Does switching pay off? The impact of parliamentary party instability on individual electoral performance

Allan Sikk[*]

Sona Golder[†]

Raimondas Ibenskas[‡]

Paulina Salek[‡]

Paper prepared for the presentation at the APSA Annual Meeting, Los Angeles, 30 August – 3 September, 2023

ABSTRACT. Members of parliament who change their parliamentary party group (PPG) affiliation can be motivated by a variety of factors but the desire to improve their electoral prospects is often argued to be the among the most important. But does switching PPG affiliation improve or damage the electoral performance of those involved? We study the changes in electoral performance of Polish MPs involved in parliamentary party instability since the mid-1990s using an original dataset on all instances of switching compiled by the INSTAPARTY (Party Instability in Parliaments, https://instapartyproject.com) project. In addition to analyzing whether the MPs run for the parliament again in the following election, we zoom in on their electoral performance in terms of personal preference votes. We consider the electoral dividends of different types of switching and find that the effect of switching on personal electoral performance depends on the type of switching MPs were involved in.

[*] University College London, School of Slavonic and East European Studies
[†] Pennsylvania State University
[‡] University of Bergen

Introduction: Parliamentary party instability and switching payoffs

The improvement of one's electoral prospects has been argued to be one of the key motivations behind legislative switching and electoral prospects (Mershon 2014: 240). However, the existing literature suggests that party switching can be detrimental to re-election or, at least, the evidence is mixed. Gherghina (2016) notes that in Romania between 1992 and 2008, considerably fewer MPs who had been involved in defections were re-elected to the parliament (1/10 – ¼ depending on the time period) while more than one-third of all incumbents was re-elected. Mershon and Shvetsova (2013: 89) report that in Italy and Russia, switchers were less likely to get re-elected and consecutive switches further reduced the chances of re-election considerably. Similarly, switchers have tended to lose electoral support in the United States (Grose & Yoshinaka 2003) and increasingly over time in Canada (Sevi et al 2018) although the impact depends on the type (reason) for switching as they elicit different responses from voters (Snagovsky & Kerby 2018).[1] Fell (2017) notes that in Taiwan, party switchers pay an electoral price but switching to a PPG (that we refer to as "defection" below) can be electorally more rewarding than becoming independent ("exit"). Switching carries improved electoral prospects for some but not others in Japan (Asano & Patterson 2022). Evidence from a Canadian survey experiment suggests limits to voters' approval of legislative dissent and switching (McAndrews et al 2020) while Cowley & Umit (2023) find that parliamentary dissent has no impact on the electoral performance of incumbents in the UK.

Some existing studies hence suggest that not all types of switching have the same effect on the prospective legislative careers of MPs. In this paper, we go beyond the switching–non-switching dichotomy and the basic distinction between "defection" (i.e. PPG → PPG) and "exit" (PPG → independent). In doing so, we build upon a comprehensive typology developed by Golder et al (2022) which considers three dimensions of switching events:

(a) origin (independent status or PPG)
(b) number (individual vs collective vs most or all of the PPG)
(c) destination (independent status, existing PPG or new PPG)

The five terms of the Polish Sejm analysed in this paper provide ample cases of party instability events, covering all combinations of the three dimensions. While the original categorization also

[1] The types of switches discussed by Snagovsky & Kerby (2018) - Policy, Office, Votes, Booted – differ from the more "institutionally" focussed classification used in this paper.

considers multi-origin switches (collective switches can involve MPs from different PPGs and independents) our focus here is on individual MPs involved in an instability event. Therefore, we use a simplified categorization (Table 1). This is necessary because our unit of analysis is an MP within a parliamentary term as this is the only level at which we can analyse changes in electoral performance. However, switchers keep on switching: it has been common in Poland for MPs to switch several times during a parliamentary term. About a third of the MPs who switched did so several times, 13% of them five or more times and some switched 10 or even more times. While our analysis distinguishes broadly between single switches that are common or of particular substantive interest (e.g. exit vs exit followed by entry vs defection), we have grouped some of the longer but still straightforward switching sequences together with the "easy" switches (see below for more detail and Table A1 in the Appendix for the full list of switching event type sequences).

Table 1. Types of parliamentary party instability

		Number of switchers	
Origin	Destination	One	Several MPs
PPG	Existing PPG	Individual defection	Collective defection/Absorption
	New PPG	Individual split	Split/Relabelling
	Independent	Individual exit	Collective exit/PPG collapse
Independent	Existing PPG	Individual entry	Collective entry
	New PPG		PPG creation

Source: based on Golder et al (2022): 7.

Table 2. Types of switching used in the analysis

	N	%
No switching	2137	82.32
Exit – PPG creation	68	2.62
Split	64	2.47
Exit	63	2.43
Exit - Entry	44	1.69
Defection	41	1.58
Other	179	6.90

In this paper, we distinguish between the following seven forms of switching in which an MP was involved during a parliamentary term:

- **No switching.** Even in Poland's unstable parliamentary system, a vast majority of MPs stayed with their original PPG (Table 2). We include in this category MPs who were only involved in the relabelling of their PPGs. In our preliminary analysis we also found that

Mergers (two or more PPGs establish a new PPG), Absorptions (all members of a PPG join an existing PPG without a name change) and one event of a collective "Merger - Split" sequence[2] led to very similar outcomes to no switching. Therefore, for the sake of simplicity, they are coded here as no switching.

- **Exit – PPG creation**. The most common distinct type of switching was an MP leaving a PPG and, after a period of independence, creating a new PPG together with other independents. The period of independence was typically short (median = 28 days) but varied considerably (from a single day to almost three years).
- **Exit – Entry** is somewhat similar to the previous but instead of entering a newly created PPG, the MP entered an existing one. The period of independence varies from very short spells to 17 months but tends to be longer than in the case of Exit – PPG creation (median = 58 days).[3] We occasionally refer to this simply as "Entry" below because apart from very few idiosyncratic exceptions, entry always follows an earlier exit from a PPG.
- **Defection.** An MP moves from one PPG to another without a period of independence in between. We disregard very common technical hiatus (of one or two days) between the leaving of one group and joining another but in our dataset, we carefully distinguish between Defections with a "technical" period of independence and genuine cases of Exit – Entry.[4]
- **Split.** A new PPG is created by a group of MPs leaving the same PPG (which remains in place).
- **Exit.** An MP becomes independent after leaving a PPG and does not join another PPG until the end of the parliamentary term. This includes some cases with previous switching activity; the qualifying criterion is that the MP remained independent until the end of the parliamentary term.
- **Other.** The residual category includes complex sequences of switches where it is difficult to determine which of the simple categories dominates.

Our primary expectation is that, in line with the literature on re-election, being involved in switching events results in higher dropouts and poorer individual electoral performance. We also anticipate that the impact varies by the type of switching an MP was involved in. Our basic logic

[2] In March 2004, 12 MPs of the recently founded Polish People's Bloc (PBL) merged with the established Polish People's Party (PSL, 31 MPs). The joint PPG broke up back to PSL and PBL just weeks later.
[3] We have added to this category the slightly more complex sequence of Split - Collective exit - Individual entry.
[4] Defection also includes several consequtive defections during a parliamentary term, and some slightly more complicated sequences that we expect to be similar substantively to simpler defections: Individual split (an MP leaving a PPG to join a newly founded PPG), Split - Collective exit – Collective entry - Individual defection, Individual entry - Individual defection, Split - Individual defection, Individual defection - Split, Individual split - Merger

is that highly visible political disloyalty and self-serving behaviour may be punished by voters and MPs who had lost PPG membership were left bereft of various parliamentary and party resources that result in more limited visibility to voters. Therefore, we expect Exit to lead to the worst outcomes because finishing the parliamentary term as an independent usually means that the MP does not benefit from typical resources available for the representatives of political parties. We expect those involved Exit – Entry and Defection to do better because being a member of a party brings with it at least some additional access to parliamentary but also extra-parliamentary resources. However, this is often counterbalanced by an appearance of being disloyal or self-serving that can be punished at the ballot box. We expect this effect to be stronger for Defection as the "cooling-down" period embedded in the Exit – Entry cycle allows the MPs to weigh their options, choose their destination more carefully and, importantly, leave to voters the impression (genuine or not) that the whole move was not secretly pre-planned and they were not unfaithful to their original PPG. We expect Exit – PPG creation and Split to be associated with the best outcomes as the end destination in these cases is a new grouping where the switchers themselves are in control.

