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Beyond the second-order national elections model: Incumbency effects in regional elections in the Czech Republic

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ABSTRACT

Literature provides four basic theories to explain regional election results and how they differ from national patterns: authority of regional governments, ethnic or linguistic cleavages, congruence of national and regional electoral systems, and second-order election effects. The second-order national election theory explains why regional elections exhibit lower turnout levels, why government parties lose voter support, and why opposition, minor, and new parties gain support. While second-order election theory provides the dominant explanation for countries with low regional power, we argue in favour of an additional explanation based on incumbency effects on parties' electoral support. We test the explanations on Czech regional and national election data for the years 2000–2020. The results attest to a strong effect of regional governorship, with a bonus of 5 percentage points for parties whose governors run for re-election. Parties also receive another bonus when national-level MPs and local mayors are present on the ballot.

KEYWORDS Regional elections; Czech Republic reward-punishing model; second-order election theory; incumbency advantage; economic voting

Introduction

Four basic theories in scholarly literature explain regional election results and how they differ from national patterns: authority of regional governments, ethnic or linguistic cleavages, congruence of national and regional electoral systems, and second-order election effects. The second-order national election theory provides the point of departure for countries where regional authorities have low powers. It explains why regional elections exhibit lower turnout levels, why government parties lose voter support, and why opposition, minor, and new parties win support (Schmitt and Teperoglou 2017, 63–71).

In the following article, we seek to present additional explanations for the underlying second-order national election model not related to the

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institutional and social characteristics of regions highlighted by the existing theories. Following the logic of retrospective voting, we include regional-level incumbency advantage in our model. As voters evaluate government leaders retrospectively, they evaluate not only national-level but also regional-level leaders. Therefore, we focus on the electoral effects of holding regional-level legislative and executive positions and of the popularity of regional governors (*hejtman*) as heads of the regional executive. Hence, our model includes regional incumbency as a factor of relevance in explaining regional election results.

The above modification of the second-order national election theory and its empirical implications is tested on data from Czech regional elections between 2000 and 2020. Regional elections in the Czech Republic are considered a classic example of second-order elections (Schakel 2015), with an almost complete absence of factors undermining the second-order election logic (Pink 2017). Regional governments are weak politically, with extremely little financial autonomy and a low level of the Regional Authority Index (Hooghe et al. 2016, 422–425). There are no regionally specific political identities in the country, whether based on ethnicity, language, or other characteristics. At the same time, the regional election rules are almost identical to the electoral system in place for the national legislature. Both types of elections use proportional representation (PR) with a 5-per cent electoral threshold. The second-order election logic is further supported by the timing of regional elections, namely in the middle of the national election cycle and in all regions simultaneously. This fact even motivated some authors to argue that the Czech Republic has regional elections without regional politics (Pink 2017).

The explanation presented herein does not question the basic logic of spill-over of political support from the first to the second arena; it merely complements it with specifically regional explanations. Our study demonstrates that parties' fate at the regional level is affected by the perceived performance of national-level government. At the same time, it also highlights the importance of incumbency effects and the composition of the ballot. Regional election results are affected by the partisan structure of regional government, the presence of the governor on the ballot, and the popularity of the regional executive officeholder.

In the theory section, we are going to present the baseline model of second-order national elections and its additions focusing on the role of regional institutions and political identities. In the following section, we present arguments for expanding the explanation of regional election results to include characteristics of regional politics and we formulate our hypotheses. In the fourth section, we account for our data, individual variables, and analytical methods. More specifically, we describe the structure and sources of our dataset, which combines election results, partisan

composition of national and regional governments, public surveys, and economic indicators. The fifth section presents the results of our analyses and hypothesis testing. In the final section, we discuss our results and their implications for the ways regional election results have been explained thus far.

Beyond the second-order election model

The main goal of this study is to present a model in which regional election results and the ways they differ from national patterns are explained in novel ways that go beyond existing approaches. In this model, we emphasize the incumbency advantage of the regional level governor and executive. After introducing the model, we are going to discuss the empirical implications of our theoretical explanation and detail the hypotheses for subsequent testing on Czech data. The starting point of our model consists of the four basic theories used in contemporary scholarly literature to explain differences between regional election results and national patterns: (1) second-order national elections; (2) ethnic or linguistic cleavages; (3) authority of regional governments; and (4) nature of regional- and national-level electoral systems (e.g. Dandoy and Schakel 2013; Golder et al. 2017; Schakel and Jeffery 2013).

The **second-order elections** model treats regional elections as subordinate to the first-order, dominant national arena (for a more detailed introduction, see Schakel 2015, 638–643). In regional elections, much less is at stake in terms of political power, a fact that translates into lower turnout and weaker support for government parties; voters are more likely to vote for opposition, new, small, or regional parties. The mechanisms behind this model include punishing government parties, balancing the national-level power of government parties, and selective non-voting by government party supporters. The intensity of these processes is affected by the timing of national and regional elections. First, it depends on the position of regional elections in the national political cycle (vertical simultaneity) because government parties lose the most support in the middle of that cycle. Second, it depends on the temporal distribution of instances of regional elections (horizontal simultaneity) because second-order election effects tend to be stronger when all regional elections take place simultaneously and weaker when they are held at different points in time (Schakel and Jeffery 2013).

This baseline model is modified by three structural and institutional factors. The first factor affects regions with apparent **territorial identities**. Heterogeneous territorial identities tend to arise based on ethnicity, language, religion, and history. When regional elections take place in such areas, voters tend to free themselves from the first-order (national) arena and apply a different voting logic in regional elections (Jeffery and Hough

2009). In such cases, specific territorial identities are mobilized by non-state-wide parties. The second important factor consists in **decentralization of political power**, which translates into regional governments' authority and financial autonomy. The stronger the authority of regional governments, the more inclined voters are to disrupt the second-order election logic: turnout increases, voters are motivated to evaluate the performance of their regional government, and political actors emphasize regional political issues (Dandoy and Schakel 2013; León 2014; Schakel and Jeffery 2013; Thorslakson 2007). The third factor is represented by the mechanical effect of **electoral system**: differences in electoral results arise when different rules apply to regional and national elections. This happens because electoral systems affect the level of strategic voting, party decisions to enter the contest, and the form of the contest (Golder et al. 2017).

