**Cabinet Reshuffles and Parliamentary No-Confidence Motions**

**Supplementary Information**

**Overview**

This document presents data sources and descriptive statistics for the variables used in our main analysis and robustness checks (Tables S.1 and S.2). In addition, we present the following further supplementary analyses:

* Table S.3 – reestimation of model 1, accounting for constructive NCM procedures, (i) with a control for cases with these procedures (Model S1), and (ii) excluding the relevant countries (Model S2).
* Table S.4 – reestimation of model 1 with several additional controls, explained in main paper.
* Tables S.5-S.8 – jackknife analysis, reestimation of model 1, dropping one country at a time.
* Table S.9 – reestimation of model 1 with two alternative measures of reshuffles, as discussed in main paper.

**Additional Tables**

**Table S.1.** Data sources

|  |  |
| --- | --- |
| Variable | Source |
| *Main Paper* |  |
| NCM | Williams (2016) |
| Reshuffle | Calculated from Huber and Martínez-Gallardo (2008) |
| Single-party government | Williams (2016) |
| Effective number of parties | Williams (2016) |
| Minority government | Williams (2016) |
| Government tenure | Williams (2016) |
| Number of previous NCMs | Williams (2016) |
| GDP growth | Williams (2016) |
| *Supplementary Information* |  |
| Individual termination | Calculated from Huber and Martínez-Gallardo (2008) |
| Major reshuffle | Calculated from Huber and Martínez-Gallardo (2008) |

**Table S.2.** Descriptive Statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Obs. | Mean | Std. Dev. | Min | Max |
| *Main Paper* | | | | | |
| NCM | 7,173 | 0.020 | 0.138 | 0 | 1 |
| Reshuffle | 7,247 | 0.046 | 0.210 | 0 | 1 |
| Single-party government | 7,119 | 0.379 | 0.485 | 0 | 1 |
| Effective number of parties | 7,137 | 3.443 | 1.456 | 1.536 | 9.142 |
| Minority government | 7,112 | 0.180 | 0.384 | 0 | 1 |
| Government tenure | 7,153 | 16.891 | 12.697 | 1 | 61 |
| Number of previous NCMs | 7,173 | 5.240 | 8.182 | 0 | 62 |
| GDP growth | 7,063 | 2.549 | 2.826 | -8.823 | 16.669 |
| *Supplementary Information* | | | | | |
| Individual termination | 7,247 | 0.098 | 0.298 | 0 | 1 |
| Major reshuffle | 7,247 | 0.029 | 0.167 | 0 | 1 |

**Table S.3.** Determinants of NCMs (Mixed-Effects Logistic Models) – accounting for constructive NCMs

|  |  |  |
| --- | --- | --- |
|  | Model S1 | Model S2 |
| Reshuffle | 4.409 \*\* (1.720) | 4.706 \*\* (1.858) |
| Effective number of parties | 0.044 (0.103) | 0.063 (0.116) |
| Reshuffle x Effective number of parties | -1.405 \*\* (0.678) | -1.533 \*\* (0.743) |
| Minority government | 1.245 \*\*\* (0.231) | 1.371 \*\*\* (0.237) |
| Government tenure | 0.002 (0.008) | 0.001 (0.008) |
| Number of previous NCMs | 0.051 \*\*\* (0.008) | 0.052 \*\*\* (0.008) |
| GDP growth | -0.089 \*\*\* (0.033) | -0.107 \*\*\* (0.033) |
| Constructive NCM system | -0.179 (0.614) |  |
| Intercept | -4.871 \*\*\* (0.463) | -4.865 \*\*\* (0.492) |
| Random Effects | Yes | Yes |
| σ2 | 3.29 | 3.29 |
| τ00 | 0.43country | 0.48country |
| ICC | 0.11 | 0.13 |
| N | 16country | 13country |
| Observations | 6,991 | 5,924 |
| Marginal R2 | 0.146 | 0.155 |
| Conditional R2 | 0.244 | 0.262 |
| AIC | 1246.255 | 1130.837 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.4.** Determinants of NCMs (Mixed-Effects Logistic Models) – Additional controls

