

Dimensions of Politics in the Czech Republic*

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Abstract

This article deals with the dimensions of politics in the Czech Republic since the state's establishment in 1993 until 2017. It utilizes MPs' votes by roll call in the Chamber of Deputies, which is the polity's centre of gravity. The analysis suggests that two principal drivers shape Czech politics – an ideological (socio-economic left vs right) dimension and an institutional (government vs opposition) division. Due to the changing forms of the ruling cabinets, the dimensionality oscillates between unidimensional and two-dimensional (with a specific phase of as many as three relevant dimensions between 1998–2002). Periods of right-oriented majority cabinets result in a unidimensional competition composed of a merged ideological dimension and an institutional division. Stages of left-oriented majority cabinets ideologically split the opposition camp and highlight the unique role of the socio-economic dimension separated from the still dominant institutional division. During the rule of both left- and right-oriented minority cabinets, political competition is mainly driven by the ideological cleavage since the conventional institutional patterns diminish.

Keywords: Czech Republic; Chamber of Deputies; parliament; dimensionality; roll call; spatial modelling

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1. Introduction

Parliaments are cardinal institutions of modern liberal democracies. Studies on legislatures elucidate many puzzles about the legislative behaviour of individual MPs, whole parties and parliamentary chambers in general. Scholars utilize the newest methods of analysis, such as research on votes by roll call, and besides other issues, they frequently focus on the dimensionality of politics in particular countries (e.g. Poole, Rosenthal 1991; Rosenthal, Voeten 2004; Hix et al. 2006; Hix, Noury 2016).

However, similarly comprehensive studies on the dimensions of politics in the Czech Republic have been missing. This fact is even more startling since some episodes of Czech

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parliamentary history may serve as a valuable case study thanks to the regime's stable institutional setting, politically diverse past and easily accessible data (see Hix, Noury 2016).

Thus, I portray a complex picture of parliamentary politics in the Czech Republic since the state's establishment. The goal is to answer the following research question: 'What are the dimensions of parliamentary politics in the Czech Republic?' To do this, I follow Hix and Noury's (2016) research design, since the two scholars are interested in the very same research question (but dealing with shorter time periods in a larger number of countries).

In ideological terms, there is broad agreement that Czech politics is mainly driven by a socio-economic left-right conflict (Hloušek, Kopeček 2008; Linek, Lyons 2013; Linek et al. 2016). Similarly to other political scientists, I treat this dimension as the owner-working class cleavage (see Hloušek, Kopeček 2008). Additionally, politics in modern liberal democracies are also influenced by a specific government-opposition conflict, which I call the institutional division. I call it a 'division' (not a dimension) intentionally since it works under a different logic than a regular dimension does.¹ This dynamic does not necessarily correspond to the ideological cleavage. Even though the concept of the institutional division is rather new to political science, it is commonly utilized (e.g. Hansen 2009; Jones et al. 2009; Zucco Jr. 2009; Glencross, Trechsel 2011; Hix, Noury 2016). The presence and interaction of these two drivers depend on both the political (left- vs right-oriented) and institutional (majority vs minority) character of the cabinet in power (Cox, McCubbins 2005; Hix, Noury 2016).

I focus on a lower chamber of the Czech parliament, the Chamber of Deputies, which is the regime's political centre thanks to the country's asymmetrical bicameralism (Vodička, Cabada 2011). I utilize deputies' votes by roll call from the very beginning of recording on 1 December 1993 to 16 October 2017. Overall, I analyse 46,707 roll calls of 1,486 deputies, completely covering the first seven finished parliamentary terms.

The analysis suggests that two principal conflicts shape Czech politics – the ideological (left vs right) dimension and the institutional (government vs opposition) division. Due to changing forms of ruling cabinets, the dimensionality oscillates between a unidimensional and a two-dimensional setting. In 1998–2002, there was just one specific period of as many as three relevant dimensions. During the term, attitudes towards European integration became politically influential thanks to accession negotiations between the Czech Republic and the European Union (Roberts 2003; Hloušek, Kopeček 2008; Lyons, Lacina 2009).

On the one hand, when right-oriented majority cabinets lead the government, the competition in the chamber is typically unidimensional. The reason for this is that the ideological dimension and the institutional division merge. On the other hand, periods of left-oriented majority cabinets split the opposition camp between the communists, who were too anti-system to participate in the government, and the right-wing parties. As a result, the institutional division is still the most crucial, but the ideological dimension becomes more significant. Last but not least, in the case of minority cabinets, both left- as well as right-oriented, competition is driven mainly by the ideological cleavage, as the classical institutional conflict is diminished.

2. Diverse Evolution of Politics in the Czech Republic

To study Czech politics, I deal with the lower chamber of Czech parliament, the Chamber of Deputies, which was established in 1993 after the dissolution of Czechoslovakia. Thanks to the asymmetrical bicameralism of the Czech parliamentary regime, the legislative body is the institutional and political core of the polity (Vodička, Cabada 2011; Brunclík, Kubát 2016). The chamber consists of 200 deputies elected for four years using the party-list proportional representation system.

Concerning the dimensionality of politics, Hix and Noury (2016) argue that the form of government (minority vs majority) is one of the key independent variables. Thus, I briefly depict the diverse evolution of executive politics in the Czech Republic. Undoubtedly, I cannot replace some of the exhaustive descriptions of Czech political history (see, e.g. Kopeček 2010; Vodička, Cabada 2011; Kopeček 2015). Here, I only present information essential for the following research.

Table 1 summarizes all political cabinets (not caretaker ones) with the confidence of the Chamber of Deputies during the first seven parliamentary terms.²