Therefore, existing explanations of regional election results and the ways they differ from national patterns mostly apply the second-order election logic, one that ceases to apply in the context of politically strong regions, strong territorial identities, or divergent electoral systems (Dandoy and Schakel 2013; Schakel 2017; Schakel and Jeffery 2013). While the second-order election logic is rarely questioned, a substantial innovation and addition to the theory was introduced by Schakel's (2015) study. Until then, electoral cycle was considered a sufficient explanation of changes in government popularity, as if governments were faced with an almost natural cycle of popularity. Nevertheless, studies of European Parliament elections had demonstrated that economic variables, rather than the electoral cycle, better explain the variability of support for government and opposition parties (Kousser 2004). In short, economic indicators are stronger predictors of government popularity than political cycle alone. In this sense, Schakel's model uses national-level economic performance to explain the losses of government parties and the gains of opposition or new parties in regional elections. More generally, Schakel's model resembles two retrospective voting theories used to explain state-level elections in the USA: economic voting and national referendum theory (King 2001, 586–587).

The modifications to the baseline model of punishing government parties in second-order national elections focus on stable institutions such as the electoral system or the authority of regional governments as well as on territorial political identities. Thus they ignore regional level characteristics that stem from incumbency advantage and that may add a new dynamic to the basic second-order election model. Therefore, we are going to present in the following section the theories behind and arguments for the claim that the effects of regional politics on regional election results go beyond the classical model of punishing national-level government parties in second-order national elections.

Regional elections and incumbency advantage

Our argument is inspired by various streams of literature which explain sub-national (state-level, provincial or gubernatorial) election results in federal systems like the USA or Argentina (e.g. King 2001; Suárez-Cao 2021). In addition, we utilize literature on the advantages enjoyed by incumbents seeking re-election. This literature focuses on candidate characteristics that are important for electoral success (Erikson 2017). In the following paragraphs, we discuss incumbency advantage and the shape it might take in regional elections with proportional representation electoral system and political parties dominating the electoral process. Then, we discuss how the punishment of national- and regional-level government parties is shaped by the composition of regional government and incumbency advantage. This model comes with a set of empirical implications and expectations that are formulated as hypotheses and will be tested in the empirical section on the example of Czech regional elections.

Both Schakel's revised model of second-order national elections and US literature on gubernatorial elections use the logic of retrospective voting when national executive (government parties in Europe, the presidential party in the USA) is punished in the sub-national elections, especially when the national economy goes bad (typically Atkeson and Partin 1995). However, several studies pointed to the fact that sub-national elections are not only referenda about the national executive, but also about the sub-national executive. Specifically, King (2001) showed the effect of gubernatorial popularity on the gubernatorial vote choice, controlling for the effect of presidential popularity, state economy and partisanship. These results point to the fact that incumbency advantage does not have to be limited only to national-level politics.

The existing body of incumbency advantage literature has primarily explained the effect in majoritarian systems, with the US as the prototypical case (Erikson 2017). According to these works, politicians who seek re-election enjoy an advantage over the challengers. Incumbency advantage is conceptualized as a given politician's bonus that only she enjoys in the election. Such a personal advantage tends to be defined as the number of votes gained by the politician from holding a political office. The office gives her benefits both direct (name recognition, constituency service, pork barrel spending) and indirect (scare-off advantage) (Erikson and Titunik 2015, 102). This research utilizes regression discontinuity design to estimate the size of incumbency effects (Lee 2008). Although PR systems make incumbency advantage much more difficult to determine than majoritarian systems, researchers have studied incumbency advantage both in the single transferable vote (STV) and in open-list PR systems, estimating a substantially weaker incumbency advantage than in majoritarian systems

(Golden and Picci 2015; Liang 2013; Redmond and Regan 2015). However, it should be noted that these applications of regression discontinuity designs applied to personal or preferential votes for candidates, not for the party list as a whole.

In Czech regional elections, incumbency advantage should translate into more votes for parties that were represented in the regional executive authority (the Regional Council) and that held the Regional Governor's office. Contrary to other positions at the regional level, executive positions are professionalized (Bernard and Šafr 2016, 269). If the incumbency advantage argument holds, we should see a hierarchical relationship between the levels of incumbency. Holding the office of highest power should contribute to one's popularity or ability to channel public funding into the region. The Regional Governor's office should bring a higher incumbency advantage than membership in the Regional Council.

H1: The national-to-regional vote share loss suffered by parties represented in the Regional Council will be lower than that suffered by those with no representation (effect of regional ruling).

H2: The national-to-regional vote share loss suffered by parties whose politicians have held the Regional Governor's office will be lower than that suffered by those with no such office (partisan incumbency effect).

To go beyond the individual level of the candidate as a person, incumbency advantage can also be interpreted at the level of the party as whole. Fowler and Hall (2014, 502) define partisan incumbency advantage as the electoral benefit a candidate receives purely because her party is the incumbent party, regardless of whether she previously served. Empirically, they use term limits that force incumbents out of the race to separately estimate the personal and partisan incumbency advantages. In a similar vein, King (2001, 502) shows stronger effects of gubernatorial popularity on gubernatorial vote choice in incumbent races than in open ones. This conceptualization applies to PR systems. Here, incumbent politician's personal advantage translates especially into voting for a party, and preferential (personal) votes, if allowed. Thus personal incumbency advantage manifests itself as partisan incumbency advantage. Following the Fowler and Hall strategy, we differentiate cases when the governor seeks re-election and cases when she retires. We discuss the issue of endogeneity of this design in Section 5.

