Contextual Predictors of the Electoral Fortunes of Radical Right-Wing Parties in Europe.
A Two-Part Mixed-Effects Model

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Motivation

- Controversial evidence on the effects of various contextual-level factors on the electoral outcomes of RRP

Radical Right Voting: Contextual Factors

Factor	Direction	Empirical Evidence
Unemployment	+	Jackman & Volpert 1996; Golder 2003b; Arzheimer 2009
	–	Knigge 1998, Lubbers and Lucassen 2012 (GDP instead unemployment)
	n.s.	Lubbers et al. 2002
Immigration	+	Knigge 1996, Lubbers et al. 2002, Swank and Betz 2003, Golder 2003a, Arzheimer 2009
	n.s.	Lubbers and Lucassen 2012 (only share of Muslims) Van der Brug and Fennema 2005
Unemployment* Immigration	+	Golder 2003a (for populist parties)
	–	Arzheimer 2009
	n.s.	Arzheimer & Carter 2006
Immigration*Crime	+	Smyth 2010
Effective Number of Parties	+	Jackman & Volpert 1996 Golder 2003b
Disproportionality and Effective Thresholds	n.s	Arzheimer & Carter 2006
	–	Jackman & Volpert 1996, Swank and Betz 1996
Salience of the 'radical right' issues	+	Arzheimer 2009
Welfare state	–	Swank and Betz 2003
	Conditional	Arzheimer 2009

Methodological Issues

- Too much zeros in the electoral data: whether Tobit regression is appropriate?

- Selection bias: whether we study 'true' radical right parties?

Tobit regression

- Used for modelling censored outcomes (e.g. Y ≥ 0)
- Assume latent **Y* ~ N(0, 1)** such that

1) **Y* = Y when Y > 0**;

2) **Y* ≤ 0 when Y = 0**.

- Tobit regression models **Y*: Y* = βX + u ; β** is a linear effect of the covariate **X** on the dependent variable **Y***.

- The marginal effects of the covariates on **y**, the observed dependent variable, are equal to **β*Φ(βx/σ)** , where the last term is the probability that an observation is not censored

(!) <u>Is the latent negative support for radical right parties possible???</u>

Two-part model (Liu et al. 2010)

- It assumes two data-generating processes
- The first process determines whether the dependent variable is positive: $Y = 0$ or $Y > 0$. Logistic regression is used
- The second process determines the variation of non-zero outcomes. Generalized Gamma regression is used.
- The processes are allowed to be correlated
- Random intercepts are assumed for both parts

Two-part model: quantities of interest.

- α – regression coefficient on the covariate X for the logistic part of the model
- β – regression coefficient on the covariate X for the continuous (positive) part of the model
- δ – heteroscedasticity term for the covariate X for the continuous part
- V1, V2 – variance components for the respective parts
- Cov12 – covariance of the random effects from both parts.

Electoral Support for Radical Right Parties: Theoretical Explanations

- **Materialist argument** (group conflict theories, ethnic competition theories): immigration, unemployment, crime.

- **Political opportunity structure**: effect of electoral design, party system features, protest voting.

- **'Losers of modernization' thesis**: frustration from the relative deprivation in a rapidly developing society leads to resentment and support for traditionalist and exclusionary policies

Modernization and Value Polarization

- How to capture a new attitudinal cleavage along the modernization/conservation axis?
- Shift from the industrial to the postindustrial society involves the growth of postmaterialism.
- When the group with the strong anti-change attitudes ('materialists') exists in the post-materialist society, the value heterogeneity increases.
- Thus, value polarization may reflect the presence of a relatively large fraction of 'losers of modernization'

Hypotheses

- (1) Value polarization increases electoral support for radical right parties
- (2a) Higher level of unemployment leads to increase in percentage of votes for RRP.
- (2b) Proportion of non-EU migrants in a country is positively associated with the share of votes for RRPs.
- (2c) Unemployment is positively associated with the electoral outcomes of RRPs only when there is a large fraction of the immigrant population in a country
- (3a) Effective number of political parties positively affects the probability of the existence of parties from the radical right family in a given country..
- (3b)Disproportional electoral systems impede the emergence of relatively large radical right parties.
- (3c) Higher average salience of "radical right" issues in the manifestos of all parties competing in a given election lead to worse outcomes of RRPs.
- (4) The higher probability of non-zero outcomes of radical right, the higher actual amount of votes for RRPs for a given country

Variables

- Aggregated voteshare for all RRPs participating in a given election in a given country (**Dependent**)
- Value polarization: Percentage of postmaterialists in a country/modified RQ Index/kurtosis of the distribution of emancipative values for a given country
- Unemployment rate
- Share of migrants/Number of Asylum seekers
- Amount of social security funds (tax revenue for SSF as a percentage of a total taxation)
- Effective number of political parties
- Gallaher's Disproportionality Index
- Average salience of 'radical right' issues in party manifestos for a given election

