**Supporting information**

The Supporting Information (SI) consists of five sections. First, we present the descriptive statistics and model specifications that were omitted from the manuscript to save space.

Second, we discuss the different models of the effective number of electoral parties (ENEP) underlying the party system saturation measure we rely on in the manuscript, as well as two alternative measures created for robustness tests.

Third, we show that our results are robust against these two alternative party system saturation measures. Specifically, we considered (1) the residuals of Model 3 of Van de Wardt (2017) that also includes the fractionalization of voter left-right preferences, and (2) the residuals from Clark and Golder’s (2006) well-known model of ENEP. Additionally, we demonstrate that our main conclusions hold when we simply measure competition based on the observed ENEP rather than party system saturation.

Fourth, we present the results from several other robustness analyses, showing that we reach the same conclusions when we: (1) use alternative operationalizations of nicheness, (2) evaluate whether parties increase the clarity of their left-right positon in response to party system saturation, (3) measure the nicheness of a party’s platform at *t* as compared to other parties in the previous elections, (4) examine whether the *Alliance Hypothesis* (H2) is contingent upon the extremity of parties’ left-right positions, (5) assess whether our findings are contingent upon niche/mainstream party status, (6) include niche/mainstream party status as a control when evaluating the *Merger Hypothesis* (H3), and (7) specify our models as multilevel with party-elections nested in counties and parties. All these tests continue to support our substantive conclusions.

Finally, we provide an overview of all the party/election combinations included in our dataset.

**Section 1. Tables omitted from the manuscript to save space**

Table A1 and A2 present the descriptive statistics and model specifications. Table A3, in turn, provides some core descriptive statistics for parties that merge. Finally, Table A4 and Figure A1 evaluate the impact of the moderating variables on alliance entry for parties that were already in an alliance at *t-1*. To save space, Table 2 of the manuscript only shows how these moderating variables **fail** to affect the opposite transition from non-membership into alliance membership. Therefore, in line with the *Alliance Hypothesis* (H2), we conclude that parties are **on average** more likely to enter alliances when party system saturation increases. This is an unconditional effect. As said, none of the interactions reach statistical significance. As shown below, we reach the same conclusions based on the other transition from alliance membership into non-membership. Recall that we already know from Table 2 of the manuscript, that alliance members at *t-1* are **on average** less likely to exit alliances when party system saturation increases (stability property multiplied by -1; hence, logged odds=-.536, p<.01, Model 1). As revealed in Table A4, the interactions between party system saturation on the one hand, and a party’s age, leader dominance, size and government opposition status on the other hand (Model 1-4) are statistically insignificant. Altogether, these results fully confirm H2, that **on average**, parties are more likely to enter alliances and less likely to exit them when party system saturation increases. For both transitions, there is no evidence in favour of moderation. See Figure A1 for the marginal effects.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A1.** Descriptive statistics | | | | |  |
|  | N | Mean | SD | Min | Max |
| **Continuous DV** | |  |  |  |  |
| Nicheness | 2126 | 2.531 | 4.811 | -4.238 | 81.701 |
| **Dichotomous DV** | |  |  |  |  |
| Alliance member | 3299 | 0.117 | 0.322 | 0 | 1 |
| Merger | 3299 | 0.018 | 0.134 | 0 | 1 |
| **Continuous IV** | |  |  |  |  |
| Party system saturation | 3299 | 0.302 | 1.403 | -3.693 | 5.238 |
| Party age | 3299 | 36.423 | 33.457 | 0 | 176 |
| Leader dominance | 1575 | 18.515 | 5.564 | 0 | 29.630 |
| Party size | 2861 | 11.847 | 13.681 | 0 | 58.100 |
| Advantage ratio | 2843 | 0.837 | 0.621 | 0 | 14.900 |
| Office experience | 3299 | 0.268 | 0.356 | 0 | 1 |
| Alliance experience | 3299 | 0.111 | 0.282 | 0 | 1 |
| Left-right distance | 2322 | 1.421 | 2.123 | 0 | 21.776 |
| Number of parliamentary parties | 3299 | 8.359 | 3.437 | 2 | 18 |
| Petition (logged) | 2308 | 1.359 | 1.813 | -0.693 | 7.388 |
| Registration costs | 2314 | 0.041 | 0.128 | 0 | 0.770 |
| Vote loss | 2130 | 0.053 | 3.624 | -22.800 | 26.670 |
| **Dichotomous IV** | |  |  |  |  |
| Opposition | 3299 | 0.735 | 0.441 | 0 | 1 |
| Without parliamentary representation | 2746 | 0.146 | 0.353 | 0 | 1 |
| Party financing | 2314 | 0.612 | 0.487 | 0 | 1 |
| Niche profile | 2126 | 0.168 | 0.374 | 0 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Table A2.** Definitions and model specification | | |  |
| **Definitions** |  |  |  |
| Nichenessitj | Nicheness of party’s *i*’s election manifesto in election *t* and country *j* |  |  |
| In allianceitj | 1 if party *i* in country *j* contests election *t* in electoral alliance (0 if otherwise) |  |  |
| Mergedit+1 | 1 if party *i* does merge at election *t+1* (0 if otherwise) |  |  |
| NP profileitj-1 | 1 if party *i* in country *j* had a niche profile at *t-1* (0 if mainstream profile) |  |  |
| **Hypothesis** | **Model specification** | **Predictions** | |
| H1 | 1. Nichenessitj = β0 + β1(Party system saturationt) + β2(NPitj-1) + β3(Party system saturationt\* NP profileitj-1) + *Controls* + uj + eitj | β1>0 & β1+β3>0 | |
| H2 | 1. Logit[Pr(In allianceitj = 1 | In allianceitj-1 = 1)] = β0 +β1(Party system saturationt) + *Controls* + uj + eitj 2. Logit[Pr(In allianceitj = 1 | In allianceitj-1 = 0)] = β0 +β2(Party system saturationt) + *Controls* + uj + eitj | β1 >0 & β2>0 | |
| H3 | 1. Logit[Pr(Mergedit+1 = 1)] = β0 + β1(Party system saturationt) + *Controls* + eit | β1>0 | |
| H4 | | β1 Eq1=0 & β1 Eq1+β3 Eq1=0  β1 Eq2>0 & β2 Eq3>0  β1 Eq4=0 | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A3.** Descriptive statistics of parties that merge | | | | |  |
|  | N | Mean | SD | Min | Max |
| **Continuous IV** | |  |  |  |  |
| Party system saturation | 60 | 0.319 | 1.596 | -2.802 | 5.238 |
| Party age | 60 | 22.783 | 26.667 | 0 | 128 |
| Office experience | 60 | 0.189 | 0.324 | 0 | 1 |
| Alliance experience | 60 | 0.245 | 0.401 | 0 | 1 |
| Party size | 43 | 3.754 | 5.075 | 0.030 | 25.490 |
| **Dichotomous IV** | |  |  |  |  |
| Opposition | 60 | 0.900 | 0.303 | 0 | 1 |
| Without parliamentary representation | 57 | 0.228 | 0.423 | 0 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table A4.** Evaluating the effect of the moderating variables for the Alliance hypothesis (H2) for transition from alliance membership into non-membership | | | | |
|  | Alliance member *t-1* | | | |
|  | Model 1 | Model 2 | Model 3 | Model 4 |
| Party system saturationt-1 | 0.508\*\* | 2.021\* | 0.175 | 0.901\*\*\* |
|  | (0.200) | (1.139) | (0.594) | (0.315) |
| Party aget | 0.006 | 0.010 | 0.005 | 0.006 |
|  | (0.007) | (0.010) | (0.014) | (0.007) |
| Party system saturationt-1\*Party aget | 0.001 |  |  |  |
|  | (0.004) |  |  |  |
| Leader dominance |  | -0.009 |  |  |
|  |  | (0.059) |  |  |
| Party system saturationt-1\*Leader dominance | | -0.059 |  |  |
|  |  | (0.052) |  |  |
| Sizet-1 |  |  | 0.025 |  |
|  |  |  | (0.041) |  |
| Party system saturationt-1\*Sizet-1 | | | 0.077 |  |
|  |  |  | (0.067) |  |
| Oppositiont-1 | -0.331 | -0.744 | -0.853 | 0.129 |
| (Reference category (RC): Incumbent) | (0.598) | (0.810) | (1.027) | (0.656) |
| Party system saturationt-1\*Oppositiont-1 | | |  | -0.433 |
|  |  |  |  | (0.303) |
| Without parliamentary representationt-1 | -0.696 | 0.659 | -0.347 | -0.693 |
| (RC: Represented) | (0.627) | (1.468) | (1.078) | (0.626) |
| Alliance experiencet-1 | 2.066\*\*\* | 4.432\*\*\* | 1.615 | 2.010\*\*\* |
|  | (0.690) | (1.205) | (1.290) | (0.687) |
| Government experiencet-1 | -0.301 | -1.350 | 1.618 | -0.223 |
|  | (0.826) | (1.088) | (1.498) | (0.834) |
| Number of partiest-1 | -0.140\* | -0.238\* | -0.208\* | -0.150\* |
|  | (0.078) | (0.129) | (0.123) | (0.079) |
| Constant | 1.021 | 0.558 | 1.678 | 0.698 |
|  | (1.134) | (2.192) | (1.957) | (1.169) |
| *σ²* level 2 (country) | 0.984 | 0.000 | 0.000 | 0.977 |
|  | (.853) | (0.000) | (0.000) | (0.843) |
| BIC | 294.783 | 144.728 | 126.431 | 292.604 |
| N | 312 | 158 | 154 | 312 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining transitions from alliance membership to non-membership. The coefficients are logged odds. Standard errors in parentheses. | | | | |

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**Figure A1.** Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that an alliance member at *t-1* will remain in an alliance at *t* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left) and opposition status (bottom-right). 95% CI.

**Section 2. Measuring party system saturation**

A measure of party system saturation can be created by saving the residuals from an analysis that regresses the effective number of electoral parties (ENEP) on a party system’s characteristics. The current manuscript is part of an interrelated series of papers studying the effects of party system saturation. A first step in this project was to create a cross-national and longitudinal model explaining ENEP. This model should carry explanatory power in each of the advanced democracies under analysis, while simultaneously including as many elections as possible. Hence, the project needs a parsimonious model explaining as much as possible with variables that are available for many countries for the entire post-war period. This endeavour has been published as a standalone paper: Van de Wardt (2017) in *Electoral Studies*.[[1]](#footnote-1)

**Models 2 and 3 of Table 2 on page 50** in Van de Wardt (2017) were specifically designed to measure party system saturation in the current paper and follow-up papers. Model 2 includes measures of public demand, political supply and electoral openness of party systems, whilst enabling us to include a large number of elections. Van de Wardt’s (2017) Model 3, in turn, also includes voters’ short-term preferences along the left-right dimension. While this model carries even more explanatory power, the number of elections is reduced from 387 to 151. Hence, Model 2 scores better on parsimony, whereas Model 3 does a better job on completeness (Gerring 2005). To include as many elections as possible, we use the residuals from Model 2 in the manuscript. In this SI, we show that our results hold if we measure party system saturation based on Model 3. A third measure of party system saturation was built based on the residuals from Clark and Golder’s (2006) influential study. This model was not specifically designed to measure party system saturation, and fails to include political supply-side variables and voters’ short-term electoral preferences; yet, it includes additional institutional variables and carries high explanatory power in the countries and timeframe that we consider. Therefore, we see it as a valid alternative, and ensured that our results hold when party system saturation is based on their model of ENEP.



**Figure A2**. Upper-left figure denotes ENEP model from Van de Wardt’s (2017) Model 2: R2=0.31 and N=387; Upper-right denotes ENEP model from Van de Wardt’s (2017) Model 3: R2=0.38 and N=151; Lower-left denotes ENEP model from Clark and Golder’s (2017) Table 2 (the model for established democracies): R2=0.40 and N=487. CI 90%

Figure A2 provides an overview of the independent variables and their effects on ENEP included in the models underlying our three measures of party system saturation. The measure presented in the manuscript is based on the upper-left model; in this SI, we present the results for the other models (Section 2). Below, we first provide a detailed explanation of the models presented in Van de Wardt (2017) as Models 2 and 3, as these were specifically designed for the paper at hand. For more detail on Clark and Golder’s (2006) model, we refer to their journal article cited in the reference list.

*2.1 Van de Wardt’s (2017) Model 2*

The dependent variable is the effective number of electoral parties (ENEP), which is expressed as an inverse Herfindahl index (Laakso and Taagepera 1979). This measure takes into account parties’ relative vote shares and can be used as a proxy for the number of electorally viable parties (Golosov 2010).[[2]](#footnote-2) Parties’ vote shares need to be taken into account since organizational ecology’s concept of carrying capacity relates to the number of viable parties sustainable within a particular party system. As argued by Laver and Schilperoord (2007), political scientists would agree that parties like the UK Monster Raving Looney Party operate below the radar of mainstream competition in that they exert no effect whatsoever on other more consequential parties. Therefore, the state-of-the-art cited below focuses on ENEP, and not on the number of parties contesting elections, to assess the carrying capacity of party systems.[[3]](#footnote-3)

First, the specification accounts for the so-called standard model of party system density in which societal heterogeneity leads to a higher ENEP so long as electoral rules are sufficiently permissive. The model therefore includes an interaction between electoral system permissiveness, measured by logged median district magnitude, and societal heterogeneity, measured by the effective number of ethnic groups (Clark and Golder 2006, Neto and Cox 1997, Ordeshook and Shvetsova 1994). Logged median district magnitude is obtained from Carey and Hix (2011). E.g., an electoral system with 50 seats across 7 districts of the following M: 2, 3, 3, 5, 6, 14, 17 produces a median district magnitude of 5. In case of a PR system, the median of all PR systems is calculated; in case of non-compensatory mixed system, one calculates the median over all districts of any sort; and finally, under a compensatory mixed system, this is the median of the PR districts only. Analogous to Carey and Hix (2011), median district magnitude rather than the mean district magnitude is used, the reason being that many countries have a large number of small districts and only a few very large districts. Consequently, the average district magnitude can be quite large as compared to the median.

In line with the state-of-the-art, the natural log of median district magnitude is included in the model to capture the intuition that the effect of district magnitude becomes smaller as it increases (also see Clark and Golder 2006; Neto and Cox 1997; Ordeshool and Shvetsova 1994). Supposing that 120- or 150-member districts might allow for 20 or 40 effective parties is unreasonable. Similar to Clark and Golder (2006), the measure of cultural fractionalization proposed by Fearon (2003) is used to tap into a country’s societal heterogeneity. His measure is innovative since, in contrast with other fractionalization indexes, his measure does take into account that societal divisions must be salient among a country’s inhabitants in order to qualify as such. Groups are mostly distinguished based on religion, but only if they meet the criteria that membership has a strong descent basis and that they are locally viewed as most consequential. Otherwise, groups are distinguished based on other cultural criteria. Notably, this index does more than just calculating a Herfindahl over the sizes of the groups; it also modifies the fractionalization score by calculating the linguistic resemblance factor between the different groups. The more similar the languages spoken by the different groups, the more will the Herfindahl fractionalization index be reduced. Hence, the higher this measure, the greater the heterogeneity of a country.

Second, the idea is adopted that when more issue dimensions are salient among parties, electoral support spreads out over a greater ENEP (Stoll 2011, Taagepera 1999). As Stoll (2011) found evidence that higher dimensionality only increases ENEP in proportional electoral systems, dimensionality is interacted with logged median district magnitude. To calculate dimensionality, the procedure proposed by Stoll (2011) was followed. The first step involves calculating the salience of seven core ideological conflicts: the socio-economic, religious, ethnic, urban-rural, foreign policy, post-materialist, and democratic-authoritarian conflict. The parties’ issue emphases were derived from the Comparative Manifesto Project (CMP), which is the largest available cross-national and longitudinal dataset on party policy positions (Volkens et al. 2013). In a second step, the raw dimensionality weights each conflict by its salience using the Molinar (1991) procedure. A higher score on this variable corresponds with higher dimensionality.

Third, Lowery et al. (2010, 2013) have argued that when party issue attention is spread out over a wider array of policy issues, a higher ENEP can survive. They reason that issues can be seen as a raw resource needed by parties to set themselves apart from competitors. Should there be a fragmented issue agenda, parties have more opportunities to distinguish themselves in terms of issue salience and policy positions. Yet, analogous to the effects of societal heterogeneity and issue dimensionality, a fragmented agenda will only increase the effective number of parties in proportional electoral systems. Thus, again the interaction with logged district magnitude is included in the model. Issue diversity on the party system agenda was measured based on the CMP. For each election, Shannon’s H entropy was calculated over the salience proportions attached to each individual issue by all parties participating in the election (Boydstun, Bevan, and Thomas 2014).[[4]](#footnote-4) Higher values on this variable denote greater agenda diversity, implying that the parties’ issue emphases are more spread out across issues.

*Model specification*

The model was estimated by means of OLS with robust standard errors clustered by countries, as feasible generalized least squares and panel-corrected standard errors are unfeasible options (for a discussion, see Clark and Colder 2006). Table A5 displays the definitions and model specifications. Equation 1 pertains to Model 2 and equation 2 to Model 3 of Van de Wardt (2017).

