

Party System of Slovak Republic and its Stability after 2010 and 2012 Elections in Comparative Perspective.

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Party System of Slovak Republic and its Stability after 2010 and 2012 Elections in Comparative Perspective. The main aim of this paper is to evaluate the changes in the Slovak party system after the elections to the National Council in 2012. This study is divided into two chapters. The first one deals with theoretical constructions of the classification of the party system with special focus on the party system theory by Giovanni Sartori. After the theoretical introduction, the author is trying to apply this concept on the Slovak party system. The second part of the paper is dedicated to the evaluation of volatility applying the concepts of Sarah Birch, Maurice N. Pedersen, Richard Rose, and Neil Munro on the election results. In the conclusion, the presented calculations are used in comparison with the data from the 2010 elections to verify the hypothesis that the rising volatility constitutes a new milestone in the party system of the Slovak Republic.

Key words: Party system, elections, Pedersen index, Laakso-Taagepera index, Giovanni Sartori, volatility

Stranícky systém SR a jeho stabilita po voľbách 2010 a 2012 v komparatívnej perspektíve. Hlavný cieľom tejto štúdie je zhodnotiť zmeny v slovenskom straníckom systéme po voľbách do NR SR konaných v roku 2012. Táto štúdia je rozdelená do dvoch kapitol. Prvá sa zaoberá teoretickými konštrukciami klasifikácie straníckych systémov so špeciálnym zameraním na teóriu Giovannioho Sartoriho. Po teoretickom úvode sa autor pokúša tieto koncepty na slovenský stranícky systém. Druhá časť práce je určená na zhodnotenie volatility aplikáciou konceptov Sarah Birch, Maurice N. Pedersena, Richarda Rosa a Neila Munra na volebné výsledky. Na záver sú predložené výpočty použité v komparácii s údajmi z volieb 2010 na overenie hypotézy, že zvýšená volatilita predstavuje nový míľnik v straníckom systéme Slovenskej republiky.

Kľúčové slová: Stranícky systém, Pedersenov index, Laakso-Taageperov index, Giovanni Sartori, volatilita

Introduction

The result of the early parliamentary elections in Slovakia held on 10 March, 2012, means an unprecedented situation for the country. After the three-party coalition of the Smer-SD, ĽS-HZDS and SNS that could be according to the theory of coalitions included in the minimally winning coalition of ideologically unrelated parties, and after the minimally winning ideologically related to the four-party coalition of the SDKÚ, SaS, KDH, and Most-Híd with two fragments of the OKS and Ordinary people (Obyčajní ľudia) established after the 2012 elections, Prime Minister Robert Fico has formed one-colour

government¹. The voters called for a change in the political life and political culture after the frustration from the media image of Iveta Radičová's coalition and some cases (e.g. Gorila or Sasanka).

It is too early to evaluate the extent of the change in the last parliamentary elections, but a significant change can be observed in the development of the party system in Slovakia. It is for the first time that a new party was re-elected to parliament (SaS) and a fragment of parties (the Ordinary people) became a new political opposition party, the Ordinary People and Independent Personalities (OLaNO). The remaining SaS in parliament after this election is important for the configuration of the Slovak party system because it means „*stabilizing the support of a centrist liberal-oriented subject*“ as noted by Grigorij Mesežnikov (Mesežnikov, 2012). The evaluation of the transfer of the electorate between political parties represents an increase in volatility of the party system. This phenomenon as well as the overall assessment of the party system will be dealt with in the following chapters. The aim of this study is to highlight the process of change in the party system in Slovakia started in the 2010 elections. This should be confirmed by the date of volatility. It will aim to answer the question whether the party system can be regarded as being stabilizing or destabilizing, and the typology of the party system will be assessed as well.

1. Classification and typology of the party system of the Slovak Republic

1. 1. Theoretical framework

Theoretical concepts of the classification of party systems have been the subject of interest for political scientists for decades. An important work in this field is the investigation of Maurice Duverger who used the number of political parties as a classification criterion. Duverger distinguished between a biparty and multiparty systems (Duverger, 1991, p. 285-295). Robert Dahl dealt with the political opposition, namely the intra-party unity. By the unity of the party, he distinguishes bipartism with an internally united party, bipartism without an internally united party, united parties multipartism, and multipartism without a united party (Dahl, 1991, p. 296-301). Dahl also devoted his study to the examination of competitiveness and cooperation between parties in elections

¹ The coalition theory is reproduced from Stanislav Balík (Balík, 2008, p. 48) who distinguishes the class of coalitions as a minimal winning coalition and excess coalitions and then from the ideological point of view, based primarily out of a total programmatic inclusion of political parties in the political parties spectrum, distinguishes various types of coalitions. The theory of coalitions is not the subject of the submitted study, therefore it will not even give a closer view of the current situation, one-colour government.

and in Parliament after them². In the Robert Dahl's theory, indication to include in the classification, apart from the number of political parties, certain relations between political parties can already be seen.

Jean Blondel, also in his assessment in addition to the number of parties by preferences, used evaluation of the ideological spectrum. He classified party systems according to the profit of the first two parties that had received most of the voters' preferences. Blondel recognizes the biparty system, a system of two and a half parties, multipartism with a dominant party (the dominant party must receive at least 40 % of parliamentary seats), and multipartism without a dominant party. In ideological terms, Blondel earmarked a biparty system, a system of two and a half parties with a small centrist party, a system of two and a half parties with a small leftist party, a multiparty system with a dominant party on the left, a multiparty system with a dominant party on the right, and a multiparty system without a dominant party (Blondel, 1991, pp. 302-310, Klíma, 1998, pp. 177-178).