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model S3 | Model S4 | Model S5 | Model S6 |
| Reshuffle | 4.629 \*\*\* (1.768) | 4.302 \*\* (1.706) | 4.425 \*\* (1.747) | 4.434 \*\* (1.745) |
| Effective number of parties | 0.043 (0.099) | 0.089 (0.104) | -0.011 (0.112) | 0.080 (0.108) |
| Reshuffle x Effective number of parties | -1.480 \*\* (0.698) | -1.370 \*\* (0.672) | -1.424 \*\* (0.690) | -1.426 \*\* (0.689) |
| Minority government | 1.215 \*\*\* (0.229) | 1.245 \*\*\* (0.230) | 1.244 \*\*\* (0.238) | 1.200 \*\*\* (0.235) |
| Government tenure | 0.002 (0.008) | 0.002 (0.008) | -0.001 (0.008) | -0.001 (0.008) |
| Number of previous NCMs | 0.054 \*\*\* (0.008) | 0.050 \*\*\* (0.008) | 0.030 \*\* (0.012) | 0.033 \*\*\* (0.012) |
| GDP growth | -0.091 \*\*\* (0.033) | -0.089 \*\*\* (0.033) | -0.080 \*\* (0.033) | -0.086 \*\*\* (0.033) |
| Semi-presidentialism | 0.683 \*\* (0.346) |  |  | 0.861\*\* (0.376) |
| Westminster heritage |  | 0.509 (0.442) |  | 0.877 \*\* (0.425) |
| Linear time trend |  |  | 0.032 \*\*\* (0.012) | 0.030 \*\* (0.012) |
| Intercept | -5.124 \*\*\* (0.452) | -5.214 \*\*\* (0.518) | -5.504 \*\*\* (0.539) | -6.328 \*\*\* (0.619) |
| Random Effects | Yes | Yes | Yes | Yes |
| σ2 | 3.29 | 3.29 | 3.29 | 3.29 |
| τ00 | 0.29country | 0.42country | 0.58country | 0.31country |  |
| ICC | 0.08 | 0.11 | 0.15 | 0.09 |
| N | 16country | 16country | 16country | 16country |
| Observations | 6,991 | 6,991 | 6,991 | 6,991 |
| Marginal R2 | 0.169 | 0.159 | 0.169 | 0.211 |
| Conditional R2 | 0.235 | 0.254 | 0.293 | 0.279 |
| AIC | 1243.076 | 1245.009 | 1238.926 | 1236.828 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.5.** Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (1)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model S7 | Model S8 | Model S9 | Model S10 |
| Reshuffle | 3.533 \* (1.827) | 4.534 \*\*\* (1.754) | 4.404 \*\* (1.722) | 4.865 \*\*\* (1.766) |
| Effective number of parties | 0.087 (0.113) | 0.048 (0.106) | 0.057 (0.114) | 0.061 (0.105) |
| Reshuffle x Effective number of parties | -1.197 \* (0.699) | -1.440 \*\* (0.691) | -1.404 \*\* (0.679) | -1.518 \*\* (0.694) |
| Minority government | 1.135 \*\*\* (0.235) | 1.283 \*\*\* (0.234) | 1.216 \*\*\* (0.234) | 1.093 \*\*\* (0.244) |
| Government tenure | -0.000 (0.008) | 0.004 (0.008) | 0.000 (0.008) | 0.006 (0.008) |
| Number of previous NCMs | 0.081 \*\*\* (0.016) | 0.051 \*\*\* (0.008) | 0.051 \*\*\* (0.008) | 0.052 \*\*\* (0.008) |
| GDP growth | -0.061 \* (0.035) | -0.092 \*\*\* (0.034) | -0.086 \*\*\* (0.033) | -0.097 \*\*\* (0.034) |
| Intercept | -5.219 \*\*\* (0.488) | -4.963 \*\*\* (0.476) | -4.862 \*\*\* (0.465) | -4.995 \*\*\* (0.473) |
| Random Effects | Yes | Yes | Yes | Yes |
| σ2 | 3.29 | 3.29 | 3.29 | 3.29 |
| τ00 | 0.38country | 0.50country | 0.44country | 0.48country |  |
| ICC | 0.10 | 0.13 | 0.12 | 0.13 |
| N | 15country | 15country | 15country | 15country |
| Observations | 6,443 | 6,503 | 6,536 | 6,538 |
| Excluded case | Australia | Austria | Belgium | Canada |
| Marginal R2 | 0.143 | 0.152 | 0.132 | 0.147 |
| Conditional R2 | 0.231 | 0.264 | 0.233 | 0.256 |
| AIC | 1066.811 | 1186.309 | 1218.362 | 1165.392 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.6.** Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (2)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model S11 | Model S12 | Model S13 | Model S14 |
| Reshuffle | 4.324 \*\* (1.748) | 4.263 \*\* (1.901) | 4.325 \*\* (1.869) | 4.455 \*\*\* (1.698) |
| Effective number of parties | 0.030 (0.103) | -0.076 (0.118) | 0.048 (0.106) | 0.056 (0.104) |
| Reshuffle x Effective number of parties | -1.377 \*\* (0.690) | -1.325 \* (0.754) | -1.382 \* (0.757) | -1.403 \*\* (0.668) |
| Minority government | 1.297 \*\*\* (0.230) | 1.390 \*\*\* (0.237) | 0.973 \*\*\* (0.267) | 1.253 \*\*\* (0.232) |
| Government tenure | 0.003 (0.008) | -0.006 (0.009) | 0.005 (0.008) | 0.000 (0.008) |