Table 1: Political Cabinets in the Czech Republic with the Confidence of the Chamber of Deputies (1993–2017)			
Term	Prime Minister	Governmental parties	Majority cabinet (majority's surplus)
1 Jan 1993 ^{a)} – 2 Jul 1996	Václav Klaus	ODS-KDS, KDU-ČSL, ODA	✓ (4)
4 Jul 1996 – 30 Nov 1997	Václav Klaus	ODS, KDU-ČSL, ODA	✗ (-2)
22 Jul 1998 – 12 Jul 2002	Miloš Zeman	ČSSD	✗ (-27)
15 Jul 2002 – 1 Jul 2004	Vladimír Špidla	ČSSD, K	✓ (0)
4 Aug 2004 – 25 Apr 2005	Stanislav Gross	ČSSD, K	✓ (0)
25 Apr 2005 – 16 Aug 2006	Jiří Paroubek	ČSSD, K	✓ (0)
9 Jan 2007 – 26 Mar 2009	Mirek Topolánek	ODS, KDU-ČSL, SZ	✓ (-1+2) ^{b)}
13 Jul 2010 – 17 Jun 2013	Petr Nečas	ODS, TOP09, VV ^{c)}	✓ (17)
29 Jan 2014 – 5 Dec 2017	Bohuslav Sobotka	ČSSD, ANO, KDU-ČSL	✓ (10)
<p>^{a)} The establishment of the Czech Republic (the cabinet was originally in power since 2 July 1992).</p> <p>^{b)} The right-oriented coalition of the three parties held only 100 seats, but two Social Democratic MPs supported the cabinet.³</p> <p>^{c)} In 2012, VV was replaced by its fraction called LIDEM.</p> <p>Note: The terms last from the cabinet's naming to its resignation. Ruling parties are ordered according to the number of their deputy mandates. Majorities' surpluses in the brackets equal 101, a majority threshold in the 200-seat chamber, subtracted from the number of deputy mandates held by a cabinet right after the designation. Solid horizontal lines mark the parliamentary elections.</p> <p>Source: (Czech Statistical Office 2018; Vláda ČR 2018).</p>			

As Table 1 shows, executive politics in the Czech Republic has had both majority as well as minority cabinets. Additionally, three out of five majority cabinets held only a slight majority (three cabinets between 2002–2006 are counted hereafter as one since the coalition remained unchanged). This put pressure on the coalitions' cohesiveness and accentuated institutional voting. Furthermore, there has been a regular alternation of right- and left-oriented cabinets. Altogether, these factors predetermine Czech politics to be a valuable research case thanks to the changing form and ideological background of the cabinets, but with a constant institutional setting.⁴

Overall, I distinguish three stages of party politics in the Czech Republic – its consolidation (until 1998), stability (1998–2010), and recent transformation (since 2010). This differentiation is closely related to the evolution of the Czech party system (Balík, Hloušek 2016: 114).

To be more specific, the first phase of consolidation began in the former Czechoslovakia. Right after the democratic Velvet Revolution in 1989, many political parties and movements started to form. The politics of the time were ideologically heterogeneous and fragmented. Despite this, the liberal-conservative Civic Democratic Party (ODS) gained more than one-third of all deputy mandates in the 1992 legislative election. Subsequently, the party managed to build a majority coalition cabinet, which was the first to rule after the establishment of the Czech Republic in 1993.

However, the party system continued to be fragmented even after the 1996 election. Additionally, the persistence of two anti-system parties (one communist and one radical right) limited the options of forming potential coalitions. Thus, after 1996, ODS led the very same coalition cabinet as before, albeit a minority one. The tense atmosphere in the chamber culminated in 1997 after a series of scandals concerning the party's financing. Václav Klaus was forced to step down and Josef Tošovský's technocratic cabinet was appointed in 1998.

The second phase was initiated by the snap election in 1998. Since only five parties entered the chamber, both the party system and the politics as such consolidated, and a previously unknown stability commenced. To be more specific, there were four steady party pillars of this stability – ODS, the Social Democrats (ČSSD), the Communists (KSČM), and the Christian Democrats (KDU-ČSL). In 1998, ČSSD celebrated the first victory of a left-wing party since the revolution. Nevertheless, mainly because of personal antipathies, no party was able to form a majority cabinet. Therefore, Miloš Zeman decided to preside over a single-party minority cabinet tolerated by ODS under the so-called 'opposition agreement'⁵ (Roberts 2003; Kopeček 2015).

During the following years, the party system concentrated even more thanks to a (Quad-) Coalition (K) of smaller centre parties facing the challenge of a partnership between ČSSD and ODS. In 2002, ČSSD repeated its victory and constructed a minimal winning majority cabinet with the parties of K. The coalition maintained this format, although the prime ministers changed twice. The subsequent 2006 election resulted in a 'perfect' stalemate of 100 seats for both left and right. The minimal winning coalition cabinet of Mirek Topolánek (ODS) was approved by the chamber after the eight-month gridlock thanks to two turncoats. However, the uncertain legislative majority culminated in a vote of no confidence in 2009. Another technocratic cabinet, presided over by Jan Fischer, was appointed.

The electoral ‘earthquake’ in 2010 commenced the third phase – transformation. It weakened both of the largest parties, kept KDU-ČSL out of the chamber, and provided new parties with leeway to shine (Hanley 2012). Electoral volatility, especially, increased notably. In spite of this, a right-oriented minimal winning coalition was formed by ODS and two new parties – TOP 09 and VV. The cabinet was being undermined by scandals, and it was the corruption affair of Petr Nečas’s closest adviser that finally forced the cabinet to resign.

The brief period of the third technocratic cabinet of Jiří Rusnok was followed by the 2013 early election. The trend of party system transformation was confirmed, as two new parties entered the legislature. The new minimal winning coalition was composed of ČSSD, led by Prime Minister Bohuslav Sobotka, ANO, and KDU-ČSL. The coalition successfully survived the entire parliamentary term, carrying through a number of its policies. Internal crises came to the surface only before the 2017 parliamentary election.

3. Consequences of Different Forms of Government

Every cabinet seeks to implement its policy. However, majority and minority government options for having a dependable voting majority are not the same. Consequently, the form of government is expected to affect the dimensionality of political competition. This contrast has been well described in the literature (e.g. Strøm 1984, 1990; Poole, Rosenthal 1991; Hix, Noury 2016; Louwerse et al. 2017).

To start with, majority cabinets hold enough seats in a legislature to vote through their proposals by outvoting the opposition camp. More importantly, majority cabinets enjoy the power to restrict the legislative agenda. In the Czech Republic, majority cabinets traditionally fill not only ministerial positions but also the majority of the lower parliamentary chamber’s and committees’ presidency and vice-presidency seats. These institutions are essential in setting the legislative agenda and majority cabinets make use of it (Kopecký et al. 1996).

In theory, such a situation corresponds with the *cartel agenda model* suggested by Cox and McCubbins (2005). The model assumes that agenda control limits the set of possible policy outcomes. This is because the agenda cartel will prevent a proposal from being placed on the agenda if the outcome on the floor is further from the cartel’s most-preferred policy than the status quo (Hix, Noury 2016).

As a result, deputies in plenary sessions vote mostly on the proposals that have been accepted beforehand by the cartel representing an interest of a government. Thus, differences between an opposition and a government shape the politics on the floor. It is important to realize that the cartel can be much smaller than the parliamentary majority (government). To explain this, the agenda is restricted by a few stakeholders who block bills that would result in policy changes that a majority of the majority opposes (Cox, McCubbins 2005).