We consider five control variables. Most obviously, an MP's preference vote share in one election is likely to be associated with their (1) *performance in the preceding election*. However, we do not expect it to systematically affect the decision to run again. On the one hand, MPs with stronger personal following can be more seasoned and professional politicians not intent on leaving the parliament and, therefore, they may be more likely to run again; we may also expect MPs with low preference vote shares to be more wary of their electoral prospects. On the other hand, big vote magnets in Central and Eastern Europe often run for genuinely new parties that often wane after a meteoric rise (Sikk 2012); more generally, it is common for parties to recruit prominent people from outside the political circles as candidates such as celebrities, journalists, high-profile people from business or civil service (Semenova et al 2013). The MPs elected with low personal preference votes are usually coattails who, benefitting from their new incumbency status,[5] can increase their vote share more easily – that is considerably more difficult for those already successful in terms of personal preference votes.

We also control for (2) *gender*, looking at the overall difference in the re-running rates and performance between women and men, but also in interaction with switching. While similarly to

[5] Incumbency advantage in parliamentary elections has been widely reported in the United States (Ansolabehere et al 2000, Carson et al 2007, 2020, Erikson 2016, Hirano & Snyder 2009, Jacobson 2015, King 1991, Lockerbie 1999, Praino & Stockemer 2018) but also in the UK (Smith 2019) and under proportional/party list systems, for example in Belgium (Bräuninger et al 2023), Ireland (Redmond & Regan 2015) and Turkey (Moral et al 2015).

most parliaments, the Polish Sejm is dominated by men (77% of MPs in the terms analysed here) and this dominance is reproduced by the incumbency dividend, existing literature suggests that once women are elected as MPs, they are as likely tu re-run as their male counterparts and do not underperform them (Allik 2015, Shair-Rosenfield & Hinojosa 2014). Indeed, in the neighbouring Czech Republic, parliamentary incumbency has benefitted female candidates more (Smrek 2020, Stegmeier et al 2014) where the open list system benefits female candidates overall (Stegmaier, et al 2014). The differential impact of party switching on the electoral performance of female and male legislators has not been studied extensively, partly because in Western democracies where switching has been relatively uncommon and the number of female switchers has been insufficient to draw any conclusions (see Sevi et al 2018 on Canada). However, evidence from Nigeria suggests that while male switchers are punished at the ballot box, female MPs electorally benefit from electorally (Agboga 2023). We also consider the length of (3) *parliamentary tenure* following Söderlund & von Schoultz (2023) who demonstrate that in Finland – that, like Poland, uses an open lists electoral system – the personal vote increases more rapidly at the beginning of MPs' career and slows down gradually.[6] In parallel, we consider the (4) *age* of MPs as a control variable for running again as retirement from politics is expected to increase with age. Finally, for the models on re-running, we also consider (5) *early exit from the parliament*, expecting that it is unlikely for MPs who left before the end of the parliamentary term to put forward their names on the ballot again.

The paper proceeds as follows. We first present our dataset of over 2,500 MP tenures and over 1,200 PPG switches in Poland from 2001 to 2019 and describe general trends and patterns of subsequent electoral performance among switchers (of various types) and non-switchers. We introduce our key measures of the dependent variables (running again and change in preference vote share) and control variables, and consider basic bivariate relationships between them. Our statistical analysis proceeds in three stages. We first model re-running for parliament using a logit model and changes in preference vote shares using an OLS model. However, the sample of MPs for whom preference vote shares in a pair of consecutive elections are available is not randomly drawn from: we expect MPs who faced dire or uncertain prospects to be overrepresented among the dropouts. We, therefore, use Heckman's correction or sample selection model (Breen 1996), which corrects for the bias of an observation (MP) not being randomly included in a sample

[6] This builds prominently on the literature on "sophomore surge" in the United States (see Coates 1995, Holbrook & Tidmarch 1991 and Lockerbie 1994)

(running again).[7] Finally, although Poland has experienced many PPG switches, our sample of MPs is still unbalanced as non-switchers outnumber the switchers and, in particular, greatly outnumber switchers of individual types. To mitigate the potential sample bias, we use coarsened exact matching (CEM, Iacus et al 2012) to prune observations to achieve a better balance and greater comparability of the control (non-switchers) and treatment (switchers, switchers of a particular type) groups.[8]

Our results suggest that switching has a broadly negative effect on both standing again and changes in personal electoral fortunes. However, we find that the effects depend on the type of switching that the MP was involved in. *Exiting* MPs are the least likely to stand again but are unlikely to perform worse than non-switchers when they do stand again. MPs who Exit and then Enter (*Exit – Entry*) are as likely as non-switchers to stand again but tend to be punished particularly harshly. We also find that the effect of the control variables is conditional on MPs' switching experience.

Our analysis is based on a dataset of all Polish parliamentary switching events between 2001 and 2019 compiled for the INSTAPARTY: Party Instability in Parliaments project (see Golder et al 2022). The data was originally obtained from roll call lists on the Sejm website (www.sejm.gov.pl) and the dates and types of switches were afterwards ascertained using qualitative information about each individual switching event. The parliamentary switching dataset was matched by MPs' names to the EAST PaC electoral results database (East European Parliamentarian and Candidate Data, n.d.) and with lists of Polish Members of the European Parliament from Wikipedia.

Legislative instability and electoral performance of MPs

About three-quarters of the members of the Polish Sejm between 2001 and 2019 ran again after the end of their parliamentary term (see Table 3). Almost an equal number of increased and decreased their preference vote share (relative to all votes in a district)[9]: $v_{pct} = v_i / \Sigma v_i$. About seven per cent did not run again because they had been elected to the European Parliament or were running for the Senate. Only 15.6% of MPs dropped out altogether. MPs who were

[7] Heckman models are increasingly used in the study of the re-election of MPs, see Asquer (2015), François & Navarro (2017), Hall & Bonneau (2006), Kouba & Dosek (2022) and Pereira & Melo (2015).
[8] CEM is increasingly used in electoral research (see Desmarais et al 2015, Goedert 2014, Hanretty et al 2021, Rudolph & Däubler 2016 and Torikai 2023).
[9] The index bears similarity to electoral vulnerability (André et al 2015) and candidate prominence (Sikk & Köker 2023) but is here used mainly for the purposes of assessing changes in MPs' individual electoral performance.

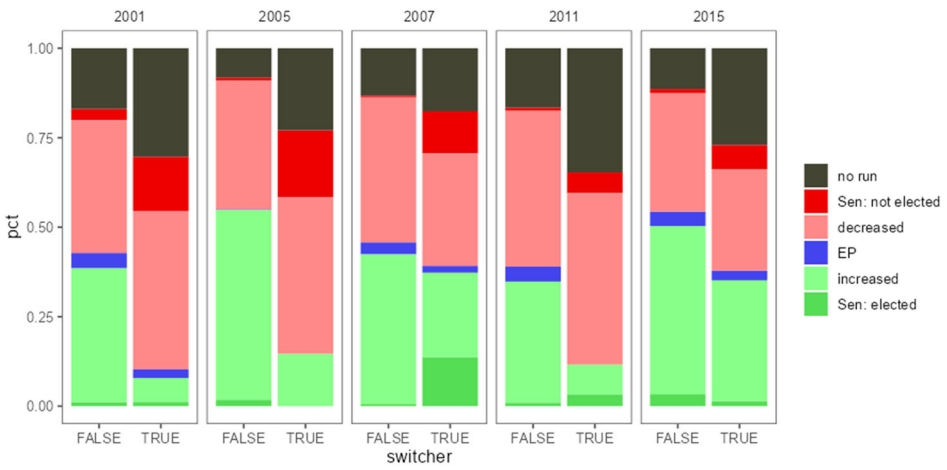
involved in switching were much less likely to gain preference votes[10] than those who were not. Of the former, only 18% increased their preferential vote share while among the non-switchers, 43% did. Considering all MPs, roughly every vote loser was matched by a vote gainer while the ratio was 0.9 for non-switchers and 2.2 for switchers. The switchers were not only more likely to lose support but also more than twice as likely not to run again for the Sejm at all. While some of the latter had been elected to the European Parliament or successfully ran for the Senate,[11] it was considerably more common for switching MPs to run for the Senate unsuccessfully. Hence, the overall electoral returns of switching have been at best uncertain, and the relationship has largely persisted over the five Sejm terms studied here (Figure 1).