| Number of previous NCMs | 0.051 \*\*\* (0.008) | 0.049 \*\*\* (0.009) | 0.051 \*\*\* (0.009) | 0.052 \*\*\* (0.008) |
| GDP growth | -0.083 \*\* (0.034) | -0.079 \*\* (0.040) | -0.082 \*\* (0.034) | -0.098 \*\*\* (0.033) |
| Intercept | -4.780 \*\*\* (0.434) | -4.469 \*\*\* (0.473) | -4.922 \*\*\* (0.470) | -4.920 \*\*\* (0.470) |
| Random Effects | Yes | Yes | Yes | Yes |
| σ2 | 3.29 | 3.29 | 3.29 | 3.29 |
| τ00 | 0.35country | 0.17country | 0.46country | 0.49country |  |
| ICC | 0.10 | 0.05 | 0.12 | 0.13 |
| N | 15country | 15country | 15country | 15country |
| Observations | 6,520 | 6,552 | 6,500 | 6,649 |
| Excluded case | Denmark | Finland | France | Germany |
| Marginal R2 | 0.144 | 0.167 | 0.121 | 0.153 |
| Conditional R2 | 0.226 | 0.207 | 0.228 | 0.262 |
| AIC | 1197.048 | 1072.042 | 1108.314 | 1197.227 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.7.** Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model S15 | Model S16 | Model S17 | Model S18 |
| Reshuffle | 4.352 \*\* (1.717) | 4.699 \*\* (1.846) | 4.261 \*\* (1.735) | 4.391 \*\* (1.719) |
| Effective number of parties | 0.053 (0.100) | 0.062 (0.104) | -0.005 (0.122) | 0.071 (0.098) |
| Reshuffle x Effective number of parties | -1.385 \*\* (0.677) | -1.514 \*\* (0.743) | -1.347 \*\* (0.685) | -1.402 \*\* (0.678) |
| Minority government | 1.213 \*\*\* (0.232) | 1.297 \*\*\* (0.252) | 1.294 \*\*\* (0.248) | 1.190 \*\*\* (0.231) |
| Government tenure | 0.001 (0.008) | -0.001 (0.008) | 0.002 (0.008) | 0.003 (0.008) |
| Number of previous NCMs | 0.051 \*\*\* (0.008) | 0.052 \*\*\* (0.008) | 0.049 \*\*\* (0.009) | 0.051 \*\*\* (0.008) |
| GDP growth | -0.089 \*\*\* (0.034) | -0.098 \*\*\* (0.036) | -0.093 \*\*\* (0.034) | -0.087 \*\*\* (0.033) |
| Intercept | -4.828 \*\*\* (0.441) | -4.967 \*\*\* (0.473) | -4.743 \*\*\* (0.509) | -4.884 \*\*\* (0.429) |
| Random Effects | Yes | Yes | Yes | Yes |
| σ2 | 3.29 | 3.29 | 3.29 | 3.29 |
| τ00 | 0.39country | 0.48country | 0.52country | 0.35country |  |
| ICC | 0.11 | 0.13 | 0.14 | 0.10 |
| N | 15country | 15country | 15country | 15country |
| Observations | 6,504 | 6,530 | 6,581 | 6,523 |
| Excluded case | Iceland | Ireland | Italy | Netherlands |
| Marginal R2 | 0.147 | 0.159 | 0.143 | 0.148 |
| Conditional R2 | 0.238 | 0.266 | 0.260 | 0.231 |
| AIC | 1227.520 | 1110.899 | 1156.583 | 1238.558 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.8.** Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (4)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Model S19 | Model S20 | Model S21 | Model S22 |
| Reshuffle | 4.528 \*\* (1.797) | 4.482 \*\*\* (1.710) | 4.705 \*\* (1.896) | 4.471 \*\* (2.095) |
| Effective number of parties | 0.007 (0.108) | 0.050 (0.106) | 0.043 (0.103) | 0.067 (0.105) |
| Reshuffle x Effective number of parties | -1.451 \*\* (0.709) | -1.411 \*\* (0.673) | -1.552 \*\* (0.760) | -1.438 \* (0.787) |
| Minority government | 1.215 \*\*\* (0.233) | 1.356 \*\*\* (0.239) | 1.393 \*\*\* (0.233) | 1.210 \*\*\* (0.247) |
| Government tenure | 0.002 (0.008) | 0.002 (0.008) | 0.005 (0.008) | 0.005 (0.008) |
| Number of previous NCMs | 0.051 \*\*\* (0.008) | 0.052 \*\*\* (0.008) | 0.052 \*\*\* (0.008) | 0.053 \*\*\* (0.008) |
| GDP growth | -0.090 \*\*\* (0.034) | -0.093 \*\*\* (0.034) | -0.101 \*\*\* (0.033) | -0.083 \*\* (0.034) |
| Intercept | -4.732 \*\*\* (0.478) | -4.977 \*\*\* (0.474) | -4.895 \*\*\* (0.460) | -5.081 \*\*\* (0.480) |
| Random Effects | Yes | Yes | Yes | Yes |
| σ2 | 3.29 | 3.29 | 3.29 | 3.29 |
| τ00 | 0.46country | 0.51country | 0.43country | 0.48country |  |
| ICC | 0.12 | 0.13 | 0.12 | 0.13 |
| N | 15country | 15country | 15country | 15country |
| Observations | 6,532 | 6,726 | 6,721 | 6,507 |
| Excluded case | New Zealand | Portugal | Spain | United Kingdom |
| Marginal R2 | 0.151 | 0.155 | 0.165 | 0.146 |
| Conditional R2 | 0.255 | 0.268 | 0.262 | 0.255 |
| AIC | 1209.315 | 1188.536 | 1203.759 | 1120.614 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