Certain ideological links and mechanisms of forming a coalition and opposition were taken into account as well by Stein Rokkan (1968) who took into consideration the possibility / probability of creating a one-party majority in most Western democracies, according to the constellation of parties and their fragmentation. Accordingly, he differentiates between the Anglo-German type where the system was dominated by two political parties and one smaller (model 1 vs. 1 + 1), then the Nordic type where a dominant party was confronted by three or four small parties (1 vs model. 3 – 4), and balanced multipartism was the last type where competition takes place between three or four parties of the equivalent size (model 1 vs. 1 vs. 1 + 2 – 3) (Rokkan, 1991, pp. 311-315; Mair, 1997, pp. 200-202). In our case, after the 2012 elections, the Smer-SD has been confronted by five political parties.

Giovanni Sartori finally evaluated the party system in terms of a party system format, and after having applied the ideological variable he introduced his typology in his most famous publication dealing with political parties and party systems, *Parties and Party Systems: A Framework for Analysis*. A brief outline of the major theories of political scientists indicates that evolution of the examination of party systems has been moving from the differentiating by the number of parties to the incorporation of ideological distance or cohesion as the second main element of the classification.

Regarding the number of political parties that were represented in parliament after the elections in 2010, according to Jean Blondel it was multipartism without a dominant party where there is due to the

² By that, he developed the typology of strictly competitive, cooperative-competitive, coalition-competitive, and strictly coalition party system.

homogenization of the Slovak left (Smer-SD) the tendency to classify it as multipartism with a dominant party on the left side, or, more precisely, it would be better to use the term on the center-left spectrum. Admittedly, the Slovak party system is multipartism. After the recent parliamentary elections we have no such a problem with the inclusion of the system in the typology. At present, we include the system to the multipartism with a dominant party on the left. To confirm this inclusion, the verification in the subsequent elections is necessary.

Sartori has not transposed the term “dominant party” from Blondel. Giovanni Sartori evaluates the party system format by the number of relevant parties represented in parliament. The relevant party is the one with either a coalition or extortion potential. Regarding the terminology used in the evaluation of the Ordinary People and OKS, or more precisely four members on the ballot of the Most-Híd in the 2010 elections, it is difficult to identify these groups as fractions, fragments, or streams. Reflecting these concepts the same as Sartori (Sartori, 2005, pp. 78-91), we would obviously have concluded that since the OKS is (was) a separate party having much in common regarding economic issues with the Most-Híd, it would be correct would to mark the OKS as a fraction. The Ordinary People, in my point of view, is very similar to the pragmatic fragment because they declare, especially Igor Matovič, that he is a pattern of honesty in politics. Apparently, his image transferred to the newly established political entity OĽaNO which became the third most successful political party in the last elections.

As far as the Slovak party fragmentation is concerned, there could be problem regarding the OKS in 2010 as an independent political entity, because four OKS MPs were not members of the Most-Híd party. When we create a classification of party systems, we are interested in the dynamics between the parties, not in the dynamics between the fragments. If we tried to make typology throughout the fragmentation and classify each fragment as a separate entity, we would probably reclassify the majority of the party systems as we know them today. Even in the U.S.A., a party system in terms of format would not be a class of two parties because the fragments in the U.S. party system are known. The whole theory falls on the fragmentation. Therefore, to be able to apply some theory, we need to know what is a political party. Giovanni Sartori claims: „*Political party is any political group that presents at elections, and through the elections is able to place candidates for public offices.*” (Sartori, 2005, p. 74).

It is therefore clear to us that public offices (parliament) were not taken by the OKS, because this party as an entity had not participated in the elections (the Most-Híd had participated). The Ordinary People should be judged similarly. The party format after the 2010 elections consists of six parliamentary parties that exceeded the election clause. In case the coalition

agreement had been opened and the OKS and Ordinary People would also have participated in the Coalition Board, then it would have been a considerable strengthening of these fragments, and indeed we could have started talking about the coalition of not 4 but 6 subjects. As for the analysis of the party system after the 2010 elections, it is sufficient to conclude that a coalition of four parties was opposed by two parties. It is natural that during the government period separate groups or opinion streams are formed which over time transform into political parties. An evident example is the already mentioned Igor Matovič's fraction which has taken 16 seats after the 2012 elections to the National Council of the Slovak Republic, including the vice chair of the National Council.

1. 2. Party system by the mechanism of number of parties

Sartori exhaustively defined seven classes of party systems³. The number of parties, i. e. 6 in parliament, which remained unchanged after the last votes, put this system into a format of extreme pluralism because limited pluralism is a system of 3 to 5 parties. Extreme pluralism is a system of 6 to 8 parties. A fragmented party system can reflect either the situation of segmentation, or the situation of system polarization what means ideological distance. The number of political parties in the system can also be viewed through the calculation of the number of political parties in the system which takes into account the number of political parties in addition to their relative strength. This idea is based on the assumption that the form of a party system is continuous and that more credible is the measurement of the true power of political parties at the expense of establishing *a priori* criteria, as taxatively set out by Sartori.