Table 3: Subsequent electoral performance of MPs, Polish Sejm 2001-2019

	Non-switcher		Switcher		Total	
	N	%	N	%	N	%
Increased preference votes*	886	42.7	79	18.4	965	38.6
Decreased preference votes*	790	38.1	170	39.6	960	38.4
Did not run	274	13.2	116	27.0	390	15.6
Entered the European Parliament	64	3.1	8	1.9	72	2.9
Ran for the Senate: elected	34	1.6	12	2.8	46	1.8
Ran for the Senate: not elected	25	1.2	44	10.3	69	2.8

* Increase or decrease in the percentage of personal preference votes out of all preference votes in a district.

Figure 1. Electoral performance of switchers and non-switchers, Poland 2001-2019, by electoral term

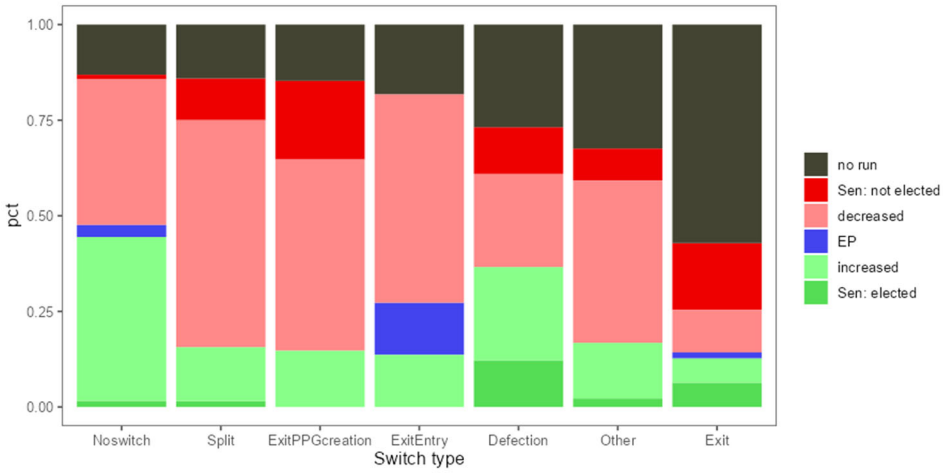


The electoral outcomes of those not involved in any switches have been generally superior to those involved in any kind of switching: almost half of the non-switchers increased their preference vote share or moved on to the Senate or the European Parliament (Figure 2). Among

[10] We exclude here MPs who were only involved in some variant of Relabelling.
[11] These have been grouped together and omitted from the analysis below to reduce complexity.

all groups of switchers, vote share decreases, not running at all or unsuccessfully running for a seat in the Senate (incompatible with running for the Sejm) dominated. However, the relative prevalence of outcomes varies among the groups. This will be analysed further in the regression models below.[12]

Figure 2. Electoral performance, Poland 2001-2019, by switching type



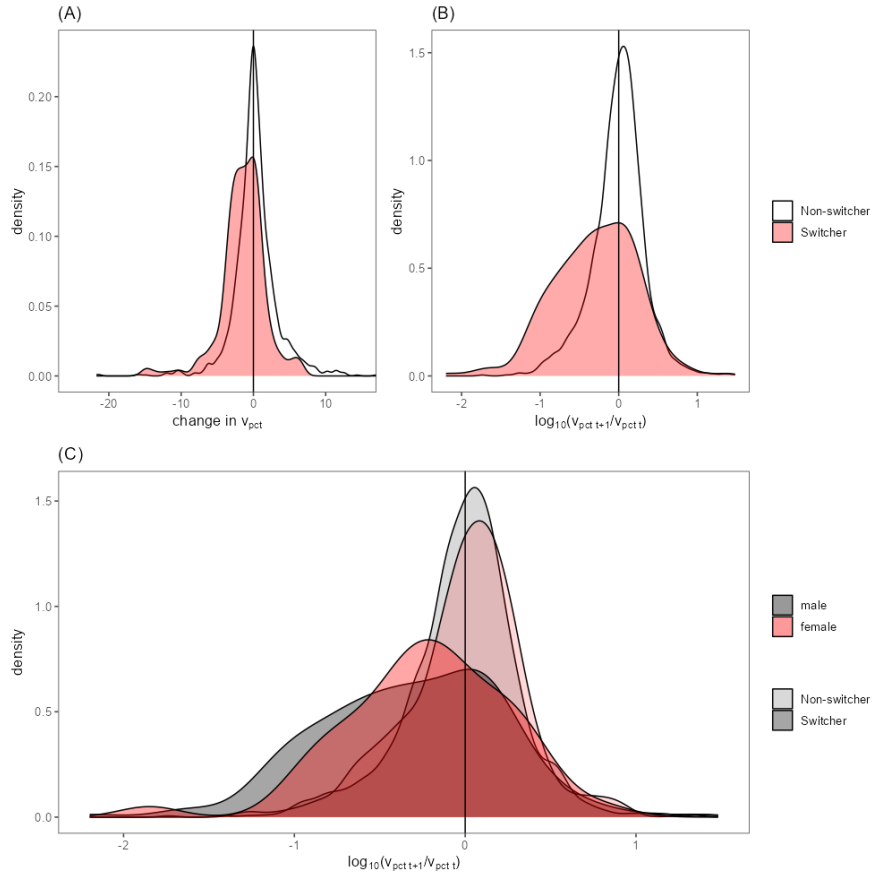
When considering the percentage point change in the preference vote share (Figure 3.A), we see a clear difference between switchers and non-switchers. However, the vote changes are concentrated near the middle of the scale and variance is similar in the two groups as most MPs are unlikely to gain or lose many percentage points of preference votes as 94% of candidates obtained less than 10% of preference votes in their districts. The effect is much clearer in Figure 3.B which shows the logged *ratio* of preference vote share in t+1 and t (the measure of electoral performance change used in the analysis below). The variation is considerably greater among the switchers than non-switchers suggesting that different types of switching may be associated with different electoral performance. Interestingly, female MPs (if they run again) lose on average fewer preference votes than male MPs, although the variation is as wide as for men (Figure 3C).

Contrary to our initial expectations, Defection appears to be the least detrimental to MPs' electoral performance, the distribution of the vote change variable largely overlaps with that for the non-switchers (Figure 4). The distributions for other types of switching overlap: it is worst for Exit – PPG Entry and Split (alongside the mixed category of Other). These are just preliminary results as the vote change variable is based on a (very) biased sample of only those running in the

[12] We have omitted those who successfully entered the Senate (in a by-election or concurrently with the following Sejm election) or the European Parliament from the analysis as their absence from the Sejm electoral slates follows a very different logic from simply not running again. In contrast, we have coded those unsuccessfully running for a Senate seat amongst non-runners although this might substantively fall somewhere between losing support and retirement.

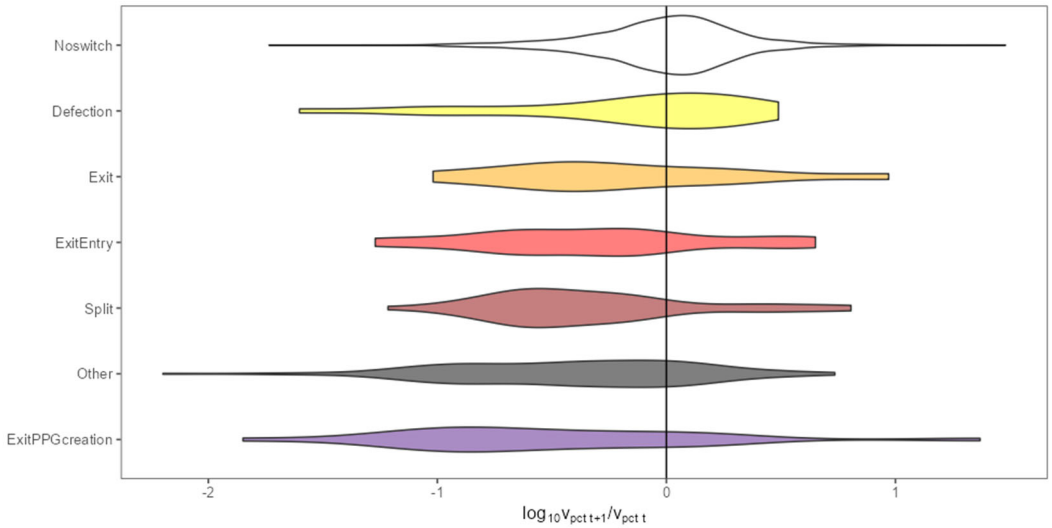
following Sejm election. We are correcting for that using the sample selection model below while also controlling for the impact of the MPs' original preference vote share and their legislative experience.