In PR systems, sources of a governor's incumbency advantage boil down to those with direct effects on party support, i.e. name recognition, constituency service, and pork barrel spending (scare-off advantage loses meaning in PR systems). If the name recognition mechanism works, then the effect of holding the governor's office should be stronger when the governor runs for the same office again (personal incumbency advantages). The gains for parties whose governors do not stand for re-election should be lower

(partisan incumbency advantages). We expect to observe a specific personal incumbency advantage when governors seek re-election and a partisan incumbency advantage when they do not.¹

H3: The national-to-regional vote share loss suffered by parties whose politicians have held the Regional Governor's office and are running for reelection will be lower than that suffered by those with retiring governors (personal incumbency effect).

The positive effect of governorship on a party's electoral gains may be significantly associated with the level of popularity and popular support enjoyed by the Regional Governor. The governor's incumbency effect should be associated with their overall popularity. The more popular they are, the more support for their party they can mobilize.

H4: The national-to-regional vote share loss suffered by parties whose Regional Governors are popular will be lower than that suffered by those with unpopular governors (regional governor popularity effect).

Incumbency advantage, and in particular the mechanisms generating it, is not necessarily associated with incumbency in the given region only. Similar advantages may be available to officeholders from different levels of government as well. For example, a member of the national parliament who chooses to run in regional elections can tap a variety of direct incumbency advantages: their name is more widely recognized based on their activity in national politics, they work in their electoral district, and they influence pork barrel spending. In the context of the Czech 2012 regional elections, Bernard and Šafr (2016) analysed the incumbency advantage of being in an electable position and on gaining at least 5 per cent of preferential votes from candidates' party voters. Their framework allowed for testing the multi-level incumbency effects stemming from various positions at the local, regional, and national levels. Incumbency effects were larger for national and regional-level office holders, esp. if they were in a professional position. Local-level incumbency effects were negligible and largely confined to professionalized office holding in large cities (see also Ryšavý et al. 2015, 53–59). Therefore, we expect MPs from the national level and mayors from the local level to bring some additional votes for their party, based on their votes.

H5: The national-to-regional vote share loss suffered by parties with a current member of national parliament on their list will be lower than that suffered by those with no nominated members of parliament (national MP incumbency effect).

H6: The national-to-regional vote share loss suffered by parties with a current local level mayors on their list will be lower than that suffered by those with no nominated members of parliament (local mayors incumbency effect).

Cases, variables, and methods

The above hypotheses are tested on a dataset that includes the results of the elections to Regional Assemblies in the Czech Republic from the first election in 2000 to the most recent election of 2020 (a total of 6 elections). The percentage vote shares of each party are aggregated for the level of each region. Of the nominal total of 14 administrative regions in the country, our dataset only works with 13. Although the Prague region is legally recognized as an administrative region, we excluded it mainly because the elections to the Prague City Assembly are held at the same time as local elections, namely two years before (or after) the regional elections in other regions. This leaves us with a total of 78 cases of regional elections (6×13).

Our goal is to compare the results of regional elections and preceding elections to the lower chamber of the Czech legislature. Thus we added the results of preceding Chamber of Deputies elections to each case of regional election, combining them into a single case (e.g. the 2004 regional election in the Pilsen Region is combined with the 2002 Chamber of Deputies election in the Pilsen Region). Accordingly, our dependent variable is defined as the difference in electoral support for a party between the regional election and the preceding Chamber of Deputies election in the same region (positive values represent cases when the party's regional election result exceeded that of the national election). Cases when a party only ran for the Chamber of Deputies were excluded from the analysis. We included only parties with at least 1% vote share in the Chamber of Deputies election² and those with at least 1% vote share in the regional election. These conditions were met by 844 of the total number of 1282 parties competing in regional elections. This underlying research design is highly similar to that used by Hix and Marsh (2007) for European Parliament elections and by Schakel (2015) for regional elections.

It may be a difficult exercise to combine the results of elections taking place at different levels and times, especially in the presence of a considerable number of coalitions composed by different parties or given changes to parties' organizational continuity (terminations, mergers, secessions). We defined organizational continuity in the following way:

- For parties that formed a coalition before the regional election but ran independently in the preceding parliamentary election, we aggregated their individual parliamentary election results (the national-level result of such a coalition is represented by the sum of its members' vote shares).
- We also aggregated the 2004 regional election results of two parties, KDU-ČSL and US-DEU, which formed a coalition before the 2002 Chamber of Deputies election and ran independently in the following regional election.

A problem for measuring government party punishment could be posed by pre-electoral coalitions involving both government and opposition parties. However, the dataset contains only one such case of a government party and an opposition party running together in regional elections.³ All other cases of coalitions between parliamentary parties comprised government or opposition parties only, or they involved non-parliamentary parties. In any case, a coalition with at least one national-level government party is treated as a government party.

We added several explanatory variables to the election results (see Table A1 in the Appendix for an overview of variables and descriptive statistics). These primarily include party-specific characteristics for testing the hypotheses derived from second-order election theory (SOET). In terms of national-level political configuration, we distinguish between government, opposition, and new parties, the latter running in their first regional election (the dichotomous variables of *government* and *new party*). *Party size* is measured in terms of the percentage vote share obtained in the preceding parliamentary election. The interaction term of size and government status will help us test whether larger government parties suffer a greater national-to-regional vote share loss than smaller government parties.

Another type of variable characterizes political parties in terms of regional-level incumbency. They serve to test the hypotheses related to incumbency advantage at the regional level. The dichotomous variable of *regional government* indicates parties holding seats in the Regional Council, thus participating in the regional government. Another dichotomous variable, *regional governor*, indicates a party that held the Regional Governor's office in the previous term, referred to as the main regional-level government party. To determine what exactly the variable measures, we added to the dataset information on whether the previous governor seeks reelection. This new variable has three values: *regional governor seeks reelection*, *regional governor retires*, party had no governor. The dummy variables measuring the first two options are included in the analysis with the last option serving as a baseline in the models. Another governorship variable (*regional governor trust*) indicates how popular the Regional Governor was among its constituency. Based on monthly opinion polls from the first nine months of the election year, which inquired about people's level of trust in the governor of their region, we calculated the percentage of those 'definitely' or 'rather' trusting the governor. As a measure of the national MP's incumbency advantage, we count *MPs on the ballot*; we count *local mayors on the ballot* to measure local mayor's incumbency advantage.