However, the cartel will still allow some decisions to be taken as late as on the plenary floor if the position of the legislative majority on a proposal is not clear. Thanks to this, some decisions made during a plenary session will differentiate between government (including the cartel) and opposition, while others will be based on an ideological contrast between

left and right. Hence, Hix and Noury (2016: 252) point out that ‘the cartel agenda model predicts a mix of majority-bloc (government) versus minority-bloc (opposition) voting and policy-based (left-right) voting’. Nonetheless, the institutional voting prevails.

Minority cabinets, on the other hand, work under a different logic, represented by the *floor agenda model*. Cox and McCubbins (2005: 44) argue that under this setting ‘the bills to be considered on the floor are determined by majority on the floor’. Then, the result of such voting depends on ‘a choice between the location of the status quo and the policy proposed by the median floor member’ (Hix, Noury 2016: 251). Compared to the cartel agenda model, there is only a limited power that restricts voting on a proposal, which is usually assessed during a plenary meeting.

The floor agenda model describes strictly ideological voting without any preliminary influence of gatekeepers, since there are none. Therefore, it captures the parliamentary reality of minority cabinets. There is no clear majority able to control the agenda, and legislative majorities thus become ad hoc based on the ideological background of individual subjects relative to a particular proposal. Since the Czech Republic is a continental parliamentary regime, the subjects of ideological voting are mainly whole parties, which are highly cohesive – this applies especially for the parties in a cabinet (Linek, Lacina 2011).

There are other factors that affect the dimensionality of politics. Hix and Noury (2016) argue that the regime type (presidential vs parliamentary) shapes voting behaviour in a parliament. The dimensionality of some legislatures, such as the European Parliament, can be impacted by a relation to other tiers of government (Hix et al. 2006). Last but not least, the dimensionality of politics depends on a number of ideological cleavages in a society (Poole, Rosenthal 1991). Nonetheless, since the institutional setting in the Czech Republic has been stable, there is no such unique relationship as in the European Parliament; ideological dimensionality is limited, and there is no assumption of the other factors affecting the dimensionality (Hloušek, Kopeček 2008; Vodička, Cabada 2011; Brunclík, Kubát 2016).

3.1. Hypotheses

The cartel agenda and floor agenda models portray the political reality under majority and minority cabinets, respectively. They also anticipate which driver (either ideological or institutional) is going to primarily affect the political competition. This does not mean that other conflicts become irrelevant – the ideological dimension, especially, is often inherent in the institutional division or it can become germane on its own as the second dimension, albeit a less important one. However, one conflict is the driving one. Thus, I construct two hypotheses as follows:

Hypothesis 1: During a rule of majority cabinets, parliamentary voting is predominantly driven by the institutional division (the cartel agenda model).

Hypothesis 2: During a rule of minority cabinets, parliamentary voting is predominantly driven by the ideological dimension (the floor agenda model).

To elaborate this, I seek to identify the nature of the ideological dimension. Initially, the presence of some parties in the chamber in the early 1990s implied the existence of several relevant ideological cleavages – the religious (KDU-ČSL), the regional (HSD-SMS), the nationalist (SPR-RSČ), and the (anti-)democratic (LB, KSČM, SPR-RSČ).

Nevertheless, since the legislative election in 1992 (and certainly in 1996), the socio-economic left-right axis has become the most dominant and unrivalled cleavage (Huber, Inglehart 1995; Markowski 1997; Novák 1999; Hloušek, Kopeček 2008). Despite its recent transformation, Czech party politics today is still considered to be ideologically unidimensional (Chytilík, Eibl 2011; Linek, Lyons 2013; Linek et al. 2016). However, these claims have never been tested on a complete history of Czech parliamentary voting. Therefore, I form a hypothesis:

Hypothesis 3: The ideological dimension expresses a socio-economic left-right cleavage.

Finally, from the previous text it is possible to infer dimensionality regarding the total number of influential dimensions. Since there is one institutional (government vs opposition) division and only one ideological (left vs right) dimension, I construct the last hypothesis as follows:

Hypothesis 4: The political competition is at most two-dimensional.

Some scholars argue that Czech politics is occasionally driven by more than just one ideological dimension (Lyons, Lacina 2009; Hix, Noury 2016). Besides the socio-economic one, this second ideological cleavage is usually interpreted as an attitude towards European integration. As scholars have delivered some convincing evidence, I keep this argument in mind when considering the last hypothesis.

4. Spatial Modelling of Politics

This article draws on a spatial modelling of politics. The idea of analysing politics through spatial models was introduced to political science by Anthony Downs. His book *An Economic Theory of Democracy* (Downs 1957) was partially inspired by notions of Hotelling (1929), and Smithies (1941) about a balance of subjects' spatial position originating from a mutual interaction. Downs argues that parties are vote-maximizers seeking a position close to a concentration of voters so they can attract them and earn their votes. Additionally, as parties compete for more or less the same voters, there is a tendency to find a mutual convergence, which we can then study.⁶ Today, some scholars (Armstrong et al. 2014: xi) even claim that the 'spatial model of voting is the most successful model in the field of political science'.

Overall, there are five standard methods for deriving the spatial positions of parties or particular politicians.⁷ These are public surveys (e.g. Lebedová 2014), elite surveys (e.g. Kitschelt et al. 1999), expert surveys (e.g. Bakker et al. 2015b), document analyses (e.g. Volkens et al. 2016), and roll call analyses (e.g. Poole 2005).

All of these methods have their advantages and disadvantages relative to a particular research design.⁸ Compared to other approaches, the crucial fact here is that spatial modelling utilizing a roll call analysis is the only one able to capture (literally) day-to-day politics. Since other techniques are usually based on panel data or elections, the analysis of votes by roll call can illustrate the positioning of political subjects in much more detail. Furthermore, the results of roll call analyses are highly comparable since they utilize the very same research design over an extended period. This may not be the case for surveys and document analyses because they change their methodological setting quite often. These are the main reasons why spatial modelling utilizing a roll call analysis is an appropriate tool to investigate dimensions of Czech politics over the long term.

4.1. Roll Call Analysis

MPs vote on various issues during plenary meetings, such as procedural questions, bill proposals or international treaties. In general, spatial modelling of politics utilizing roll call analysis is based on the assumption that legislators continuously compare the status quo with a proposal they vote on.

The legislators are assumed to have their unique single-peaked utility function, and they consider each vote relative to this function. Then, if the proposal brings them higher utility than the status quo, they vote Yea. Otherwise, they choose Nay. Finally, since the legislators reveal their choices on hundreds or even thousands of proposals, it is possible to identify their specific position relative to other MPs.