Figure 3. Vote gains and losses among switchers and non-switchers



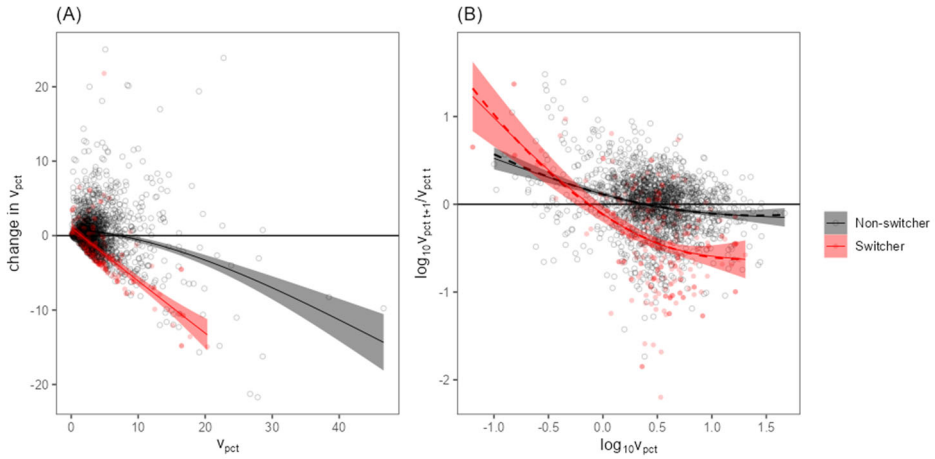
Note: Censored horizontal scale on panel (A), a small number of very small and very large observations not shown.

Figure 4. Distribution of vote change by switch type



Before discussing regression models explaining running again and electoral performance change, we look at the bivariate relationship between the vote change variable and key control variables. We noticed a clear and strong relationship between the starting preference vote share and the vote change variable (Figure 5). Perhaps somewhat counterintuitively, a good initial performance is associated with a *deterioration* in the subsequent performance and a weak initial performance with improvements. However, this is to be expected: MPs are only likely to get elected with low v_{pct} as coattails who then have more space to grow and increase v_{pct} while those who had already accumulated significant personal following may have peaked and are more likely to lose votes; in other words, it is more difficult to improve on an excellent than a meagre result.

Figure 5 Initial preference votes and preference vote change



Note: dashed lines = quadratic fit.

The bivariate scatterplot of a percentage point change in v_{pct} against v_{pct} (Figure 5.A) exposes an awkward pattern, partly because of a hard lower limit: big drops are impossible for less popular candidates while the scale gradually opens up for big vote winners. The relationship is much neater between a logged v_{pct} and the logged ratio v_{t+1}/v_t (Figure 5.B): MPs who win up to 2% ($\log_{10}2 = 0.3$) of preference votes in a district are likely to increase their vote share in the following election, assuming they run again. Figure 5.B strongly suggest that the relationship follows a different trajectory for switchers and non-switchers and a curvilinear relationship. Therefore, in the analysis below we add a quadratic term (dashed lines on Figure 5.B) that almost exactly overlaps with smooth fits.[13]

[13] Figure 5 suggests a difference between switchers and non-switchers. Therefore, we also include interaction terms between switcher status and preference votes (and also parliamentary experience, discussed below); more precisely, we include an interaction term between the variables and a non-switcher dummy that is a reference category for switching

We expect the marginal effect of seniority to decline as the number of terms an MP has served increases: one could expect a bigger difference between a newly elected MP and someone who has served one term than between MPs who have served, for example, five and six terms. We, therefore, log the number of terms served (see Sikk & Vinkel 2021). The number of terms served has a negative impact on personal vote changes (Figure 6). Intriguingly, increased seniority is associated with slightly deteriorating electoral performance among non-switchers while the electoral fortunes of switchers are low across the spectrum.[14] Finally, the age of legislators has a similar effect to seniority: older MPs are more likely to lose rather than gain votes (Figure 7) but this effect may be partly related to the impact of parliamentary experience and previous preference votes, both of which affect the vote change negatively. Still, we expect the age of legislators to have a direct causal effect on running again as older MPs are more likely to retire than younger ones.

Figure 6 The number of terms served and preference vote change

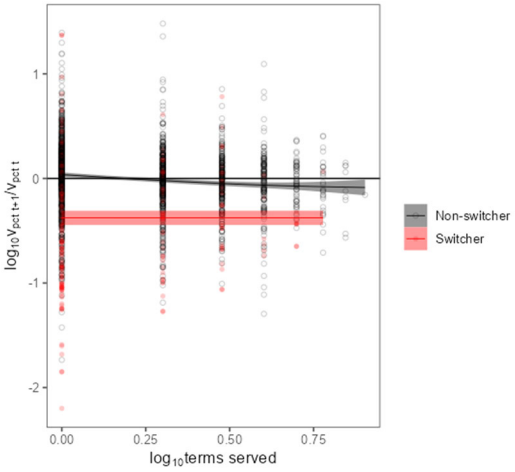
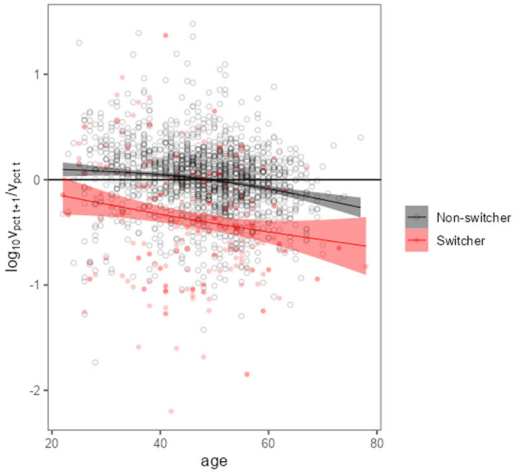


Figure 7 The effect of age on personal vote changes



Our analysis of changes in electoral performance has so far overlooked non-runners. However, as we saw above, dropping out is considerably more common amongst switchers and while they would have arguably been more likely to lose rather than gain votes had they been running again, the extent of losses is impossible to estimate. Therefore, we turn to Heckman's sample selection model (Breen 1996), implemented in R using the *sampleSelection* package (Toomet & Henningsen 2008). In the first step, we model the running again for the Sejm and in the second

types discussed below. Therefore, we do not need a separate dummy for non-switchers which is required in interaction models in general (Brambor et al 2006).

[14] The effects of previous preference vote share and its quadratic term are held up in regression models for the vote share change (Table A2 in Appendix). Remarkably, switchers seem to benefit from parliamentary experience or, more accurately, it offsets the overall negative impact of switching.

step the changes in the preference vote share. Here, we need to avoid excessive overlaps in the set of variables in the first and second steps. We have established earlier that switchers are, overall, less likely to run again than non-switchers and older candidates are more likely to retire than younger candidates. This is clearly borne out in the logit models in Table 4: both age and switching experience affect re-running while previous preference vote share and parliamentary experience, both of which seem clearly relevant for change in personal votes, do not add much explanatory power to the model. Female MPs are, overall, more likely to run again, regardless of whether they were involved in switching or not.[18] The probability of running again drops from 0.93 for a 25-year-old female non-switcher to 0.38 for a 75-year-old male switcher (based on Model 2 in Table 4, v_{pct}= 4.2%, sophomore MPs). Finally, an early exit from the parliament (Model 3 in Table 4) appeas as a strong predictor of not running even though surprisingly few early leavers (only 24%) fail to run again; still it is considerably rarer (12.5%) for those who served till the end of the term. The effect of all other variables remains virtually unchanged when we consider early exits.