The last group of variables includes the economic indicators of change in unemployment, GDP, and inflation. All data is sourced from the Czech Statistical Office. Change in unemployment is calculated as the difference in average general unemployment rate between the year of the regional election and

the previous year. In contrast to Schakel (2015), we use the unemployment change on the regional level. However, the difference between using economic indicators from the national and regional level is negligible. Change in GDP is based on year-to-year volume indices for each region; inflation is based on year-to-year changes as well, however, it is measured only at the national level. Regional unemployment change is the sole variable used in the models presented in the analysis section below, but the models using inflation and GDP to evaluate the robustness of our conclusions for models are presented in the Appendix. We choose the unemployment change for the models below because GDP and inflation are measured on the national level and these measures were not available for 2020. The choice of measure of economic performance, however, does not alter results.

We test our hypotheses using OLS regression models with the national-to-regional change of electoral support for each party as the dependent variable. The dataset is structured into clusters by regions and election years. Therefore, we fit an OLS regression with robust standard errors clustered by regions and years of election (Remmer and Gélinau 2003). The basic equation for the second-order national elections model is as follows:

$$\begin{aligned}
 Y \text{ (results in regional election – national election)} \\
 &= b_0 + b_1 \text{ government} + b_2 \text{ new party} + b_3 \text{ party size} + b_4 \text{ party size}^2 \\
 &\quad + b_5 \text{ party size}^3 + b_6 \text{ party size} \times \text{government}
 \end{aligned}$$

We add further explanatory variables to this equation to test specific hypothesis. Table A1 in Appendix provides an overview of all variables and their basic descriptive statistics.

As a robustness check, we estimate Bayesian multi-level models with similar model specifications as the OLS models with the region, party and election year as level 2 variables to account for the hierarchical nature of the data. The results of these models shown in the Appendix in Table A2 are essentially the same, indicating that our results are robust to the model choice.

Results

We will start the presentation of our results with a basic description of national-to-regional change in electoral support. Then we will use regression models to estimate the effects of independent variables and test our hypotheses.

Descriptive analysis

Table 1 provides a basic overview of the electoral gains and losses incurred by different types of parties in a regional election, compared to the preceding national election, namely for each regional election since 2000. The data

Table 1. Change in vote share between regional and preceding national elections.

	Government			Opposition			Small parties			Turnout
	All	Main	Other	All	Main	Other	All	New	No seat	
2000	-18.5	-18.5	N/A	10.7	-2.1	12.8	7.7	7.5	0.2	33.7
2004	-16.2	-16.5	0.2	13.1	12.9	0.2	9.0	6.8	2.2	29.8
2008	-12.6	-10.9	-1.7	3.6	2.0	1.7	10.1	9.8	2.0	40.2
2012	-20.5	-7.3	-13.1	8.8	0.4	8.4	19.6	13.0	6.7	37.2
2016	-2.2	-5.9	3.7	-14.9	-5.3	-9.7	17.2	13.3	3.9	34.8
2020	-10.0	-9.4	-0.6	4.1	2.1	1.9	9.5	9.8	-0.5	38.2
Total	-13.3	-11.4	-2.3	4.2	1.7	2.6	12.2	10.0	2.7	35.6

Source: Czech Statistical Office, own calculations.

Note: Categorization of parties: 1. government = in national parliament + in government office; 2. opposition = in national parliament + NOT in government office; 3. no seat party = participated in previous national parliament election, but not represented; 4. new party = did not participated in previous national election.

Based on parties that gained at least 1 pct of votes in regional or parliamentary election.

substantiate the fundamental claim of SOET and corroborate previous studies that characterized Czech regional elections as such (Pink 2017; Pink and Eibl 2018; Šaradín 2008; Schakel 2015). Voter turnout in regional elections ranged between 30 and 40 per cent. The mean value of 36 per cent is more than 25 percentage points under the average turnout in Chamber of Deputies during the same time.

As a rule, government parties achieved lower vote shares in regional regions than in the preceding Chamber of Deputies elections. The average loss amounted to 13 percentage points, yet the main government parties lost the most (11 percentage points on average, compared to only 2 percentage points lost by minor government parties). Social Democrats (ČSSD) were the main government party in the 2000, 2004, and 2016 regional elections, whereas conservative liberal ODS was the main government party in the 2008 and 2012 regional elections. Populist party ANO was the main government party in the 2020 regional elections. On several occasions, Christian Democrats (KDU-ČSL) were in junior government position (2004, 2008, 2016 regional elections). Moreover, small centre- and right-wing parties were part of government coalition in the 2004, 2008, 2012 and 2016 regional elections.

There was even a case when minor government parties achieved higher support than in the parliamentary election: ANO as a smaller government party increased its vote share in the regional election of 2016.⁴ Also interestingly, the national-to-regional electoral loss of minor government parties reached 13 percentage points in 2012. This was primarily due to the complete collapse of voter support for Public Affairs, a new party that had briefly participated in the national government. These divergent results from the years 2012 and 2016 remind us of the important role of the national electoral cycle in regional electoral support and specific trajectories of new parties support (Emanuele and Sikk 2021).

The vote shares of opposition parties in regional elections were higher than in preceding parliamentary elections. There were little differences between the main opposition party and others, with average gains around 2 percentage points achieved by both types of opposition parties. The opposition party gains observed in 2016 contradict the expectations of classic SOET: the relatively high combined loss of 15 percentage points compared to the preceding parliamentary election was suffered by all opposition parties relative to their size.

As support for national-level government and opposition parties changes between a national election and the subsequent regional elections, most regional governments tend to be formed by national-level opposition parties. Studies of regional-level coalition formation in the Czech Republic show that regional coalition politics is dominated by national-level patterns of party competition (Bäck et al. 2013; Debus, Müller, and Obert 2011).

