

Is Proportional Representation More Favourable to the Left? Electoral Rules and Their Impact on Elections, Parliaments and the Formation of Cabinets

APPENDIX

1. Data

All our observations are derived from the ParlGov database.¹ We make use of the 2013 version (www.parlgov.org). The data infrastructure provides information about election results, the composition of parliaments and cabinets, and party positions in the post-war era. On this basis we calculate the positions (weighted means) of elections, parliaments and cabinets and add the classification of electoral systems. The following sections provide more information about some of the variables and countries that we cover.

ParlGov includes information about party positions based on party-expert surveys from Castles and Mair,² Huber and Inglehart,³ Benoit and Laver,⁴ and Chapel Hill.⁵ The respective positions (Left/Right, state/market, liberty/authority, anti-EU/pro-EU) are mean values of the positions from the expert survey covering this dimension. Therefore measures of party positions provided in ParlGov are invariant over time. This choice is only problematic if a high number of parties switch positions over time. Most of the party systems we cover are rather stable with no change in the ordinal ranking of parties therein.

¹ Döring and Manow 2013.

² Castles and Mair 1984.

³ Huber and Inglehart 1994.

⁴ Benoit and Laver 2006.

⁵ Hooghe et al. 2010, Steenbergen and Marks 2007;

Some parties are not included in any of the party-expert surveys that ParlGov draws upon. These are mostly parties that took part in some of the early post-war elections or which formed very recently. ParlGov generates party-position data for these parties based on their party-family classification. Imputed party positions are set to the mean value of the respective party-family's position.

2. Variables

TABLE A1 HERE

3. Classification of Electoral Systems

The countries we cover are systematically classified in Lijphart⁶ and Bormann and Golder.⁷ The following paragraphs give some more information about potentially controversial cases. We exclude these controversial cases from some of our models in the multivariate analysis.

Ireland: Some controversy remains with respect to the country. Iversen and Soskice write: "The Irish single transferable vote system (STV) is unique. Although sometimes classified as a PR system, the low constituency size (five or less) and the strong centripetal incentives for parties in the system makes it similar to a median-voter-dominated SMP system."⁸ However Bormann and Golder⁹ classified Ireland as PR, as did Lijphart,¹⁰ and so we follow them.

⁶ Lijphart 1996.

⁷ Bormann and Golder 2013.

⁸ Iversen and Soskice 2006, 173.

⁹ Bormann and Golder 2013.

¹⁰ Lijphart 1996.

Japan: A major electoral reform in 1993 moved the country to a mixed-member electoral system. Under the rules previously employed, members of the Japanese Diet were elected in multi-member districts with three to five representatives per constituency (except for a handful of smaller and larger ones), with the top vote-winning candidates taking those seats and with voters casting one non-transferable vote (SNTV). Under the new two-tier system, 300 MPs are elected in single-member constituencies, another 180 MPs are elected in 11 multi-member districts (with 6 to 29 members). In contrast to Germany's or New Zealand's mixed electoral system, the majoritarian and the PR tier remain completely separated and so there remains a very strong element of plurality. The SNTV rules applied before 1994 exhibited a degree of proportionality, but small district size and the non-transferability made it very different from a normal PR system.¹¹ Lijphart¹² classified Japan's pre-reform electoral system as PR; Bormann and Golder¹³ classified Japan as majoritarian – as do we.

Switzerland: The country has a proportional electoral system but uses a particular form of cabinet government. The multiparty cabinet (Federal Council) is formally elected by parliament but cannot be removed through a vote of confidence. The party composition of the cabinet has been extremely stable, and a fixed distribution of seats ("magic formula") among all the major parties was used from 1959 to 2003.

United States: Iversen and Soskice¹⁴ classify the American electoral system as majoritarian. We excluded it from our study because it is not a parliamentary (or semi-presidential) system and the parliament has no impact on the composition and removal of cabinets.

¹¹ Ibid., Table 4, notes.

¹² Lijphart 1996.

¹³ Bormann and Golder 2013.