**Table A5.** Definitions and model specification

|  |  |
| --- | --- |
| **Definitions** |  |
| Effective number of partiesit | The effective number of electoral parties in the current election *t*. |
| LogMit | The natural log of median district magnitude (M) in the current election *t*. |
| Societal heterogeneityi | The Fearon (2003) cultural fractionalization score of a country *i*. |
| Raw dimensionalityit | The raw dimensionality (Molinar NP) of the party system agenda in the current election *t*. |
| Issue agenda diversityit | The issue diversity (Shannon’s H) of the party system agenda in the current election *t*. |
| Voter fractionalization l-rit-1 | The fractionalization (Van der Eijk disagreement score) of voter preferences along the left-right dimension based on the available survey waves between election *t* and election *t-1* (including those in the year of election *t*). |
| **Model specifications** |  |
| 1. Effective number of partiest = β0 + β1(LogMt) + β2(Societal heterogeneityi) + β3(Raw dimensionalityt) + β4(Issue diversityt) + β5(Societal heterogeneityi\*LogMt) + β6(Raw dimensionality\*LogMt) + β7(Issue diversity\*LogMt) + εt 2. Effective number of partiest = β0 + β1(LogMt) + β2(Societal heterogeneityi) + β3(Raw dimensionalityt) + β4(Issue diversityt) + β5(Societal heterogeneityi \*LogMt) + β6(Raw dimensionality\*LogMt) + β7(Issue diversity\*LogMt) + β8(Voter fractionalization l-r t-1) + β9(Voter fractionalization l-r t-1\*LogMt) + εt | |

The different explanations of ENEP are evaluated by interacting societal heterogeneity, raw dimensionality, issue diversity, and voter fractionalization with district magnitude. Recall, however, that it does not suffice to evaluate whether the interaction coefficient (i.e., β5, β6, β7, andβ9) is significant; primarily, it is important to establish at which specific values of district magnitude (M) an effect statistically differs from zero (Brambor, Clark, and Golder 2006).

*Results*

In Figure A2 (upper-left), we report the regression coefficients, whereas the marginal effects for Model 2 of Van de Wardt (2017) are presented in Figure A3. A positive value on the y-axis implies that the independent variable increases ENEP, while a negative value denotes the opposite. An effect only differs significantly from zero in case the confidence intervals (dashed lines) do not entrap the zero-line.

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**Figure A3.** Marginal effects of independent variables for increasing values of district magnitude (based on Model 2 of Van de Wardt (2017); 90% CI)

As for the standard model, Figure A2 (upper-left) shows that the interaction between societal heterogeneity and district magnitude is statistically significant. We are primarily interested, however, in whether the effect of societal heterogeneity and our other independent variables is positive and statistically significant when the electoral system becomes sufficiently permissive. Therefore, it would be erroneous to evaluate the model by looking at the significance of the regression coefficients. Rather, we need to calculate the marginal effects (Brambor, Clark, and Golder 2006). Figure A3 (upper-left) shows that the effect of societal heterogeneity is statistically significant when LogM is 1.3 or higher – thus, when M is equal to or higher than 3.5. The fact that the effect of cultural fractionalization is suppressed when M is lower, is perfectly in line with the standard model. At that stage, voters can still be expected to vote strategically, implying that greater societal heterogeneity will not automatically produce more effective parties (e.g., Cox 1997, Lowery et al. 2010, Ordeshook and Shvetsova 1994).

There is no evidence that raw dimensionality increases the effective number of parties. The marginal effects (bottom-left) reveal that the effect of raw dimensionality is insignificant for each observed value of LogM. Last, whereas the interaction between issue diversity and logM is statistically insignificant in Figure A2 (upper-left), Figure A3 (bottom-left) reveals that issue diversity significantly increases ENEP when logM ranges between 0.5 and 3.7 – i.e., when M ranges between 1.7 and 41. This is in line with Lowery et al.’s (2013) untested expectation that issue diversity significantly increases the effective number of parties in high-M systems.

Thus, overall, we manage quite well to replicate the state-of-the-art when it comes to predicting the effective number of parties. Also in terms of model fit, the models perform in line with the state-of-the-art: R2=.31 (cf. Clark and Golder 2006).

*2.2 Van de Wardt’s (2017) Model 3*

Due to the limited availability of data on voters’ left-right positions during the time span of our study (1945-2011), we excluded this variable from the party system saturation measure in the manuscript to prevent list-wise deletion. Arguably, we already tap into (latent) voter preferences by including societal heterogeneity. Yet, this variable does not vary over time. Also, it does not sit well with the Downsian (1957) proximity model to exclude voters’ short-time left-right preferences. According to Downs (1957), a unimodal or bimodal distribution of voters’ left-right positions will produce a two-party system, while a multimodal distribution will produce multi-party systems. Hence, Model 3 also includes the fractionalization of voter preferences along the left-right dimension to estimate the effective number of parties, and thus the carrying capacity for parties.

Analogous to the other explanations (i.e., societal heterogeneity, issue diversity, and raw dimensionality), we interacted the fractionalization of voter preferences with logged median district magnitude (M). See equation 2 in Table A5. As explained in Van de Wardt (2017), fractionalization should matter at low levels of M, when strategic voting plays a role. A concentrated (fractionalized) voter distribution should especially translate into a lower (higher) ENEP in conjunction with Duverger’s psychological effect. In case of a concentrated distribution, some parties will be confronted with very small potential electorates. Yet, voters sharing the ideological position of these parties will only be discouraged to vote for them if they perceive that these parties stand no chance of gaining representation. When electoral systems are permissive enough, however, the psychological effect will not be triggered, implying that these voters will vote sincerely, even if their party has a small potential electorate.

The fractionalization of the electorate along the left-right dimension was constructed by means of the Van der Eijk (2001) agreement coefficient (A) for ordered rating scales.[[5]](#footnote-5) Agreement was calculated for each available election over respondents’ left-right self-placement on a scale ranging from 1 (left) to 10 (right). Before calculating agreement, we weighted the respondents’ responses if sample weights were available. Data was derived from the Eurobarometer and World Values surveys. All survey waves between election *t-1* and *t* are used to explain the effective number of parties at *t*. The agreement measure was rescaled, so that 1 reflects maximum disagreement (or fractionalization) and 0 maximum agreement (or concentration).

*Results*



**Figure A4.** Marginal effects of independent variables for increasing values of district magnitude (based on Model 3 of Van de Wardt (2017); 90% CI)

Figure A2 (upper-right) already provides some evidence that the effect of voter fractionalization is conditioned by logM, as the interaction coefficient is in the expected direction and statistically significant (b=-3.6, p<.01). As can be seen from Figure A4 (bottom-right), higher fractionalization fosters a higher ENEP when logM ranges between 0 and 1 – i.e., when M ranges between 1 and 3. It makes perfect sense that this effect becomes insignificant when M is 3, since from these values of M onwards the importance of strategic voting quickly ebbs (Lowery et al. 2010). As argued in the theory section of Van de Wardt (2017), a fragmented (concentrated) voter distribution should only contribute to a higher (lower) ENEP when voters vote strategically.

With regard to the other explanations of ENEP already tested above, the interaction coefficient between societal heterogeneity\*LogM becomes statistically insignificant (Figure A2, upper-right); however, as shown in Figure A4 (upper-left), the marginal effect continues to statistically differ from zero for substantively relevant values of LogM – i.e., when logM ranges between 0.7 and 2.4 (M ranges between 2 and 11). In turn, the bottom-left graph of Figure A4 reveals that we continue to find evidence that a more diverse party system agenda produces a greater number of effective parties when logM ranges between 1.8 and 3.7 – i.e., when M ranges between 6 and 41.

As said, model fit increases if the interaction between voter left-right fractionalization and LogM is included from an R2 of 0.31 to 0.38; yet, the number of elections drops from 387 to 151, which is why we stick to Van de Wardt’s (2017) Model 2 in the manuscript. Below, we proceed by showing that our results are robust against this alternative measure of party system saturation.

**Section 3. Robustness tests on alternative measures of party system saturation**

*3.1 Van de Wardt’s (2017) Model 3*

Below, we present the results when all the hypotheses are evaluated based on a measure of party system saturation utilizing the residuals from Model 3 (Table 2) of van de Wardt (2017). This model includes, next to the independent variables considered in the manuscript, also an interaction between the fractionalization of voters’ left-right preferences and district magnitude. See Section 2 of this SI, or van de Wardt (2017) for a detailed explanation.

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**Figure A5.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

Figure A5 depicts the results for the *Nicheness Hypothesis* (H1). As can be seen, all the marginal effects are statistically insignificant. Hence, we find no evidence for H1.

Table A6 presents the results for the *Alliance Hypothesis* (H2), with marginal effects displayed in Figure A6. Analogous to the manuscript, we find even stronger evidence that non-members are more likely to enter into alliances when party system saturation increases (log odds=1.747, Model 2, p<.01). Regarding the opposite transition from membership into non-membership, the effect (log odds=-.122, Model 1) is statistically insignificant. One should note, however, that we lost about half our observations by including voter left-right preferences into our measure of party system saturation. Considering the small N for this transition (N=185 versus N=312 in the manuscript; see Table 2 Model 1), it is not that surprising that the transition from membership into non-membership fails to produce significant results. Given that we do, again, find that non-members are significantly more likely to join alliances when party system saturation increases, there is still considerable evidence for H2. As can be seen from the insignificant interaction effects (Model 3-6) and the relatively flat marginal effect lines (Figure A6), there is no evidence that this effect is conditional. Even though the marginal effects differ significantly from zero for specific values of age, leader dominance and size and for opposition as well as government parties, the slopes should also significantly differ from zero or between government and opposition parties. The latter is not the case.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A6.** Evaluating the Alliance Hypothesis (H2) | | | | | | |
|  | Alliance member *t-1* | Non-member *t-1* | Non-member *t-1* | | | |
|
|
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Party system saturationt-1 | -0.122 | 1.747\*\*\* | 1.805\*\*\* | 1.559 | 1.549\*\*\* | 2.727\*\*\* |
|  | (0.206) | (0.452) | (0.521) | (1.777) | (0.513) | (0.786) |
| Party aget | 0.004 | 0.007 | 0.008 | 0.020 | 0.010 | 0.009 |
|  | (0.009) | (0.011) | (0.011) | (0.022) | (0.011) | (0.011) |
| Party system saturationt-1\*Party aget | |  | -0.002 |  |  |  |
|  |  |  | (0.007) |  |  |  |
| Leader dominance | |  |  | -0.068 |  |  |
|  |  |  |  | (0.230) |  |  |
| Party system saturationt-1\*Leader dominance | | |  | 0.036 |  |  |
|  |  |  |  | (0.079) |  |  |
| Sizet-1 |  |  |  |  | -0.047 |  |
|  |  |  |  |  | (0.055) |  |
| Party system saturationt-1\*Sizet-1 | | | |  | 0.029 |  |
|  |  |  |  |  | (0.036) |  |
| Oppositiont-1 | -0.535 | 1.432 | 1.455 | 0.813 | 1.443 | 3.820\* |
| (RC: Incumbent) | (0.824) | (1.090) | (1.092) | (1.313) | (1.108) | (2.152) |
| Party system saturationt-1\*Oppositiont-1 | | | |  |  | -1.119 |
|  |  |  |  |  |  | (0.691) |
| Without parliamentary representationt-1 | -1.474\*\* | -2.249 | -2.229 | -3.249 | -2.298 | -2.556\* |
| (RC: Represented) | (0.627) | (1.410) | (1.412) | (3.959) | (1.412) | (1.463) |
| Alliance experiencet-1 | 1.849\*\* | -10.385\*\* | -10.489\*\* | -13.020 | -10.443\*\* | -10.727\*\* |
|  | (0.784) | (4.768) | (4.779) | (10.745) | (4.601) | (4.948) |
| Government experiencet-1 | 1.629 | 0.852 | 0.908 | 0.350 | 0.795 | 1.607 |
|  | (1.147) | (1.331) | (1.346) | (1.888) | (1.369) | (1.471) |
| Number of partiest-1 | -0.091 | -0.168 | -0.171 | 0.229 | -0.175 | -0.154 |
|  | (0.078) | (0.171) | (0.171) | (0.389) | (0.170) | (0.176) |
| Advantage ratiot-1 | | -4.178\*\*\* | -4.173\*\*\* | -3.408 | -3.956\*\*\* | -4.668\*\*\* |
|  |  | (1.449) | (1.442) | (3.264) | (1.504) | (1.601) |
| Left-right distancet-1 | | -0.120 | -0.120 | -0.683 | -0.114 | -0.126 |
|  |  | (0.162) | (0.163) | (0.545) | (0.161) | (0.164) |
| Constant | 1.508 | -3.037 | -3.093 | -9.458 | -2.880 | -5.250\* |
|  | (1.417) | (2.401) | (2.402) | (6.354) | (2.434) | (3.119) |
| *σ²* level 2 (country) | (0.000) | (8.6550) | (8.607) | (38.677) | (8.691) | (8.670) |
|  | (0.000) | (5.897) | (5.851) | (43.750) | (5.844) | (5.912) |
| BIC | 176.619 | 202.744 | 209.421 | 147.786 | 214.626 | 205.956 |
| N | 185 | 836 | 836 | 610 | 836 | 836 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining transitions from alliance membership to non-membership (Model 1) and from non-membership to membership (Model 2-6). The coefficients are logged odds. Standard errors in parentheses. | | | | | | |

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**Figure A6.** Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

Last, Table A7 fails to provide any evidence for the *Merger Hypothesis* (H3). The main effect of party system saturation on the propensity of merger is statistically insignificant (log odds=-.072 Model 1, log odds=-.121, Model 2). Analogous to the manuscript, there is evidence that a party’s proclivity to merge in response to oversaturation increases with age (log odds=.011, p<.01, Model 3). As show in Figure A7 (upper-left), a relatively small share of older parties will be significantly more likely to merge.

In sum, similar to the manuscript, the *Inertia Hypothesis* (H4) expressing that on average parties only respond to party system saturation by forming alliances is confirmed. Like in the manuscript, we find that a relatively small share of older parties will merge; yet, on average, parties will not do so.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A7.** Evaluating the Merger Hypothesis (H3) | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 5 | Model 6 |
| Party system saturationt | -0.072 | -0.121 | -0.357\*\* | -0.128 | 0.228 |
|  | (0.249) | (0.120) | (0.151) | (0.189) | (0.423) |
| Party aget | -0.014 | -0.006 | -0.008 | -0.007 | -0.005 |
|  | (0.011) | (0.006) | (0.007) | (0.009) | (0.006) |
| Party system saturationt\*Party aget | | | 0.011\*\*\* |  |  |
|  |  |  | (0.004) |  |  |
| Sizet |  |  |  | -0.072 |  |
|  |  |  |  | (0.046) |  |
| Party system saturationt\*Sizet | | | | -0.015 |  |
|  |  |  |  | (0.033) |  |
| Oppositiont | 0.475 | 1.384\* | 1.223 | 0.852 | 1.536 |
| (RC: Incumbent) | (1.028) | (0.823) | (0.823) | (0.990) | (0.951) |
| Party system saturationt\*Oppositiont | | | |  | -0.369 |
|  |  |  |  |  | (0.438) |
| No representationt | 1.866\*\* | 0.321 | 0.322 | 0.367 | 0.318 |
|  | (0.756) | (0.428) | (0.431) | (0.486) | (0.428) |
| Alliance experiencet | 0.668 | 1.787\*\*\* | 1.867\*\*\* | 0.937 | 1.779\*\*\* |
|  | (1.192) | (0.411) | (0.411) | (0.675) | (0.411) |
| Government experiencet | 0.861 | 0.079 | -0.194 | 1.348 | 0.063 |
|  | (1.444) | (0.895) | (0.937) | (1.231) | (0.898) |
| Advantage ratiot | 0.142 |  |  |  |  |
|  | (0.144) |  |  |  |  |
| Left-right distancet | 0.033 |  |  |  |  |
|  | (0.160) |  |  |  |  |
| Registration costst | -0.810 |  |  |  |  |
|  | (2.102) |  |  |  |  |
| Party financingt | 0.580 |  |  |  |  |
|  | (0.707) |  |  |  |  |
| Petition (logged)t | -0.171 |  |  |  |  |
|  | (0.221) |  |  |  |  |
| Constant | -4.394\*\*\* | -5.050\*\*\* | -4.883\*\*\* | -4.337\*\*\* | -5.205\*\*\* |
|  | (1.431) | (0.879) | (0.876) | (1.069) | (1.003) |
| McFadden’s R2 | 0.166 | 0.089 | 0.114 | 0.075 | 0.089 |
| BIC | 145.807 | 320.560 | 310.572 | 236.348 | 325.498 |
| N | 633 | 1388 | 1388 | 1260 | 1388 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Penalized likelihood estimates (Firth Method) for rare event data explaining whether a party will have merged at *t*+1. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | |

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**Figure A7.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t*+1 (y-axis) for increasing values of party age (upper-left), party size (upper-right), and opposition status (bottom-left). 95% CI.

*3.2 Using the residuals from Clark and Golder to measure party system saturation*

To demonstrate that our results are not driven by the specific manner in which we measure the carrying capacity of party systems, we replicated our analyses based on the residuals acquired from Clark and Golder’s (2006) estimation of the effective number of parties. Their findings are summarized in Figure A2 (bottom-left). For more information, see Table 2 in their article in *Comparative Political Studies*, referring to the model for “Established Democracies”.

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**Figure A8.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

Regarding our *Nicheness Hypothesis* (H1), positing that parties increase their ideological nicheness in response to party system saturation, Figure A8 depicts the marginal effects. Since this suffices to evaluate the hypothesis, we refrain from presenting the regression coefficients. These are available upon request. Contrary to H1, all the marginal effects are statistically insignificant.