In addition to government and opposition parties, other minor parties win substantial voter support in regional elections. For presentation purposes, we differentiate those parties by whether they ran in the preceding parliamentary election. Thus we distinguish between parties with no parliamentary seat (had run in the preceding parliamentary election but won no seats) and new parties (had not run in the preceding parliamentary election); the latter also includes those running repeatedly in regional elections. The vote share of non-parliamentary parties in regional elections is only 3 percentage points above that in the preceding parliamentary elections. In contrast, new or non-statewide parties gain an extra 10 percentage points on average.

Multivariate analysis

The descriptive analysis suggested that most of the national-to-regional electoral losses are incurred by the main government party, while minor government parties lose less. It also showed that opposition party gains might not be as dependent on party size because there are little differences between the gains of the main and other opposition parties. Before proceeding to test our hypotheses, we are going to describe our data in terms of the baseline SOET model with economic voting, which includes the party's government status, size, and regional unemployment change. In addition, we include interactions between status and size and between status and regional unemployment change (Model 1, Table 2). The relationship between size and change in electoral support exhibits the expected pattern, with larger government parties losing the most.

Model 1 also shows the effect of economic performance on government parties' losses in regional election.⁵ The variables in the model behave as expected. The positive effect of unemployment change means that opposition parties win higher regional electoral support when unemployment has

Table 2. Second-order election model, economic voting, and incumbency advantage.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	1.69*** (0.22)	0.27 (0.23)	0.48* (0.21)	0.49* (0.20)	0.45* (0.22)	0.48* (0.20)
Government	0.13 (0.89)	-0.42 (0.83)	0.20 (0.77)	0.22 (0.79)	0.33 (0.77)	0.15 (0.80)
New party	1.71*** (0.42)	2.02*** (0.43)	1.80*** (0.43)	1.80*** (0.42)	1.83*** (0.43)	1.82*** (0.42)
Party size	-0.01 (0.04)	-0.06 (0.04)	-0.09* (0.04)	-0.08* (0.04)	-0.08* (0.04)	-0.09* (0.04)
Government × Party size	0.54*** (0.10)	0.55*** (0.11)	0.52*** (0.11)	0.55*** (0.11)	0.53*** (0.11)	0.54*** (0.12)
Unemployment change	-0.40*** (0.06)	-0.40*** (0.05)	-0.44*** (0.05)	-0.45*** (0.05)	-0.45*** (0.06)	-0.44*** (0.05)
Government × Unemployment change	-2.21*** (0.36)	-2.08*** (0.37)	-1.73*** (0.38)	-1.76*** (0.42)	-1.71*** (0.39)	-1.77*** (0.42)
MPs on ballot		0.44 (0.36)	0.57 (0.37)	0.66+ (0.38)	0.54 (0.38)	0.66+ (0.38)
Mayors on ballot		0.22*** (0.03)	0.22*** (0.03)	0.22*** (0.03)	0.22*** (0.03)	0.22*** (0.03)
Regional government		1.86** (0.61)				0.38 (0.51)
Regional governor			5.00*** (1.17)			
Regional governor retires				0.66 (1.27)		0.40 (1.30)
Regional governor seeks reelection				6.38*** (1.28)		6.13*** (1.26)
Regional governor trust					0.12*** (0.03)	
Num. Obs.	717	717	717	717	717	717
R ² Adj.	0.364	0.496	0.526	0.540	0.528	0.540

Note: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

grown over the past year. The negative values of the government status–unemployment interaction term mean that government parties lose support in regional elections when unemployment has grown over the past year (see [Figure 1](#)).

Our regional-level incumbency advantage hypotheses (H1–H4) are tested by the following series of five models presented in [Table 2](#). Any substantively and statistically significant effects of variables related to incumbency advantage will explain SOET and economic voting. When a party has held seats in the regional government, its vote share in regional elections is almost 2 percentage points above parties with no such seats (Model 2). A large part of this effect is caused by the bonus of almost 5 percentage points obtained by the governor’s party (Model 3). If both variables are modelled simultaneously (model 6), participation in regional executive without governor position leads to insignificant and substantially small effects. Therefore, hypothesis H2 is supported by the data, while H1 is not.

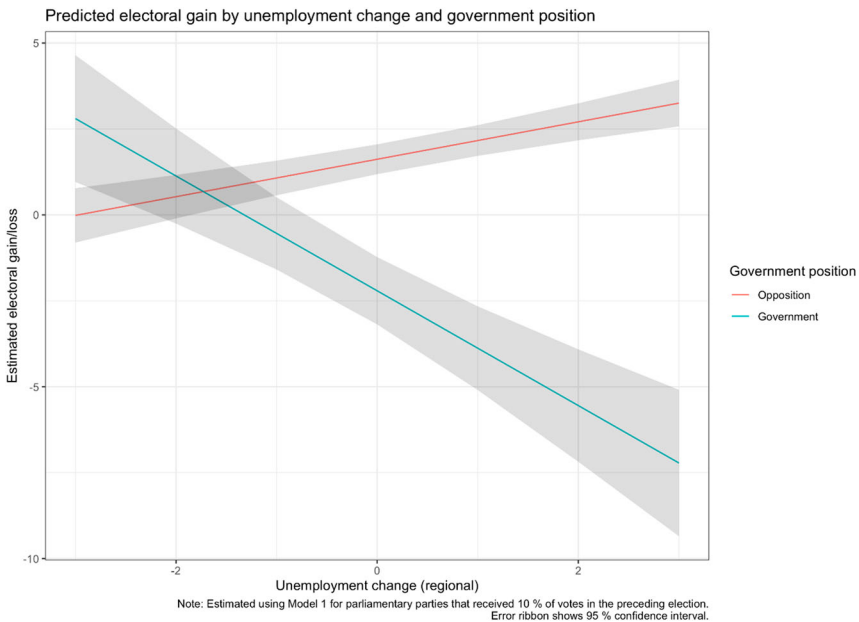


Figure 1. Effect of economic performance by government position. Source: Czech Statistical Office, own calculations. Note: Estimated from Model 1, Table 2.