¹⁴ Iversen and Soskice 2006.

4. Comparative Manifesto Project Data

An alternative source to the ParlGov data that we use in the study is provided by the Comparative Manifesto Project (CMP).¹⁵ This data source includes information on the policy preferences of political parties and is derived from an analysis of parties' election manifestos. In addition to the many indicators on the salience of particular policy fields, the project provides information about the Left/Right position ("rile" scale), the number of seats and the vote share for almost all of the parties that took part in elections included by the CMP. All countries used in our study are covered by the CMP data and essentially the same time period. However the project does not include information about most parties outside parliament and about the party composition of cabinets. The latter information can be derived by linking CMP and ParlGov data. We can thus derive information about the electoral, parliamentary and cabinet position (weighted means) on the basis of time varying Left/Right party scores provided by the CMP. This data will form the basis for an alternative estimation of the information we provide in our study.

There has been an extensive debate about the reliability and validity of the CMP-based party positions and in particular about the merits of the Left/Right scale. Presenting a systematic review of the debate is beyond the scope (and focus) of our study. Here we draw on Gemenis,¹⁶ who in our view offers a systematic and fair evaluation of the strength and weaknesses of CMP data. He points to three major concerns: document selection, coding reliability and CMP scaling technique. Particularly the last critique is of relevance for our study. The Left/Right measures tend to portray extreme parties as "spuriously centrists" and show an "extreme zigzagging" of

¹⁵ Budge *ea.* 2001; Klingemann *ea.* 2006; Volkens *ea.* 2013.

¹⁶ Gemenis 2013.

party positions between elections (p. 13). The high volatility of the CMP Left/Right party positions has also been of particular concern.

Japan provides a good illustration of some of the trade-offs that the CMP data entails in our study. Since the 1950s the country has been governed almost exclusively by the Liberal Democratic Party (LDP) together with some smaller coalition partners after 1990. Hence the position of the cabinet depends mainly on the LDP Left/Right position. The two expert surveys¹⁷ included in the ParlGov Left/Right measure locate the party significantly to the right (about 8 on a 0 to 10 scale) as does Kitschelt.¹⁸ The CMP-based Left/Right measures, by contrast, regularly put the party to the left while at the same time displaying high volatility in terms of its positions between elections (mean -4.8; sd 11.2). As a consequence, Japan is a country with cabinets consistently to the right according to our study, while being a rather centre-Left country on the basis of the CMP's Left/Right measure. Again the difference is driven entirely by the moderate positions and high volatility of the CMP Left/Right positions for the LDP.

A comparison of the electoral, parliamentary and cabinet position (weighted means, excluding Japan) on the basis of the CMP data (see Figure A1) demonstrates that the cabinet position is to the right of the parliament position, which is to the right of the election position in majoritarian systems, a finding in line with our study. However none of these differences is statistically significant. Variation in the CMP data is based on variation of the Left/Right party positions and differences in the strength (votes or seats) of parties, whereas it is based only on party strength in the ParlGov data due to its reliance on static party positions.

¹⁷ Huber and Inglehart 1995; Benoit and Laver 2006.

¹⁸ Kitschelt 2013.

In addition we have replicated our models in Table 4 on the basis of the CMP data (see Table A5). The case selection differs somewhat between ParlGov and CMP due to minor differences in the time periods covered and variation in the coding of electoral results (especially electoral alliances and parties outside parliament). We derive the election and the parliament mean as well as the effective number of parties to the left and to the right of the mean solely from the CMP dataset and add the cabinet mean from the ParlGov cabinet-composition data and the CMP Left/Right-party-positions data on the basis of the ParlGov party-merge table. We replicate all models from Table 4 of our study and come to similar results for the full models. The cabinet-parliament distance (dependent variable) as well as the distance between election and parliament mean are based on different scales in the ParlGov data (-5 to 5 scale) and the CMP data (theoretically -100 to 100) so that we cannot compare the size-coefficients directly. However all significant coefficients have the same, predicted sign pointing to the robustness of our findings. Nevertheless the results of the CMP-based studies show, on average, a lower significance in some of the models, particularly for separate majoritarian and PR models. For those who remain sceptic with respect to the use of time-invariant data we have restricted our regressions to the time period for which we have – five – waves of expert surveys (from Castles and Mair 1983 to Benoit and Laver 2006). We obtain two major findings. First, these surveys correlate highly. Second, if using the ParlGov data for the time span from 1980 to 2013 all our results hold.