The following calculation of the Laakso-Taagepera index of the effective number of parties is based on the proportion of seats occupied by the parties in parliament. This index is normally used for a comparative analysis of party systems. The effective number of party index (N) takes the form of an inverse value of the Herfindahl-Hirschman index of concentration. The Laakso – Taagepera index is $N = 1 / \sum (a)^2$. The value (a) represents the percentage of votes of a specific political party or, as in our case, the percentage of seats received in parliament. The biggest problem of this index concerns the overestimation of bigger parties and underestimation of smaller ones. For completion, here is the Taagepera's index of balance $B = - \log s1 / \log N0$, where s1 is the share of mandates of the strongest political party (Smer-SD), and N0 is the total number of parties that received mandates. This index refers

³ The class of single party, hegemonic party, predominant party, class of two party system, limited pluralism, extreme pluralism and the atomized party system.

to the equilibrium distribution of seats among political parties. In the case its value is 1, it means all parties that received a mandate have the same number of seats. If the value equals to 0, we have achieved complete imbalance. (Taagepera, 2007, pp. 47-59, Lijphart, 1994, pp. 67-72, Grofman, 1985). The value of the index $B = 0,33$ (2012) as compared to the year 2010, when the value was 0.49, represents a shift to the imbalance in the received mandates. As for parliamentary election in 2012, in comparison with the previous elections, the index of the effective number of parties has the following values:

Values of index of effective number of political parties for parliamentary elections to the National Council of the Slovak Republic

Year	1990	1992	1994	1998	2002	2006	2010	2012
Effective number of parties	4.98	3.19	4.41	4.75	6.12	4.81	4.01	2.83
Total number of parties	7	5	7	6	7	6	6	6

The figure of 2012 loses its relevance in this case because it shows that it is relevant for more than one party to form government, although it is clear that the Smer-SD formed one-colour government without the support of other political subjects. Substantial information for us is the significant trend of the effective number of parties in parliament which is decreasing. Since 2002, when we could definitely talk about the format of extreme pluralism, we can see decreasing tendency of the effective number of parties. During the next elections we will see whether the total number of parties will be reducing what would be realistic in the case of consolidation of the right spectrum of our party system.

Other indices that seek to remedy deficiencies of the Laakso-Taagepera index of the effective number of parties (N)⁴ are the Molinar index (Mo) and the Boucek-Dunleavy index of the effective number of parties, the Dumont Caulier index and the effective number of relevant parties (ENRP), based on the Banzhaf normalized index (BPI). Both the Molinar and Dunleavy Boucek indices tried to incorporate the data concerning the strongest party by preferences that the Laakso-Taagepera index offsets with the index of balance, so these indices are not covered in this study. The effective index of the relevant parties replaces the ratio of the obtained seats by the ratio of the rate of

⁴ By this deficiency is meant the tendency to distort the overall calculation by over-calculating large political parties. Putting in the formula the data from 2012, Smer-SD has the share of $s_i^2 = 0.3061$, as long as the other five subjects had together only around 0.05. It is clear to us why the value of the index was significantly lower than in 2010, and it is so not only due to the increasing preferences for Smer but also to the construction of the index itself.

electoral power, so the mechanism of its calculation differs from the previous indices. Even this index is not perfect. It does not reflect the possibility of forming a minority or of oversized coalitions (Dudáková, 2006, p. 8-12, Molinar, 1991, Boucek, Dunleavy, 2003, Taagepera, 1999). The value of this index is calculated as $ENRP = 1 / \sum (\beta_i)^2$, where β_i is the total share value of the relative power of each political party with regard to how many times the party is required to establish a minimal winning coalition. So we count for each political party with parliamentary representation share between the number of total potential situation, when that specific political party is necessary for creation of a minimal winning coalition and the total number of possibly compiled minimal winning coalitions, regardless of whether the political parties in the situation of the created coalition model are programmatically or ideologically close. Of course, the issue is the strength of the party in the number of seats in parliament. As for the 2012 elections, this index is inapplicable, because if one political party obtains more than a half of the number of seats, the size of the ENRP index = 1, because we do not solve the creation of a coalition. However, this index can be used for the previous elections data, and therefore these data are summarized in the following table.

Values of Index of effective number of relevant political parties

Year	1990	1992	1994	1998	2002	2006	2010
Index of effective number of relevant parties	4.08	2.28	2.1	4.46	5.68	4.31	2.28

This index makes it clear that the effective number of relevant political parties is decreasing, which is positive for the party system. The reason for the stabilization in the number of relevant parties is the homogenization of the left spectrum, which marks, in our case, the mechanism of alternating (ideological alternation) left and right streams of the party system in Slovakia. If we want to move from the classification format to typology, we add the criterion of ideology. We want to know whether Slovakia is an example of depolarized segmentation or fragmentation associated with high polarization (Sartori, 2005, pp. 125-134). In order to include the party system to the polarized pluralism, we need to verify the elements of this system.

1. 3. The party system of the Slovak Republic as an example of polarized pluralism? Or of moderate pluralism?

The first feature of the polarized pluralism is the presence of antisystem parties. A party is defined as an anti-system when it undermines the legitimacy of the regime that opposes it. In evaluating the results of the 2010 elections, if we consider only the anti-system party in the strict sense, the SNS does not come

with its own ideology that is alien to other parties and does not undermine the basic democratic principles. It is acknowledged that in a broad sense the SNS would be more marked as an anti-system party than a system-compatible one. The aim of the SNS is not a change of political system, but a change of government. By the strict definition of anti-system parties⁵ (Kubát, 2007, pp. 110-123), the SNS is no anti-system party. At present, we do not select as anti-system any political party in parliament. Although from the viewpoint of the "Slovak conditions" it could be possible to speak about the OĽaNO as of a non-standard political party; as for the classification, this party belongs to the standard parties. The question of internal stability of the entity as a result of the declared independence of the members is indeed questionable. Analysis of this party would deserve a separate work that would evaluate the status of the entity, but the electoral program for the 2012 elections convinces us about the party's conservative basis (acceptance of Christian values)⁶ with elements not foreign to liberal parties such as streamlining the state, including the sale of shares in state enterprises or encouraging entrepreneurs through the completion of payroll tax reform (which will be negatively reflected by the Smer-SD), or limit the payment of social benefits, support motivational elements in the social system, and so on. (The electoral program of the movement OĽaNO, 2012). At the same time, some of the statements by the leader of either the pre-election or post-election debates tend to promote an alternative right-wing cabinet. But this constellation was not formed after the elections. This is not a party of a zero coalition potential. Although the OĽaNO presents itself as a party of civil protest, it is compatible with the Slovak center-right parties in constitution of a coalition.