Similar to the manuscript, the *Alliance Hypothesis* (H2) is confirmed. In Table A8, we present the regression coefficients, with Figure A9 displaying the marginal effects. Unfortunately, we cannot display the marginal effects for the interaction with leader dominance (Model 4), as that model could only be estimated with the computer program MLwiN, which does not allow Stata post-estimation commands. Furthermore, we cannot provide the BIC for this model as MLwiN uses quasi-likelihood rather than maximum likelihood estimation. Again, there is evidence that parties are significantly more likely to join an alliance if they were not in an alliance at *t-1* (log odds=.338, p<.05, Model 2), and significantly more likely to stay in alliances if they were a member at *t-1* if party system saturation increases (log odds=.555, p<.01, Model 1). Recall that the transition from alliance membership into non-membership is obtained by multiplying the stability probability by -1 (thus .555\*-1=-.555, Model 1). Thus, parties are on average significantly **less** likely to exit an alliance in oversaturated party systems. The interactions are either insignificant, or in case of party size, in an unexpected direction. As can be seen from Figure A9, for party age, the slope is simply not steep enough to conclude that there is a multiplicative relationship even though the marginal effects significantly differ from zero for specific values of age. These findings are all in line with Figure 4 in the manuscript. The only difference is that Model 5 provides evidence of interaction between party size and party system saturation (log odds=.057, p<.01). Yet, contrary to our expectation (see H6b), this concerns a positive effect. As can also be seen from Figure A9 (top-right), larger parties become more rather than less likely to join alliances in response to party system saturation. In line with the literature (Hannan and Freeman 1984, Meyer and Wagner 2013), we argued, however, that larger parties should be less likely to adapt as they have more divergent interests to accommodate. Furthermore, this effect appears in none of the other analyses. Hence, we stick with our H2 that on average parties will be more likely to enter and less likely to exit alliances when party system saturation increases.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A8.** Evaluating the Alliance Hypothesis (H2) | | | | | | |
|  | Alliance member *t-1* | Non-member  *t-1* | Non-member *t-1* | | | |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Party system saturationt-1 | 0.555\*\*\* | 0.338\*\* | 0.313 | 1.873\*\* | -0.057 | 0.353 |
|  | (0.163) | (0.141) | (0.194) | (0.901) | (0.205) | (0.222) |
| Party aget | 0.012 | -0.001 | -0.002 | 0.001 | -0.000 | -0.001 |
|  | (0.008) | (0.007) | (0.008) | (0.008) | (0.008) | (0.007) |
| Party system saturationt-1\*Party aget | |  | 0.001 |  |  |  |
|  |  |  | (0.005) |  |  |  |
| Leader dominance | |  |  | 0.016 |  |  |
|  |  |  |  | (0.080) |  |  |
| Party system saturationt-1\*Leader dominance | | |  | -0.007 |  |  |
|  |  |  |  | (0.044) |  |  |
| Sizet-1 |  |  |  |  | -0.064\* |  |
|  |  |  |  |  | (0.037) |  |
| Party system saturationt-1\*Sizet-1 | | |  |  | 0.057\*\*\* |  |
|  |  |  |  |  | (0.021) |  |
| Oppositiont-1 | 0.366 | -0.154 | -0.164 | -0.713 | -0.138 | -0.140 |
| (RC: Incumbent) | (0.863) | (0.665) | (0.665) | (0.596) | (0.701) | (0.683) |
| Party system saturationt-1\*Oppositiont-1 | | | |  |  | -0.025 |
|  |  |  |  |  |  | (0.271) |
| Without parliamentary representationt-1 | 1.472 | 0.414 | 0.412 | -4.159\*\* | 0.713 | 0.420 |
| (RC: Represented) | (1.178) | (0.957) | (0.958) | (1.860) | (0.951) | (0.959) |
| Alliance experiencet-1 | 3.133\*\*\* | 1.746 | 1.793 | -5.012 | 0.764 | 1.751 |
|  | (0.903) | (1.568) | (1.591) | (4.322) | (1.670) | (1.569) |
| Government experiencet-1 | 1.024 | -0.800 | -0.830 | 0.006 | -0.667 | -0.800 |
|  | (1.130) | (0.881) | (0.894) | (1.167) | (0.930) | (0.881) |
| Number of partiest-1 | -0.232\*\*\* | 0.218\*\* | 0.216\*\* | -0.094 | 0.155 | 0.218\*\* |
|  | (0.078) | (0.097) | (0.098) | (0.142) | (0.102) | (0.097) |
| Advantage ratiot-1 | | -1.260 | -1.250 | -2.383\*\* | -0.569 | -1.255 |
|  |  | (0.860) | (0.862) | (1.096) | (0.912) | (0.862) |
| Left-right distancet-1 | | -0.167 | -0.167 | -0.242 | -0.148 | -0.166 |
|  |  | (0.102) | (0.102) | (0.163) | (0.100) | (0.103) |
| Constant | -0.074 | -4.773\*\*\* | -4.730\*\*\* | -1.271 | -4.340\*\*\* | -4.787\*\*\* |
|  | (1.492) | (1.442) | (1.459) | (2.018) | (1.470) | (1.451) |
| *σ²* level 2 (country) | 0.000 | 2.447 | 2.456 | 2.127 | 2.399 | 2.448 |
|  | (0.000) | (1.646) | (1.649) | (1.264) | (1.613) | (1.646) |
| BIC | 195.526 | 335.757 | 342.955 | NAV | 340.016 | 342.982 |
| N | 248 | 1384 | 1384 | 924 | 1384 | 1384 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining transitions from alliance membership to non-membership (Model 1) and from non-membership to membership (Model 2-6). The coefficients are logged odds. Standard errors in parentheses. Model 4 could only be estimated by MLwiN, meaning that the BIC could not be estimated. | | | | | | |

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**Figure A9.** Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

Last, we report the results for the *Merger Hypothesis* (H3). In Table A9, we present the regression coefficients, and Figure A10 depicts the marginal effects. The full model provides evidence that parties will be more likely to merge if party system saturation increases (log odds=.433, p<.1, Model 1); however, due to list-wise deletion, this model contains only 12 instances of merger. Hence, in Model 2, we maximize the number of positive cases (58 cases of merger). Then, as we can see, the effect of party system saturation dwindles (log odds=-.044, p>.1). In line with the manuscript, we also find evidence that older parties are more likely to merge in response to party system saturation. The interaction term in Model 3 is statistically significant (log odds=.011, p<.01), and Figure A10 (upper-left) shows that the marginal effect is positive and statistically different from zero for older parties.

However, the insignificant main effect of party system saturation on a party’s propensity to merge (Model 2, Table A9) together with the non-findings on the *Nicheness Hypothesis* (H1) reveal that, on average, parties do not engage in core changes. This is in line with our *Inertia Hypothesis* (H4). Overall, we thus arrive at the same substantive conclusions against this alternative measure of party system saturation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A9.** Evaluating the Merger Hypothesis (H3) | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model4 | Model 5 |
| Party system saturationt | 0.433\* | -0.044 | -0.243 | -0.169 | 0.316 |
|  | (0.226) | (0.115) | (0.148) | (0.161) | (0.208) |
| Party aget | -0.016 | -0.023\*\*\* | -0.027\*\*\* | -0.025\*\*\* | -0.022\*\*\* |
|  | (0.011) | (0.006) | (0.007) | (0.008) | (0.006) |
| Party system saturationt\*Party aget | |  | 0.011\*\*\* |  |  |
|  |  |  | (0.004) |  |  |
| Sizet |  |  |  | -0.045\*\* |  |
|  |  |  |  | (0.021) |  |
| Party system saturationt\*Sizet | | |  | 0.030 |  |
|  |  |  |  | (0.018) |  |
| Oppositiont | 1.214 | 1.511\*\*\* | 1.492\*\*\* | 1.701\*\*\* | 1.616\*\*\* |
| (RC: Incumbent) | (0.980) | (0.571) | (0.578) | (0.652) | (0.588) |
| Party system saturationt\*Oppositiont | |  |  |  | -0.459\* |
|  |  |  |  |  | (0.244) |
| No representationt | 2.141\*\*\* | -0.112 | -0.097 | -0.115 | -0.130 |
|  | (0.661) | (0.366) | (0.367) | (0.379) | (0.366) |
| Alliance experiencet | 0.569 | 0.440 | 0.503 | -0.484 | 0.355 |
|  | (1.011) | (0.443) | (0.443) | (0.687) | (0.453) |
| Government experiencet | 1.214 | 1.511\*\*\* | 1.492\*\*\* | 1.701\*\*\* | 1.276\*\* |
|  | (0.980) | (0.571) | (0.578) | (0.652) | (0.617) |
| Advantage ratiot | 0.231 |  |  |  |  |
|  | (0.150) |  |  |  |  |
| Left-right distancet | -0.125 |  |  |  |  |
|  | (0.188) |  |  |  |  |
| Registration costst | -0.718 |  |  |  |  |
|  | (3.609) |  |  |  |  |
| Party financingt | -0.048 |  |  |  |  |
|  | (0.656) |  |  |  |  |
| Petition (logged)t | -0.048 |  |  |  |  |
|  | (0.656) |  |  |  |  |
| Constant | -5.558\*\*\* | -4.593\*\*\* | -4.531\*\*\* | -4.605\*\*\* | -4.685\*\*\* |
|  | (1.214) | (0.617) | (0.622) | (0.704) | (0.634) |
| McFadden’s R2 | 0.188 | 0.051 | 0.063 | 0.091 | 0.058 |
| BIC | 184.489 | 521.774 | 513.301 | 448.485 | 523.584 |
| N | 1268 | 2279 | 2279 | 2137 | 2279 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Penalized likelihood estimates (Firth Method) for rare event data explaining whether a party will have merged at *t*+1. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | |

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**Figure A10.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t+1* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

*3.3. Focusing on the effective number of parties instead of party system saturation*

One of the anonymous reviewers queries whether “rather than engaging in the arguable complexities of the saturation measure, […] it would be expedient to use a rather simple alternative, namely the observed effective number of parties (as a rough measure of "crowding"), complemented by separate controls for district size, societal heterogeneity, and their interaction, as the "behavioural" complex of variables theoretically expected to predict the various dependent variables”. As explained in the manuscript, the answer is that this would not be expedient. First, party system saturation subtracts the predicted effective number of electoral parties (ENEP) based on a country’s electoral institutions, societal heterogeneity, the heterogeneity of the political supply, and their interactions from the observed ENEP. If we would simply focus on observed ENEP, we would fail to consider that some party systems can sustain a higher ENEP than others. Put differently, “crowding” should be assessed relative to a party system’s carrying capacity.

Second, while the reviewer, of course, suggests that we should control for the interaction between logged median district magnitude and societal heterogeneity, our measure of party system saturation consists of much more than just this interaction. Overall, in the manuscript and the SI, we focus on three different measures of party system saturation that also include variables like the heterogeneity of the political supply, and voters’ short-time preferences along the left-right dimension. The attractiveness of our measure is that these variables jointly set the carrying capacity, resulting in a summary measure of party system saturation that exactly indicates with how many effective parties a party system is under or oversaturated.

Third, to capture our proposition that the carrying capacity determines (i.e., moderates) the effect of ENEP, we believe that the most appropriate strategy would be not to control for the carrying capacity variables, as the reviewer suggests, but to interact them with ENEP. Yet, this would require adding two-way interactions between ENEP and each carrying capacity variables (societal heterogeneity, issue dimensionality, et cetera). Moreover, to examine how party age, party size, leader dominance, and government/opposition status moderate the adaptive capacities of parties, we would even need a series of three-way interactions (i.e., ENEP\*carrying capacity variable\*adaptation moderator). Since there are multiple carrying capacity variables (see above), we would need several three-way interactions in one model to test these expectations. Hence, we believe that one summary measure of party system saturation is more convenient. That said, we will show that we arrive at largely similar findings if we adopt the modelling strategy suggested by the reviewer.

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**Figure A11.** Marginal effects displaying the effective number of electoral parties (ENEP) in the previous elections on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

As can be seen from Figure A11, we fail to confirm the *Nicheness Hypothesis* (H1), as none of the graphs provide evidence for a positive, statistically significant effect of ENEP in the previous elections on a mainstream party’s likelihood to increase the nicheness of its platform, regardless of our four moderating variables (i.e., party age, leader dominance, party size, and government/opposition status).

Turning to the *Alliance Hypothesis* (H2), Table A10 shows that, analogous to the manuscript, parties are more likely to remain in an alliance (log odds=.327, p<.1, Model 1) and to join one (log odds=.359, p<.01, Model 2) if party system saturation increases. None of the interaction effects (Model 3-6) significantly differ from zero (also see Figure A12), hence, like in the manuscript, we conclude that on average party system saturation increases the likelihood that non-members will join alliances, while decreasing the likelihood that alliance members will run independently. This effect is unconditional upon party characteristics.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table A10.** Evaluating the Alliance Hypothesis (H2) | | | | | | | |
|  | Alliance member *t-1* | Non-member *t-1* | Non-member *t-1* | | | | |
|
|
|  | Model 1 | Model 2 | Model 3 | | Model 4 | Model 5 | Model 6 |
| Effective number of electoral partiest-1 | 0.327\* | 0.359\*\*\* | 0.313\* | | 2.216\*\*\* | 0.309\* | 0.407\*\* |
|  | (0.172) | (0.134) | (0.171) | | (0.659) | (0.160) | (0.168) |
| Party aget | 0.007 | 0.001 | -0.007 | | 0.005 | 0.002 | 0.001 |
|  | (0.006) | (0.006) | (0.018) | | (0.011) | (0.006) | (0.006) |
| Effective number of electoral partiest-1\*Party aget | |  | 0.001 | |  |  |  |
|  |  |  | (0.003) | |  |  |  |
| Leader dominance | |  |  | | 0.302 |  |  |
|  |  |  |  | | (0.193) |  |  |
| Effective number of electoral partiest-1\*Leader dominance | | |  | | -0.029 |  |  |
|  |  |  |  | | (0.023) |  |  |
| Sizet-1 |  |  |  | |  | -0.047 |  |
|  |  |  |  | |  | (0.054) |  |
| Effective number of electoral partiest-1\*Sizet-1 | | | | |  | 0.005 |  |
|  |  |  |  | |  | (0.012) |  |
| Oppositiont-1 | -0.249 | -0.396 | -0.401 | | -0.275 | -0.390 | 0.036 |
| (RC: Incumbent) | (0.593) | (0.551) | (0.552) | | (0.786) | (0.558) | (1.079) |
| Effective number of electoral partiest-1\*Oppositiont-1 | | | | |  |  | -0.079 |
|  |  |  |  | |  |  | (0.167) |
| Without parliamentary representationt-1 | -0.645 | 0.663 | 0.635 | | -2.553 | 0.774 | 0.669 |
| (RC: Represented) | (0.621) | (0.794) | (0.797) | | (2.110) | (0.792) | (0.792) |
| Alliance experiencet-1 | 2.051\*\*\* | 0.516 | 0.557 | | -8.977\* | 0.277 | 0.560 |
|  | (0.656) | (1.616) | (1.616) | | (5.317) | (1.642) | (1.617) |
| Government experiencet-1 | -0.114 | -1.027 | -1.055 | | -0.352 | -0.872 | -1.041 |
|  | (0.807) | (0.753) | (0.756) | | (1.185) | (0.769) | (0.758) |
| Number of partiest-1 | -0.072 | 0.137\* | 0.136\* | | -0.071 | 0.124 | 0.139\* |
|  | (0.073) | (0.082) | (0.083) | | (0.196) | (0.083) | (0.083) |
| Advantage ratiot-1 | | -1.177 | -1.182 | | -1.342 | -0.843 | -1.164 |
|  |  | (0.730) | (0.733) | | (1.353) | (0.773) | (0.732) |
| Left-right distancet-1 | | -0.107 | -0.107 | | -0.505 | -0.104 | -0.105 |
|  |  | (0.086) | (0.085) | | (0.326) | (0.085) | (0.086) |
| LogMt-1 | -0.446 | -0.322 | -0.319 | | -0.925 | -0.384 | -0.322 |
|  | (0.310) | (0.298) | (0.299) | | (0.763) | (0.307) | (0.298) |
| Societal heterogeneity | -3.462 | -10.617\*\* | -10.434\*\* | | -14.603 | -10.999\*\* | -10.631\*\* |
|  | (3.908) | (4.389) | (4.417) | | (10.170) | (4.514) | (4.389) |
| LogMt-1\*Societal heterogeneity | -0.165 | 2.202 | 2.137 | | -2.357 | 2.330 | 2.206 |
|  | (1.818) | (1.707) | (1.714) | | (5.714) | (1.742) | (1.709) |
| Constant | 0.520 | -3.707\*\*\* | -3.465\*\* | -11.904\*\* | | -3.333\*\* | -4.015\*\*\* |
|  | (1.297) | (1.267) | (1.384) | | (4.680) | (1.333) | (1.434) |
| *σ²* level 2 (country) | 0.372 | 0.964 | 0.992 | | 3.373 | 1.055 | 0.965 |
|  | (0.460) | (0.660) | (0.675) | | (3.812) | (0.715) | (0.661) |
| BIC | 312.841 | 465.889 | 473.262 | | 240.153 | 479.492 | 473.234 |
| N | 323 | 1927 | 1927 | | 1259 | 1927 | 1927 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining transitions from alliance membership to non-membership (Model 1) and from non-membership to membership (Model 2-6). The coefficients are logged odds. Standard errors in parentheses. | | | | | | | |

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**Figure A12.** Marginal effects displaying the effect of the effective number of electoral parties (ENEP) in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

Finally, as for the *Merger Hypothesis* (H3), Model 1 in Table A11 provides some initial evidence that parties are more likely to merge when party system saturation goes up (log odds=.497, p<.1); however, due to list-wise deletion on independent variables, the number of events (number of mergers =12) per independent variable is below recommendations (Vittinghoff and McCulloch 2007). Hence, in Model 2, we maximize the number of mergers (N=64). As can be seen, the effect of party system saturation dwindles (log odds=-.013, p>.1). Given the higher number of mergers in Model 2, we attach more value to Model 2, and conclude that, on average, parties are not more inclined to merge when party system saturation increases. Different from the manuscript, we find no evidence that older parties are more likely to respond, as can be seen from insignificant interaction in Model 3 (log odds=.005, p>.1) and the upper-left graph of Figure A13.

In sum, against this alternative model specification we find even more evidence for our substantive conclusions. In line with the *Inertia Hypothesis* (H4), **on average**, mainstream parties are **not** more likely or increase their nicheness or to merge when party system saturation increases. Contrary to the manuscript, in case of merging, older parties form no exception. Alternatively, as predicted by H4, parties do respond to party system saturation by, on average, being more likely to enter into alliances.