There are several different types of spatial roll call analyses. Although their results are fairly similar, they employ various estimation techniques (Carroll et al. 2009). To be more specific, one pioneering method was Poole and Rosenthal's NOMINATE (1985, 1991), which shows the degree of agreement among MPs. It is valuable because it delivers detailed parameters of the analysed political space and, as a tool, it is also able to be modified (Poole, Rosenthal 2001; Poole et al. 2011; Carroll et al. 2013).

The NOMINATE tool starts with a likelihood function maximizing the joint probability of the observed roll calls. Then, NOMINATE finds values for the roll call parameters (the locations of the Yea and Nay alternatives) that maximize the likelihood function. Next, the likelihood function is maximized over different settings of scaling parameters. Finally, NOMINATE searches for the values of the legislator ideal points maximizing the likelihood function. The process is repeated until it converges (Armstrong et al. 2014).

Some of NOMINATE's assumptions do not have to be met. This is especially true for parliamentary regimes in which party discipline is extremely high (Rosenthal, Voeten 2004). Therefore, Poole (2000, 2005) created a nonparametric model of Optimal Classification (OC) utilizing rank ordering of the legislators' ideal points. Nonetheless, the distances between the legislators are no longer informative, as MPs are simply ordered.

Another tool that is more important here is the item response theory (IRT) model that was originally developed in psychometrics for the measurement of skills-based tests and test subjects (Armstrong et al. 2014). It tracks a latent variable of spatial placement (for instance, on a continuum of political ideology) that we can derive from observable data. Since

all the parameters are estimated simultaneously, Bayesian methods of analysis are typically employed. To be more specific, Markov chain Monte Carlo (MCMC) methods provide suitable tools for this demanding estimation over repeated sampling (Jackman 2000).

Clinton, Jackman and Rivers (2004) utilized this approach and developed their method, called IDEAL, for discovering legislators' spatial positions. Unlike NOMINATE, IDEAL assumes that the utility functions are quadratic and it uses Gibbs sampling strategy to return a sequence of more informative components. IDEAL estimates a latent dimension and what is being recovered are the legislator ideal points and the midpoints of the roll calls (Armstrong et al. 2014). Compared to the previously mentioned techniques, IDEAL is especially accurate for MPs positioned in the centre of the defined space (Carroll et al. 2009: 566). Generally, researchers favour IDEAL rather than other tools due to its flexibility (Clinton, Jackman 2009; Lyons, Lacina 2009).

4.2. Data

I utilize data on votes by roll call in the Chamber of Deputies. To begin, I gather a dataset covering 61,470 votes recorded during the first seven finished parliamentary terms of the Chamber of Deputies between 1 December 1993 and 16 October 2017. Compared to other legislatures, Czech parliamentary voting is extensively public and the records are easily accessible (Hix, Noury 2016; Parlament České republiky 2018). Thus, there is almost no danger of a selection bias caused by monitoring only some particular votes, which could be the case in other parliaments (Carrubba et al. 2008).

However, not all of these roll calls are informative, as a significant number of them concern process-based votes typical of high levels of agreement. Therefore, I exclude votes with a minority of MPs smaller than 5% (10 legislators). Similarly, I do not take 32 deputies with less than 100 votes in a single parliamentary term into account as there is not enough data to reveal their spatial positions. As a result, the dataset tracks 46,707 roll calls of 1,486 MPs.⁹

Next, it is necessary to recode all the data to correctly differentiate between supporting a proposal and rejecting it. To achieve this, if a deputy voted for a proposal, the corresponding roll call is coded 1 (Yea). If a legislator voted against a proposal or abstained, the roll calls are both coded as 0 (Nay).

To elucidate this, if a legislator is present on a plenary session and abstains, she increases a threshold that has to be met to accept a proposal. Thus, the abstention is formally 'soft no', but, practically, the rejection is still coded as 0 (Wintr 2010: 270). Last but not least, if a legislator does not attend a plenary session (whether excused or not), I treat her choice as missing.

Finally, it is necessary to comment on the voting behaviour of deputies in the Czech parliament. To be more specific, a voting unity of the Czech parliamentary party groups, measured by the Rice Index (Rice 1925), is continuously above 80 points (Linek, Lacina 2011).¹⁰ Thus, it is possible to argue that MPs do not reveal their actual ideal positions but rather standpoints more or less 'commanded' by their parliamentary party group.

However, this analysis unveils factual positions of individual MPs and whole parties in a political space that naturally originate from the reality of the Czech parliamentary regime. Therefore, since the research scrutinizes the outputs and does not care about their causes,

this issue will not influence the logic of the research on the dimensions of Czech politics as such.

5. Dimensionality of Politics in the Czech Republic

To inspect the dimensionality, I employ the weighted NOMINATE method of roll call analysis at the start. I utilize two-dimensional modelling, which is justifiable based on the previously discussed assumptions of the analysis. Table 2 below presents a report of the seven individual parliamentary terms.

Here, it is necessary to make a comment. During the second parliamentary term (1996–1998), the extreme right-wing party SPR-RSČ significantly distorted the political competition. To be more specific, the party's MPs abstained from 44.06% of the voting, while the other parties' legislators abstained only from 15.00% of the voting. To identify and reduce the impact of the party's specific spatial position, I always perform two spatial analyses of the second parliamentary term (with and without SPR-RSČ).

Table 2: Parameters of Roll Call Analyses Utilizing Weighted NOMINATE

Term	MPs	Roll calls	Differences between first five eigenvalues (1 st – 2 nd /2 nd – 3 rd /etc.)	Percent of roll call vote decisions predicted correctly	
				1 st Dim./2 nd Dim.	2 nd Dim. – 1 st Dim.
1 Dec 1993 ^{a)} – 31 May 1996	201	4,494	<u>11.70</u> /0.29/0.18/0.11	85.06/86.80	1.74
4 Jul 1996 – 30 Nov 1997 (with SPR-RSČ)	208	2,901	<u>15.23</u> /1.31/0.28/0.32	91.25/92.48	1.23
4 Jul 1996 – 30 Nov 1997 (without SPR-RSČ)	190	2,411	<u>15.43</u> /0.52/0.45/0.1	90.54/91.12	0.58
22 Jul 1998 – 14 Jun 2002	206	11,692	<u>6.03</u> /0.64/ <u>1.39</u> /0.17	86.36/88.27	1.91
15 Jul 2002 – 2 Jun 2006	233	12,364	<u>7.88</u> / <u>3.92</u> /0.48/0.22	85.36/89.33	3.97
9 Jan 2007 – 26 Mar 2009	210	3,775	<u>15.78</u> /0.13/0.39/0.10	88.73/89.95	1.22
13 Jul 2010 – 17 Jun 2013	215	4,864	<u>15.31</u> /0.50/0.20/0.23	87.93/89.77	1.84
29 Jan 2014 – 20 Oct 2017	213	6,617	<u>2.85</u> / <u>2.84</u> /0.17/0.07	82.75/88.22	5.47

^{a)} The first day of electronically recorded roll calls.