Another important feature of polarized pluralism is its three-pole structure, i.e. the center of the metric position is occupied (anti-system left vs. left-center + center + center-right vs. anti-system right). This is connected with the characteristics of the bilateral opposition, when the opposition parties cannot join and propose themselves as an alternative government. This is not the Slovak case, although even in the electoral period of 2010 – 2012 the opposition was not focused on one wing (left or right) within the linear ideological-political continuum, as would be predicted by moderate pluralism. This brings doubt about the possibility of the exact configuration of the party system on the left-right axis. After the elections in 2012, the SNS has not

⁵ This definition says that an anti-system party represents a foreign ideology, „the system of faith, which does not share the values of the political system in which it operates." Anti-system is therefore the party that does not seek to change government, but a particular political regime.

⁶ This act was a press conference before the elections in Žilina, see. *TASR. Obyčajní ľudia sa prihlásili ku kresťanským hodnotám [online]. c2012 [cit. 2012-4-15]. Available from: <http://hnonline.sk/c1-54905320-obycajni-ludia-sa-prihlasili-ku-krestanskym-hodnotam>*

joined parliament, just the same the five parties making up the opposition to the dominant Smer-SD that were Christian, conservative or liberal. For many of them is even typical a mixture of elements from conservatism to liberalism, and that is why we generally say that the opposition is currently focused on the right side of the political parties spectrum. The occupation of the center is causing centrifugality of the system and prevents the centripetal feature that leads to polarization. Our system is centripetal, not centrifugal. Anti-system parties are permanently oppositional and irresponsible parties. In the context of this element (currently we do not have to deal with it), the SNS was a coalition party in 2010. Although having limited coalition potential, the only partner willing to form coalition with it was the Smer-SD. The Smer-SD along with the SNS was able to create an alternative to the center-right coalition formed after 2010 (Fiala, 1998, pp. 147-152). It would therefore be an alternation between the center-conservative-liberal coalition with Christian elements and social democratic corporatism alternative favouring a strong national element, so this is the evidence of the structural bipolarity of the system. At present, the bipolarity of the structure is seen in the dominant social democratic government on the one hand, and the opposition of the five center-right parties on the other.

We have already discussed the elements of the existence of a bilateral opposition, occupation of the metric center, polarization, prevailing centrifugal tendencies in the system, and the presence of irresponsible oppositions and anti-system parties. These six characteristics are complemented by the ideological structuredness, where in our case a phenomenon of nationalism playing an important role in Slovakia, as in the 1990s, could be mainly taken into consideration. Nationalism, however, gradually declined to the present state when the HZDS – as well as the SNS – is no longer represented in parliament. Anyway, this is not the typical ideological structuredness of the polarized pluralism (meaning many different ideologies) as Sartori thought. The last feature that we noticed in the period to 2006 is called the policy of triumphs, i.e. offering more than the others, "over-promise" (Sartori, 2005, pp. 142-146). We did not meet with over-promise experience in the last parliamentary elections, rather with offering an alternative of social democracy representing a different approach to social policy and the country's economy, and the offer of the former government to continue meeting and continuing the commitments of the 2010 government programme.

After the application of the elements of the polarized pluralism we can say that the Slovak party system is no polarized pluralism. The decline of the

ideological distance between political subjects⁷, failing to meet the most characteristic features of the polarized pluralism and the others only partially, the absence of the extreme right / left-wing actors in the Parliament makes us to claim that the party system of the Slovak Republic is much closer to Sartori's modest pluralism than to the polarized pluralism. If we want to assess whether the consideration of the number of political parties is a reliable indicator in the party system classification, we verify whether there are anti-system parties in the system and whether bilateral opposition has been created. According to Sartori, „*moderate pluralism lacks relevant or important anti-system party*” (Sartori, 2005, p. 191). The key concept is an important anti-system party, as he reviewed in the system, there can occur small anti-system parties, although we consider it as a deviant case. Another thing is the actual increase in the number of parties and the related typology change. If the number of parties is increasing, but all parties are compatible with the system, it means that they accept the legitimacy of the system and are governed by the rules, then the fragmentation cannot be attributed to the ideological polarization.

The current fragmentation due to the six-party representation in parliament is no ideological fragmentation, but the one corresponding to the multidimensional arrangement. It is not, however, an exactly poly-ethnically segmented society that results in more parties in parliament. Mainly the existence of a large Hungarian minority and the protest accent of the 2012 elections that the OĽaNO party most gained from, cause the present state in Slovak politics. The Most-Híd is ideologically conservative, liberal, and so we characterized the SDKÚ (Krno, 2006, pp. 118-119, Kopeček, 2007, pp. 327-351). The SaS is a market liberal party, and as for the KDH, we do not hesitate to include this party clearly in the typology by Klaus von Beyme⁸ to Christian-democratic Parties (Krno, 2006, pp. 74-75).