Appendix – References

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Appendix – Figures and Tables

Figure A1 – Replication of Figure 2 with CMP Data (rile scale: -100 to 100)

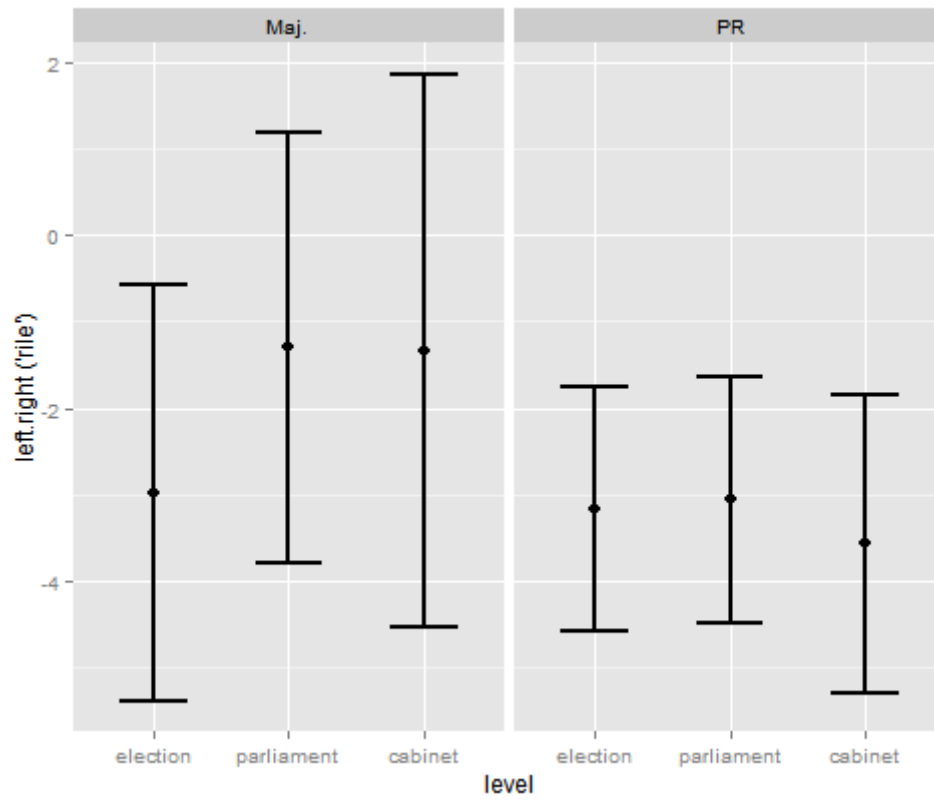


Table A1 – Summary Statistics

description	min	max	median	mean
PR electoral system	0	1	1	0.7
disproportionality index	0.4	25.7	3.7	5.8
election mean	4.1	6.4	5.2	5.2
parliament mean	3.8	7.5	5.3	5.3
cabinet mean	2.5	8.7	5.6	5.6
ENP votes	2	10.3	3.9	4.2
ENP seats	1.5	9.1	3.4	3.6
ENP left of mean position.	1	4	1.6	1.8
ENP right of mean position.	1	5.8	1.8	2

Note: Left/Right party positions weighted by share of seats (votes); ENP – effective number of parties