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| --- | --- | --- | --- | --- | --- |
| **Table A11.** Evaluating the Merger Hypothesis (H3) | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 5 | Model 6 |
| Effective number of electoral partiest | 0.497\* | -0.013 | -0.115 | -0.099 | 0.131 |
|  | (0.265) | (0.085) | (0.115) | (0.127) | (0.176) |
| Party aget | -0.011 | -0.018\*\*\* | -0.043\*\* | -0.023\*\*\* | -0.018\*\*\* |
|  | (0.012) | (0.006) | (0.019) | (0.007) | (0.006) |
| Party system saturationt\*Party aget | | | 0.005 |  |  |
|  |  |  | (0.004) |  |  |
| Sizet |  |  |  | -0.061 |  |
|  |  |  |  | (0.054) |  |
| Party system saturationt\*Sizet | | |  | 0.007 |  |
|  |  |  |  | (0.013) |  |
| Oppositiont | 0.486 | 1.210\*\* | 1.228\*\* | 0.963 | 2.012\* |
| (RC: Incumbent) | (1.034) | (0.530) | (0.531) | (0.612) | (1.124) |
| Party system saturationt\*Oppositiont | | | |  | -0.169 |
|  |  |  |  |  | (0.193) |
| No representationt | 2.883\*\*\* | 0.132 | 0.135 | 0.026 | 0.127 |
|  | (0.752) | (0.330) | (0.331) | (0.370) | (0.331) |
| Alliance experiencet | 1.758 | 1.275\*\*\* | 1.328\*\*\* | 0.594 | 1.288\*\*\* |
|  | (1.378) | (0.381) | (0.382) | (0.607) | (0.382) |
| Government experiencet | 0.308 | 0.731 | 0.741 | 1.336\* | 0.718 |
|  | (1.519) | (0.586) | (0.588) | (0.728) | (0.588) |
| Advantage ratiot | 0.424\*\* |  |  |  |  |
|  | (0.195) |  |  |  |  |
| Left-right distancet | -0.059 |  |  |  |  |
|  | (0.183) |  |  |  |  |
| Registration costst | -1.849 |  |  |  |  |
|  | (2.877) |  |  |  |  |
| Party financingt | 1.677 |  |  |  |  |
|  |  |  |  |  |  |
| Petition (logged)t | -0.045 |  |  |  |  |
|  | (0.194) |  |  |  |  |
| LogMt | 1.124\*\*\* | 0.053 | 0.042 | 0.137 | 0.055 |
|  | (0.433) | (0.161) | (0.162) | (0.185) | (0.161) |
| Societal heterogeneity | 12.180\*\* | -1.678 | -1.750 | -0.685 | -1.691 |
|  | (4.994) | (1.782) | (1.800) | (2.088) | (1.778) |
| LogMt\*Societal heterogeneity | -9.107\*\*\* | 0.458 | 0.502 | 0.112 | 0.457 |
|  | (3.182) | (0.735) | (0.739) | (0.791) | (0.734) |
| Constant | -11.074\*\*\* | -4.559\*\*\* | -4.093\*\*\* | -3.993\*\*\* | -5.248\*\*\* |
|  | (3.027) | (0.770) | (0.837) | (0.927) | (1.150) |
| McFadden’s R2 | 0.304 | 0.063 | 0.067 | 0.073 | 0.064 |
| BIC | 191.681 | 633.196 | 627.962 | 519.048 | 637.279 |
| N | 1479 | 3094 | 3094 | 2894 | 3094 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Penalized likelihood estimates (Firth Method) for rare event data explaining whether a party will have merged at *t*+1. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | |

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**Figure A13.** Marginal effects displaying the effect of the effective number of electoral parties (ENEP) in the current election *t* on the likelihood that parties will merge at *t*+1 (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

**Section 4. Other robustness tests**

*4.1 Alternative indicators for ideological nicheness*

In the manuscript, we find no evidence for the *Nicheness Hypothesis* (H1), stating that parties will increase the ideological nicheness of their election manifestos in response to party system saturation. To measure nicheness, we rely on Meyer and Wagner’s (2013) continuous measure. Nicheness increases when, as compared to its competitors, a party (a) downplays economic left-right issues and/or (b) attaches higher salience to issue dimensions emphasized by niche parties (i.e., cultural-ethnic, religious, post-materialist, foreign policy, democratic-authoritarian, or urban-rural issues). To show that our conclusions are not biased by the way in which we measure ideological nicheness, we successfully replicate our findings on alternative measures proposed by Bischof (2017) and Meyer and Miller (2015).

According to Bischof (2017), nicheness increases when, relative to its competitors, a party (a) attaches higher salience to the issue dimensions emphasized by niche parties (i.e., ecology, agrarian, regional, extreme right, or Eurosceptic) and (b) emphasizes a narrow range of issues. Thus, contrary, to Meyer and Wagner (2013), this measure also considers the narrowness of parties’ issue profiles, while deemphasizing economic issues being left out of the definition. In turn, Meyer and Miller’s (2015) measure simply considers to what extent parties emphasize issues neglected by rivals. Practically, issues are aggregated into 12 dimensions (i.e., foreign, defense, interior, justice, finance, economy, labour, education, health, agriculture, environment, and social affairs) after which one can calculate how much a party’s emphasis of the different dimensions differs from its competitors. Hence, this measure relaxes the assumption that economic left-right issues always reflect the mainstream segment of the electoral market. For detailed explanations and the formulas, we refer to the cited articles. As we examine how a party’s nicheness is conditional upon its profile chosen at *t-1* (i.e., either niche or mainstream), we also created dichotomous versions of both continuous measures by creating a dummy variable that equals 1 (0 if otherwise) if a party’s nicheness at *t-1* is at least 1 standard deviation above the nicheness scores of the other parties contesting the same elections.

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**Figure A14.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

In Figure A14, we replicate our findings against Bischof’s (2017) measure, while Figure A15 shows the results based on Meyer and Miller’s (2015) measure. We refrain from presenting the regression coefficients, as these are not necessary to evaluate H1 (available upon request). As can be seen from Figure A14, there is no evidence that parties with a mainstream profile at *t-1*, **on average**, significantly increase their nicheness in response to party system saturation (upper-left), which, similar to the manuscript, refutes H1. In case of the moderating variables, we see that some of the conditions increase the likelihood that niche parties will increase their nicheness. Yet, to confirm H1, we need evidence that mainstream parties increase their nicheness. The latter is not the case.

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**Figure A15.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

As for Meyer and Miller’s (2015) measure, the confidence bars in Figure A15 either entrap the zero line, or the marginal effect is significant but negative, meaning that there is no evidence whatsoever for H1. Thus, overall, we arrive at the same substantive conclusions against these two alternative indicators of nicheness.

*4.2 Do parties increase the clarity of their left-right position?*

One of the anonymous reviewers suggested that, according to Downsian (1957) spatial theory, a rational response to party system saturation would be for a party to increase the clarity of its left-right position. We have taken on this excellent advice, measuring positional clarity on the basis of Lo et al. (2016). Based on automated content analysis of parties’ election manifesto’s, these authors measure positional clarity by looking at the variance of words a party uses to communicate its left-right position, assuming that more variance means less clarity. Hence, as opposed to alternative measures like Benoit et al.’s (2009) uncertainty estimates of parties’ left-right positions and the standard deviation of expert placements of the Chapel Hill Expert Survey (Bakker et al. 2015), Lo et al (2016) capture the way in which a party choses to communicate its position rather than variation due to random noise. Still, Lo et al. (2016) cross-validate their new measures against the aforementioned alternatives, findings satisfactory results.

Several cautionary remarks are in place. First, only data for four countries (i.e., Germany, Ireland, the Netherlands, and Sweden) between 1990 and present is available. Hence, as compared to the manuscript, the sample size is considerably smaller. Second, as Lo et al. (2016) argue that their measure is unfit for cross-national comparisons, they convert clarity into a dummy variable where 1 indicates that a party communicates its position with greater clarity as opposed to the previous elections, while 0 indicates greater ambiguity. Note that we arrive at similar conclusions if we focus only on large (i.e., more than one standard deviation) clarity increases (analyses available upon request). Since our dependent variable thus reflects changes in a party’s clarity between *t* and *t-1*, we also differenced our lagged party system saturation variable, meaning that the model presented below examines whether parties increase the clarity of their left-right position at *t* (as compared to *t-1*)in response to lagged shifts in party system saturation between *t-2* and *t-1*.

Model 1 of Table A12 presents the main effect. Analogous to the manuscript, in Model 2-5, we interact lagged shifts in party system saturation with a party’s age (Model 2), leader dominance (Model 3), size (Model 4), and government/opposition status (Model 5). As can be seen, an upward shift in party system saturation has no significant effect on a party’s propensity of increasing its clarity nor its ambiguity (log odds=-.106, p>.1, Model 1). Furthermore, the interaction models (Model 2-5) fail to produce significant interaction effects. The marginal effects displayed in Figure A16 reveal that the effect of shifts in party systems saturation is statistically insignificant for each observed value of the moderating variables. This increases confidence in our conclusion that parties fail to make core changes in response to increased competition.

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| --- | --- | --- | --- | --- | --- |
| **Table A12**. Evaluating whether parties increase positional clarity | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Δ Party system saturationt-1 | -0.106 | 0.058 | 0.278 | -0.123 | 0.166 |
|  | (0.436) | (0.168) | (0.383) | (0.148) | (0.173) |
| Party aget | 0.004 | 0.001 | 0.003 | 0.001 | 0.001 |
|  | (0.007) | (0.002) | (0.002) | (0.002) | (0.002) |
| Δ Party system saturationt-1\*Party aget | | -0.002 |  |  |  |
|  |  | (0.003) |  |  |  |
| Leader dominance |  |  | 0.019 |  |  |
|  |  |  | (0.012) |  |  |
| Δ Party system saturationt-1\*Leader dominance | | | -0.016 |  |  |
|  |  |  | (0.020) |  |  |
| Party sizet-1 | -0.049\* | -0.011\* | -0.012\*\* | -0.010\* | -0.010\*\* |
|  | (0.027) | (0.005) | (0.005) | (0.005) | (0.005) |
| Δ Party system saturationt-1\* Sizet-1 | |  |  | 0.007 |  |
|  |  |  |  | (0.007) |  |
| Oppositiont-1 | -1.246\* | -0.258\* | -0.283\*\* | -0.236 | -0.215 |
| (RC: Incumbent) | (0.724) | (0.139) | (0.129) | (0.138) | (0.132) |
| ΔParty system saturationt-1\*Oppositiont-1 | | |  |  | -0.311 |
|  |  |  |  |  | (0.201) |
| Vote losst-1 | 0.085 | 0.019 | 0.017 | 0.014 | 0.019 |
|  | (0.070) | (0.014) | (0.013) | (0.013) | (0.014) |
| Constant | 2.320\*\*\* | 0.964\*\*\* | 0.576\*\* | 0.973\*\*\* | 0.928\*\*\* |
|  | (0.814) | (0.140) | (0.219) | (0.146) | (0.150) |
| Decade dummies omitted |  |  |  |  |  |
| McFadden’s R2 | 0.121 | 0.156 | 0.233 | 0.161 | 0.193 |
| BIC | 119.139 | 127.958 | 103.104 | 127.462 | 124.586 |
| N | 74 | 74 | 57 | 74 | 74 |
| Notes: \* p<0.1, \*\* p<0.05, and \*\*\* p<0.01 (two-tailed). Logistic regression explaining parties’ clarity shifts between *t* and *t-1*. The coefficients are logged odds. Robust clustered standard errors by parties in parentheses. | | | | | |

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**Figure A16.** Marginal effects displaying the effect of a lagged increase in party system saturation on the likelihood that a party will increase the clarity of its left-right position (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

*4.3 Evaluating whether parties attempt to increase their nicheness*

Our *Nicheness Hypothesis* (H1) is motivated by models of elections assuming that parties have full information and maximize utility. Based on these assumptions, it would be conceivable that when party systems are oversaturated, contingent upon the platforms chosen by other parties, a party would manage to find a niche in the party system. Yet, since a nicheness strategy fails if other parties move into the same niche, we relaxed the assumption that parties are always capable of making a nicheness strategy succeed by simply comparing a party’s issues emphases at *t* with those of the other parties at *t-1*. In so doing, we measure whether parties **attempted** to move into a niche rather than whether they were successful in doing so.

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**Figure A17.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* compared to its opponents at *t-1* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

Figure A17 depicts the marginal effects. Since this suffices to evaluate the hypothesis, we refrain from presenting the regression coefficients (available upon request). Similar to the manuscript, there is no evidence that, on average, mainstream parties attempt to increase their nicheness (as compared to other parties’ programs at *t-1*) when party system saturation increases. Also, none of the moderating variables manages to produce a positive, statistically significant effect. This further strengthens our conclusions.

*4.4. Is the Alliance Hypothesis contingent upon the extremeness of parties’ left-right positions?*

One of the anonymous reviewers argues that while we certainly control for the extremeness of parties’ left-right positons when evaluating the *Alliance Hypothesis* (H2), “one would only expect H2 to hold contingent on the left-right position of parties in the system”. To evaluate whether this indeed holds true, we interacted party system saturation at *t-1* with the extremeness of a party’s left-right position at *t-1*. One possible expectation would be that more extreme parties would have a more difficult time of entering into an alliance in response to oversaturation because they, and their potential allies, will have to make stronger policy compromises, increasing the transaction costs from joining forces.

As a thorough test of this hypothesis, we ran the interaction based on each of our three measures of party system saturation. To accept the hypothesis, we should find that the interaction term significantly differs from zero and that marginal effects significantly differ from zero for meaningful values of ideological extremes (Berry, Golder, and Milton 2012). The regression coefficients for the control variables are available upon request. Figure A18 summarizes the findings for the interactions. Here, we depict the marginal effects, as well as the slopes of the interaction terms.

As can be seen, the coefficient for the interaction term is insignificant against all three measures of party system saturation. Notwithstanding that the marginal effects are positive and statistically different from zero for non-extreme parties, these insignificant slope effects provide too little evidence to conclude that H2 is conditioned by the extremeness of a party’s left-right position. As such, we accept H2 as it is formalized in the manuscript that, **on average**, parties are more likely to enter into alliances when party system saturation increases.

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**Figure A18**. Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for increasing values of ideological extremity (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

*4.5. Are the hypotheses contingent upon the nicheness of parties’ policy platform?*

One of the anonymous reviewers argues “the authors are treating each party in the data as if it is an established mainstream party” and that we “would expect [niche] parties to react differently in terms of their likelihood of merging, forming alliances and diversifying”. While the reviewer does not explicitly refer to one particular definition of niche parties, by stressing that mainstream parties are “established” and referring to niche parties as “newer parties”, his/her description matches Meguid’s (2005). The latter defines niche parties as parties that reject the traditional class-based orientation of politics, politicize issues that often crosscut, such as immigration and environment, and focus on a limited set of issues. Mainstream parties do the exact opposite and stick to economic left-right issues. Furthermore, Meguid (2005: 352) refers to mainstream parties as “typically government actors” and to niche parties as “neophytes” (Meguid 2005: 347). The reason why we do not consider this moderator in the manuscript is that rather than assuming that all parties subsumed under the niche or mainstream umbrella behave the same, and thus treating the two categories as empirical commonalities (see Wagner 2012), we prefer to focus on concrete characteristic of parties: that is, a party’s age, leader-dominance, size, and government/opposition status. We believe that these four characteristics, especially age, already tap into party characteristics that the reviewer labels as typical for niche (i.e., being new) or mainstream parties (i.e., being established). Moreover, Meguid (2005) operationalizes niche and mainstream parties based on party family, making it a time-invariant characteristic (again, see Wagner 2012), while age, size and government-opposition status vary by elections.

That said, to accommodate the reviewer’s concern, we ran two robustness tests. First, we replicated H1-H3 contingent upon whether a party is niche or mainstream according to Meguid’s (2005) definition. We created a binary indicator denoting niche or mainstream status on the basis of the ParlGov data on party family (Döring and Manow 2015). Specifically, we coded agrarian, ecologist, ethnic, Protestant, radical right, regionalist, and special issue parties as niche and Christian democrat, conservative, liberal, and social democrat parties as mainstream. See the footnotes below for more explanation.[[6]](#footnote-6),[[7]](#footnote-7),[[8]](#footnote-8)

Second, we replicated H2 and H3 based on Wagner’s (2012) niche party measure. This is a dichotomous version of the continuous measure of nicheness: our dependent variable to evaluate H1. For more detail, see Wagner (2012). Wagner (2012) defines nicheness based on the contents of parties’ election profiles, making nicheness a concrete and time-variant characteristic. As acknowledged by the reviewer, when evaluating the *Nicheness Hypothesis* (H1), we already consider whether a party’s profile at *t-1* is niche or mainstream. Here, in the SI, we show whether a party’s niche or mainstream profile at *t-1* conditions whether it will enter into alliances (H2) or merge (H3) in response to party system saturation.

Figure A19-A21 summarize the results for each of our three hypotheses conditional upon Meguid’s (2005) definition of niche and mainstream parties. To provide a thorough test, we ran the interaction based on each of our three measures of party system saturation (see Section 2). The regression coefficients for the control variables are available upon request. The figures depict the marginal effects, as well as the slopes of the interaction terms. To begin with the *Nicheness Hypothesis* (H1), Figure A19 reveals no positive, statistically significant effects, meaning that mainstream parties (nor niche parties) increase the nicheness of their platform when confronted with higher party system saturation. The interaction terms are also insignificant, showing that the effect of party system saturation does not differ significantly between niche and mainstream parties.