Table 4. Running again, logit model

	Model 1	Model 2	Model 3
(Intercept)	2.79 (0.29)***	2.77 (0.29)***	2.97 (0.29)***
age	-0.02 (0.01)***	-0.02 (0.01)***	-0.02 (0.01)***
SW	-1.60 (0.14)***	-1.61 (0.14)***	-1.71 (0.15)***
female	0.35 (0.16)*	0.34 (0.16)*	0.37 (0.16)*
SW*female	0.05 (0.33)	0.05 (0.33)	0.01 (0.33)
$log_{10}v_{pct}$		-1.83 (2.93)	-2.08 (2.96)
$log_{10}v_{pct}^2$		-1.07 (2.69)	-0.46 (2.77)
log_{10}terms		-0.09 (0.25)	0.01 (0.25)
exit from parliament			-0.91 (0.12)***
Nagelkerke R^2	0.107	0.107	0.142
AIC	2178.25	2183.29	2128.73
BIC	2207.13	2229.49	2180.71
Log Likelihood	-1084.12	-1083.64	-1055.36
Deviance	2168.25	2167.29	2110.73
Num. obs.	2383	2383	2383

***p < 0.001; **p < 0.01; *p < 0.05

Notes: SW – switcher dummy

Therefore, we use age and dummies for switching, wome and early exit from the parliament in our sample selection models and use switching (resp switching type), previous preference vote share (incl its quadratic term) and parliamentary experience in the second step, to model the outcome variable of preference vote change (Table 5).[19] Re-running is clearly negatively affected

[18] This contrast findings from Belgian and German local elections where women are slightly less likely to run again (see Slegten & Heyndels 2022 and Baskaran & Hessami 2022).

[19] As the model did not initially converge, we used the SANN maximizer as suggested by Toomet & Henningsen (2008: 19).

by switching experience and age.[20] Furthermore, switching has a negative impact on vote change and this effect is amplified by the original vote share, which has a negative impact on all MPs (confirmed both in Models 1 and 2 in Table 5). We also notice that the marginal effect of the original vote share slows down (the quadratic term is positive and statistically significant) as suggested earlier (Figure 5). The effect is stronger for switchers than non-switchers, as suggested by the interaction between the switcher dummy and the vote change variable (Model 3); in other words, initially popular switchers lose even more than their non-switching counterparts.

Table 5. Sample selection model: running again and personal vote change

	Model 1	Model 2	Model 3
Selection: running again			
(Intercept)	1.68 (0.17)***	1.69 (0.17)***	1.67 (0.17)***
age	-0.01 (0.00)**	-0.01 (0.00)**	-0.01 (0.00)**
SW	-1.01 (0.09)***	-1.01 (0.09)***	-1.01 (0.09)***
female	0.20 (0.09)*	0.20 (0.09)*	0.20 (0.09)*
exit from parliament	-0.55 (0.07)***	-0.55 (0.07)***	-0.55 (0.07)***
SW*female	0.03 (0.20)	0.03 (0.20)	0.03 (0.20)
Outcome: vote change			
(Intercept)	-0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)
$\log_{10}v_{pct}$	-4.83 (0.43)***	-4.78 (0.43)***	-4.00 (0.45)***
$\log_{10}v_{pct}^2$	2.05 (0.40)***	2.02 (0.40)***	1.42 (0.43)***
$\log_{10}$terms	-0.03 (0.03)	-0.03 (0.03)	-0.07 (0.04)*
SW	-0.44 (0.04)***		
female	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)
SW*female	0.16 (0.07)*	0.15 (0.07)*	0.17 (0.07)**
Switch type (reference = Nonswitcher)			
Split		-0.41 (0.06)***	-0.57 (0.07)***
ExitEntry		-0.41 (0.09)***	-0.57 (0.10)***
ExitPPGcreation		-0.45 (0.10)***	-0.56 (0.10)***
Exit		-0.24 (0.11)*	-0.40 (0.11)***
Defection		-0.27 (0.08)***	-0.34 (0.08)***
Other		-0.54 (0.05)***	-0.61 (0.05)***
SW*$\log_{10}v_{pct}$			-7.38 (1.50)***
SW*$\log_{10}v_{pct}^2$			1.87 (1.16)
SW*$\log_{10}$terms			0.55 (0.14)***
sigma	0.35 (0.01)***	0.34 (0.01)***	0.34 (0.01)***
rho	0.12 (0.11)	0.11 (0.12)	0.14 (0.12)
AIC	3508.06	3502.57	3463.57
BIC	3594.70	3618.09	3596.42
Log Likelihood	-1739.03	-1731.28	-1708.79
Num. obs.	2383	2383	2383
Censored	458	458	458
Observed	1925	1925	1925

***p < 0.001; **p < 0.01; *p < 0.05

Notes: vote change variable $\log_{10}(v_{t+1}/v_t)$; SW – switcher dummy

[20] We also discovered that female MPs are somewhat more likely to re-run and less likely to switch PPGs than men. However, the effects are small.

Interestingly, Exit-PPG creation, Exit-Entry and Split have a particularly negative impact on MP's personal vote share while Defection and Exit have no effect when compared to no PPG change. However, this should be interpreted against the background of the selection variable of re-running, which is by far the least likely for Exiting MPs but generally more common for all groups (Figure 2). Thus, when MPs involved in these three types of switches do decide to run again, they often lose personal support while those involved in Defection or Exit, on average, do not experience significant setbacks compared to non-switchers. This is contrary to our original expectations. This may be because a prolonged period between leaving one PPG and joining another (the defining feature of Exit-PPG creation and Exit-Entry) may signal indecision or the MPs may "shop around", settling for a party that is either electorally weak or offer limited support defectors' campaign efforts. The weakened electoral performance of MPs of splinters may reflect the underperformance relative to their (mostly newly formed) parties but the changing electoral fortunes of parties are very difficult to measure in the ever-changing electoral scene of Central and East European democracies, including Poland (see Haughton & Deegan-Krause 2020, Sikk & Köker 2023). Those involved in Defections may fare better because their *immediate* switch can signal an unwavering commitment to the new party which in return may be more willing to support their campaign efforts. If Exiting MPs (who do not join any new PPG) run again under the strongly party-based Polish electoral system they need to do so for a party that is either extra-parliamentary or does not have sufficient representation in the current parliament to establish a PPG.[21] Parliamentary experience is not associated with vote gains or losses when controlling for initial preference vote and PPG switching. However, seasoned MPs who do switch tend to gain personal preference votes or at least offset the potential losses induced by switching: the interaction term between the switcher dummy and the logged number of terms served is positive and compensates for the coefficients of any type of switching.

The sample selection model accounts for the sample bias associated with the difference between MPs who stand again and those who do not. However, our models may also be affected by the lack of comparable counterparts for non-switchers (the "control" group) among switchers (the "treatment" group) – in terms of background characteristics such as parliamentary experience or previous electoral performance. This may bias the results, especially when we consider specific types of switching with fewer observations. To mitigate this issue, we are using a popular

[21] Sometimes the extra-parliamentary popularity of a party does not correspond to its representation in the parliament. Note that we are analysing both proper "Clubs" (that require at least 15 MPs as of 2023) and smaller "Circles" (3 MPs): the former have more procedural rights in the functioning of the Sejm but we contend that both are important partisan formations and considering the dynamics of both give us a fuller picture of party system dynamics and switching patterns.

Coarsened Exact Matching method (Iacus et al 2012) to "prune" cases in the control group (non-switchers) that are not matched by any member of the treatment group (switchers).[22] The pruning was implemented in R using the *MatchIt* package (Stuart et al 2011). We used matching to analyse differences between non- switchers and switchers as well as between non-switchers and the six core types of switchers. We match non-swithers to switchers based on parliamentary experience (six groups: 1-5 terms and 6 or more terms) and preference votes (six groups, up to 0.5, 1.5, 3, 7, 15 and over 15% of all preference votes in a district). This primarily prunes from the analysis some highly experienced and untypically popular/unpopular MPs with no matching observations in the treatment group (and occasionally from the control group).