**Table S.9.** Determinants of NCMs (Mixed-Effects Logistic Models) – Alternative reshuffle measures

|  |  |  |
| --- | --- | --- |
|  | Model S23 | Model S24 |
| Individual termination | 1.171 \* (0.706) |  |
| Major reshuffle |  | 7.959 \* (4.098) |
| Effective number of parties | 0.042 (0.105) | 0.027 (0.103) |
| Individual termination x Effective number of parties | -0.215 (0.214) |  |
| Major reshuffle x Effective number of parties |  | -3.139 \* (1.756) |
| Minority government | 1.212 \*\*\* (0.230) | 1.247 \*\*\* (0.231) |
| Government tenure | 0.002 (0.008) | 0.002 (0.008) |
| Number of previous NCMs | 0.051 \*\*\* (0.008) | 0.051 \*\*\* (0.008) |
| GDP growth | -0.087 \*\*\* (0.033) | -0.088 \*\*\* (0.033) |
| Intercept | -4.904 \*\*\* (0.460) | -4.804 \*\*\* (0.452) |
| Random Effects | Yes | Yes |
| σ2 | 3.29 | 3.29 |
| τ00 | 0.43country | 0.45country |
| ICC | 0.12 | 0.12 |
| N | 16country | 16country |
| Observations | 6,991 | 6,991 |
| Marginal R2 | 0.116 | 0.194 |
| Conditional R2 | 0.219 | 0.290 |
| AIC | 1251.212 | 1249.566 |

\*\*\*p < .01; \*\*p < .05; \*p < .1

*Note*: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.