Sample and Data Sources

- 29 countries: 27 EU members, Norway, and Switzerland; 1990-2010; 158 observations (108/93 uncensored)
- **"Inclusive" list**: 45 parties / **"Exclusive" list**: 34 parties (11 'borderline' cases are excluded)
- Electoral statistics: *European Election Database*
- Value polarization: WVS aggregated measures adjusted to match national elections years
- Unemployment and immigration data: *World Bank, Eurostat* and *OECD*
- Electoral design: *Comparative Political Data Set*
- Ideological positions: *Comparative Manifesto Project*

Steps of Empirical Analysis

- Estimation of the proposed two-part model

- Comparison between the two-part model and the Tobit model

- Estimation of the two-part model for 'exclusive' selection of radical right parties

- Investigation of the impact of multiple imputation on the substantial inferences

Results I (Two-Part)

- Logistic part

+ : <u>Social security funds</u>

– : <u>Unemployment</u> (*marginal significance)*

- Continuous part

+ : <u>Migrants</u>, <u>Polarization</u> (modified RQ index; *marginal significance*)

– : *Disproportionality???*

- Heteroscedasticity:

<u>Migrants</u> and <u>Disproportionality</u>

- Variance Components:

Intercepts vary significantly in both parts

Cross-part correlation seems to be insignificant

Results II (Tobit)

- Tobit Model:

+ : <u>Polarization</u> (share of postmaterialists), <u>Migrants</u> (*marginal significance*), <u>Effective number of political parties</u>

– : *Social security funds???*

- Comparison:

Both: <u>Migrants</u> (+); <u>Polarization</u> (+)

TPM: <u>Unemployment</u> (-), *Disproportionality* (-), <u>Social security funds</u> (+) – all in the logistic part

Tobit: <u>Effective number of political parties</u> (+), *Social security funds* (-)

Results III
('borderline' parties excluded)

- TPM for reduced selection. Part I

+ : Social security funds (*marginal significance)*

– : Unemployment

- TPM for reduced selection. Part II

+ : Polarization (share of postmaterialists), Effective number of political parties (*marginal significance), Disproportionality???*

– : *Unemployment??? Unemployment*Migrants???*

- Heteroscedasticity: Effective number of political parties

- Variance Components: Intercept variance is marginally significant for Part II

- Comparison:

Both: Unemployment (-) and Social security funds (+) - in the logistic part; Polarization (but different indicators) – in the continuous part

TPM 1: Migrants (+) – in the continuous part

TPM 2: Effective number of political parties (+), *Unemployment* and *Unemployment*Migrants* (-) – in the continuous part

Heteroscedasticity: Migrants and Disproportionality in TPM 1 and Effective number of political parties in TPM 2

Results IV
(effect of multiple imputation)

- MAR assumption for Migrants is doubtful
- Listwise deletion: 86 observations, 22 countries
- Tobit fixed effects regression; logistic regression; log-normal regression
- Comparison (basing on Tobit):

Imputed data: Effective number of political parties, Migrants

Pre-Imputed data: modified RQ index, Disproportionality, *Social security funds*

   Biased imputation model or just different samples?

Discussion I

- Partial evidence of the positive effect of value polarization on the electoral outcomes of radical right parties (*only postmaterialism index-based measures*)
- Negative effect of unemployment on the probability of existence of radical right parties
- Social security funds are positively associated with the existence of RRPs.
- Positive effect of immigration on the actual vote share for far-right but no evidence of significant interaction between unemployment and immigration
- Effective number of political parties may favor electoral fortunes of far-right parties
- Average salience of issues 'possessed' by RRPs does not correlate with their successes or failures

Inferences depend both on the method of estimation,
party selection rules, and imputation.

Discussion II

- TPM and Tobit are similar in the continuous part but Tobit omits the logistic part and does not test for heteroscedasticity

- TPM for 'inclusive' and 'exclusive' sets of parties are similar in the logistic part but differ in the continuous and heteroscedasticity parts.

- Analyses with imputed and non-imputed dataset provide differing results. However, it is not clear what is the source of the differences: biased imputation procedure or just a change in the sample size.

Limitations and Further Steps

- Small sample size on both levels (*29 /22 clusters; 5 – average cluster size*): probability of biased parameter estimation is quite high for variance components. Therefore, Bayesian inference techniques are necessary to use.
- Low within-country variation in the logistic part
- Possibility of serial correlation
- Endogeneity of polarization measures
- Inclusion of new countries and years
- Investigation of the link between polarization and radical right support with the use of both individual-level and country-level predictors
- Clarification of the concept "radical right" and detailed investigation of the effect of selection rules.