Pruning removes relatively few observations when we contrast all switchers with all non-switchers as the samples are fairly balanced overall (Model 1 in Table 6). The coefficients change somewhat,[23] but the overall picture does not change substantively. Exit retains the strongest negative impact across the switching types on re-running but the Exiting MPs who re-run, perform only slighlty worse than non-switchers (Model 2). It is expected that MPs who do not join any (parliamentary) party after leaving a PPG are expected to run again but interestingly, the same is also true for Defectors (Model 3). Exit-Entry and Split (Models 4 and 5) have the most negative impact on MPs' vote share but have no statistically significant effect on re-running compared to non-switchers – in other words, these are generally MPs intent on continuing their political careers but tend to be harshly punished at the ballot box. Finally, MPs involved in Exit and (after an interlude as independents), PPG creation, are virtually indistinguishable from non-switching MPs. This may suggest a winning strategy for changing PPG affiliation: exiting a PPG may demonstrate political independence and a hiatus before forming a new PPG, rather than an opportunistic jump into an existing one immediately, signals a fresh start and ability to cooperate with fellow independents.

[22] Even though CEM and its siblings are generally rereferred to as "matching" methods, their primary purpose is to remove ("prune") unmatched observations from the data.
[23] Multiple matches between the treatment and control group are weighted down.

Table 6. Sample selection with Coarsened Exact Matching

	(1) Switching	(2) Exit	(3) Defection	(4) Split	(5) ExitEntry	(6) ExitPPGcreation	Other
Selection: running again							
(Intercept)	1.69 (0.17)***	1.73 (0.21)***	2.30 (0.17)***	1.79 (0.21)***	1.89 (0.25)***	1.79 (0.23)***	1.78 (0.21)***
age	-0.01 (0.00)**	-0.01 (0.00)*	-0.03 (0.00)***	-0.01 (0.00)**	-0.01 (0.01)*	-0.01 (0.00)*	-0.01 (0.00)**
SW	-1.00 (0.09)***	-2.00 (0.21)***	-0.83 (0.22)***	-0.42 (0.22)	-0.38 (0.32)	-0.64 (0.33)	-1.02 (0.13)***
female	0.18 (0.09)*	0.23 (0.09)*	0.20 (0.09)*	0.17 (0.09)	0.21 (0.11)	0.21 (0.10)*	0.18 (0.09)*
exit from parliament	-0.55 (0.07)***	-0.69 (0.08)***	-0.22 (0.07)**	-0.65 (0.08)***	-0.77 (0.10)***	-0.62 (0.09)***	-0.60 (0.08)***
SW*female	0.05 (0.20)	-0.64 (0.72)	-0.65 (0.45)	-0.06 (0.38)	4.22 (700.60)	-0.04 (0.58)	0.34 (0.33)
Outcome: vote change							
(Intercept)	-0.01 (0.02)	-0.02 (0.02)	0.08 (0.01)***	0.00 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)
$\log_{10}v_{pct}$	-4.01 (0.44)***	-3.73 (0.42)***	-2.65 (0.37)***	-3.29 (0.41)***	-2.39 (0.38)***	-3.19 (0.43)***	-2.83 (0.42)***
$\log_{10}v_{pct}^2$	1.34 (0.42)**	1.06 (0.37)**	1.57 (0.36)***	1.32 (0.38)***	1.26 (0.40)**	1.34 (0.38)***	0.89 (0.40)*
$\log_{10}$terms	-0.07 (0.04)	-0.04 (0.04)	-0.00 (0.04)	-0.11 (0.04)**	-0.04 (0.05)	-0.06 (0.05)	-0.03 (0.04)
SW	-0.54 (0.05)***	-0.37 (0.16)*	-0.11 (0.10)	-0.54 (0.09)***	-0.48 (0.12)***	-0.13 (0.17)	-0.64 (0.06)***
female	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	0.02 (0.02)
SW*$\log_{10}v_{pct}$	-7.59 (1.43)***	13.12 (6.55)*	-5.29 (3.04)	-8.84 (2.41)***	-3.12 (3.23)	-6.82 (4.17)	-6.52 (1.95)***
SW*$\log_{10}v_{pct}^2$	1.66 (1.14)	26.32 (7.23)***	2.70 (3.92)	-0.69 (2.33)	-0.45 (2.15)	2.19 (2.59)	1.02 (2.08)
SW*$\log_{10}$terms	0.59 (0.12)***	0.18 (0.53)	0.52 (0.38)	0.53 (0.27)*	0.93 (0.42)*	-0.82 (0.68)	0.77 (0.20)***
SW*female	0.16 (0.07)*	0.22 (0.47)	0.29 (0.20)	0.21 (0.10)*	-0.01 (0.41)	-0.90 (0.23)***	0.29 (0.10)**
sigma	0.34 (0.01)***	0.33 (0.01)***	0.37 (0.01)***	0.33 (0.01)***	0.34 (0.01)***	0.33 (0.01)***	0.33 (0.01)***
rho	0.15 (0.12)	0.14 (0.15)	-0.87 (0.02)***	0.12 (0.17)	0.16 (0.17)	0.11 (0.18)	0.08 (0.17)
AIC	3376.40	2431.28	2144.60	2457.34	1661.02	2248.45	2519.40
BIC	3480.06	2530.84	2242.37	2556.44	1753.20	2346.05	2618.86
Log Likelihood	-1670.20	-1197.64	-1054.30	-1210.67	-812.51	-1106.23	-1241.70
Num. obs.	2342	1865	1689	1818	1238	1672	1855
Censored	447	303	252	273	171	244	305
Observed	1895	1562	1437	1545	1067	1428	1550

***p < 0.001; **p < 0.01; *p < 0.05

Note: The low negative rho values suggest that *unobserved variables* that make MPs more likely to run again is likely to contribute to vote losses.SW – switcher dummy.

Conclusion

This paper adds to the arguments in the literature that party switching is often associated with a deterioration in electoral performance. This suggests that switchers may often not be intent on maximizing their utility – as frivolous metaphors such as "political tourism" or "party hopping" (Norton & Olson 1996: 235, Bowler et al 1999: 16, Semenova et al 2015) might suggest. Rather, many switchers may desperately seek to ensure their political survival and their popularity may suffer in the process; the typical electoral fortunes of switchers do not suggest that we are dealing with rampant careerists.

Switching makes MPs both less likely to stand for re-election and (if they do) less likely to gain personal preference votes. Yet, we have seen that not all types of switching carry the same repercussions as others. While all types of switching are penalized at the ballot box and MPs often (presumably) leave the electoral arena in anticipation, the average magnitude of the impact varies by the type. For example, Exiting MPs (who remain independent until the end of the parliamentary term) are much less likely to re-run than non-switching MPs and those who do are unlikely to perform worse than non-switchers. In contrast, MPs who leave their PPG and join another one after a period of "reflection" or split from their PPG origin to set up a new PPG immediately (Split) are as likely to re-run as non-switchers but tend to be among the hardest punished of all the categories of switchers analysed here. We also find that the more experienced the switching MPs the more likely they are to offset the negative effects, especially if they form a new PPG in the parliament. There are also suggestions that female MPs are somewhat more likely to re-run than their male counterparts[24] and suffer slightly less from switching in terms of preference vote change. Finally, we find that not only do MPs with previously low share of preference votes improve their performance more than already highly popular candidates who are much more likely to lose votes but the effect is stronger for MPs involved in switching.

[24] This cannot be explained by the introduction of gender quotas in 2011 (cf Górecki & Kukołowicz 2014) when the share of female MPs who increased their vote share was considerably higher than for men. Not running again has always been less common among female MPs and improved performance was even more dominant in 2019.

The effects identified in this paper are not necessarily causal. However, this first attempt to identify patterns in the electoral performance of MPs involved in different types of switching in Poland (a country with rich material for analysis) highlights that we need to go beyond a dichotomous classification of switching as different contexts can lead to very different outcomes for the MPs involved.

Bibliography

Agboga, Victor (2023). How do voters respond to party switching in Africa? *Democratization*, published online.

Allik, Mirjam (2015). Who stands in the way of women? Open vs. closed lists and candidate gender in Estonia, *East European Politics*, 31(4): 429-451

André, Audrey, Sam Depauw, and Shane Martin (2015). Electoral systems and legislators' constituency effort: The mediating effect of electoral vulnerability. *Comparative Political Studies* 48(4): 464-496.