Subsequent analyses sought to determine whether above-mentioned incumbency effect applies rather to parties or to governors personally. Accordingly, we distinguish between governors running for re-election and retiring ones. If the incumbency advantage is linked to the governor personally, the incumbency effect should primarily occur when the governor seeks re-election and can rely on his/her personal incumbency advantage. In contrast, positive regression coefficient for retiring governors would indicate the presence of partisan incumbency advantage. The analyses show additional electoral gains of up to 6 percentage points for governor's parties when the governor runs for re-election but almost no bonus for retiring governor's parties. Personal incumbency advantage trumps partisan one.

The finding above can be problematized by the argument that retirement primarily affects governors with low levels of popular support and, conversely, only popular governors seek re-election. For example, party members may choose not to renominate a negatively viewed governor, or such a governor may withdraw from the race to avoid defeat (the so-called strategic retirement). Thus, we compared the levels of trust in governors indicated by opinion polls in the run-up to regional elections. There was almost no difference in trust for the two types of governors: almost 40% of citizens trusted retiring majors and 41% those seeking re-election. In other words, the effect of governors seeking re-election on the electoral support for

their party seems not to be caused by deselection of unpopular governors. Hypothesis H3 is supported.

The last model in [Table 2](#) (Model 5) analyses whether the personal incumbency effect of a governor is associated with her general popularity. The more popular a governor, the higher support for the party they win. A percentage point increase in trust in the governor is accompanied by a 0.11 percentage point increase in vote share for the governor's party. This means that even parties with relatively unpopular governors, such as those trusted by 30%, gain a bonus of more than 3 percentage points compared to parties without the governor's office. However, if a governor is popular and trusted by 45% of population in the region, the party gain increases to almost 5 percentage points. H4 about the effect of trust in the governor is supported. Model 6 in [Table 2](#) models the effect of regional level incumbency simultaneously. Only personal incumbency advantage of re-running governors retains substantive effect, whereas being junior coalition partner at the regional level does not bring any independent effect.

Models 2–6 presented in [Table 2](#) contain two variables indicating incumbency advantage of local level and national level officeholders. The presence on the ballot of incumbents from both levels of governance seems to have a positive effect on the party support. An MP on the ballot leads to 0.7 percentage point increase of the party vote, while a mayor on the ballot leads to 0.2 percentage point increase. Average ballot contained around six mayors on the ballot which leads to 1.2 percentage point difference, compared to the ballot without any mayor. These results support hypotheses H5 and H6.

To evaluate our modification of second-order national election theory, we compare the explanatory power of the baseline model (Model 1) with the full incumbency advantage model (Model 6) and its various specifications (Models 2–5). This will help us ascertain the potential contribution of each component to better understanding regional electoral results and their differences from preceding parliamentary elections. The comparison reveals that the SOET explanation with economic voting exhibits an adjusted R^2 of 0.37 (Model 1, [Table 2](#)). Adding variables that indicate the number of MPs and mayors on the ballot leads to adjusted R^2 of 0.47 (separate model not presented). The best model fit of various regional level incumbency effects provides a model specification that allows for testing the personal and partisan incumbency advantage (governor re-running, governor not running, no governor). R^2 of this model was 0.54. After including indicators of the composition of regional government and governorship, the level of adjusted R^2 stays at 0.54 (Model 6 in [Table 2](#)), an explanatory power of 17 percentage points above the second-order election model. We believe that these results support the argument that political personal on the ballots (and especially having the governor on it) should be taken into account in

explanations of regional electoral results and their differences from parliamentary elections.

Robustness check

We took the following steps to estimate the robustness of our results. First, we estimated our models with different economic variables. We reran the same models presented in Table 2, but instead of unemployment change at the regional level, we used GDP change at the regional level and inflation change at the national level. The economic variables work in the expected direction, with voters punishing government parties for decreasing GDP and growing inflation (see Tables A3 in Appendix). Second, we estimated our models on a dataset of parliamentary parties only (see Table A4 in Appendix). Here again, the substantive effects of the variables do not deviate from the models above. Third, we ran our models without incumbency variables, so that we could include also the first regional elections in 2000. The effects of variables stay same (see Table A5 in Appendix).

Fourth, we reflected on the fact that the last two regional elections were held at later dates. Whereas the regional elections of 2000–2012 took place less than two-and-half years after the Chamber of Deputies election, the lag increased to three years for the regional elections of 2016 and 2020 (see Pink and Eibl 2018). According to the findings of Schakel and Jeffery (2013), the vote share losses of government parties culminate in the middle of the national electoral cycle; the closer the regional election day is to the national parliamentary election, the lower the losses incurred by government parties. Moreover, this relationship is the strongest in countries with weak regional administrations. After including a dichotomous variable for the last two elections and its interaction with government status, we find that voters did punish government parties less in those elections. The effects of other variables remain unchanged (see Table A6 in Appendix).

Discussion and conclusion

This study has investigated the incumbency effects on the electoral support in the Czech regional elections. More specifically, we started with the baseline model of second-order national elections that explains regional election results through the lens of national politics. Thus, in regional elections, government parties lose more votes than opposition ones. This is the explanatory model of choice for countries where regional administrations possess limited authority, serving primarily to redistribute central-level funding and provide infrastructure (Schakel and Jeffery 2013). As the same characteristics apply to the country featured in the present case study, the Czech Republic, there is no surprise that our findings support this interpretation. This warrants the basic

perspective that regional politics is primarily driven by national-level political developments.

Nevertheless, our study brings attention to the fact that incumbency effects are important addition to explanations of regional voting patterns. In this sense, we join those students of regional elections who seek to venture beyond methodological nationalism (see Jeffery and Wincott 2010). In mainstream approaches, the regional political arena is only treated as independent when substantial authorities have been conferred upon regional governments or in the presence of ethnic, linguistic or national cleavages. Our study emphasizes that regional government structure and incumbency need to be reflected. The theoretical argument and empirical analyses presented herein demonstrate that voter support in regional elections depends on whether a party participates in regional government, whether it holds the regional governor's office and runs for re-election, and whether its governor is popular. The attention paid to regional-level political personal helps us substantially improve the general explanation of regional election results. Moreover, the analysis points to other forms of incumbency advantage in regional elections. Having an MP and a mayor on the ballot in regional elections brings additional votes to parties.