⁷ The electoral period 2002 – 2006 when except the SNS the Communist Party was represented in parliament, is an example of polarized pluralism. Gradual development, thus weakening the radical parties and moderate response to the economic crisis are evidence that the society no longer supports radical solutions and manifest consensus, although we notice remaining competition between the economically leftist Smer-SD and other right-wing parties. The recent elections, however, give us a signal that party competition has already departed from the creation of voter's preferences on the basis of the declaration of substantive programmatic priority objectives. Corruption scandals became the main subject of the election campaign. I would not overestimate this phenomenon regarding the long-term formation of party competition between political parties. I think it is only a specificity of early elections in 2012, as pointed out by Olga Gyarfášová, that these elections were not only early for its date but also for a mental adjustment of our society (Gyarfášová, 2012). These elections are at the same time, when I exaggerate it, a demonstration of the fourth power in the state - media.

⁸ His typology is ideologically programmatic and is introduced in the book *Parteien in Westlichen Demokratien*, in which he defines nine ideological families based on the knowledge of historical and ideological development of families of political parties. The typology

It is necessary to state at the end of this subchapter that from the sphere of quantitative research the Laakso-Taagepera index of the effective number of political parties has been used to demonstrate the effect of the electoral system on the party system. The value of the last elections is not relevant but the previous values, i.e. for 2010 ($N = 4.01$) in comparison with the data from 2006 ($N = 4.81$) and 2002 ($N = 6.12$), show a decreasing trend in the effective number of parties, which confirms the theory that the Slovak party system begins to come closer to the moderate system. We should not forget that this index tends to distort if some party is strong (Smer-SD), but at the same time, there is a similar trend in the index of the effective number of relevant parties which confirms the strengthening bipolarity of party competition. According to Sartori, the boundary where the format varies from the moderate to the extreme is the number of five parties. Our six-party system would be classified by Sartori as extreme (by format) but moderate pluralism (by type). I have chosen the moderate pluralism mainly based upon the view of the situation after the 2002 election (the index N and the ideological distance of the parliamentary parties) in comparison with the current situation.

2. Volatility and stability of the Slovak party system

2.1 Theoretical framework for research of volatility

In the opinion of many researchers, a functioning party system creating links between the voters and the political parties calls for greater stability. Volatility⁹ indicates the stability of the system, the component of the system marked in the post-communist countries as risky. Mechanical attributes also contribute to the stability of the party system. These are the effects of electoral systems that favour or disfavour specific political parties. We can also look at the stability of a party system through the effective number of parties and its long-term trend. In this chapter, we will be interested in another indicator of the stability and volatility, in the Pedersen's index, the concept of party replacement from Sarah Birch, and demand and supply volatility by Rose and Munro. The high volatility indicates the emergence of new political parties that came to an

distinguishes party clusters (families): 1. liberal and radical parties, 2. conservative parties, 3. Socialist and Social Democratic Party, 4. Christian Democratic Party, 5. Communist, 6. Peasant Party, 7. Regional and ethnic parties, 8. Extreme right-wing parties and 9. Environmental parties. For Eastern and Central European countries he adjusted the typology into the next family party: 1. Communist Party, 2. Forum, 3. Christian Democratic Party, 4. Liberal Party, 5. Social Democratic Party, 6. Agrarian Party, 7. Environmental party, 8. Regional and ethnic parties.

⁹ Volatility measures changes in the proportion of votes for each political party in two consecutive elections.

'electoral market', and the dispersion of voter preferences between the parties that have already participated in the electoral competition.

As for the Pedersen's index, $V_i = \frac{1}{2} \text{TNC}$. TNC (total net change) was calculated as $\sum |\Delta p_{i,t}|$. This means that the volatility index was calculated as a half of the amount of difference between the percentage gains of political parties in this election compared to the previous one. Therefore, the earnings of the parties in these elections are always subtracted from the votes gained in the past elections, and the sum is treated as an absolute value (Pedersen, 1991, pp. 195-207). Both the interpretation and application of this index, however, would not be appropriate for the Slovak Republic, because in the parliamentary elections in 2012, as well as in the past, the volatility was not only caused by changes in demand of the electorate, but also in offering political parties. The Pedersen's index does not reflect it. In parliament, we are represented by a new political party. It is therefore preferable to use the index of political party replacement by Sarah Birch. We do not dismiss the Pedersen's index completely, because it is inspiration for us concerning the assessment of the overall index of volatility, so we actually will use it, although the overall volatility is preferred.

Sarah Birch's party replacement (index of political party replacement) is understood as the degree of penetration of new players in the party system. The party replacement formula is $R = \sum n_{i,t+1} / \sum v_{i,t+1}$. We will measure it as the proportion of the voters who elected new political parties ($\sum n_{i,t+1}$), so we will look at the profit of parties in these elections that earlier did not participate, and we will divide it by the number of total profits of all political parties that participated in the parliamentary elections ($\sum v_{i,t+1}$). In our case (e.g. in 2012), the OĽaNO is considered as an entirely new party.

As for the calculation of volatility between the existing parties (distinct it from party replacement), Sarah Birch uses the following formula: $V = \sum |c_{i,t+1} - c_{i,t}| / \sum c_{i,t+1} + \sum c_{i,t}$, where $c_{i,t}$ is the proportion (share) of the votes that a party received in the first monitored elections, and $c_{i,t+1}$ is the proportion of the votes received by an existing party or parties in the second observed elections (Birch, 2003, p. 123). Sarah Birch's approach focuses on the calculation of volatility over the number of the votes received by political parties in the elections. These formulas are still not sufficient for the overall theoretical concept of evaluating the volatility in Slovakia. It should also be noted that the pattern (formula) is different from the Sarah Birch's volatility of the existing parties which corresponds to the Rose and Munro's demand volatility. This volatility will be calculated separately as party replacement and supply volatility. The supply volatility is the difference between the overall volatility and the demand volatility. Thus, the overall volatility formula looks like this: $TV = \sum |c_{i,t+1} - c_{i,t}| / \sum c_{i,t+1} + \sum c_{i,t}$. Practically, the formula

remains as devised by Sarah Birch (volatility formula), including the interpretation. The numerator is the sum of absolute values of the difference between the number of the received votes in this election contrary to the previous elections, and the denominator is a sum of all the votes for parties that were gained in these elections and (plus) votes received in the previous elections.