Note: Analyses are performed with the package 'wnominate' in R. The terms last from the cabinet's naming to its resignation or the first day of the legislative election finishing the chamber's term. The underlined differences between eigenvalues mark drops visually located on the left from an elbow in a scree plot (the number of principal dimensions of politics during the particular term).

Source: Author's own calculations based on Czech Statistical Office 2018; Parlament České republiky 2018.

To scrutinize the dimensionality of the political competition, eigenvalues deliver the most valuable information.¹¹ Even though there are several ways of interpreting the eigenvalues of a linear transformation, I prefer to plot successive eigenvalues against the rank order in a so-called scree plot (see Jackson 1993). Thanks to this straightforward visualization, it is possible to identify an 'elbow'. It differentiates between the high eigenvalues on the left (with

high informative potential) and the low eigenvalues on the right (with only minor drops relative to the previous eigenvalue and being, therefore, less informative). Thanks to this, the elbow helps to identify a number of principal dimensions in the political space. In order to compare the drops, I summarize differences between the successive eigenvalues in Table 2.

To be more specific, three periods between 1993–1996, 2007–2009, and 2010–2013 seem to be unidimensional. To elucidate this, the drops between the first and the second eigenvalues of these three terms are incomparably larger than the rest of the differences. What connects these terms is the rule of right-oriented majority cabinets led by ODS. The analysis suggests that during these periods the political competition was driven by a single dimension.

I have already mentioned that the second parliamentary term is somewhat exceptional. There is some little evidence that the politics in 1996–1997 was also close to two-dimensionality. Nevertheless, the analysis excluding SPR-RSČ MPs clearly suggests that the principal political competition was also unidimensional. During that time, the minority right-oriented coalition cabinet was in power.

Next, the 2002–2006 and 2014–2017 periods indicate two principal dimensions affecting parliamentary politics. The reason for this is a significant magnitude of not only the differences between the first and the second eigenvalues but also the second drops, which move the elbow one step further towards a higher dimensionality. ČSSD led the left-oriented majority coalition cabinets in both periods.

Last but not least, the relatively high differences between the second and the third eigenvalue in 1998–2002 implies the existence of even three-dimensional competition. This finding contrasts with the hypothesis that Czech politics is driven by at most two conflicts (one institutional division and one ideological dimension). Since there is no trace that another institutional division appeared then, the analysis suggests that another relevant ideological cleavage was influencing the political interactions from 1998 to 2002.

To elaborate this, in April 1998 the accession negotiations between the Czech Republic and the European Union started and the process finished in December 2002 (Ministerstvo zahraničních věcí ČR 2010). Earlier, in one of the endnotes, I have already shown that this extraordinary political event affected the number of proposals MPs voted on. Since the negotiations coincided with the three-dimensional term, the third conflict during the 1998–2002 period was most likely caused by attitudes towards European integration.

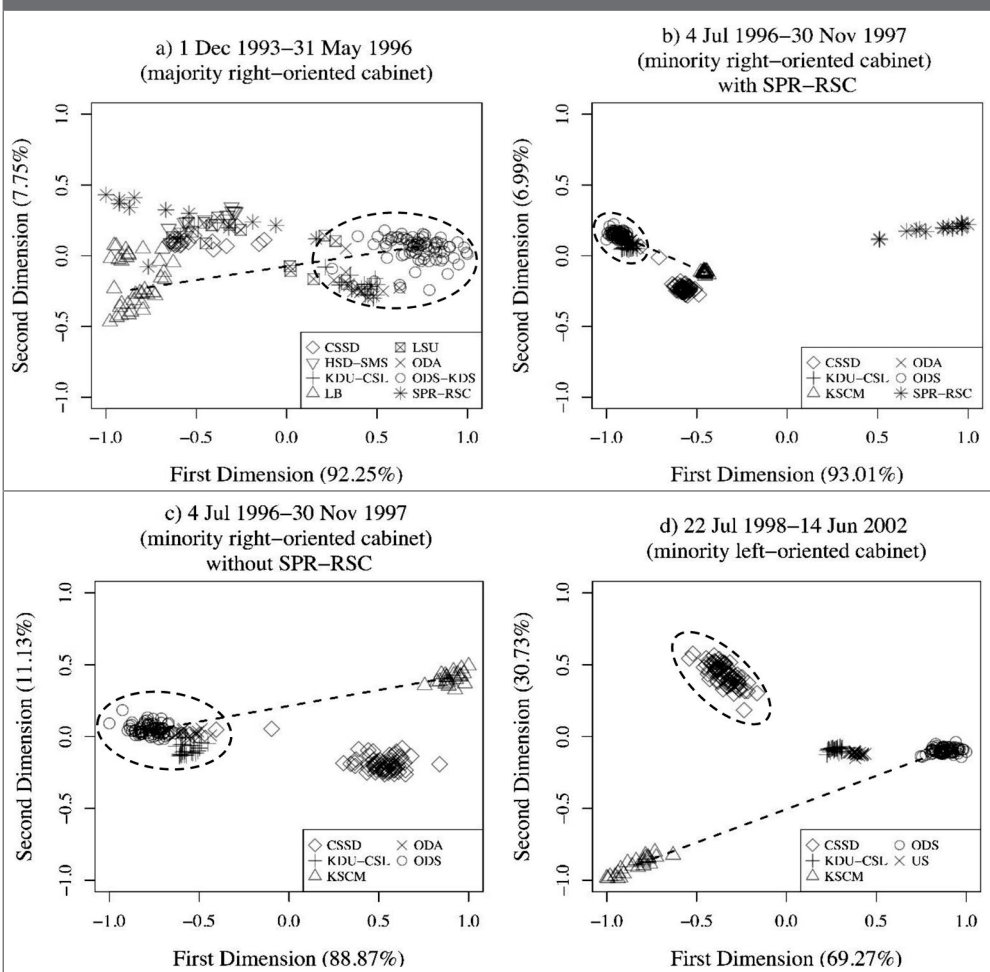
This conclusion is in agreement with the literature (Roberts 2003; Hloušek, Kopeček 2008; Lyons, Lacina 2009; Hix, Noury 2016). Furthermore, it is also supported by the data, as the locations of the parties along the third dimension correspond to their attitudes towards European integration. To be more specific, the Pearson correlation coefficient between the parties' spatial positions and their stances on the European Union delivered by an expert survey is 0.41 (Bakker et al. 2015a; Bakker et al. 2015b). When comparing the parties' manifestos, the correlation rises to 0.60, which shows high levels of agreement (Volkens et al. 2016).