Importantly, we have been able to show the effects of characteristics of regional governance on regional election results even in contexts that should be dominated by national politics and its dynamics, where the former characteristics should be of little significance. Indeed, the system of regional government in the Czech Republic represents the typical case for applying the second-order election logic. Being able to demonstrate the role of regional incumbency in such a case warrants a reasonable expectation that those same factors will be at work in other cases – even in political contexts that provide more room for independent regional politics.

Notes

1. With some simplification, the governor incumbency situation can be described in terms of US incumbency advantage studies: a *sophomore surge* occurs when the governor runs for reelection and a *retirement slump* when they do not.
2. For parties forming coalitions before the regional election, the 1% vote share conditions had to be met by at least one of the parties in that regional coalition.
3. This was the 2016 Karlovy Vary Region list of Mayors and Independents with support from the Karlovy Vary Civic Initiative, KDU-ČSL, and TOP 09. At that time, KDU-ČSL was part of the national government of PM Sobotka while the remaining parties were in the opposition.
4. For more on the specific context of the 2016 regional elections, see Pink and Eibl (2018).
5. The only interaction term related to the state of economy used in our models is that between government party and the economic indicator. In contrast, Schakel (2015), for example, uses the interaction term between the economic

indicator and government, opposition, and new party. There are two reasons to believe that our specification is more suitable. First, voters primarily evaluate government parties because they are unable to follow the hypothetical counterfactual situation of opposition parties involved in the government (Bechtel 2012, 173). Second, there is no need to differentiate because similar interaction effects are exhibited by opposition and other non-government parties; this is also the case of Schakel's (2015, 648) models.

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Appendix

Table A1. Overview of variables and descriptive statistics.

Name	Min.	Mean	Median	Max.	SD	Count
Vote difference (per cent)	–25.23	0.28	1.02	38.57	6.25	844
Party size	0.00	8.77	4.97	40.79	9.92	844
Government	0.00	0.20	0.00	1.00	0.40	844
New party	0.00	0.12	0.00	1.00	0.32	844
Unemployment change (national)	–1.00	–0.07	0.30	0.60	0.64	844
Unemployment change (regional)	–2.50	–0.08	–0.10	3.00	1.15	844
GDP growth (national)	–0.78	2.34	2.54	4.81	2.02	704
GDP growth (regional)	–7.30	1.79	2.10	9.10	3.07	704
Inflation	0.70	3.15	3.30	6.30	1.76	704
Regional government	0.00	0.23	0.00	1.00	0.42	717
Regional governor	0.00	0.08	0.00	1.00	0.27	844
Regional governor trust	0.00	3.75	0.00	66.67	12.26	717
MPs on ballot	0.00	0.27	0.00	4.00	0.59	844
Mayors on ballot	0.00	6.18	3.00	57.00	8.53	844

Table A2. Robustness check: multi-level models.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	2.06 (0.82–3.43)	0.41 (–0.88–1.92)	0.70 (–0.77–2.32)	0.71 (–0.83–2.41)	0.67 (–0.86–2.38)	0.76 (–0.67–2.40)
Government	0.72 (–0.96–2.30)	0.75 (–0.71–2.27)	1.63 (0.20–3.05)	1.53 (0.12–2.96)	1.72 (0.27–3.13)	1.66 (0.26–3.08)
New party	1.79 (0.38–3.21)	1.99 (0.76–3.24)	1.84 (0.67–3.06)	1.84 (0.68–3.02)	1.86 (0.66–3.06)	1.80 (0.61–2.99)
Party size	0.04 (–0.03–0.11)	–0.01 (–0.08–0.05)	–0.05 (–0.12–0.01)	–0.06 (–0.12–0.01)	–0.04 (–0.11–0.02)	–0.05 (–0.11–0.02)
Unemployment change	0.50 (0.13–0.84)	0.51 (0.17–0.86)	0.39 (0.06–0.72)	0.44 (0.12–0.75)	0.37 (0.06–0.70)	0.44 (0.11–0.75)
Government × Party size	–0.58 (–0.66 – –0.50)	–0.58 (–0.66 – –0.50)	–0.62 (–0.70 – –0.55)	–0.62 (–0.69 – –0.55)	–0.64 (–0.71 – –0.57)	–0.63 (–0.70 – –0.56)
Government × Unemployment change	–2.09 (–2.71 – –1.48)	–1.80 (–2.39 – –1.22)	–1.25 (–1.81 – –0.69)	–1.31 (–1.85 – –0.76)	–1.26 (–1.81 – –0.71)	–1.30 (–1.85 – –0.75)
Regional government		0.82 (0.05–1.59)				–0.70 (–1.52–0.08)
MPs on ballot		0.40 (–0.07–0.87)	0.50 (0.05–0.95)	0.57 (0.14–1.02)	0.45 (0.01–0.89)	0.56 (0.13–1.01)
Mayors on ballot		0.21 (0.17–0.26)	0.20 (0.16–0.24)	0.20 (0.16–0.24)	0.20 (0.16–0.24)	0.20 (0.16–0.24)
Regional governor			4.52 (3.55–5.51)			
Regional governor retires				1.32 (–0.36–2.99)		1.71 (–0.02–3.45)
Regional governor seeks reelection				5.47 (4.43–6.49)		5.85 (4.74–6.96)
Regional governor trust					0.11 (0.09–0.13)	

(Continued)

Table A2. Continued.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Random effects						
σ^2	10.92	9.99	8.86	8.60	8.77	8.54
T_{00}	12.43 party 0.07 region	8.24 party 0.05 region	7.90 party 0.05 region	7.76 party 0.05 region	7.92 party 0.05 region	7.99 party 0.05 region
ICC	1.00 year 0.55	1.54 year 0.50	2.19 year 0.53	2.14 year 0.54	2.22 year 0.54	1.96 year 0.54
N	172 party 5 year 13 region	172 party 5 year 13 region	172 party 5 year 13 region	172 party 5 year 13 region	172 party 5 year 13 region	172 party 5 year 13 region
Observations	717	717	717	717	717	717
Marginal R^2 /Conditional R^2	0.48/0.70	0.57/0.72	0.59/0.75	0.60/0.76	0.59/0.76	0.59 / 0.76

Note: 95% confidence intervals are in parentheses.