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**Figure A19**. Marginal effects displaying the effect of party system saturation in the previous election on the likelihood on the nicheness of a party’s ideological platform at *t* compared to its opponents at *t-1* (y-axis) for niche and mainstream parties (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

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**Figure A20**. Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for niche and mainstream parties (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

As for the *Alliance Hypothesis* (H2), the upper-left plot of Figure A20 provides evidence that the propensity to join an alliance differs between niche and mainstream parties, as the interaction coefficient is significant (log odds=-.358, p<.05) and the marginal effect is only positive and significant for mainstream parties. Yet, based on the alternative measures of party system saturation we fail to find this level of evidence. In case of the upper-right plot, the interaction effect differs significantly from zero (log odds=-.849, p<.05); however, the marginal effect for both niche and mainstream parties is positive and statistically significant, meaning that this difference is rather trivial in substantive terms. Furthermore, we find no evidence whatsoever that mainstream parties are more likely to enter alliances due to increased party system saturation based on Clark and Golder’s (2006) model of ENEP (bottom-left). Therefore, we stick to the conclusion in the manuscript that, **on average**, parties are more likely to enter into alliances when saturation increases.

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**Figure A21.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t+1* (y-axis) for niche and mainstream parties (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

Finally, Figure A21 provides no evidence that mainstream parties are likelier than niche parties to merge when saturation increases, as the interaction coefficients are insignificant. Thus, also with regard to H3, this robustness analysis does not change our substantive conclusions.

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**Figure A22**. Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

As for Wagner’s (2012) binary niche party variable, in the manuscript (Figure 3, upper-left), we already show that parties with a mainstream profile at *t-1* do not significantly increase their nicheness in response to party system saturation. Figure A22 provides no evidence either that the *Alliance Hypothesis* (H2) is conditional upon whether a party’s platform at *t-1* is niche or mainstream. While the figures suggest that only the marginal effect for mainstream parties statistically differs from zero, the effect does not differ significantly from the effect for niche parties (the slope is almost the same). Hence, again, this is too little evidence to conclude that important differences exist as to how niche and mainstream parties respond to party system saturation.

As for the *Merger Hypothesis* (H3), neither marginal effects nor interaction terms are statistically significant (see Figure A23).

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**Figure A23.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t+1* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis). The different graphs denote the results for our three measures of party system saturation: i.e., the one used in the manuscript (upper-left), based on Model 3 of van de Wardt (2017) (upper-right), and Clark and Golder (2006) (bottom-left). For more information on the alternative measures of party system saturation, see Section 2 of the SI. 95% CI.

*4.6. Including niche party as predictor of merging*

One of the anonymous reviewers queries: “wouldn’t it be useful to include niche party as a predictor - negative - of merger behaviour?”. As regards a time-invariant operationalization based on party family (see above), again our argument implies that we prefer to focus on concrete party characteristics (e.g., age and positional extremity) to explain merger behaviour. Nonetheless, to examine the reviewer’s suggestion, we replicated our results for the *Merger Hypothesis* (H3) controlling for: (1) a niche party dummy based on Meguid’s (2005) definition, and (2) a niche party dummy based on Wagner (2012). See Section 4.5 for more detail on operationalization.

As for our replication analysis based on Meguid’s (2005) definition, Table A13 confirms that, party system saturation does not increase merger propensity (log odds= .044, p>.1, Model 1 and log odds=.043, p>.1, Model 2). However, similar to the manuscript, we find a significant interaction effect between party system saturation and party age (log odds=.010, p<.05, Model 3). As shown in Figure A24, only older parties will merge in response to party system saturation.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A13.** Evaluating the Merger Hypothesis (H3) | | | | | | |
|  | | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Party system saturationt | | 0.044 | 0.043 | -0.125 | -0.071 | 0.241 |
|  | | (0.238) | (0.098) | (0.126) | (0.158) | (0.226) |
| Party aget | | -0.016 | -0.020\*\*\* | -0.026\*\*\* | -0.025\*\*\* | -0.019\*\*\* |
|  | | (0.014) | (0.007) | (0.008) | (0.009) | (0.007) |
| Party system saturationt\*Party aget | | | | 0.010\*\* |  |  |
|  | |  |  | (0.004) |  |  |
| Sizet | |  |  |  | -0.090\*\* |  |
|  | |  |  |  | (0.035) |  |
| Party system saturationt\*Sizet | | | | | 0.016 |  |
|  | |  |  |  | (0.023) |  |
| Oppositiont | | 0.804 | 1.329\*\* | 1.320\*\* | 1.006 | 1.462\*\* |
| (RC: Incumbent) | | (1.070) | (0.606) | (0.608) | (0.730) | (0.655) |
| Party system saturationt\*Oppositiont | | | | |  | -0.229 |
|  | |  |  |  |  | (0.248) |
| No representationt | 1.357 | | -0.268 | -0.286 | -0.621 | -0.274 |
|  | (0.850) | | (0.450) | (0.449) | (0.489) | (0.450) |
| Alliance experiencet | 0.703 | | 1.122\*\*\* | 1.195\*\*\* | 0.523 | 1.119\*\*\* |
|  | (1.087) | | (0.378) | (0.378) | (0.586) | (0.377) |
| Government experiencet | 0.888 | | 0.113 | 0.093 | 1.019 | 0.107 |
|  | (1.531) | | (0.688) | (0.693) | (0.845) | (0.690) |
| Advantage ratiot | 0.198 | |  |  |  |  |
|  | (0.146) | |  |  |  |  |
| Left-right distancet | 0.023 | |  |  |  |  |
|  | (0.206) | |  |  |  |  |
| Registration costst | 0.241 | |  |  |  |  |
|  | (2.431) | |  |  |  |  |
| Party financingt | -0.121 | |  |  |  |  |
|  | (0.681) | |  |  |  |  |
| Petition (logged)t | -0.076 | |  |  |  |  |
|  | (0.206) | |  |  |  |  |
| Niche party | 0.648 | | -0.891\*\* | -0.903\*\* | -0.975\*\* | -0.890\*\* |
| (RC: Mainstream party) | (0.761) | | (0.367) | (0.367) | (0.394) | (0.367) |
| Constant | -5.270\*\*\* | | -4.313\*\*\* | -4.215\*\*\* | -3.453\*\*\* | -4.435\*\*\* |
|  | (1.425) | | (0.671) | (0.672) | (0.813) | (0.714) |
| McFadden’s R2 | 0.148 | | 0.089 | 0.101 | 0.124 | 0.091 |
| BIC | 168.353 | | 464.909 | 457.180 | 368.474 | 469.230 |
| N | 1320 | | 2558 | 2558 | 2403 | 2558 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Penalized likelihood estimates (Firth Method) for rare event data explaining whether a party will have merged at *t*+1. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | | |

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**Figure A24.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t+1* (y-axis) for increasing values of party age (upper-left), party size (upper-right) and opposition status (bottom-left). 95% CI.

If we control for Wagner’s (2012) niche party variable, Table A14 and Figure A25 show that the very same pattern emerges: the main effect is statistically insignificant (log odds=.139 Model 1, log odds=-.033, Model 2), whereas the interaction with age reaches statistical significance (log odds=.014, p<.05, Model 3). As shown in Figure A25 (upper-left), only older parties are significantly more likely to merge in response to party system saturation.

In sum, we reach the same conclusions if we control for niche party status either measured on the basis of Meguid’s (2005) or Wagner’s (2012) definition. As shown in Table A13, the niche party dummy based on Meguid (2005) also reaches statistical significance in Model 2-5. Hence, as argued by the reviewer, niche parties are indeed less likely to merge. We chose not to include this dummy variable based on party family in the analyses presented in the manuscript, as we prefer to focus on concrete, time-variant party characteristics (e.g., age, size, and ideological extremity) rather than assuming that all parties subsumed under the niche umbrella will be equally (un)likely to merge.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A14.** Evaluating the Merger Hypothesis (H3) | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 5 | Model 6 |
| Party system saturationt | 0.139 | -0.033 | -0.319 | 0.005 | 0.370 |
|  | (0.258) | (0.148) | (0.197) | (0.257) | (0.244) |
| Party aget | -0.021 | -0.021\*\* | -0.029\*\*\* | -0.030\*\* | -0.020\*\* |
|  | (0.015) | (0.009) | (0.011) | (0.013) | (0.009) |
| Party system saturationt\*Party aget | | | 0.014\*\* |  |  |
|  |  |  | (0.006) |  |  |
| Sizet |  |  |  | -0.080\*\* |  |
|  |  |  |  | (0.039) |  |
| Party system saturationt\*Sizet | | |  | -0.004 |  |
|  |  |  |  | (0.034) |  |
| Oppositiont | 0.969 | 1.164 | 1.121 | 1.249 | 1.519\* |
| (RC: Incumbent) | (1.116) | (0.730) | (0.745) | (0.927) | (0.805) |
| Party system saturationt\*Oppositiont | | | |  | -0.563\* |
|  |  |  |  |  | (0.305) |
| No representationt | 1.551 | 0.349 | 0.368 | 0.443 | 0.346 |
|  | (1.063) | (0.876) | (0.876) | (0.896) | (0.875) |
| Alliance experiencet | 0.965 | 1.198\*\* | 1.302\*\* | 0.414 | 1.193\*\* |
|  | (1.166) | (0.558) | (0.553) | (0.961) | (0.559) |
| Government experiencet | 1.357 | 0.964 | 0.909 | 2.569\*\* | 0.955 |
|  | (1.478) | (0.870) | (0.887) | (1.081) | (0.865) |
| Advantage ratiot | 0.375\*\* |  |  |  |  |
|  | (0.171) |  |  |  |  |
| Left-right distancet | -1.042 |  |  |  |  |
|  | (0.841) |  |  |  |  |
| Registration costst | -0.573 |  |  |  |  |
|  | (2.432) |  |  |  |  |
| Party financingt | 0.706 |  |  |  |  |
|  | (0.798) |  |  |  |  |
| Petition (logged)t | -0.113 |  |  |  |  |
|  | (0.222) |  |  |  |  |
| Niche party | 1.302\* | 0.550 | 0.580 | 0.369 | 0.596 |
| (RC: Mainstream party) | (0.733) | (0.474) | (0.476) | (0.567) | (0.477) |
| Constant | -5.707\*\*\* | -5.167\*\*\* | -5.018\*\*\* | -4.865\*\*\* | -5.525\*\*\* |
|  | (1.574) | (0.839) | (0.852) | (1.085) | (0.910) |
| McFadden’s R2 | 0.247 | 0.072 | 0.097 | 0.16 | 0.088 |
| BIC | 148.905 | 268.370 | 261.016 | 204.611 | 270.353 |
| N | 1424 | 2069 | 2069 | 2000 | 2069 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Penalized likelihood estimates (Firth Method) for rare event data explaining whether a party will have merged at *t*+1. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | |

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**Figure A25.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t*+1 (y-axis) for increasing values of party age (upper-left), party size (upper-right), and opposition status (bottom-left). 95% CI.

*4.7 Specifying our models as multilevel*

Finally, one of the anonymous reviewers asks “how do the results change if these are run as multilevel models, with countries--parties-years as the levels of data?”. In response, we have replicated all analyses presented in the paper, nesting party/election observations within parties and parties within countries. As regards the *Merger Hypothesis* (H3) a caveat applies, namely that multilevel logistic regression cannot be combined with penalized likelihood for rare event data (the so-called Firth method that we use in the paper). Thus, since mergers are rare events (i.e., 60 positive cases for elections in which party system saturation is non-missing), one may attach greater value to the results presented in the paper. Nonetheless, as shown below, we reach the same conclusions for this and each hypothesis.

To begin with the *Nicheness Hypothesis* (H1), Table A15 displays the regression coefficients. As shown by the variance components, at three decimal places, clustering of parties within countries fails to explain any of the variance in the nicheness of parties’ platforms[[9]](#footnote-9); yet the party levels plays an important role in explaining 45% (9.205/9.205+11.268) of the variance. Again, the marginal effects, presented in Figure A26 are necessary to evaluate H1. Analogous to the manuscript there is no evidence that mainstream parties increase the nicheness of their platform when party system saturation increases, as none of the marginal effects are positive and statistically significant. The latter implies for all values of the moderating variables.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A15**. Evaluating the Nicheness hypothesis | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Party system saturationt-1 | -0.189 | -0.263 | -0.354 | -0.188 | -0.070 |
|  | (0.116) | (0.184) | (0.289) | (0.171) | (0.150) |
| Niche profilet-1 | 0.554\*\* | 1.224\*\*\* | 0.302 | 0.684\* | 0.330 |
|  | (0.275) | (0.453) | (0.883) | (0.407) | (0.435) |
| Party system saturationt-1\*Niche profilet-1 | 0.010 | -0.087 | -0.466 | -0.044 | -0.613 |
|  | (0.215) | (0.344) | (0.643) | (0.303) | (0.456) |
| Party aget | -0.014\*\* | -0.012\* | -0.012\*\* | -0.014\*\* | -0.014\*\* |
|  | (0.007) | (0.007) | (0.006) | (0.007) | (0.007) |
| Party system saturationt-1\*Party aget | | 0.002 |  |  |  |
|  |  | (0.003) |  |  |  |
| Niche profilet-1\*Party aget |  | -0.014\* |  |  |  |
|  |  | (0.008) |  |  |  |
| Party system saturationt-1\*Niche profilet-1\*Party aget | | 0.003 |  |  |  |
|  |  | (0.007) |  |  |  |
| Leader dominance |  |  | -0.043 |  |  |
|  |  |  | (0.039) |  |  |
| Niche profilet-1\*Leader dominance | |  | 0.007 |  |  |
|  |  |  | (0.047) |  |  |
| Party system saturationt-1\*Leader dominance | | | 0.006 |  |  |
|  |  |  | (0.015) |  |  |
| Party system saturationt-1\*Niche profilet-1\*Leader dominance | | | 0.018 |  |  |
|  |  |  | (0.031) |  |  |
| Party sizet-1 | -0.058\*\*\* | -0.057\*\*\* | -0.045\*\*\* | -0.056\*\*\* | -0.057\*\*\* |
|  | (0.016) | (0.016) | (0.012) | (0.017) | (0.016) |
| Party system saturationt-1\* Sizet-1 | |  |  | 0.000 |  |
|  |  |  |  | (0.009) |  |
| Niche profilet-1\*Sizet-1 |  |  |  | -0.008 |  |
|  |  |  |  | (0.021) |  |
| Party system saturationt-1\*Niche profilet-1\*Party sizet-1 | | | | 0.004 |  |
|  |  |  |  | (0.021) |  |
| Oppositiont-1 | 0.152 | 0.152 | -0.086 | 0.154 | 0.160 |
| (RC: Incumbent) | (0.231) | (0.231) | (0.170) | (0.231) | (0.247) |
| Party system saturationt-1\*Oppositiont-1 | | |  |  | -0.216 |
|  |  |  |  |  | (0.164) |
| Niche profilet-1\*Oppositiont-1 |  |  |  |  | 0.328 |
|  |  |  |  |  | (0.541) |
| Party system saturationt-1\*Niche profilet-1\* Oppositiont-1 | | | |  | 0.821 |
|  |  |  |  |  | (0.515) |
| Vote losst-1 | 0.008 | 0.006 | -0.004 | 0.008 | 0.006 |
|  | (0.022) | (0.022) | (0.017) | (0.023) | (0.022) |
| Constant | 3.879\*\*\* | 3.783\*\*\* | 4.614\*\*\* | 3.855\*\*\* | 3.830\*\*\* |
|  | (0.488) | (0.494) | (0.769) | (0.492) | (0.492) |
| Decade dummies available upon request | |  |  |  |  |
| *σ²* level 3 (country) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
|  | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| *σ²* level 2 (party) | 9.205 | 9.169 | 3.248 | 9.180 | 9.177 |
|  | (1.333) | (1.814) | (0.592) | (1.336) | (1.330) |
| *σ²* level 1 (party/election) | 11.268 | 11.241 | 5.405 | 11.270 | 11.242 |
|  | (0.435) | (0.649) | (0.241) | (0.431) | (0.430) |
| BIC | 8997.535 | 9015.573 | 5672.554 | 9019.438 | 9015.734 |
| N | 1620 | 1620 | 1178 | 1620 | 1620 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel regression models explaining the nicheness of parties’ policy platforms. The coefficients are b-coefficients. Standard errors in parentheses. | | | | | |

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**Figure A26.** Marginal effects displaying the effect of party system saturation in the previous elections *t-1* on the nicheness of a party’s ideological platform at *t* (y-axis) for parties with a niche and a mainstream profile at *t-1* (x-axis) (upper-left). The remaining graphs show how these effects are conditioned by party age (upper-centre), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-centre). 95% CI.