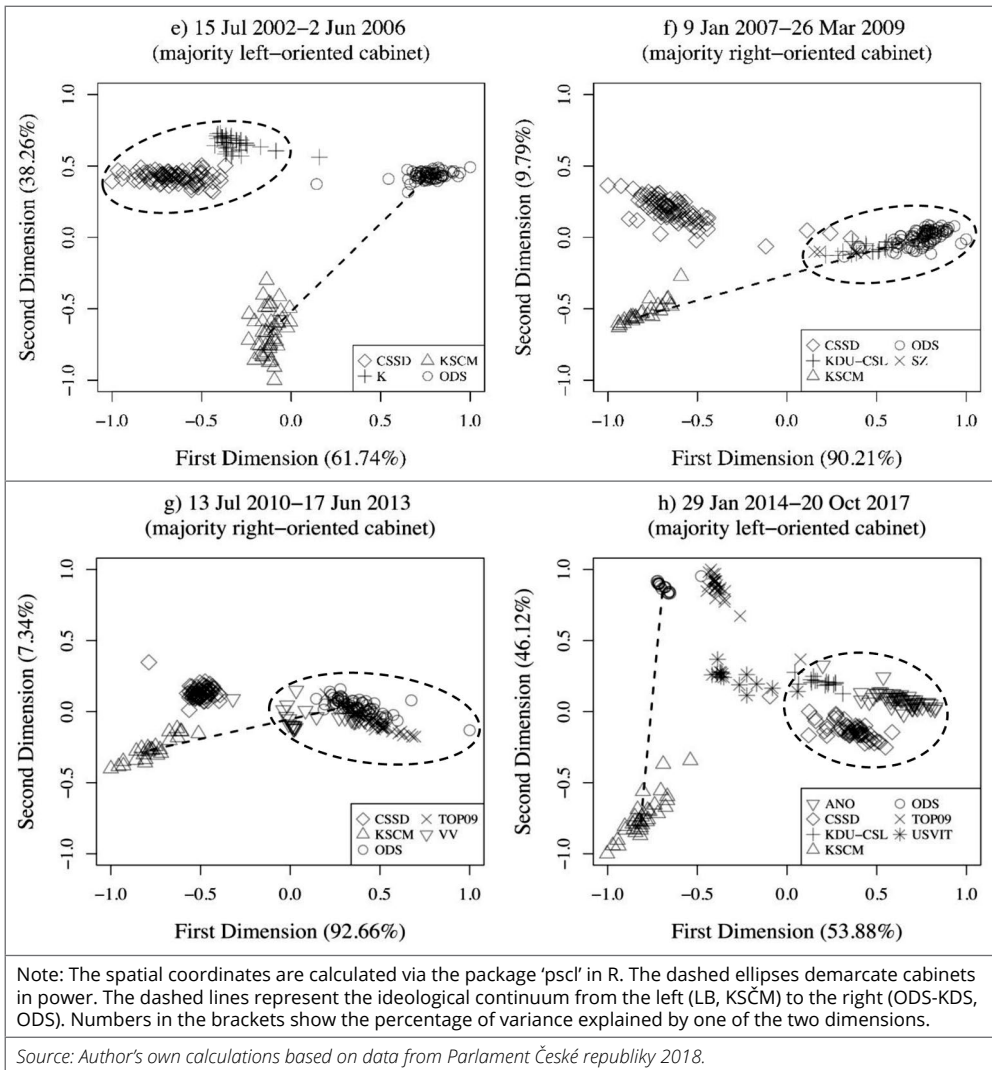
Finally, the weighted NOMINATE parameters show that the two-dimensional modeling correctly predicts approximately 90% of the roll calls. This level of precision is comparable to those in other legislatures, such as the U.S. House of Representatives, the European Parliament, or the French National Assembly (Hix et al. 2006). Differences in the predictive

power of the two dimensions show that the second dimensions are the most valuable in the case of left-oriented majority cabinets (2002–2006, 2014–2017). This is in agreement with the previous findings, and it implies that two-dimensional models are justifiable in the case of portraying and scrutinizing Czech politics.

To reveal the spatial positions of the deputies, I employ the IDEAL modelling tool. The reason for this is that I appreciate its flexibility and especially accurate results for the MPs positioned in the centre of the defined space (Carroll et al. 2009; Clinton, Jackman 2009). Figure 1 below presents the two-dimensional spatial maps of all the terms. Legislators are differentiated by symbols according to the candidate lists on which they stood as candidates. Even though 10.47% of the MPs changed their parliamentary group affiliation during their deputy mandates, I consider the selected partisan delineation as illuminating enough, and I do not track the moves.

Figure 1: MPs' Two-dimensional Coordinates Based on IDEAL





To make the seven subfigures comparable, I rotate the coordinates so as the largest variance is parallel with the first dimension.¹² This step guarantees that all the first dimensions portray the most crucial conflict regarding delivered information. Next, the axes are identically stretched to fit the dimension with the largest range in the interval $[-1, 1]$.

Additionally, I demarcate governmental parties to stress the difference between governmental and opposition camps representing the institutional division in the subfigures. Finally, I draw a dashed line between KSČM and ODS (LB and ODS-KDS in Figure 1a) to depict the socio-economic left-right dimension. This is a justifiable step that is in agreement with other studies and data that also recognize the Communists and ODS as the side-poles of the left-right ideological spectrum (see Hloušek, Kopeček 2008; Lebedová 2014; Bakker et al. 2015a; Bakker et al. 2015b; Volkens et al. 2016).

To begin, I inspect the cohesion and spatial locations of the parties throughout the terms. Smaller dispersion was characteristic especially of the smaller and the oppositional parties. An essential finding is a noticeable difference between the parties' illegible spatial patterns of the first parliamentary term and a more organized positioning during all the later terms. To be more specific, in the early 1990s, the largely dispersed positions of the parties' deputies were typical. This was caused by frequent MP defections, inner heterogeneities of the parties, and unclear ideological positions of the parties in the 'overcrowded' political space (Kopeček 2010).