Ansolabehere, Stephen, James M. Snyder Jr, and Charles Stewart III (2000). Old voters, new voters, and the personal vote: Using redistricting to measure the incumbency advantage. *American Journal of Political Science*, 44(1): 17-34.

Asano, Masahiko, and Dennis Patterson (2022). Risk, institutions, and policy in decisions to join a start-up party: evidence from the 2017 snap election in Japan. *Japanese Journal of Political Science* 23(1): 34-54.

Asquer, Raffaele (2015). Media coverage of corruption and renomination: Evidence from Italian Parliamentary Elections. PhD Thesis. University of California, Los Angeles.

Baskaran, T., & Hessami, Z. (2022). The gender recontest gap in elections. *European Economic Review*, 145, 104111.

Bowler, Shaun, David M. Farrell, and Richard S. Katz (1999). "Party cohesion, party discipline, and parliaments." In *Party discipline and parliamentary government*, pp. 3-22.

Brambor, Thomas, William Roberts Clark, and Matt Golder (2006). Understanding interaction models: Improving empirical analyses. *Political analysis* 14(1): 63-82.

Bräuninger, T., Däubler, T., & Pilet, J.-B. (2023). Candidate visibility, voter knowledge, and the incumbency advantage in preferential-list PR. *Party Politics*, EarlyOnline.

Breen, Richard (1996). Regression Models: Censored, Sample-Selected or Truncated Data. Richard Breen. Thousand Oaks, CA: SAGE.

Carson, Jamie L., Erik J. Engstrom, and Jason M. Roberts (2007). Candidate quality, the personal vote, and the incumbency advantage in congress. *American Political Science Review* 101(2): 289-301.

Carson, Jamie L., Joel Sievert, and Ryan D. Williamson (2020). Nationalization and the incumbency advantage. *Political research quarterly* 73(1): 156-168.

Coates, Dennis (1995). Measuring the "personal vote" of members of Congress. *Public Choice* 85(3-4): 227-248.

Cowley, P., & Umit, R. (2023). Legislator dissent does not affect electoral outcomes. *British Journal of Political Science*, 53(2): 789-795.

Desmarais, Bruce A., Raymond J. La Raja, and Michael S. Kowal (2015). The fates of challengers in US house elections: The role of extended party networks in supporting candidates and shaping electoral outcomes. *American Journal of Political Science* 59(1): 194-211.

East European Parliamentarian and Candidate Data (EAST PaC), 1985 - 2015. Version 2.0. Funded by Poland's National Science Centre (2012/05/E/HS6/03556).

Erikson, Robert S (2016). The Congressional Incumbency Advantage over Sixty Years: Measurement, Trends, and Implications. In A. Gerber & E. Schickler (Eds.), *Governing in a Polarized Age: Elections, Parties, and Political Representation in America*. Cambridge: Cambridge University Press, pp. 65-89.

Fell, Dafydd (2017). Do party switchers pay an electoral price? The case of Taiwan. *Parliamentary Affairs*, 70(2): 377-399.

François, Abel, and Julien Navarro (2017). "Are Hard-Working MPs Electorally Rewarded? Empirical Evidence from the 2007 French Legislative Elections." *Laboratoire de Recherche en Gestion & Economie Working Papers*

Gherghina, Sergiu (2016). Rewarding the 'traitors'? Legislative defection and re-election in Romania. *Party Politics*, 22(4): 490-500.

Goedert, Nicholas (2014). Political scandal and bias in survey responses. *PS: Political Science & Politics* 47(4): 813-818.

Golder, Sona N., Raimondas Ibenskas, Paulina Salek, and Allan Sikk (2022). "Understanding the Complexity of Party Instability in Parliaments." Presented at the Annual Meeting of the American Political Science Association, Montreal, Canada.

Górecki, Maciej A., and Paula Kukołowicz (2014). Gender quotas, candidate background and the election of women: A paradox of gender quotas in open-list proportional representation systems. *Electoral Studies* 36: 65-80.

Grose, Christian R., and Antoine Yoshinaka (2003). The electoral consequences of party switching by incumbent members of Congress, 1947–2000. *Legislative Studies Quarterly* 28(1): 55-75.

Hall, Melinda Gann, and Chris W. Bonneau (2006). Does quality matter? Challengers in state supreme court elections. *American Journal of Political Science* 50(1): 20-33.

Hanretty, Chris, Jonathan Mellon, and Patrick English (2021). Members of parliament are minimally accountable for their issue stances (and they know it). *American Political Science Review* 115(4): 1275-1291.

Haughton, Tim, and Kevin Deegan-Krause (2020). The new party challenge: Changing cycles of party birth and death in Central Europe and beyond. Oxford: Oxford University Press.

Hirano, Shigeo and Snyder, Jr., James M. (2009). Using Multimember District Elections to Estimate the Sources of the Incumbency Advantage. *American Journal of Political Science*, 53: 292-306.

Holbrook, Thomas M., and Charles M. Tidmarch (1991). Sophomore surge in state legislative elections, 1968-86. *Legislative Studies Quarterly*, 16(1): 49-63.

Iacus, Stefano M., King, Gary, & Porro, Giuseppe (2012). Causal inference without balance checking: Coarsened exact matching. Political analysis, 20(1): 1-24.

Jacobson, Gary C (2015). It's nothing personal: The decline of the incumbency advantage in US House elections. The Journal of Politics 77(3): 861-873.

King, Gary (1991). Constituency service and incumbency advantage. *British Journal of Political Science* 21(1): 119-128.

Kouba, Karel, and Tomas Dosek (2022). Understanding the dual glass ceiling of selecting and electing women candidates: evidence from Latin American mayoral elections. *Contemporary Politics,* 29:3, 298-317.

Lockerbie, Brad (1994). The sophomore surge: conversion, mobilization, or abstention. *Political Research Quarterly*, 47(4): 961-968.

Lockerbie, Brad (1999). The partisan component to the incumbency advantage: 1956-1996. Political Research Quarterly 52(3): 631-646.

McAndrews, John R., Feodor Snagovsky, and Paul EJ Thomas (2020). How citizens judge extreme legislative dissent: Experimental evidence from Canada on party switching. *Parliamentary Affairs* 73(2): 323-341.

Mershon, Carol (2014). 'Legislative Party Switching'. In Shane Martin, Thomas Saalfeld, Kaare W. Strøm, Carol Mershon (eds) *The Oxford Handbook of Legislative Studies*. Oxford University Press.

Mershon, Carol, & Shvetsova, Olga (2013). Party system change in legislatures worldwide: Moving outside the electoral arena. Cambridge University Press.

Norton, Philip, and David M. Olson (1996). Parliaments in adolescence. *The journal of legislative studies* 2(1): 231-243.

Pereira, Carlos, and Marcus André Melo (2015). Reelecting corrupt incumbents in exchange for public goods: Rouba mas faz in Brazil. *Latin American Research Review* 50(4): 88-115.

Praino, Rodrigo, and Daniel Stockemer (2018). The career length and service of female policymakers in the US house of representatives. *Government and Opposition* 53(3): 437-460.

Rudolph, Lukas, and Thomas Däubler. (2016). Holding individual representatives accountable: The role of electoral systems. *The Journal of Politics* 78(3): 746-762.

Semenova, Elena, Michael Edinger, and Heinrich Best (2015). *Parliamentary Elites in Central and Eastern Europe*. London: Routledge.

Sevi, Semra, Antoine Yoshinaka, and André Blais (2018). Legislative party switching and the changing nature of the Canadian party system, 1867–2015. *Canadian Journal of Political Science/Revue canadienne de science politique* 51(3): 665-695.

Shair-Rosenfield, Sarah & Magda Hinojosa (2014). Does Female Incumbency Reduce Gender Bias in Elections? Evidence from Chile. *Political Research Quarterly*, 67(4): 837–850

Sikk, Allan & Philipp Köker (2023). *Party People: Candidates and Party Evolution*, Oxford University Press.

Sikk, Allan & Priit Vinkel (2021). Legislative Debates in the Estonian Riigikogu. In Bäck, Hanna, Marc Debus, M and Jorge M Fernandes (eds.) *Politics of Legislative Debates*. Oxford: Oxford University Press.

Sikk, Allan (2012). Newness as a winning formula for new political parties. *Party Politics* 18(4): 465-486.