To examine the *Alliance Hypothesis* (H2) we specified a multilevel logistic regression model due to the binary dependent variable. Similar to the manuscript, Table A16 shows that parties are on average more likely to stay in an alliance when party system saturation increases (log odds=.536, p<.01, Model 1). Hence, the odds that an alliance party at *t-1* will run independently at *t* decreases by .536 if saturation increases by one-unit. Recall that these odds are obtained by multiplying the stability condition by -1. As for the reverse transition, parties are also more likely to join an alliance if party system saturation increases (log odds=.549, p<.05, Model 2). Similar to the manuscript, there is no evidence that these transitions are affected by any of our moderating variables. All the interactions are statistically insignificant (Model 3-Model 6), as can also be inferred from the relatively flat slopes of the marginal effects in Figure A27.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table A16.** Evaluating the Alliance hypothesis (H2) | | | | | | |
|  | Alliance member *t-1* | Non-member *t-1* | Non-member *t-1* | | | |
|
|
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Party system saturationt-1 | 0.536\*\*\* | 0.549\*\* | 0.402 | 3.060\*\* | 0.496\* | 0.584\*\* |
|  | (0.167) | (0.216) | (0.264 | (1.344) | (0.278) | (0.27) |
| Party aget | 0.006 | 0.009 | 0.006 | 0.019 | 0.011 | 0.009 |
|  | (0.007) | (0.010) | (0.011 | (0.021) | (0.011) | (0.01) |
| Party system saturationt-1\*Party aget | |  | 0.005 |  |  |  |
|  |  |  | (0.006 |  |  |  |
| Leader dominance | |  |  | 0.281 |  |  |
|  |  |  |  | (0.195) |  |  |
| Party system saturationt-1\*Leader dominance | | |  | -0.067 |  |  |
|  |  |  |  | (0.055) |  |  |
| Sizet-1 |  |  |  |  | -0.044 |  |
|  |  |  |  |  | (0.035) |  |
| Party system saturationt-1\*Sizet-1 | | |  |  | 0.007 |  |
|  |  |  |  |  | (0.02) |  |
| Oppositiont-1 | -0.311 | -0.318 | -0.384 | 0.066 | -0.344 | -0.257 |
| (RC: Incumbent) | (0.593) | (0.675) | (0.689 | (1.03) | (0.683) | (0.73) |
| Party system saturationt-1\*Oppositiont-1 | | | |  |  | -0.058 |
|  |  |  |  |  |  | (0.264) |
| Without parliamentary representationt-1 | -0.706 | 0.928 | 0.878 | -1.796 | 0.983 | 0.928 |
| (RC: Represented) | (0.626) | (1.008) | (1.028 | (2.45) | (0.99) | (1.005) |
| Alliance experiencet-1 | 2.036\*\*\* | -6.119 | -6.719 | -23.89 | -5.983 | -6.058 |
|  | (0.679) | (4.925) | (5.056 | (15.454) | (5.042) | (4.905) |
| Government experiencet-1 | -0.275 | -1.075 | -1.224 | -0.614 | -0.778 | -1.07 |
|  | (0.821) | (1.068) | (1.118 | (1.966) | (1.084) | (1.067) |
| Number of partiest-1 | -0.141\* | 0.083 | 0.07 | -0.122 | 0.056 | 0.083 |
|  | (0.078) | (0.109) | (0.114 | (0.236) | (0.111) | (0.109) |
| Advantage ratiot-1 | | -1.454 | -1.477 | -1.44 | -1.067 | -1.451 |
|  |  | (0.970) | (0.996 | (2.02) | (0.978) | (0.969) |
| Left-right distancet-1 | | -0.063 | -0.053 | -0.375 | -0.061 | -0.061 |
|  |  | (0.113) | (0.115 | (0.404) | (0.11) | (0.113) |
| Constant | 1.009 | -5.234\*\*\* | -5.104\*\*\* | -12.372\*\* | -4.900\*\*\* | -5.281\*\*\* |
|  | (1.134) | (1.677) | (1.694 | (5.784) | (1.648) | (1.692) |
| *σ²* level 3 (country) | 0.991 | 4.047 | 4.506 | 14.398 | 3.993 | 4.045 |
|  | (0.855) | (2.944) | (3.313) | (12.816) | (2.916) | (2.936) |
| *σ²* level 2 (party) | 0.000 | 4.385 | 5.086 | 5.698 | 4.062 | 4.348 |
|  | (0.000) | (3.693) | (4.086) | (7.396) | (3.673) | (3.667) |
| BIC | 294.844 | 440.863 | 447.548 | 229.967 | 453.988 | 448.358 |
| N | 312 | 1888 | 1888 | 1252 | 1888 | 1888 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining transitions from alliance membership to non-membership (Model 1) and from non-membership to membership (Model 2-6). The coefficients are logged odds. Standard errors in parentheses. | | | | | | |

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**Figure A27.** Marginal effects displaying the effect of party system saturation in the previous election on the likelihood that a non-alliance member at *t-1* will enter an alliance at *t* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

Finally, we also examine the *Merger Hypothesis* (H3) by means of multilevel logistic regression, since parties either merge at *t+1* (=1) or they do not (=0). As can be seen, the main effect of party system saturation on a party’s propensity to merge is statistically insignificant (Model 1 and 2, Table A17); yet, similar to the manuscript we find that older parties form an exception: the latter are significantly more likely to merge (log odds=.008, p<.1, Model 3). Also the marginal effects (Figure A28, upper-left) are very similar to those provided in the manuscript. Hence, using multilevel models with party/election observations nested in countries and parties, for each of our hypotheses we reach the same conclusions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table A17.** Evaluating the Merger hypothesis (H3) | | | | | |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Party system saturationt | 0.175 | 0.059 | -0.087 | -0.027 | 0.253 |
|  | (0.245) | (0.111) | (0.132) | (0.151) | (0.244) |
| Party aget | -0.011 | -0.011 | -0.016\*\* | -0.013 | -0.011 |
|  | (0.012) | (0.007) | (0.008) | (0.008) | (0.007) |
| Party system saturationt\*Party aget |  |  | 0.008\* |  |  |
|  |  |  | (0.004) |  |  |
| Sizet |  |  |  | -0.108\*\*\* |  |
|  |  |  |  | (0.041) |  |
| Party system saturationt\*Sizet |  |  |  | 0.026 |  |
|  |  |  |  | (0.023) |  |
| Oppositiont | 0.567 | 1.355\*\* | 1.294\*\* | 0.982 | 1.538\*\* |
| (RC: Incumbent) | (1.178) | (0.655) | (0.637) | (0.755) | (0.706) |
| Party system saturationt\*Oppositiont |  |  |  |  | -0.228 |
|  |  |  |  |  | (0.259) |
| No representationt | 1.548 | 0.316 | 0.317 | -0.012 | 0.309 |
|  | (1.359) | (0.378) | (0.359) | (0.396) | (0.376) |
| Alliance experiencet | 0.916 | 1.643\*\*\* | 1.615\*\*\* | 0.780 | 1.625\*\*\* |
|  | (1.377) | (0.539) | (0.518) | (0.718) | (0.538) |
| Government experiencet | 0.498 | 0.296 | 0.223 | 1.095 | 0.298 |
|  | (1.534) | (0.740) | (0.712) | (0.868) | (0.736) |
| Advantage ratiot | -0.730 |  |  |  |  |
|  | (1.395) |  |  |  |  |
| Left-right distancet | -0.102 |  |  |  |  |
|  | (0.194) |  |  |  |  |
| Registration costst | -5.931 |  |  |  |  |
|  | (9.984) |  |  |  |  |
| Party financingt | 0.281 |  |  |  |  |
|  | (0.747) |  |  |  |  |
| Petition (logged)t | -0.130 |  |  |  |  |
|  | (0.197) |  |  |  |  |
| Constant | -4.783\*\* | -5.608\*\*\* | -5.227\*\*\* | -4.539\*\*\* | -5.749\*\*\* |
|  | (1.967) | (1.034) | (0.993) | (0.845) | (1.064) |
| *σ²* level 3 (country) | 0.361 | 0.627 | 0.352 | 0.465 | 0.379 |
|  | (0.760) | (0.256) | 0.275) | (0.378) | (.311) |
| *σ²* level 2 (party) | 0.000 | 0.862 | 0.157 | 0.000 | 0.680 |
|  | (0.000) | (0.838) | (1.389) | (0.000) | (1.446) |
| BIC | 224.621 | 598.300 | 602.726 | 491.590 | 605.563 |
| N | 1472 | 3008 | 3008 | 2811 | 3008 |
| Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01 (two-tailed). Multilevel logistic regression models explaining whether a party will have merged at *t+1*. The coefficients are logged odds. Standard errors by parties in parentheses. | | | | | |

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**Figure A28.** Marginal effects displaying the effect of party system saturation in the current election *t* on the likelihood that parties will merge at *t+1* (y-axis) for increasing values of party age (upper-left), leader dominance (upper-right), party size (bottom-left), and opposition status (bottom-right). 95% CI.