On the one hand, Hypothesis 1 assumes that during a majority cabinet rule, parliamentary voting is predominantly driven by the institutional division (the cartel agenda model). Figure 1 demonstrates that the competition between governmental and opposition camps during the rule of majority cabinets (a, e, f, g, h) is predominantly delineated along the first dimension, which is the principal one with the largest variance.

On the other hand, Hypothesis 2 assumes that during a rule of minority cabinets, parliamentary voting is mainly driven by the ideological dimension (the floor agenda model). Looking at the minority cabinets in Figure 1 (c, d), the first dimensions are close to being parallel with the ideological axis (KSČM vs ODS). Thus, both of these hypotheses are confirmed.

However, the results of the analysis reveal further interesting information that helps to understand the validity of the two hypotheses. There is a substantial difference between the left- and right-oriented majority cabinets regarding the dimensionality. To explain this, the rule of right-oriented majority cabinets (a, f, g) is typical of the unidimensional setting of parliamentary competition. During these periods, the first dimension explains more than 90% of the coordinates' variance. The reason for this is that the institutional division and ideological dimension merge. The governmental and opposition camps are both cohesive, and they simultaneously represent the ideological left-right cleavage. Practically speaking, there are still two principal drivers, but since they are not discernible, it is possible to define the politics as unidimensional.

Nonetheless, the situation is completely different during periods of the left-oriented majority cabinets (e, h). Such parliamentary competition is still primarily influenced by the institutional division, as Hypothesis 1 and the cartel agenda model assume. However, the government-opposition axis does not represent the full spectrum of the ideological cleavage since the opposition camp is ideologically more heterogeneous. During a rule of a leftist majority cabinet, the right-wing parties as well as the Communists, who are too anti-system to participate in a government, are now on the same opposition side of the institutional division.

As a result, the ideological line moves from a horizontal position (still occupied by the institutional division) to a vertical one. Thus, it is much more parallel to the second dimension, which now becomes more relevant. That is also the reason why in these two terms the first dimensions explain only 61.74% and 53.88% of the overall variance.

Besides these five terms, there are two cases of minority cabinets. First, look at the 1998–2002 term in Figure 1d. Although the Social Democrats led a single-party minority cabinet, they needed to continuously search for ad hoc legislative coalitions to approve the cabinet's proposals. The spatial map shows that most of these coalitions were formed togeth-

er with KDU-ČSL and US since these two parties are located most closely to ČSSD. Even though the cabinet was formally tolerated by ODS, the distances between parties show that ČSSD voted together with ODS as frequently as with the Communists (see Roberts 2003).

Voting in the third Chamber of Deputies was determined mainly by purposive coalitions built on the grounds of similar attitudes to a particular vote. As a result, the ideological dimension is the principal one as the classical institutional division diminishes. This could be the reason why other dimensions (for instance, attitude towards European integration) become more relevant during this very term.

Secondly, the 1996–1997 parliamentary term depicted in Figure 1b is an interesting case. Václav Klaus led the right-oriented minority coalition cabinet. This again weakened the institutional axis and allowed other cleavages to become more significant. Importantly, the extreme right-wing party SPR-RSČ was then so anti-system (abstaining from voting) that the largest variance differentiated between pro- and anti-democratic parties (Mareš 2003).¹³

However, if SPR-RSČ is excluded from the analysis (c), the largest variance will be parallel to the ideological cleavage differentiating ODS and KSČM. Thus, the logic of the system's core political competition is similar to the minority cabinet of ČSSD in the 1998–2002 period. To be more specific, ad hoc legislative coalitions are constructed, and the left-right ideological dimension takes precedence over the institutional division as the floor agenda model assumes. Finally, these elaborated findings support the validity of Hypotheses 1 and 2.

The main difference between the two types of minority cabinets is the explanatory capacity of the first dimensions. On the one hand, the first dimension under the rule of the left-oriented minority cabinet explains almost 70% of the variance. On the other hand, the first dimension during the era of the right-oriented minority cabinet describes almost 90% of the variance and the competition is thus considered to be unidimensional. The explanation is similar to the one elucidating different dimensionality during a rule of majority cabinets – the opposition camp is split under the rule of left-oriented cabinets, as the extreme leftist party (the Communists) is excluded from governing. There is no such situation when the right-oriented minority (majority) is governing – if there is an extreme right-wing party (SPR-RSČ), the oppositional behaviour of such a party is different from that of the Communists.¹⁴

Concerning Hypothesis 3, which assesses the nature of ideological conflict, the spatial maps imply that the assumed influence of such a cleavage corresponds to the line between the Communists (LB, KSČM) and the liberal-conservatives (ODS-KDS, ODS). This line explains all the anticipated roles of the ideological dimension. Therefore, the hypothesis' claim that the ideological conflict expresses a socio-economic left-right axis is valid.

The analysis of dimensionality reveals that during the accession negotiations between the Czech Republic and the European Union from 1998 to 2002 another ideological dimension appeared: attitude toward European integration. Similarly, the 1996–1997 period witnessed at least a trace of a (anti-)democratic dimension between the radical right SPR-RSČ and the rest of the parties. Nevertheless, these were specific episodes of Czech political history. Compared to the other parliamentary terms, it is possible to stick with the statement that Czech politics is ideologically driven only by the socio-economic left-right cleavage.

Last but not least, Hypothesis 4 deals with a number of dimensions affecting the parliamentary politics. Again, although the already discussed 1998–2002 parliamentary term

suggests the existence of as many as three influential conflicts, Czech politics is predominantly affected by two drivers – the institutional (government vs opposition) division and the ideological (left vs right) dimension. As a result, even the last hypothesis has been proved to be legitimate; that is, unless Czech politics is in a highly specific situation such as the accession to the European Union.

6. Conclusion

This article examines the dimensionality of Czech politics since the country's establishment in 1993 until 2017. The parliamentary competition during a rule of majority cabinets is driven by the institutional division. If the majority cabinets are right-wing oriented, the ideological dimension merges with the institutional division and the competition is practically unidimensional. If the majority cabinets are left-wing oriented, the ideological dimension distinguishes between the opposition parties, which makes the socio-economic dimension more relevant. On the contrary, the terms led by minority cabinets are influenced primarily by the left-right ideological division. This is caused by a weakness of the institutional division, which also allows other cleavages to become more influential (for instance, democratic vs anti-democratic stances or attitude towards European integration).

Overall, Czech politics is predominantly driven by the two drivers with a fluctuating importance. This finding suggests that the logic of Czech politics is similar to the dimensionality in other comparable countries (Poole, Rosenthal 2001; Hix, Noury 2016). The analysis implies that even a relatively new parliament in the Czech Republic demonstrates spatial voting. 'Structure, rather than chaos, is the rule' (Poole, Rosenthal 2001: 23).