Table A3. Robustness check: different economic performance variables.

	GDP regional		GDP national		Inflation rate	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	1.59*** (0.21)	0.68*** (0.21)	1.58*** (0.25)	0.67** (0.24)	0.37 (0.24)	-0.64** (0.21)
Government	2.05+ (1.14)	1.00 (1.06)	1.42 (1.20)	0.00 (1.14)	5.53*** (1.53)	5.13*** (1.42)
New party	2.08*** (0.44)	1.61*** (0.47)	2.08*** (0.43)	1.62*** (0.48)	1.94*** (0.43)	1.51** (0.46)
Party size	0.01 (0.03)	-0.08* (0.04)	0.01 (0.03)	-0.08* (0.04)	0.00 (0.03)	-0.11** (0.04)
Economy	0.01 (0.03)	-0.06 (0.05)	0.01 (0.05)	-0.04 (0.08)	0.43*** (0.07)	0.50*** (0.08)
Government × Party size	-0.56*** (0.06)	-0.53*** (0.06)	-0.58*** (0.06)	-0.55*** (0.06)	-0.53*** (0.06)	-0.51*** (0.06)
Government × Economy	0.22 (0.15)	0.35* (0.16)	0.58* (0.26)	0.85*** (0.25)	-1.04*** (0.27)	-1.17*** (0.22)
Regional government		0.60 (0.71)		0.24 (0.72)		0.97 (0.68)
Regional governor retires		1.04 (1.44)		1.21 (1.46)		1.00 (1.43)
Regional governor seeks reelection		6.19*** (1.44)		6.24*** (1.51)		6.63*** (1.39)
MPs on ballot		0.84 (0.58)		0.90 (0.56)		0.72 (0.57)
Mayors on ballot		0.20*** (0.03)		0.21*** (0.03)		0.19*** (0.03)
Num. Obs.	704	577	704	577	704	577
R ² Adj.	0.427	0.512	0.431	0.520	0.443	0.536

Note: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A4. Robustness check: only parliamentary parties.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	0.00 (0.66)	−3.03*** (0.71)	−0.95 (0.81)	−0.93 (0.79)	−2.59*** (0.70)	−2.53*** (0.65)
Government	2.76* (1.10)	2.79** (1.02)	1.99* (0.97)	2.03* (0.97)	2.97** (1.00)	2.89** (0.99)
Party size	0.10** (0.04)	0.13*** (0.04)	0.02 (0.03)	0.03 (0.03)	0.10** (0.03)	0.10** (0.03)
Unemployment change	1.69*** (0.25)	1.55*** (0.20)	1.34*** (0.25)	1.41*** (0.25)	1.48*** (0.21)	1.53*** (0.21)
Government × Party size	−0.58*** (0.05)	−0.58*** (0.06)	−0.56*** (0.05)	−0.57*** (0.05)	−0.60*** (0.06)	−0.60*** (0.06)
Government × Unemployment_change	−3.18*** (0.46)	−3.07*** (0.42)	−2.51*** (0.49)	−2.58*** (0.52)	−2.77*** (0.44)	−2.85*** (0.48)
MPs on ballot		0.57 (0.35)	0.42 (0.36)	0.51 (0.37)	0.61+ (0.36)	0.73* (0.37)
Mayors on ballot		0.25*** (0.04)	0.23*** (0.04)	0.22*** (0.03)	0.25*** (0.04)	0.24*** (0.04)
Regional government		1.24+ (0.65)				0.15 (0.59)
Regional governor			3.78*** (0.92)			
Regional governor retires				−0.11 (1.35)		−0.71 (1.45)
Regional governor seeks reelection				5.05*** (0.99)		4.38*** (0.99)
Regional governor trust					0.08*** (0.02)	
Num. Obs.	417	365	417	417	365	365
R ² Adj.	0.49	0.51	0.56	0.58	0.52	0.54

Note: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A5. Robustness check: without regional level incumbency variables (includes also first 2000 elections).

	Model 1	Model 2
(Intercept)	1.66*** (0.19)	0.33+ (0.20)
Government	1.10 (0.91)	0.57 (0.86)
New party	2.01*** (0.39)	2.00*** (0.37)
Party size	0.00 (0.03)	-0.02 (0.03)
Unemployment change	0.48*** (0.09)	0.50*** (0.11)
Government × Party size	-0.48*** (0.05)	-0.47*** (0.05)
Government × Unemployment change	-1.97*** (0.37)	-1.90*** (0.39)
MPs on ballot		0.38 (0.32)
Mayors on ballot		0.24*** (0.03)
Num. Obs.	844	844
R ² Adj.	0.42	0.53

Note: $\wedge + p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A6. Robustness check: with election cycle variable.

	Model 1	Model 2
(Intercept)	0.48* (0.20)	1.19*** (0.22)
Government	0.15 (0.80)	-1.94* (0.83)
New party	1.82*** (0.42)	1.78*** (0.43)
Party size	-0.09* (0.04)	-0.09* (0.04)
Regional government	0.38 (0.51)	0.51 (0.49)
Regional governor retires	0.40 (1.30)	-0.05 (1.34)
Regional governor seeks reelection	6.13*** (1.26)	5.57*** (1.35)
Unemployment change	0.54*** (0.12)	0.32** (0.10)
MPs on ballot	0.66+ (0.38)	0.56 (0.39)
Mayors on ballot	0.22*** (0.03)	0.22*** (0.03)
Government × Party size	-0.44*** (0.05)	-0.44*** (0.05)
Government × Unemployment change	-1.77*** (0.42)	-1.23*** (0.33)
Electoral cycle change		-1.68*** (0.23)
Government × Electoral cycle change		5.04*** (0.67)
Num. Obs.	717	717
R ² Adj.	0.54	0.57

Note: $\wedge + p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.