Table A2: Simultaneous Equation Model (SEM) – Replication of Table 4

	(1) <i>Parliament Mean</i>	(2) Cabinet Mean
Election mean	0.95 ^{***} (0.03)	
<i>Parliament mean</i>		1.26 ^{***} (0.17)
PR	-0.20 ^{***} (0.03)	-0.17 (0.17)
Left-ENP		0.46 ^{***} (0.09)
Right-ENP		-0.23 ^{***} (0.06)
Constant	0.24 ^{***} (0.03)	0.12 (0.21)
<i>N</i>		395
<i>R</i> ²		0.78

Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$; Japan excluded; ParlGov-based Left/Right scale (-5 to 5); CMP Left/Right (“rile”) scale (-100 to 100)

Table A3 – Replication Table 4: Sample of Data with Different Country Selection

	All (Model 1a)	All (Model 1b)	Majoritarian (Model 3)	PR (Model 4)
Left-ENP	0.53 ^{***} (0.15)	0.59 ^{***} (0.21)	0.42 ^{***} (0.10)	0.58 ^{**} (0.22)
Right-ENP	-0.31 ^{***} (0.08)	-0.31 ^{***} (0.09)	-0.43 ^{**} (0.15)	-0.32 ^{***} (0.10)
Elect.-Parl. Distance	0.78 ^{**} (0.32)	0.94 ^{***} (0.32)	1.02 [*] (0.44)	0.38 (0.58)
PR	-0.08 (0.17)	0.01 (0.16)		
Constant	-0.03 (0.23)	-0.23 (0.20)	0.24 (0.39)	-0.17 (0.32)
<i>N</i>	675	578	199	433
<i>R</i> ²	0.169	0.155	0.208	0.137

Country-clustered robust standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Model 1a with Japan, Model 1b without Japan, Ireland and Switzerland (identical to Model 5 in Table 3), Model 3 majoritarian systems with Japan, Model 4 PR systems without Ireland and Switzerland

Table A4 – Replication Table 4: Fixed-Effects Estimation

	All (Model 1)	All (Model 2)	Majoritarian (Model 3)	PR (Model 4)	Sub-Sample (Model 5)
Left-ENP	0.42** (0.16)	0.51** (0.19)	0.76 (0.41)	0.39** (0.18)	0.50** (0.19)
Right-ENP	-0.37*** (0.12)	-0.39*** (0.12)	-0.27 (0.31)	-0.37** (0.13)	-0.40*** (0.12)
Elect.-Parl. Distance	1.37*** (0.42)		1.25 (0.62)	1.51*** (0.45)	1.35*** (0.43)
Constant	0.16 (0.27)	0.14 (0.31)	-0.59 (0.78)	0.27 (0.30)	0.08 (0.28)
<i>N</i>	621	621	145	476	578
<i>R</i> ²	0.132	0.064	0.223	0.094	0.138

Country-clustered robust standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Fixed effects country-electoral systems (two cases for France and New Zealand)

Model 1 is identical to Model 6 in Table 3

Table A5 – Replication Table 3: CMP Data (rile scale: -100 to 100)

	All (Model 1)	All (Model 2)	Majoritarian (Model 3)	PR (Model 4)	Sub-Sample (Model 5)
Left-ENP	2.17** (0.84)	3.51*** (1.05)	0.38 (3.88)	2.65** (1.03)	2.39** (0.87)
Right-ENP	-1.68** (0.81)	-2.36** (0.84)	-7.38** (1.96)	-1.05 (0.69)	-1.84** (0.86)
Elect.-Parl. Distance	1.73** (0.76)		1.52 (1.14)	3.41*** (0.79)	1.69** (0.76)
PR	0.74 (1.58)	-2.18* (1.20)			0.62 (1.70)
Constant PR	-1.95 (1.83)	-0.13 (1.34)	8.33* (3.46)	-3.62 (2.34)	-1.99 (1.85)
<i>N</i>	587	587	138	449	545
<i>R</i> ²	0.143	0.065	0.277	0.120	0.149

Country-clustered robust standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Scale of dependent variable (parliament-cabinet difference) and “Elect.-Parl. Distance” based on CMP Left/Right (“rile”) scale and different to ParlGov-based scale used in all other tables (Japan excluded).