Interestingly, the parliamentary competition in the Czech Republic seems to be close to Westminster-style politics. This is surprising since the country's institutions imitate continental parliamentary regimes typical of proportional representation and a dominant legislature. Nevertheless, thanks to the ethnic, religious, and nationalist homogeneity of Czech society (Hloušek, Kopeček 2008; Chytilík, Eibl 2011; Linek, Lyons 2013), there is only one principal ideological cleavage (socio-economic left vs right), which often corresponds to the institutional axis.

Throughout its existence and especially during its early years, Czech politics witnessed some influential anti-system parties (SPR-RSČ, LB, KSČM). Moreover, the current transformation of the party system once again produces new parties with low coalition potential and anti-system tendencies (ÚSVIT, SPD). Nevertheless, although some of these new parties seek to 'open' a new ideological dimension (e.g. anti-EU attitudes or Islamophobia), they have not succeeded thus far. This proves the resistance of Czech politics, which keeps its patterns of working. Altogether, these factors make the Czech parliamentary regime an interesting research case – a post-communist parliamentary regime with diverse political history, elements of Westminster-style politics, and resilient institutional and ideological patterns of political competition.

To conclude, especially the party system's recent transformation and its impacts on the forms of government and the dimensionality of Czech politics should be studied. Next,

a roll call analysis is only one way of researching dimensionality. Thus, other methods such as public surveys or manifestos should be utilized to scrutinize the patterns of Czech politics. Last but not least, dynamic rather than just static methods of analysis should be employed, as the ongoing transformation of the party system is a dynamic process.

Appendix A: Political Party Abbreviations

ANO	ANO 2011
ČSSD	Czech Social Democratic Party (<i>Česká strana sociálně demokratická</i>)
HSD-SMS	Movement for Autonomous Democracy – Party for Moravia and Silesia (<i>Hnutí za samosprávnou demokracii – Společnost pro Moravu a Slezsko</i>)
K	Coalition (<i>Koalice</i>)
KDU-ČSL	Christian and Democratic Union – Czechoslovak People's Party (<i>Křesťanská a demokratická unie – Československá strana lidová</i>)
KDS	Christian Democratic Party (<i>Křesťanskodemokratická strana</i>)
KSČM	Communist Party of Bohemia and Moravia (<i>Komunistická strana Čech a Moravy</i>)
LIDEM	LIDEM
LB	Left Bloc (<i>Levý blok</i>)
LSU	Liberal-Social Union (<i>Liberálně sociální unie</i>)
ODA	Civic Democratic Alliance (<i>Občanská demokratická aliance</i>)
ODS	Civic Democratic Party (<i>Občanská demokratická strana</i>)
SPD	Freedom and Direct Democracy (<i>Svoboda a přímá demokracie</i>)
SPR-RSČ	Coalition for Republic – Republican Party of Czechoslovakia (<i>Sdružení pro republiku – Republikánská strana Československa</i>)
SZ	Green Party (<i>Strana zelených</i>)
TOP09	TOP 09
US	Freedom Union (<i>Unie svobody</i>)
ÚSVIT	Tomio Okamura's Dawn of Direct Democracy (<i>Úsvit přímé demokracie Tomia Okamury</i>)
VV	Public Affairs (<i>Věci veřejné</i>)

Footnotes:

1. Dimensions work under a continuous logic in the sense that units are potentially located along the whole dimension. Since the government-opposition conflict shows only some characteristics of a continuous logic and units tend to be located at one pole or the other, I prefer to use the term 'division'.
2. I select just the cabinets with the confidence of the chamber since only these cabinets feature identifiable political anchoring. Similarly, all the technocratic cabinets are excluded from the analysis as their political structure is not straightforward. Besides this, there is a strong assumption that working logic under their rule is substantially different from that of the political cabinets.
3. The two Social Democratic MPs Miloš Melčák and Michal Pohanka enabled the cabinet to get the confidence by abstention during the confidence voting. The deputies argued that they wanted to discontinue the political gridlock (iDnes.cz 2007).

4. Until today, the polity in the Czech Republic has experienced only three major institutional changes. These are the establishment of the second parliamentary chamber (Senate) in 1996, reform of the legislative election system in 2002 and introduction of the direct election of the Czech president in 2013 (Vodička, Cabada 2011; Brunclík, Kubát 2016). Although these changes are substantial, I do not consider them to influence the dimensionality of Czech politics as such.
5. The full name of the document was 'Agreement on Creation Stable Political Environment Signed Between the Czech Social Democratic Party and the Civic Democratic Party' (ČSSD and ODS).
6. Downs' theory is not accepted uncritically as his assumption of unidimensionality is not always met (Stokes 1963), and practical application is questioned as well (Riker 1962; Robertson 1976). However, spatial modelling found its respected role, and it is commonly utilized today.
7. There are also less standard approaches (see e.g. Barberá 2015; King et al. 2016).
8. To grasp the drawbacks of roll call analyses, see (Carrubba et al. 2008; Lauderdale 2010; Aldrich et al. 2014).
9. Concerning the scope of the data set, deputies usually vote on approximately 1,500 proposals a year. Nonetheless, MPs during the third (1998–2002) and the fourth (2002–2006) parliamentary terms experienced approximately 3,500 votes per year. Such an increase was caused mainly by the implementation of the EU legislation preparing the Czech Republic for accession to the European Union on 1 May 2004.
10. The index ranges from 0 (half of the parliamentary party group vote yes and the rest vote no) to 100 (all members vote either yes or no) (Rice 1925: 63).
11. Eigenvectors are vectors along which a linear transformation of a given matrix (spatial positions of MPs) is done only by stretching or flipping (and not distorting) space. Eigenvalues are scalars showing a magnitude of the transformation. In other words, the larger the eigenvalue is, the more information the particular transformation summarizes (the more informative a particular dimension is).
12. However, it is still not possible to make any inferences on distances and relative positions across the terms. These conclusions can be done only within individual terms.
13. Here, it is essential to highlight the position of KSČM, the other anti-system party, which was still much closer to the pro-system parties than SPR-RSČ. Nevertheless, it demonstrates how anti-system SPR-RSČ is rather than how pro-system the Communists are.
14. In Figure 1a, SPR-RSČ was an opposition party under the rule of a right-oriented majority cabinet but the party voted together with a leftist opposition. In Figure 1b, SPR-RSČ was an opposition party during the rule of a right-oriented minority cabinet but the party voted completely differently from the rest of the parties (abstaining from more than 44% of the voting).

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