The demand volatility that was used by Richard Rose and Neil Munro is based on the idea of party system institutionalization, namely on the existence of equilibrium between the supply and demand. Volatility in the system of political parties may result from the changes in the supply of political parties, so the offer for the electorate has changed, or due to the changes in demand when voters decide to change their preferences and in the election $t + 1$ they elect some other political party than in the elections t . The sign of an unconsolidated party system is the predominance of the supply over the demand volatility (Rose, Munro, 2003, p. 84). The demand volatility is basically the volatility between the existing parties, and it is calculated by the formula: $V_d = \sum |c_{i,t+1} - c_{i,t}| / \sum c_{i,t+1} + \sum c_{i,t}$. The formula looks exactly like the TV, but counted are only the parties that existed in the previous elections (they existed in the elections t with respect to our calculation of $t + 1$), and we do not count the volatility of parties that did not participate in the election t , nor the parties that have disappeared (they are no longer offered in the elections $t + 1$). The total volatility is calculated with all the votes gained by the entities that participated in the election t , but not in the elections $t + 1$, then the entities that participated in both elections, and the new parties that participated only in the elections $t + 1$. I would like to emphasize this difference. The last formula is the volatility of supply (like party replacement) which can be calculated by deducting the volatility of the existing parties from the overall volatility, so $TV = V_p - V_d$ (Birch, 2003, pp. 119-124, Šedo, 2007, pp. 98-101; Chytilík, Šedo, 2009, pp. 91-93).

We will input the number of the votes received by each party in the elections into the formulas, so we will therefore not work with percentages. It will be shown in practice how the calculations look like applying the results of the elections in 2010 and 2012. Then we will compare them with the results by Radek Výtisk¹⁰ (Výtisk, 2007) for the election periods from 1994 to 2006, and

¹⁰ Radek Výtisk applied a series of formulas to the results of elections to parliament in 1994 - 2006. In his work he used for calculations the number of votes of political parties, not percentages! To calculate the overall volatility, the used formula is similar to Pedersen index, instead of the fact that apart from percentage of changes, we use (number of participants in elections) absolute numerical value changes of votes and add to the denominator the total votes received by all parties in the elections that took place in time t plus $t + 1$ (eg. T – elections in 2006, then $t + 1$ will be another elections, elections in 2010).

accordingly assess what trend is the stability of the Slovak party system like. For comparison, the data statistics from the parliamentary elections of 2006, 2010 and 2012 will serve us (Statistical Office, 2006, 2010, 2012). At the same time, if we want to evaluate which party is new, or how to evaluate the event of a merger of political parties, we need some rules to cope with in such a situation. Sarah Birch set the rules under which we should cope with this problem.

Birch stated that in terms of coalition, if political parties candidate in coalition and in other as separate entities (or vice versa) and retain their identity as well as the votes they have received, these parties are considered being the parties that maintained their continuity. If there was a merger of two or more parties, the following cases can occur:

1. Mergers that result in a party which contains the original names (substantially unchanged, in the sense that they are still identifiable) of the parties which merged are treated as a coalition, as continuity of identity is indicated by his name.
2. Mergers that involve party A absorbing party B, such that the resulting political organization retains the name of party A and party B's name is lost entirely, are treated as defunct of party B (and party A is considered to have maintained continuity of identity).
3. Mergers that result in the creation of a new party with a new name substantially different from that of either of its component parts are considered to be a new party, and the parties that merged to form it are considered defunct (Birch, 2003, p. 185).

A political party can fall apart also during the electoral period, or it may be partly (fragmentally) cleaved. In this case, there are three possible outcomes:

1. If both (all) resulting parties acquire new names following the split, they are considered new parties, and the party which spawned them is treated as defunct.
2. If, as is most commonly the case, a splinter group breaks away from an existing party and forms a new party, then the party is treated as such, and the remaining rump party is normally treated as being continuous with the party as it was before the split.
3. A case of dispute arises if a party splits, and both factions claim ownership of the original name, then the decision of a judicial or other body in the dispute is observed, and the party which loses the right to the original name is considered a new party (Birch, 2003, pp. 185-186).

2. 2. Data processing of political parties in the 2010 elections for the purpose of volatility concept

The parties that had participated in the 2006 elections but did not participate in the elections of 2010, are the Hnutie za demokraciu, Ľavý blok, Aliancia nového občana, Strana občianskej solidarity, Misia 21 – Nová kresťanská demokracia, Slovenská národná kôlacia – Slovenská vzájomnosť, Prosperita Slovenska, Agrárna strana vidieka, Slovenská ľudová strana, and Nádej. The volatility of these parties will be calculated quite simply because it is equal to their 2006 preferences. Because they did not participate in the 2010 elections, they lost their preferences from 2006, and therefore they are counted in the total aggregate volatility. These parties are defunct by our theory. The overall volatility of these entities expressed by the formula is $\sum |c_i, t + 1 - c_i, t| = 90,402$ (calculated in votes).