**Section 5. Party/election combinations included in the analyses**

|  |  |  |  |
| --- | --- | --- | --- |
| Country | ID | Name English | Elections |
| Australia | 1760 | Australia Party | 1966 1969 1972 1974 1975 |
| Australia | 120 | Australian Democrats | 1977 1980 1983 1984 1987 1990 1993 1996 1998 2001 2004 2007 |
| Australia | 751 | Australian Greens | 1990 1993 1996 1998 2001 2004 2007 2010 |
| Australia | 1253 | Australian Labor Party | 1946 1949 1951 1954 1955 1958 1961 1963 1966 1969 1972 1974 1975 1977 1980 1983 1984 1987 1990 1993 1996 1998 2001 2004 2007 2010 |
| Australia | 1650 | Christian Democratic Party | 1990 |
| Australia | 1922 | Communist Party of Australia | 1946 |
| Australia | 215 | Country Liberal Party | 1975 1977 1984 1987 1990 1993 1996 1998 2001 2004 2007 2010 |
| Australia | 1306 | Democratic Labour Party | 1955 1958 1961 1963 1966 1969 1972 1974 1975 1977 |
| Australia | 446 | Family First Party | 2004 2007 2010 |
| Australia | 303 | Lang Labour Party | 1946 1949 |
| Australia | 154 | Liberal National Party of Queensland | 2010 |
| Australia | 1411 | Liberal Party of Australia | 1946 1949 1951 1954 1955 1958 1961 1963 1966 1969 1972 1974 1975 1977 1980 1983 1984 1987 1990 1993 1996 1998 2001 2004 2007 2010 |
| Australia | 1919 | Liberal and Country League | 1946 |
| Australia | 184 | National (Country) Party | National Party of Australia | 1946 1949 1951 1954 1955 1958 1961 1963 1966 1969 1972 1974 1975 1977 1980 1983 1984 1987 1990 1993 1996 1998 2001 2004 2007 2010 |
| Australia | 386 | One Nation Party | 1998 2001 2004 |
| Australia | 1897 | Services Party of Australia | 1946 |
| Austria | 1536 | Alliance for the Future of Austria | 2006 2008 |
| Austria | 1739 | Alternative List Austria | 1983 1986 |
| Austria | 1013 | Austrian People's Party | 1949 1953 1956 1959 1962 1966 1970 1971 1975 1979 1983 1986 1990 1994 1995 1999 2002 2006 2008 |
| Austria | 769 | Communist Party of Austria | 1949 1953 1956 1959 1962 1966 1970 1971 1975 1979 1983 1986 1990 1994 1995 1999 2002 2006 2008 |
| Austria | 1743 | Democratic Progressive Party | 1966 |
| Austria | 50 | Freedom Party of Austria | 1949 1953 1956 1959 1962 1966 1970 1971 1975 1979 1983 1986 1990 1994 1995 1999 2002 2006 2008 |
| Austria | 669 | Hans-Peter Martin's List | 2006 |
| Austria | 955 | Liberal Forum | 1994 1995 1999 2002 2008 |
| Austria | 1819 | Movement for Political Renewal | 1953 |
| Austria | 1744 | No -- Citizens' Initiative against EU membership | 1994 1995 1999 |
| Austria | 973 | Social Democratic Party of Austria | 1949 1953 1956 1959 1962 1966 1970 1971 1975 1979 1983 1986 1990 1994 1995 1999 2002 2006 2008 |
| Austria | 1746 | The Citizens`Forum Austria | 2008 |
| Austria | 1429 | The Greens -- The Green Alternative | 1986 1990 1994 1995 1999 2002 2006 2008 |
| Austria | 1745 | The Independents -- Lugner's List | 1999 |
| Austria | 1740 | United Greens Austria | 1983 1990 1994 |
| Belgium | 1487 | Spirit | 2003 2007 |
| Belgium | 1594 | Agalev -- Green | 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 620 | Alive | 1999 2003 |
| Belgium | 1181 | Belgian Democratic Union | 1946 |
| Belgium | 167 | Belgian Socialist Party | 1946 1949 1950 1954 1958 1961 1965 1968 1971 1974 1977 |
| Belgium | 656 | Citizens' Movement for Change | 1999 |
| Belgium | 708 | Communist Party | 1946 1949 1950 1954 1958 1961 1965 1968 1971 1974 1977 1978 1981 1985 1987 |
| Belgium | 161 | Confederated ecologists for the organisation of original struggles | 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 993 | Flemish Block | 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 723 | Flemish Christian Peoples Party | 1968 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 1192 | Francophone Christian Social Party -- Humanist Democratic Centre | 1968 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 1051 | Francophone Christian Social Party and Flemish Christian People's Party | 1946 1949 1950 1954 1958 1961 1965 |
| Belgium | 969 | Francophone Democratic Front | 1965 1968 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 |
| Belgium | 1378 | Francophone Socialist Party | 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 63 | Liberal Party | 1946 1949 1950 1954 1958 1961 1965 1968 |
| Belgium | 640 | Liberal Party [Brussels Region] | 1971 1974 1977 1978 |
| Belgium | 454 | Liberal Reformist Party | 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 |
| Belgium | 221 | List Dedecker | 2007 2010 |
| Belgium | 171 | National Front | 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 501 | New Flemish Alliance | 2003 2007 2010 |
| Belgium | 1110 | Party of Liberty and Progress | Flemish Liberals and Democrats | 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 438 | People's Party | 2010 |
| Belgium | 290 | People's Union | 1949 1954 1958 1961 1965 1968 1971 1974 1977 1978 1981 1985 1987 1991 1995 1999 |
| Belgium | 748 | Radical Reformers Fighting for an Upright Society | 1991 |
| Belgium | 915 | Reformist Movement | 2003 2007 2010 |
| Belgium | 1440 | Respect for Labour | 1978 1981 1985 |
| Belgium | 1029 | Socialist Party | 1978 1981 1985 1987 1991 1995 1999 2003 2007 2010 |
| Belgium | 460 | Walloon Rally | 1968 1971 1974 1977 1978 1981 |
| Belgium | 256 | Workers' Party of Belgium | 1974 1977 1978 1981 1991 1995 2007 2010 |
| Canada | 556 | Communist Party | 1949 1953 1957 1958 1962 1963 1965 1968 1972 1974 1979 1980 1984 1988 1993 1997 2000 2004 2006 2008 2011 |
| Canada | 1255 | Conservative Party of Canada | 2004 2006 2008 2011 |
| Canada | 1259 | Green Party of Canada | 1984 1988 1993 1997 2000 2004 2006 2008 2011 |
| Canada | 368 | Liberal Party of Canada | 1949 1953 1957 1958 1962 1963 1965 1968 1972 1974 1979 1980 1984 1988 1993 1997 2000 2004 2006 2008 2011 |
| Canada | 2085 | Liberal-Labour | 1949 1953 1957 1958 1962 1963 1968 |
| Canada | 2011 | Liberal-Progressive | 1949 1953 |
| Canada | 2142 | National Party of Canada | 1993 |
| Canada | 296 | New Democratic Party | 1949 1953 1957 1958 1962 1963 1965 1968 1972 1974 1979 1980 1984 1988 1993 1997 2000 2004 2006 2008 2011 |
| Canada | 794 | Progressive Conservative Party of Canada | 1949 1953 1957 1958 1962 1963 1965 1968 1972 1974 1979 1980 1984 1988 1993 1997 2000 |
| Canada | 448 | Quebec Bloc | 1993 1997 2000 2004 2006 2008 2011 |
| Canada | 897 | Reform Party of Canada | 1988 1993 1997 2000 |
| Canada | 2148 | Rhinoceros Party | 1965 1968 1972 1979 1980 1984 1988 |
| Canada | 1392 | Social Credit Party of Canada | 1949 1953 1957 1958 1962 1963 1965 1968 1972 1974 1979 1980 |
| Canada | 677 | Social Credit Rally | 1965 1968 |
| Canada | 2162 | Union of Electors | 1949 1957 1958 |
| Denmark | 1324 | Centre Democrats | 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2005 |
| Denmark | 1331 | Christian People's Party | 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 367 | Common Course | 1987 1988 1990 |
| Denmark | 1239 | Communist Party of Denmark | 1947 1950 1953-4 1953-9 1957 1960 1964 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 |
| Denmark | 1891 | Community of the People | 1998 2001 2005 2011 |
| Denmark | 590 | Conservatives | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 1418 | Danish Peoples Party | 1998 2001 2005 2007 2011 |
| Denmark | 211 | Danish Social Liberal Party | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 412 | Danish Union | 1947 1953 1964 |
| Denmark | 74 | Forward (Greenland) | 1979 1981 1984 1987 1988 1990 1998 2001 2005 2007 2011 |
| Denmark | 1634 | Greenland and Faroe Islands | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 |
| Denmark | 797 | Greens | 1987 1988 1990 |
| Denmark | 538 | Independents Party | 1953 1957 1960 1964 1966 1973 |
| Denmark | 1606 | Justice Party | 1947 1950 1953-4 1953-9 1957 1960 1964 1971 1973 1975 1977 1979 1981 1984 1987 1990 2005 |
| Denmark | 189 | Left Socialists | 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 |
| Denmark | 1478 | Liberal Centre | 1966 1968 |
| Denmark | 1605 | Liberal Party | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 1786 | Liberals of the Capital | 1947 |
| Denmark | 376 | New-Liberal Alliance | 2007 2011 |
| Denmark | 978 | Progress Party | 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 |
| Denmark | 306 | Red-Green Alliance | 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 812 | Schleswig Party | 1947 1950 1953 1957 1960 1973 1975 1977 |
| Denmark | 1894 | Social Democratic Party (Faroe Islands) | 2005 2007 2011 |
| Denmark | 1629 | Social Democrats | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 1644 | Socialist Peoples Party | 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Denmark | 1892 | Union Party (Faroe Islands) | 1947 1950 1953-4 1953-9 1957 1960 1964 1966 1968 1971 1973 1975 1977 1979 1981 1984 1987 1988 1990 1994 1998 2001 2005 2007 2011 |
| Finland | 94 | Centre Party | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 1463 | Christian Democrats | 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 806 | Communist Party of Finland (Yhtenaisyys) | 1999 2003 2007 2011 |
| Finland | 1389 | Constitutional People's Party | 1975 1979 1983 1987 1991 |
| Finland | 229 | Democratic Alternative | 1987 |
| Finland | 1292 | Democratic Union | Left Alliance | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 1105 | Ecological Party | 1995 1999 |
| Finland | 200 | Finnish Party -- True Finns | 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 1576 | Finnish Pensioners Party | 1987 1991 1995 1999 |
| Finland | 139 | Finnish People's Unity Party | 1975 1983 |
| Finland | 1062 | Green League | 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 979 | League for Free Finland | 1995 |
| Finland | 1109 | Liberal League | 1951 1954 1958 1962 |
| Finland | 1219 | Liberals | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 |
| Finland | 1118 | National Coalition Party | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 2293 | Party of Smallholders and Rural People | 1948 1951 1954 |
| Finland | 2412 | Pirate Party Finland | 2011 |
| Finland | 638 | Reform Group | 1999 |
| Finland | 1108 | Social Democratic League of Workers and Smallholders | 1958 1962 1966 1970 1972 |
| Finland | 395 | Social Democratic Party of Finland | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 585 | Swedish People's Party | 1948 1951 1954 1958 1962 1966 1970 1972 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Finland | 1009 | Young Finns | 1995 1999 |
| France | 885 | Centre Democracy and Progress | 1973 |
| France | 2265 | Centre of Social Democrats | 1978 1981 1986 1988 1993 |
| France | 2143 | Citizens' Movement | 2002 2007 |
| France | 1297 | Conservatives | 1946 |
| France | 937 | Democratic Movement | 2007 |
| France | 2280 | Democratic and Socialist Union of the Resistance | 1946 1951 1956 |
| France | 650 | Ecology Generation | 1993 |
| France | 686 | French Communist Party | 1946 1951 1956 1973 1978 1981 1986 1988 1993 2002 2007 |
| France | 1094 | Gaullists | 1946 1951 1956 1973 |
| France | 873 | Greens | 1978 1981 1986 1993 2002 2007 |
| France | 259 | Hunting, Fishing, Nature, Tradition | 2002 2007 |
| France | 59 | Independent Republicans | 1973 1978 1988 1993 2002 |
| France | 2077 | Martinican Independence Movement | 2007 |
| France | 1101 | Movement for France | 2002 2007 |
| France | 1414 | National Centre of Independents and Peasants [Conservatives] | 1951 1956 1973 1978 1981 |
| France | 270 | National Front | 1973 1978 1981 1986 1988 1993 2002 2007 |
| France | 1263 | National Republican Movement | 2002 2007 |
| France | 1058 | New Centre | 2007 |
| France | 2260 | Party of Presidential Majority | 1978 1988 1993 |
| France | 1086 | Popular Republican Movement | 1946 1951 1956 |
| France | 401 | Radical Party | 1946 1951 1956 1973 1978 1981 1988 1993 |
| France | 1492 | Radical Party of the Left | 1973 1978 1981 1986 1988 1993 2002 2007 |
| France | 2252 | Rally for France | 2002 |
| France | 138 | Rally for the Republic | 1978 1981 1986 1988 1993 |
| France | 213 | Reformers Movement | 1973 |
| France | 442 | Revolutionary Communist League | 2002 2007 |
| France | 1539 | Socialist Party | 1946 1951 1956 1973 1978 1981 1986 1988 1993 2002 2007 |
| France | 516 | Unified Socialist Party | 1973 1978 |
| France | 509 | Union for French Democracy | 1978 1981 1986 1988 1993 2002 |
| France | 658 | Union for a Popular Movement | 2002 2007 |
| France | 898 | Union for the Defence of Traders and Artisans -- Poujadists | 1956 |
| France | 1176 | Workers' Struggle | 1973 1978 2002 2007 |
| Germany | 772 | Alliance 90 / Greens | 1990 1994 1998 2002 2005 2009 |
| Germany | 1131 | Bavarian Party | 1990 1994 1998 2002 2005 2009 |
| Germany | 808 | Christian Democratic Union | 1990 1994 1998 2002 2005 2009 |
| Germany | 1180 | Christian Social Union | 1990 1994 1998 2002 2005 2009 |
| Germany | 543 | Free Democratic Party | 1990 1994 1998 2002 2005 2009 |
| Germany | 1506 | German People's Union | 1998 |
| Germany | 865 | German Pirate Party | 2009 |
| Germany | 796 | Labour and Social Justice -- The Electoral Alternative | 2005 |
| Germany | 1537 | National Democratic Party | 2005 2009 |
| Germany | 558 | Social Democratic Party of Germany | 1990 1994 1998 2002 2005 2009 |
| Germany | 791 | The Left / PDS | 1990 1994 1998 2002 2005 2009 |
| Germany | 524 | The Republicans | 1990 1994 1998 2002 2005 2009 |
| Greece | 2163 | Alternative Ecologists | 1989 1990 |
| Greece | 1441 | Coalition of the Left | 1989-6 1989-11 1990 1993 1996 2000 2004 |
| Greece | 614 | Communist Party of Greece | 1974 1977 1981 1985 1989-6 1989-11 1990 1993 1996 2000 2004 |
| Greece | 1311 | Communist Party of Greece (Interior) | 1974 1977 1981 1985 1989-6 1989-11 1990 |
| Greece | 1374 | Democratic Renewal | 1989 1990 |
| Greece | 720 | Democratic Social Movement | 1996 2000 2004 |
| Greece | 1059 | Independent Muslim Lists | 1989-6 1989-11 1990 |
| Greece | 1027 | National Alignment | 1977 |
| Greece | 2230 | National Democratic Union | 1974 |
| Greece | 47 | New Democracy | 1974 1977 1981 1985 1989-6 1989-11 1990 1993 1996 2000 2004 |
| Greece | 1338 | Panhellenic Socialist Movement | 1974 1977 1981 1985 1989-6 1989-11 1990 1993 1996 2000 2004 |
| Greece | 463 | Party of New Liberals | 1977 |
| Greece | 2092 | Peoples Association -- Golden Dawn | 1996 |
| Greece | 1412 | Political Spring | 1993 1996 |
| Greece | 1179 | Popular Orthodox Rally | 2004 |
| Greece | 2123 | Progressive Party | 1981 1985 |
| Greece | 2165 | Union of Centrists | 1993 1996 2000 2004 |
| Greece | 489 | Union of the Democratic Centre | 1974 1977 1981 1985 1989 |
| Greece | 597 | United Democratic Left | 1974 1977 1981 1985 |
| Ireland | 1323 | Anti H-Block | 1981 |
| Ireland | 1580 | Democratic Left | 1992 1997 |
| Ireland | 379 | Democratic Socialist Party | 1982 1987 1989 |
| Ireland | 280 | Fianna Fail (Soldiers of Destiny) | 1948 1951 1957 1961 1965 1969 1973 1977 1981 1982-2 1982-11 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 1393 | Fine Gael (Familiy of the Irish) | 1948 1951 1957 1961 1965 1969 1973 1977 1981 1982-2 1982-11 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 1573 | Green Party | 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 2329 | Independent -- Marian Harkin | 2002 |
| Ireland | 318 | Labour Party | 1948 1951 1957 1961 1965 1969 1973 1977 1981 1982-2 1982-11 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 156 | National Labour Party | 1948 |
| Ireland | 2218 | National Party | 1997 |
| Ireland | 523 | National Progressive Democrats | 1961 |
| Ireland | 923 | Party of the Land | 1948 1951 1957 1961 |
| Ireland | 1804 | People Before Profit Alliance | 2007 2011 |
| Ireland | 651 | Progressive Democrats | 1987 1989 1992 1997 2002 2007 |
| Ireland | 2217 | Provisional Sinn Fein | 1982 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 92 | Republican Party | 1948 1951 1957 1961 1965 |
| Ireland | 433 | Sinn Fein The Workers' Party | 1957 1973 1977 1981 1982-2 1982-11 1987 1989 1992 1997 2002 2007 2011 |
| Ireland | 1014 | Socialist Party | 1997 2002 2007 2011 |
| Israel | 1835 | Agriculture and Development | 1951 1955 1959 |
| Israel | 1832 | Agudat Israel Workers | 1949 1951 1955 1959 1961 1965 1969 1973 1977 1981 |
| Israel | 244 | Alignment | Labor | 1949 1951 1955 1959 1961 1965 1969 1973 1977 1981 1984 1988 1992 1996 1999 |
| Israel | 1150 | Arab Democratic Party | 1988 1992 1996 |
| Israel | 2357 | Arab List for Bedouin and Villagers | 1973 |
| Israel | 2353 | Arab Movement for Renewal | 1996 1999 |
| Israel | 249 | Banner of the Torah | 1988 1992 1996 1999 |
| Israel | 1862 | Bridge | 1996 1999 |
| Israel | 1863 | Centre Party | 1999 |
| Israel | 1850 | Change | 1981 1984 1988 1999 |
| Israel | 387 | Communist Party | Moked | Sheli | 1949 1951 1955 1959 1961 1965 1969 1973 1977 |
| Israel | 1839 | Cooperation and Brotherhood | 1959 1961 1965 1969 1973 |
| Israel | 61 | Courage | 1981 1984 |
| Israel | 976 | Crossroads | 1988 1992 1996 |
| Israel | 1829 | Democratic List for Israeli Arabs | 1951 1955 |
| Israel | 1824 | Democratic List of Nazareth | 1949 |
| Israel | 1471 | Democratic Movement for Change | 1977 |
| Israel | 1419 | Energy | 1992 1996 1999 |
| Israel | 2309 | Fighters List | 1949 |
| Israel | 1845 | Flatto-Sharon | 1977 |
| Israel | 1889 | Free Centre | 1969 1973 |
| Israel | 1204 | Freedom Party | 1949 1951 1955 1959 1961 |
| Israel | 1472 | General Zionists | 1949 1951 1955 1959 |
| Israel | 2323 | Green Leaf | 1999 |
| Israel | 31 | Heritage | 1984 |
| Israel | 2361 | Herut -- The National Movement | 1999 |
| Israel | 980 | Homeland | 1988 1992 1996 |
| Israel | 188 | Independent Liberals | 1965 1969 1973 1977 1981 |
| Israel | 277 | Israel for Immigration | 1996 1999 |
| Israel | 1816 | Israel is Our Home | 1999 |
| Israel | 767 | Israeli Workers List | 1965 |
| Israel | 1343 | Labour Unity | 1955 1959 1961 1965 |
| Israel | 765 | Liberal Party | 1961 |
| Israel | 1867 | Meimad | 1999 |
| Israel | 1828 | Mizrachi Workers | 1949 1951 1955 |
| Israel | 2360 | Momentum | 1999 |
| Israel | 305 | Movement for Civil Rights and Peace | 1973 1977 1981 1984 1988 |
| Israel | 588 | Movement for the Heritage of Israel | 1981 1984 |
| Israel | 805 | National Democratic Assembly | 1999 |
| Israel | 1841 | National List | 1969 |
| Israel | 214 | National Religious Party | 1955 1959 1961 1965 1969 1973 1977 1981 1984 1988 1992 1996 1999 |
| Israel | 1357 | National Union | 1999 |
| Israel | 732 | New Communist List | Democratic Front | 1965 1969 1973 1977 1981 1984 1988 1992 1996 1999 |
| Israel | 615 | One Nation | 1999 |
| Israel | 106 | Peace-Zion | 1977 |
| Israel | 1873 | Pensioners of Israel | 1996 |
| Israel | 1838 | Progress and Development | 1959 1961 1965 1969 1973 |
| Israel | 1834 | Progress and Work | 1951 1955 1959 1961 |
| Israel | 390 | Progressive List for Peace | 1984 1988 1992 |
| Israel | 1822 | Progressive Party | 1949 1951 1955 1959 |
| Israel | 1660 | Revival | 1981 1984 1988 1992 |
| Israel | 1831 | Sephardim and Oriental Communities | 1949 1951 1955 |
| Israel | 788 | Sfarad's guards of the Torah | 1984 1988 1992 1996 1999 |
| Israel | 1833 | Spiritual Centre | 1949 1951 1955 |
| Israel | 678 | The Consolidation | 1965 1969 1973 1977 1981 1984 1988 1992 1996 1999 |
| Israel | 279 | The Third Way | 1996 1999 |
| Israel | 938 | This World -- New Force | 1965 1969 1973 |
| Israel | 1969 | Thus | 1973 1977 1981 1984 |
| Israel | 1269 | Together | 1984 |
| Israel | 265 | Union of Israel | 1949 1951 1955 1959 1961 1965 1969 1973 1977 1981 1984 1988 1992 1996 1999 |
| Israel | 2311 | United Arab List | 1977 |
| Israel | 1846 | United Arab List | 1996 1999 |
| Israel | 1168 | United Workers Party | 1949 1951 1955 1959 1961 1965 1988 |
| Israel | 2310 | Women's International Zionist Organization | 1949 |
| Israel | 1827 | Yemenite Association | 1949 1951 1955 1959 1973 1988 |
| Italy | 618 | Agrarian Party | 1948 |
| Italy | 927 | Associative Italians Abroad | 2006 2008 |
| Italy | 1063 | Autonomy Liberty Democracy | 2006 2008 |
| Italy | 52 | Christian Democracy for the Autonomies | 2006 2008 |
| Italy | 99 | Christian Democratic Centre | 1994 1996 2001 |
| Italy | 1633 | Christian Democrats | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 |
| Italy | 1088 | Communist Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 |
| Italy | 1321 | Communist Refoundation Party | 1992 1994 1996 2001 2006 2008 |
| Italy | 961 | Democracy | 2001 |
| Italy | 1005 | Democracy is Freedom -- The Daisy | 2001 2006 |
| Italy | 896 | Democratic Alliance | 1994 |
| Italy | 382 | Democratic Party | 2008 |
| Italy | 475 | Democratic Union | 1996 |
| Italy | 397 | Democratic Union of the Centre | 1994 |
| Italy | 809 | Democrats of the Left | 1992 1994 1996 2001 2006 |
| Italy | 488 | European Democracy | 2001 |
| Italy | 760 | European Republicans Movement | 2006 |
| Italy | 910 | Federation of the Greens | 1992 1994 1996 2001 2006 2008 |
| Italy | 176 | Fiamma Tricolore | 2006 2008 |
| Italy | 409 | Front of the Ordinary Man | 1948 |
| Italy | 596 | Go Italy -- The People of Freedom | 1994 1996 2001 2006 2008 |
| Italy | 1304 | Green Lists | 1987 |
| Italy | 1702 | Italian Democratic Party of Monarchist Unity | 1963 1968 |
| Italy | 242 | Italian Democratic Socialist Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 |
| Italy | 1278 | Italian Democratic Socialists | Party | 1996 2001 2006 2008 |
| Italy | 487 | Italian Liberal Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 |
| Italy | 142 | Italian People's Party | 1994 1996 2001 |
| Italy | 630 | Italian Renewal | 1996 2001 |
| Italy | 831 | Italian Social Movement | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 |
| Italy | 1475 | Italian Socialist Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 1994 |
| Italy | 693 | Italy of Values | 2001 2006 2008 |
| Italy | 671 | Liberal Democratic Pole | 1994 |
| Italy | 906 | Liberal Democrats | 2008 |
| Italy | 55 | List for Trieste | 1979 1987 1992 |
| Italy | 1560 | Lombard League | 1987 |
| Italy | 1050 | Monarchist National Party | 1948 1953 1958 |
| Italy | 1040 | Movement for Autonomy | 2006 2008 |
| Italy | 366 | Movement for Democracy -- The Net | 1992 1994 |
| Italy | 1028 | Movement for the Independence of Sicily | 1948 |
| Italy | 373 | National Alliance | 1994 1996 2001 2006 2008 |
| Italy | 613 | National Pensioners' Party | 1983 |
| Italy | 1287 | New PSI | 2001 2006 |
| Italy | 1436 | North League | 1992 1994 1996 2001 2006 2008 |
| Italy | 1661 | Party of the Italian Communists | 2001 2006 2008 |
| Italy | 502 | Pensioners' Party | 1992 1994 1996 2001 2006 2008 |
| Italy | 421 | Popular Monarchist Party | 1958 |
| Italy | 1424 | Proletarian Democracy | 1976 1983 1987 |
| Italy | 968 | Proletarian Unity Party | 1976 1979 1983 |
| Italy | 1296 | Radicals | 1976 1979 1983 1987 1992 1994 1996 2001 2006 2008 |
| Italy | 93 | Republican Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 1996 2001 2006 2008 |
| Italy | 335 | Sardinian Action Party | 1948 1953 1958 1963 1968 1983 1987 1996 |
| Italy | 827 | Segni Pact | 1994 1996 |
| Italy | 323 | Social Alternative Mussolini | 2006 |
| Italy | 1431 | Social Christians | 1994 |
| Italy | 1593 | Socialist Party of Proletarian Unity | 1968 1972 |
| Italy | 1030 | South Tyrol Peoples Party | 1948 1953 1958 1963 1968 1972 1976 1979 1983 1987 1992 1994 1996 2001 2006 2008 |
| Italy | 436 | Southern Action League | 1994 1996 2001 |
| Italy | 1008 | Unified Socialist Party | 1968 |
| Italy | 226 | Union / Centre | 2006 2008 |
| Italy | 399 | Union of Democrats for Europe | 2001 2006 |
| Italy | 128 | United Christian Democrats | 1996 2001 |
| Italy | 974 | Valdotanian Union | 1958 1963 1968 1972 1979 1983 1987 1992 1994 1996 2001 |
| Italy | 1080 | Venetian League | 1983 1987 1992 |
| Japan | 439 | Democratic Party of Japan | 1996 2000 2003 2005 |
| Japan | 163 | Democratic Reform Party | 1996 |
| Japan | 1053 | Democratic Socialist Party | 1960 1963 1967 1969 1972 1976 1979 1980 1983 1986 1990 1993 |
| Japan | 695 | Independent's Club | 2000 2003 |
| Japan | 1540 | Japan Communist Party | 1960 1963 1967 1969 1972 1976 1979 1980 1983 1986 1990 1993 1996 2000 2003 2005 |
| Japan | 1327 | Japan New Party | 1993 |
| Japan | 547 | Japan Renewal Party | 1993 |
| Japan | 940 | Japan Socialist Party | 1960 1963 1967 1969 1972 1976 1979 1980 1983 1986 1990 1993 1996 2000 2003 2005 |
| Japan | 837 | Komeito Party | 1967 1969 1972 1976 1979 1980 1983 1986 1990 1993 2000 2003 2005 |
| Japan | 1193 | Liberal Democratic Party | 1960 1963 1967 1969 1972 1976 1979 1980 1983 1986 1990 1993 1996 2000 2003 2005 |
| Japan | 1165 | Liberal League | 2000 2003 |
| Japan | 462 | Liberal Party | 2000 |
| Japan | 1382 | New Conservative Party | 2000 2003 |
| Japan | 1136 | New Frontier Party | 1996 |
| Japan | 170 | New Liberal Club | 1976 1979 1980 1983 1986 |
| Japan | 247 | New Party Daichi | 2005 |
| Japan | 1175 | New Party Nippon | 2005 |
| Japan | 1146 | New Party Sakigake | 1993 1996 2000 2003 |
| Japan | 4 | People's New Party | 2005 |
| Japan | 86 | Socialist Democratic Federation | 1979 1980 1983 1986 1990 1993 |
| Netherlands | 300 | Anti-Revolutionary Party | 1946 1948 1952 1956 1959 1963 1967 1972 1977 |
| Netherlands | 3 | Catholic National Party | 1948 1952 |
| Netherlands | 451 | Catholic Peoples Party | 1946 1948 1952 1956 1959 1963 1967 1972 1977 |
| Netherlands | 209 | Centre Democrats | 1986 1989 1994 1998 |
| Netherlands | 275 | Centre Party | 1981 1982 1994 |
| Netherlands | 235 | Christian Democratic Appeal | 1977 1981 1982 1986 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 405 | Christian Historical Union | 1946 1948 1952 1956 1959 1963 1967 1972 1977 |
| Netherlands | 1206 | ChristianUnion -- Reformed Political Party | 2002 2003 2006 2010 |
| Netherlands | 1194 | Communist Party of the Netherlands | 1946 1948 1952 1956 1959 1963 1967 1972 1977 1981 1982 1986 |
| Netherlands | 402 | Democratic Socialists 70 | 1972 1977 1981 1982 |
| Netherlands | 345 | Democrats 66 | 1967 1972 1977 1981 1982 1986 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 1595 | Farmers Party | 1963 1967 1972 1977 |
| Netherlands | 456 | Fortuyn List | 2002 2003 2006 |
| Netherlands | 112 | General Senior Union | United Seniors Party | 1994 2002 |
| Netherlands | 756 | GreenLeft | 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 742 | Labour Party | 1946 1948 1952 1956 1959 1963 1967 1972 1977 1981 1982 1986 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 744 | Livable Netherlands | 2002 2003 |
| Netherlands | 87 | Middle Party | 1972 2002 |
| Netherlands | 1452 | Pacifist Socialist Party | 1959 1963 1967 1972 1977 1981 1982 1986 |
| Netherlands | 1501 | Party for Freedom | 2006 2010 |
| Netherlands | 990 | Party for the Animals | 2003 2006 2010 |
| Netherlands | 1409 | People's Party for Freedom and Democracy | 1946 1948 1952 1956 1959 1963 1967 1972 1977 1981 1982 1986 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 1251 | Political Reformed Party | 1946 1948 1952 1956 1959 1963 1967 1972 1977 1981 1982 1986 1989 1994 1998 2002 2003 2006 2010 |
| Netherlands | 342 | Radical Political Party | 1972 1977 1981 1982 1986 |
| Netherlands | 212 | Reformatory Political Federation | 1977 1981 1982 1986 1989 1994 1998 |
| Netherlands | 625 | Reformed Political League | 1952 1956 1959 1963 1967 1972 1977 1981 1982 1986 1989 1994 1998 |
| Netherlands | 357 | Socialist Party | 1977 1981 1982 1989 1994 1998 2002 2003 2006 2010 |
| New Zealand | 617 | ACT New Zealand | 1996 1999 2002 2005 2008 2011 |
| New Zealand | 2073 | Aotearoa Legalise Cannabis Party | 1996 1999 2002 2005 2008 2011 |
| New Zealand | 774 | Christian Democrat Party | 1999 |
| New Zealand | 2072 | Christian Heritage Party of New Zealand | 1993 1996 1999 2002 2005 |
| New Zealand | 2076 | Communist Party of New Zealand | 1946 1949 1951 1954 1957 1960 1963 1966 1969 |
| New Zealand | 1973 | Conservatice Party of New Zealand | 2011 |
| New Zealand | 1171 | Green Party | 1990 1999 2002 2005 2008 2011 |
| New Zealand | 878 | Labour Party | 1946 1949 1951 1954 1957 1960 1963 1966 1969 1972 1975 1978 1981 1984 1987 1990 1993 1996 1999 2002 2005 2008 2011 |
| New Zealand | 1972 | Mana Party | 2011 |
| New Zealand | 114 | Maori Party | 2005 2008 2011 |
| New Zealand | 997 | National Party | 1946 1949 1951 1954 1957 1960 1963 1966 1969 1972 1975 1978 1981 1984 1987 1990 1993 1996 1999 2002 2005 2008 2011 |
| New Zealand | 930 | New Labour Party | 1990 |
| New Zealand | 891 | New Zealand First Party | 1993 1996 1999 2002 2005 2008 2011 |
| New Zealand | 2075 | New Zealand Party | 1984 |
| New Zealand | 2074 | Outdoor Recreation New Zealand | 2002 |
| New Zealand | 354 | Progressive Party | 2002 2005 2008 |
| New Zealand | 1636 | Social Credit | Democratic Party | 1951 1954 1957 1960 1963 1966 1969 1972 1975 1978 1981 1984 1987 1990 |
| New Zealand | 1313 | United Future New Zealand | 2002 2005 2008 2011 |
| New Zealand | 917 | United New Zealand | 1996 1999 |
| New Zealand | 1761 | Values Party | 1972 1975 1978 1981 1984 |
| Norway | 702 | Centre Party | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 1538 | Christian Democratic Party | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 780 | Coastal Party | 1997 2001 2005 2009 |
| Norway | 27 | Communist Party of Norway | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 1435 | Conservative Party | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 2254 | Green Party | 1993 1997 2001 2005 2009 |
| Norway | 647 | Liberal Party of Norway | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 1209 | Liberal People's Party | 1973 1977 1981 1985 |
| Norway | 104 | Norwegian Labour Party | 1949 1953 1957 1961 1965 1969 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 733 | Pensioners Party | 1985 1993 1997 2001 2005 2009 |
| Norway | 351 | Progress Party | 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 81 | Socialist Left Party | 1973 1977 1981 1985 1993 1997 2001 2005 2009 |
| Norway | 1773 | Socialist People's Party | 1961 1965 1969 1973 |
| Portugal | 557 | Bloc of the Left | 1999 2002 2005 2009 2011 |
| Portugal | 427 | Christian Democratic Party | 1976 1983 1987 |
| Portugal | 281 | Communist Party of the Portuguese Workers / Reorganizative Movement of the Party of the Proletariat | 1976 1980 1983 1985 1987 1991 1995 1999 2002 2005 2009 2011 |
| Portugal | 889 | Democratic Intervention | 1987 1991 1995 1999 2002 2005 2009 |
| Portugal | 1281 | Democratic Movement | 1980 1983 1985 1987 |
| Portugal | 341 | Democratic Renewal Party | 1985 1987 1991 |
| Portugal | 251 | Democratic and Social Centre -- People's Party | 1976 1980 1983 1985 1987 1991 1995 1999 2002 2005 2009 2011 |
| Portugal | 1535 | Ecology Party -- Greens | 1983 1985 1987 1991 1995 1999 2002 2005 2009 |
| Portugal | 622 | Independent Social Democrats | 1980 |
| Portugal | 565 | Leftwing Union for the Socialist Democracy | 1980 |
| Portugal | 1508 | Movement of Socialist Left | 1976 |
| Portugal | 82 | National Solidarity Party | 1991 1995 1999 2002 |
| Portugal | 1781 | Party for Animals and Nature | 2011 |
| Portugal | 601 | People's Socialist Front | 1976 |
| Portugal | 260 | Popular Democratic Union | 1976 1980 1985 1987 1991 1995 |
| Portugal | 107 | Popular Monarchist Party | 1976 1980 |
| Portugal | 514 | Portuguese Communist Party | 1976 1980 1983 1985 1987 1991 1995 1999 2002 2005 2009 2011 |
| Portugal | 998 | Revolutionary Socialist Party | 1980 1991 1995 |
| Portugal | 1273 | Social Democratic Party | 1976 1980 1983 1985 1987 1991 1995 1999 2002 2005 2009 2011 |
| Portugal | 725 | Socialist Party | 1976 1980 1983 1985 1987 1991 1995 1999 2002 2005 2009 2011 |
| Portugal | 1295 | Unified Democratic Coalition | 2009 2011 |
| Portugal | 375 | Workers Party of Socialist Unity | 1980 1983 1985 1987 1995 1999 2002 2005 2009 2011 |
| Spain | 370 | Andalusian Party | 1979 1989 2000 2004 |
| Spain | 1367 | Aragonese Council | 1996 2000 2004 2008 |
| Spain | 1221 | Aragonese Regionalist Party | 1977 1979 1986 1989 1993 2000 2004 2008 |
| Spain | 1026 | Basque Left | 1977 1979 1982 1986 1989 |
| Spain | 1361 | Basque Nationalist Party | 1977 1979 1982 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 845 | Basque Solidarity | 1989 1993 1996 2000 2004 2008 |
| Spain | 234 | Canary Coalition | 1993 1996 2000 2004 2008 |
| Spain | 411 | Canary Islands Group | 1986 1989 |
| Spain | 2325 | Confederation of the Greens | 1986 1989 1993 2000 2004 2008 |
| Spain | 894 | Convergence and Union | 1977 1979 1982 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 637 | Democratic and Social Centre | 1982 1986 1989 1993 |
| Spain | 520 | Galician Nationalist Block | 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 2330 | Initiative for Catalonia Greens | 2000 2004 2008 |
| Spain | 424 | Liberal Party | 1977 1982 1986 |
| Spain | 2227 | Party of Labour of Spain | 1979 |
| Spain | 645 | People's Alliance-Party | 1977 1979 1982 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 1790 | People's Socialist Party | 1977 |
| Spain | 1224 | Popular Democratic Party | 1982 1986 |
| Spain | 757 | Republican Left of Catalonia | 1977 1979 1982 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 73 | Ruiz-Mateos List | 1989 1993 |
| Spain | 902 | Spanish Socialist Workers Party | 1977 1979 1982 1986 1989 1993 1996 2000 2004 2008 |
| Spain | 551 | Union, Progress and Democracy | 2008 |
| Spain | 1317 | United People | 1979 1982 1986 1989 1993 1996 |
| Spain | 443 | Valencian Union | 1986 1989 1993 1996 |
| Spain | 2028 | Workers' Party of Spain -- Communist Unity | 1986 1989 |
| Sweden | 1461 | Centre Party | 1948 1952 1956 1958 1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 282 | Christian Democrats | 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 1521 | Feminist Initiative | 2006 2010 |
| Sweden | 1154 | Greens | 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 882 | Left Party (Communists) | 1948 1952 1956 1958 1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 2406 | Left Socialist Party | 1948 1952 1956 1958 |
| Sweden | 657 | Moderate Party | 1948 1952 1956 1958 1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 951 | New Democracy | 1991 1994 1998 |
| Sweden | 892 | People's Party | 1948 1952 1956 1958 1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 721 | Pirate Party | 2010 |
| Sweden | 904 | Social Democrats | 1948 1952 1956 1958 1960 1964 1968 1970 1973 1976 1979 1982 1985 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 1546 | Sweden Democrats | 1988 1991 1994 1998 2002 2006 2010 |
| Sweden | 407 | Swedish Senior Citizen Interest Party | 1991 1994 1998 2002 2006 2010 |
| Switzerland | 224 | Autonomous Socialist Party | 1971 1975 1979 1983 1987 1991 |
| Switzerland | 1012 | Christian Social Party | 1971 1991 1995 1999 2003 2007 |
| Switzerland | 1967 | Committee Herbert Maeder | 1983 1987 1991 |
| Switzerland | 1213 | Conservative Democratic Party of Switzerland | 2011 |
| Switzerland | 531 | Conservative Peoples Party | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 886 | Democratic Party | 1947 1951 1955 1959 1963 1967 |
| Switzerland | 1318 | Federal Democratic Union of Switzerland | 1975 1979 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 1602 | Freedom Party of Switzerland | 1987 1991 1995 1999 2003 |
| Switzerland | 308 | Green Liberal Party | 2007 2011 |
| Switzerland | 141 | Greens | 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 1264 | Independents Alliance | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 |
| Switzerland | 458 | Liberal Party of Switzerland | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 |
| Switzerland | 1960 | Liberal Socialist Party | 1947 1951 1955 |
| Switzerland | 628 | National Action -- Swiss Democrats | 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 964 | Progressive Organisations of Switzerland | 1971 1975 1979 1983 1987 1991 |
| Switzerland | 602 | Protestant Peoples Party | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 26 | Radical Democratic Party | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 564 | Republican Movement | 1967 1971 1975 1979 1983 1987 |
| Switzerland | 35 | Social Democratic Party of Switzerland | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 1226 | Solidarity | 1995 1999 2003 2007 |
| Switzerland | 1167 | Swiss Party of Labour | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 |
| Switzerland | 750 | Swiss People's Party | 1947 1951 1955 1959 1963 1967 1971 1975 1979 1983 1987 1991 1995 1999 2003 2007 2011 |
| Switzerland | 1500 | Ticino League | 1991 1995 1999 2003 2007 2011 |
| Switzerland | 569 | Woman in Politics | 1983 1987 1991 1995 1999 2003 |
| United Kingdom | 1250 | British National Party | 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 1276 | Communist Party of Great Britain | 1945 1950 1951 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 |
| United Kingdom | 773 | Conservatives | 1945 1950 1951 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 319 | Democratic Unionist Party | 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 467 | Green Party | 1987 1992 2005 2010 |
| United Kingdom | 1205 | Independent Labour Party | 1945 1950 1951 1955 1959 |
| United Kingdom | 1556 | Labour | 1945 1950 1951 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 1302 | Liberal Democrats | 1992 1997 2001 2005 2010 |
| United Kingdom | 659 | Liberals | 1945 1950 1951 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 |
| United Kingdom | 1126 | National Front | 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 1017 | National Liberal Party | 1945 1950 1951 1955 1959 1964 1966 |
| United Kingdom | 332 | Nationalist Party | 1945 1950 1951 |
| United Kingdom | 639 | Nationals | 1945 |
| United Kingdom | 311 | Plaid Cymru | 1945 1950 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 2103 | Referendum Party | 1997 |
| United Kingdom | 1092 | Republican Labour Party | 1966 1970 |
| United Kingdom | 1057 | Respect -- The Unity Coalition | 2005 2010 |
| United Kingdom | 1284 | Scottish National Party | 1945 1950 1951 1955 1959 1964 1966 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 689 | Sinn Fein | 1950 1955 1959 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 1547 | Social Democratic Party | 1983 1987 |
| United Kingdom | 1023 | Social Democratic and Labour Party | 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 2010 |
| United Kingdom | 2063 | The Christian Party -- Christian Peoples Alliance in England | 2005 2010 |
| United Kingdom | 1566 | Ulster Popular Unionist Party | 1983 1987 1992 |
| United Kingdom | 1210 | Ulster Unionist Party | 1970 1974-2 1974-10 1979 1983 1987 1992 1997 2001 2005 |
| United Kingdom | 1272 | United Kingdom Independence Party | 1997 2001 2005 2010 |
| United Kingdom | 646 | Vanguard Unionist Progressive Party | 1974-2 1974-10 |

