00	1.34	0.00
Var: party	33.80	7.29	39.58
Var: election	0.12	4.52	0.85
Var: country	3.04	6.63	6.20
Var: Residual	20.93	11.17	21.98

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

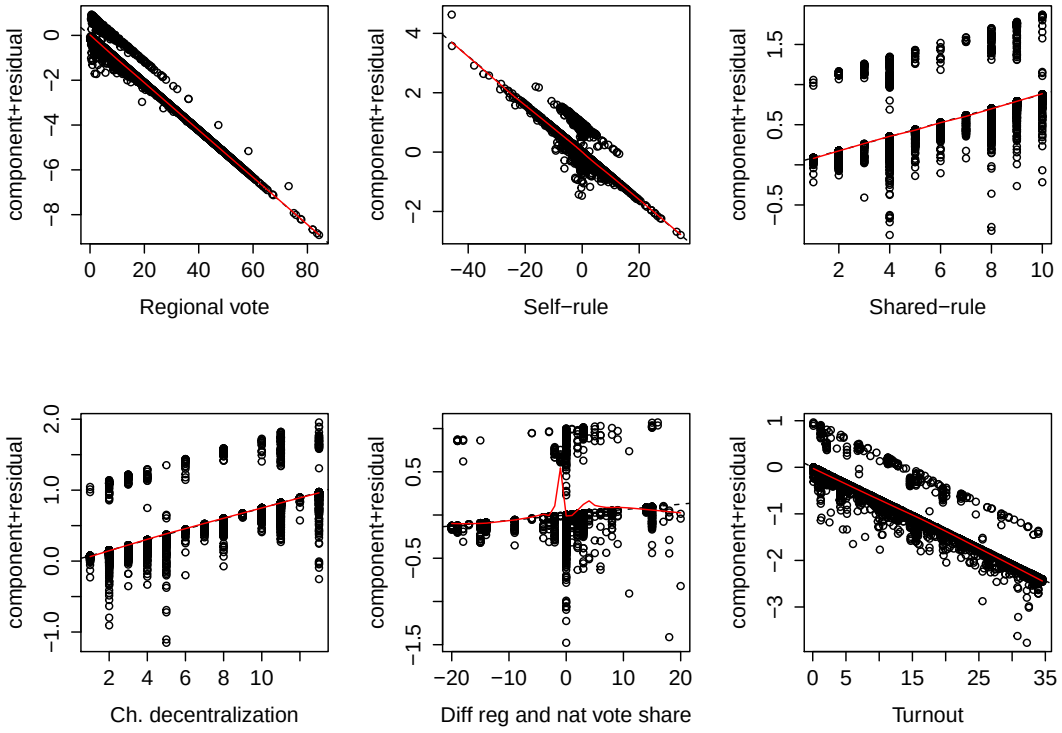

Figure 2: Component plus residuals of selected variables

do the same.

The new dependent variable is continuous and has a mean of 19.7% and a standard deviation of 15.41%. A multilevel linear model is used to analyze the data. The method is appropriate given the structure of the new dependent variable and because it takes into account the complex structure of the data where elections are nested into parties, parties into regions and regions into countries.

Table 2 shows the results of three models. Note that the number of observations is reduced due to the nature of the dependent variable and because the number of countries and regions depend on the presence of niche parties. The first model includes the whole sample (all parties.) The second model explains niche party's national vote share and the third one does the same for mainstream parties.

The coefficients exhibit for the most part the expected effects, mirroring results from previous studies (Spoon, 2011; Brancati, 2008; Farrer, 2015). In all cases, a strong regional performance significantly increases national electoral success. The observed effect of both components of the regional authority is very interesting. Niche parties are particularly benefited from competing in regions that exert an influence on national policy-making (share-rule) while mainstream parties see their national performance boosted form increases in shelf-ruling capacities. Changes in regional authority do not have a significant immediate effect on the performance of parties in national elections.

Economic asymmetry significantly damages the national electoral performance of niche parties while it boosts confidence in mainstream parties. Being strong in other regions has a spillover effect and improves the performance of niche parties in national elections but this effect is not significant in the case of mainstream parties. Increases in turnout significantly improve the performance of niche parties, also in line with the expectations derived from the literature on second-order elections. All results hold when controlling for the electoral system implemented in the region.

These results show the reliability of the sample used and increase confidence on the results presented in the manuscript. It is possible to conclude that while successfully competing in decentralized regions immediately increases the party's vote share in national elections; it does not prove beneficial for the continuity of the party in the regional party system. Decentralization may increase the number of parties and may help them perform well in immediate national elections but it also increases their risk of having a short political life.

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