The Občianska konzervatívna strana (OKS) looks problematic. The party had not ceased to exist nor had it participated in the 2010 election, but it participated on the ballot of the Most-Híd. According to our theory, the Most-Híd is a completely new party that incorporated each of the four members of the failed entity of the OKS (between 2002 and 2006 as an independent entity). These members are not independent because they are members of the Most-Híd MP club, they are not members of the Most-Híd, but of the OKS. These two entities can be regarded as a kind of coalition, although they are not officially a coalition. In our case, there was no absorption of the OKS by the Most-Híd. The party Most-Híd is a split subject from the SMK. It is a new independent party, and the SMK acknowledges the continuity between the elections. When we calculate the volatility of the new entity, on the one hand the Most-Híd is considered as a new entity, but we must deduct the OKS's votes from the total preferences of the Most-Híd, and the OKS is considered as continuously acting through the ballot of the Most-Híd, $V = |205,538 - 6,262| = 199,276$ ¹¹. But on the other hand, under the rules of Sarah Birch, the Most-Híd should be

¹¹ I have chosen this calculation to analyze the situation in the Most-Híd. The OKS does not interrupt his existence, four members of the OKS are not members of the Most-Híd. This case resembles the case of the SDK in 1998. The parties which formed the SDK did not interrupt their activity. It is the same situation with the Most-Híd. It is a new political entity which was supported by votes of the OKS, but the OKS is independent, therefore I deducted from the the Most-Híd preferences the votes received by the OKS as a separate entity in 2006, and then volatility was calculated. Why I did not deduct the sum of the preference votes of four deputies of the OKS from the overall Most-Híd preferences? Because these votes do not represent the volatility of the OKS in 2010/2006. Volatility is the difference between the preferences granted in this election compared to the past (not the difference between candidate's preferences). It does not matter whether I deduct the votes of the OKS in 2006 from the preferential votes of the four members on the Most-Híd's ballot, or if those votes are directly deducted from the total preferences of the Most-Híd.

regarded as a new party and the OKS as defunct, although it is not correct in terms of the fair redistribution of votes in the elections. Therefore the calculation for such a view of the volatility of these parties is complemented, the Most-Híd ($V = 205,538$) and the OKS ($V = 6,262$).

The case of the Únia – Strana pre Slovensko is the same as with the Most-Híd. The third rule by Sarah Birch on subjects concentration considers the Únia being a new party ($V = 17,741$) and the Slobodné fórum (SF) being defunct ($V = 79,963$). But, in fact, the SF has not expired but developed its activities within the Únia party, and that is why we should deduct the number of the votes received by SF in 2006 from the preferences of the Únia in 2010, then $V(\text{Únia}) = |17,741 - 79,963| = 62,222$.

The same problem that occurred with the SDE party in 2006, also did in the 2010 elections. According to Sarah Birch, the Democratic Left Party is the same regarding the name. This issue will be analyzed in a different way if we realize that today's SDE (as well as the one in 2010) is a completely different party than SDE in 2006. Taking this fact into account, we have two volatilities, the old SDE - 2006 and the new SDE, not being continuous party, but as a new party – 61,137.

As for SDKÚ, $V = |390,042 - 422,815| = 32,773$. As for the Smer-SD, $V = |880,111 - 671,185| = 208,926$. The ĽS - HZDS has lost preferences, $V = |109,480 - 202,540| = 93,060$. The SMK also recorded a significant decrease caused by the splitting which began with politician Béla Bugár leaving the party and then establishing a new entity of Slovak-Hungarian coexistence, $V = |109,638 - 269,111| = 159,473$. As for the KDH, it has stable preferences, $V = |215,755 - 191,443| = 24,312$. Neither the Združenie robotníkov Slovenska reached as good a result as in 2006, $V = |6,196 - 6,864| = 668$. The Slovenská národná strana, as known, almost left parliament in 2010, $V = |128,490 - 270,230| = 141,740$. The Komunistická strana Slovenska had been losing preferences since 2002 when it had been represented in parliament, but the 2010 elections showed its marginal position, $V = |21,104 - 89,418| = 68,314$.

Other parties that have not been mentioned are yet categorized as new political parties. The incremental volatility is the amount of the votes they received in the 2010 elections, because it was the first elections for them. These entities include: EDS, $V = 10,332$; Únia – Strana pre Slovensko, $V = 17,741$; Strana rómskej koalície, $V = 6,947$; Paliho Kapurková, veselá politická strana, $V = 14,576$; Sloboda a solidarita, $V = 307,287$; Nová demokracia, $V = 7,962$; ĽS – Naše Slovensko, $V = 33,724$; and the least successful party in the parliamentary elections, AZEN – Aliancia pre Európu národov, $V = 3,325$.

2. 3. Processing of party data from the 2012 elections

As for the parliamentary elections 2012, the following parties are evaluated as defunct: Európska demokratická strana (EDS), Strana rómskej koalície (SRK), Paliho Kapurková, veselá politická strana, Nová demokracia, Združenie robotníkov Slovenska (ZRS), and AZEN. As for the Únia – Strana pre Slovensko, this party will need a closer follow-up analysis. The overall volatility of the listed extinct entities is $V = \sum |c_{i,t+1} - c_{i,t}| = 49,338$ (in votes).

The Únia – Strana pre Slovensko has not terminated its existence, but has been renamed to the Strana +1 hlas (Register of political parties, Strana +1 hlas), since the register does not contain a party called the Únia. Before entering the Únia, the Strana +1 hlas had been called the Občianski kandidáti, and this faction formed the Únia together with the Slobodné fórum and the Liga – Občianska liberálna strana. In this case, we are facing another problem, namely the inclusion of the Robíme to pre deti - SF. This party is basically continuously working but with the difference that in the 2010 elections it ran on a single ballot with the Únia. The whole problem can be solved by a strict application of the Sarah Birch's first rule – when a party splits into two entities having the common name of the parent entity. The Robíme to pre deti - SF cannot really be considered the successor to the Únia, so we include it to the new players ($V = 8,908$), and so we will evaluate the party +1 hlas ($V = 779$) because the candidates do not overlap with the parent entity (Candidate ballot, +1 hlas, list of candidates, the Union). The Únia is considered defunct, $V = 17,741$.