Thank you very much for your attention

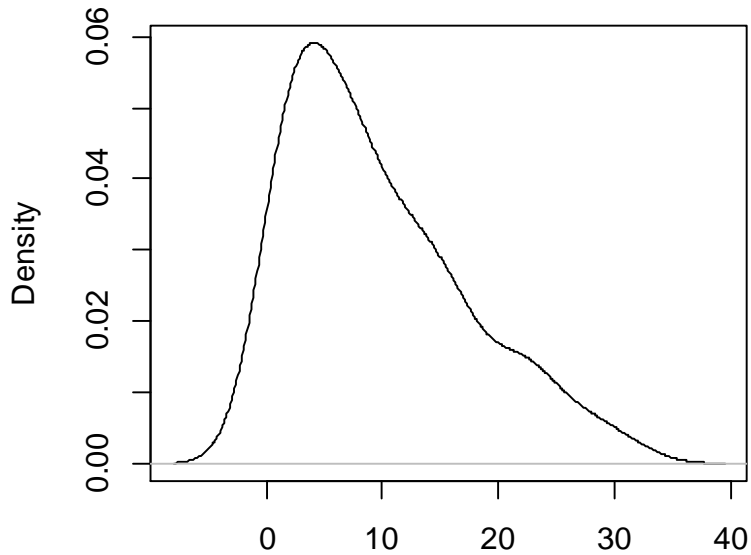Comments, questions and suggestions are highly welcome!

Appendix A

Descriptive Statistics

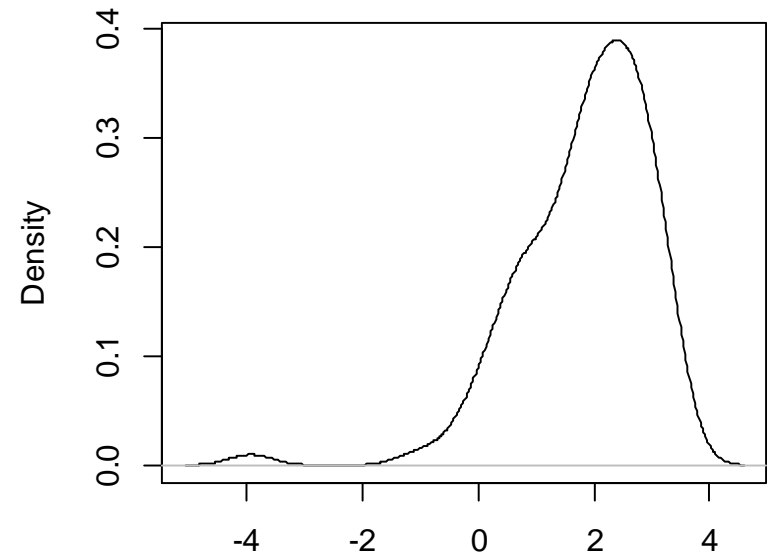| Variables	Imputed Dataset					Pre-Imputed Dataset				
	No	mean	sd	Min	max	N	mean	sd	min	Max
RPV	158(108)	6.61	7.72	0	31.41	86(66)	6.77	7.45	0	29.72
RPV_2	158(93)	4.55	6.13	0	26.9	86(61)	4.93	5.64	0	26.9
Pmperc	158	0.14	0.08	0.02	0.34	86	0.17	0.08	0.02	0.34
PolarMat	158	0.3	0.1	0.11	0.58	86	0.28	0.1	0.11	0.58
Evkurt	158	0.35	0.34	-0.65	0.89	86	0.32	0.35	-0.6	0.87
Unemployment	158	8.4	4.17	2.27	20.1	86	7.23	3.09	2.4	18.8
Migrants	158	6.52	7.2	0.32	43.84	86	7.06	7.99	0.53	43.84
Gallaher Index	158	5.24	4.38	0.35	24.61	86	4.64	3.93	0.35	17.69
Effective Number	158	5.03	1.96	2.02	13.95	86	5.03	1.68	2.64	10.29
Social Security Funds	158	10.08	4.52	0	22.46	86	10.24	4.5	0	22.46
ArCa Index	158	0.08	0.03	-0.01	0.17	86	0.09	0.03	0	0.15

Distribution of Non-Zero Outcomes

RPV: Distribution of the Continuous Part

N = 108   Bandwidth = 2.678

RPV: Log-Transformed Continuous Part

N = 108   Bandwidth = 0.3806

Appendix B

Radical Right Parties I

- Austria: FPO
- Belgium: VB, FN
- Bulgaria: Attack
- Cyprus: none
- Czech Republic: SPR – RSC
- Denmark: DF, FRP
- Estonia: none
- Finland: *True Finns*
- France: FN, Miscellaneous Right
- Germany: The Republicans, NPD, DVU

Radical Right Parties II

- Greece: LAOS
- Hungary: MIEP, Jobbic
- Ireland: none
- Italy: *Lega Nord*, MSI/NA, FT
- Latvia: *LNNK*, All for Latvia!, *NA*
- Lithuania: *TT*, LTS
- Luxembourg: none
- Malta: none
- Netherlands: CD, *SGP*, PVV, *LPF*

Radical Right Parties III

- Norway: FRP
- Poland: *LPR*
- Portugal: none
- Romania: *PUNR*, PRM
- Slovakia: SNS
- Slovenia: SNS
- Spain: none
- Sweden: *ND*, SD
- Switzerland: EDU/UDF, FPS, SD, *SVP*, LDT
- UK: BNP, UKIP