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1. <https://www.sciencedirect.com/science/article/pii/S0261379415300433> [↑](#footnote-ref-1)
2. The effective number of parties is the number of hypothetical equally sized parties. The effective number of parties only equals its actual number if all parties have the same vote share; yet if, for instance, one of the parties has a huge majority, the effective number will only be slightly larger than one. The fact that this number if derived from a fractionalization index (such as the Herfindahl) poses no threat to the validity of our measure of party system saturation, as oversaturation precisely captures the idea that an electoral market is more fractionalized, and therefore more competitive, than predicted based on party system characteristics. [↑](#footnote-ref-2)
3. Also historic work, like Duverger’s (1967: 207-208) law that plurality voting produces two-party systems, clearly has the concept of effective parties in mind. [↑](#footnote-ref-3)
4. In case the CMP coding categories have a natural opposite (e.g., references to welfare state expansion versus references to welfare state retrenchment), we created a salience scale by summing the proportions of positive and negative mentions. For more detail on how the CMP coding categories were transformed into issues, see Greene (2014). [↑](#footnote-ref-4)
5. The agreement coefficient calculates the weighted average of the level of deviation from unimodality that exist in the simple component layers in which any distribution can be disaggregated. Thus, while a Herfindahl index would only consider the sizes of the different electorates located along a distribution, the Van der Eijk scale also considers the distance (i.e., level of the deviation from unimodality) between groups. [↑](#footnote-ref-5)
6. According to Meguid (2005), typical niche parties include green, radical right, and regionalist. Green and radical right mobilize along the non-economic new politics dimension, whereas the regionalist emphasize the center-periphery conflict. In addition to the aforementioned non-economic cleavages, Lipset and Rokkan (1967) also identify the church-state and urban-rural conflicts. While Meguid does not explicitly state this, one could therefore argue that agrarian, Protestant, and ethnic parties are niche. The same goes for single-issue parties (Wagner 2012). [↑](#footnote-ref-6)
7. To distinguish Protestant parties, we used the Chapel Hill Expert Survey (Bakker et al. 2015). [↑](#footnote-ref-7)
8. Communist parties constitute a special case. Even though they focus on economic issues, Meguid (2005) does not code them as mainstream. Most likely, she does so because these parties do not classify as dominant government parties. Therefore, we code communist parties neither as niche nor as mainstream, and simply leave them out of the analyses. [↑](#footnote-ref-8)
9. Which is unsurprising as nicheness is calculated by subtracting two standardized scores, see footnote 9 of the manuscript [↑](#footnote-ref-9)