Slegten, C. & Heyndels, B. (2022). Sex differences in incumbents' turnover odds: the role of preference vote performance and the party leader's sex. *Acta Politica* 57: 667–686.

Smrek, Michal (2020). Do female legislators benefit from incumbency advantage? Incumbent renomination in a flexible-list PR system. *Electoral Studies*, 66: 102189.

Snagovsky, Feodor, and Matthew Kerby (2018). The Electoral Consequences of Party Switching in Canada: 1945–2011. *Canadian Journal of Political Science/Revue canadienne de science politique* 51(2): 425-445.

Söderlund, P., & von Schoultz, Å. (2023). Trajectories of the personal vote under open-list proportional representation: Evidence from Finland, 1999–2019. *Party Politics*, EarlyOnline.

Stegmaier, Mary, Jale Tosun, and Klára Vlachová (2014). Women's Parliamentary Representation in the Czech Republic: Does Preference Voting Matter? East European Politics and Societies, 28(1): 187–204.

Stuart, Elizabeth A., Gary King, Kosuke Imai, and Daniel Ho (2011). MatchIt: nonparametric preprocessing for parametric causal inference. *Journal of statistical software*.

Toomet, Ott, & Henningsen, Arne (2008). Sample selection models in R: Package sampleSelection. *Journal of statistical software*, 27: 1-23.

Torikai, Masatomo (2023). The Electoral Calculations and Reputation Costs Trade-Off: Renomination and Electoral Performance of Former Autocratic Elites. *Available at SSRN 4374140*. Available at https://ssrn.com/abstract=4374140 or http://dx.doi.org/10.2139/ssrn.4374140 (accessed 11 June 2023).

Appendix

Table A1. Switching event sequences in the Polish Sejm 2001-2019

Sequence	Category	Number of MPs
Split	Split	64
Indiv exit	Exit	49
Coll exit - PPG creation	ExitPPGcreation	20
Indiv exit – entry	ExitEntry	17
Indiv defection	Defection	13
PPG collapse - PPG creation	Other	13
Coll defection	Defection	11
Coll exit	Exit	8
Coll exit - PPG creation - Coll defection	Other	6
Split - Indiv exit	Other	6
Coll exit - PPG creation - PPG collapse - PPG creation	Other	5
Indiv defection - Indiv defection	Defection	5
Indiv exit - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	5
Indiv exit - PPG creation	ExitPPGcreation	5
Coll exit - PPG creation - Absorption	Other	4
Coll exit - PPG creation - Coll exit	Other	4
Coll exit - PPG creation - PPG collapse	Other	4
Indiv exit - Indiv defection	Defection	4
Split - Indiv defection	Defection	4
Coll exit - PPG creation - Merger	Other	3
Coll exit - PPG creation - Split - Indiv exit	Other	3
Indiv entry	Other	3
Indiv exit - Coll entry	ExitEntry	3
Indiv exit - PPG creation - Absorption	Other	3
Indiv exit - PPG creation - Coll exit	Other	3
Indiv exit - PPG creation - PPG collapse - PPG creation	Other	3
Indiv split	Defection	3
PPG creation	Other	3
Coll exit - Coll defection	Defection	2
Coll exit - PPG creation - Indiv exit	Other	2
Coll exit - PPG creation - PPG collapse - PPG creation - Coll exit	Other	2
Indiv defection - Indiv exit	Other	2
Indiv defection - Split	Defection	2
Indiv entry - Indiv exit	Exit	2
Indiv exit - Indiv exit	Other	2
Indiv exit - PPG creation - Indiv exit	Other	2
Indiv exit - PPG creation - Merger - Split - PPG collapse	Other	2
Indiv exit - PPG creation - PPG collapse	Other	2
Indiv exit - PPG creation - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	2
Indiv exit - Split	Other	2
PPG collapse	Other	2
Split - Coll exit - Indiv defection	Other	2

Split - PPG collapse	Other	2
Collective exit – entry	ExitEntry	1
Coll defection - Indiv defection	Defection	1
Coll defection - Indiv exit	Other	1
Coll defection - PPG collapse	Other	1
Coll exit - Indiv defection	Defection	1
Coll exit - Indiv entry	ExitEntry	1
Coll exit - Indiv entry - Relabelling	Other	1
Coll exit - Indiv split - PPG collapse - PPG creation - Indiv defection	Other	1
Coll exit - PPG collapse - PPG creation	Other	1
Coll exit - PPG creation - Coll defection - Indiv defection	Other	1
Coll exit - PPG creation - PPG collapse - PPG creation - Indiv defection	Other	1
Coll exit - PPG creation - PPG collapse - Relabelling	Other	1
Coll exit - PPG creation - Split - PPG collapse	Other	1
Indiv defection - Absorption - Split	Other	1
Indiv defection - Coll exit	Other	1
Indiv defection - Indiv exit - PPG creation	Other	1
Indiv defection - PPG collapse	Other	1
Indiv defection - PPG collapse - PPG creation - Coll exit - PPG creation - PPG collapse - PPG creation	Other	1
Indiv defection - PPG collapse - PPG creation - Indiv defection	Other	1
Indiv defection - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	1
Indiv entry - Coll exit	Exit	1
Indiv exit - Merger - Split - Coll exit	Other	1
Indiv exit - Merger - Split - PPG collapse	Other	1
Indiv exit - PPG collapse - PPG creation - Coll exit	Other	1
Indiv exit - PPG creation - Absorption - Coll defection	Other	1
Indiv exit - PPG creation - Coll defection	Other	1
Indiv exit - PPG creation - Indiv defection	Other	1
Indiv exit - PPG creation - Indiv split	Other	1
Indiv exit - PPG creation - Merger - Split - Indiv defection - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	1
Indiv exit - PPG creation - PPG collapse - PPG creation - Coll exit - PPG collapse - PPG creation - Indiv exit	Other	1
Indiv exit - PPG creation - Split - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	1
Indiv split - Absorption	Other	1
Indiv split - Indiv defection	Defection	1
Indiv split - Merger	Defection	1
Indiv split - Merger - Split - Coll exit	Other	1
Indiv split - PPG collapse - PPG creation - PPG collapse - PPG creation	Other	1
Indiv split - Split - PPG collapse	Other	1
PPG collapse - Indiv exit	Other	1
PPG collapse - PPG creation - Indiv exit	Other	1
PPG creation - Absorption	Other	1
Split - Coll exit	Other	1

Table A2. Regression models for vote change

	Model 1	Model 2	Model 3	Model 4
(Intercept)	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
SW	-0.42 (0.03)***		-0.51 (0.04)***	
female	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)	-0.00 (0.02)
$\log_{10}v_{pct}$	-4.85 (0.43)***	-4.80 (0.43)***	-4.00 (0.45)***	-4.00 (0.45)***
$(\log_{10}v_{pct})^2$	2.06 (0.40)***	2.04 (0.40)***	1.43 (0.43)**	1.43 (0.43)***
$\log_{10}$terms	-0.03 (0.03)	-0.03 (0.03)	-0.06 (0.04)	-0.06 (0.04)
SW:female	0.15 (0.07)*	0.15 (0.07)*	0.16 (0.07)*	0.17 (0.07)*
Switch type (ref = No switch)				
Split		-0.39 (0.06)***		-0.53 (0.06)***
Defection		-0.25 (0.07)***		-0.31 (0.08)***
Other		-0.52 (0.04)***		-0.59 (0.05)***
Exit		-0.23 (0.11)*		-0.36 (0.11)**
ExitEntry		-0.39 (0.09)***		-0.53 (0.09)***
ExitPPGcreation		-0.43 (0.10)***		-0.53 (0.10)***
SW*$\log_{10}v_{pct}$			-7.27 (1.47)***	-6.91 (1.47)***
SW*$(\log_{10}v_{pct})^2$			1.63 (1.13)	1.85 (1.16)
SW*$\log_{10}$terms			0.46 (0.13)***	0.49 (0.13)***
R^2	0.17	0.18	0.19	0.19
Adj. R^2	0.17	0.17	0.19	0.19
Num. obs.	1930	1930	1930	1930

***p < 0.001; **p < 0.01; *p < 0.05

Note: dependent variable $\log_{10}(v_{t+1}/v_t)$, SW: dummy for switchers