We deal with a similar case as previously with the SDE and the Strana zelených. Indeed, even the Strana zelených had run in 2010 on the SDE ballot, but in 2012 it had already participated in the elections as an independent entity. The elections of 2012 were also attended by the SDE, and therefore it can be considered a continuous party. The volatility of the SDE is $V = |48,44 - 61,137| = 56,293$. The Strana zelených, as a new entity, has $V = 10,832$.

The following parties are continuous (participation in both elections in 2010 and 2012). As for the KDH, $V = |22,5361 - 21,5755| = 9,606$; the Slovenská národná strana, $V = |116,420 - 128,490| = 12,070$; the Sloboda a solidarita $V = |150,266 - 307,287| = 157,021$; the ĽS – Naše Slovensko, $V = |40,460 - 33,724| = 6,736$; the Smer-SD, $V = |1,134,280 - 880,111| = 254,169$; the KSS, $V = |18,583 - 21,104| = 2,521$; the Most-Híd, $V = |176,088 - 205,538| = 29,450$; the ĽS-HZDS, $V = |23,772 - 109,480| = 85,708$; the SDKÚ, $V = |155,744 - 390,042| = 234,298$; the SMK, $V = |109,483 - 109,638| = 155$.

The remaining political parties are considered as new, therefore their obtained preferences are volatilities of these parties: the Strana zelených, $V =$

7,860; the OĽaNO (Ordinary People and Independent Personalities), $V = 218,537$; the Právo a spravodlivosť, $V = 10,604$; the Náš región, $V = 4,859$; the Zmena zdola – Demokratická únia Slovenska, $V = 33,150$; the Národ a spravodlivosť – naša strana, $V = 16,234$; the Strana rómskej únie na Slovensku, $V = 2,891$; the 99 % - občiansky hlas, $V = 40,488$; the Obyčajní ľudia, $V = 4,320$; the Strana občanov Slovenska, $V = 3,836$; the Strana slobodné slovo – Nory Mojsejovej, $V = 31,159$; the Strana živnostníkov Slovenska, $V = 3,963$.

2. 4. Calculation of volatility in 2010 and 2012 based on data

First, we will take a look on the data from 2010. Because of the two interpretations of the Most-Híd and the Únia – Strana pre Slovensko, although we have very similar calculations of the total volatility (TV), calculated using the formula mentioned in the previous subsection, there are four combinations. First, we calculate the situation where the Most-Híd is a new party and the OKS is regarded being defunct and operating under the Most-Híd in conjunction with the Únia as a new party, and the SF as defunct: $TV1 = 1,582,585/4,832,524 = 0.3274$ ¹². If we still consider the Most-Híd as a new party and the OKS as in the previous calculation, but the Únia will be taken into account as a new party and the SF carrying on activity within the Únia (not as defunct), then $TV2 = 1,54,7103/4,832,524 = 0.3201$. We have been left with two options, the Únia with the SF in combination with the Most-Híd as new parties, and the OKS as defunct (so far we had had the OKS as an existing party in conjunction with the Most-Híd), then $TV3 = 1,595,109/4,832,524 = 0.33$ and $TV4 = 1,559,627/4,832,524 = 0.3227$.

The party replacement formula is $R = \sum n_i, t + 1 / \sum c_i, t + 1$ ¹³, so there are again four calculations. The Most is included in the group of new parties, and there are two possible volatilities and as for the Union party, there are also two variants (see the section 2.2), therefore $R = 618,911/2,529,385 = 0.2446$, $R_2 = 663,392/2,529,385 = 0.2622$, $R_3 = 625,173/2,529,385 = 0.2471$, $R_4 = 669,654/2,529,385 = 0.2647$. The volatility between the existing parties and the demand volatility have been calculated similarly as in the case of the first formula TV except that it has covered only the existing parties. It is important that the data of the parties that did not participated in the last elections as well

¹² This has been calculated using a formula for the overall volatility TV. All partial volatilities of these parties have been counted and divided by the number of votes for all parties in both elections 2006 and 2010.

¹³ Considering the values of all new parties, we have again generated variations depending on how the party is included and what value is to be assigned to its volatility. Therefore we sum the volatility of newcomers and divide it by the total number of the votes received by all parties in the elections. In our case it will be the figure of electoral participation in 2010. When we deal with party replacement for 2012, we will work with participation in the elections in 2012.

as the new parties have not been included in this calculation. The value of these parties has further been obtained as the supply volatility subtracting the demand volatility from the overall (total, TV) volatility. The demand volatility is $V_d = V_a = 729,266/4,832,524 = 0.1509$.

Finally, the value of the supply volatility is calculated as $TV = V_p - V_d$. In our first case, $(TV1 - V_d)$ would be $V_p = 0.3274 - 0.1509 = 0.1765$. In the second case, $(TV2 - V_p)$ $V_p = 0.3201 - 0.1509 = 0.1692$, for $(TV3 - V_p)$ $V_p = 0.33 - 0.1509 = 0.1791$, and $(TV4 - V_p)$ $V_p = 0.3227 - 0.1509 = 0.1718$.

As for 2012, the values of the total volatility, $TV = 1,313,526/5,083,111 = 0.2584$ ¹⁴ have been calculated similarly. The party replacement for the elections of 2012 is $R = 398,420/2,553,726 = 0.156$. The volatility of the existing parties or the demand volatility is $V_d = V_a = 848,027/5,083,111 = 0.1668$. Finally, the supply volatility value has been calculated as $TV = V_p - V_d = 0.2584 - 0.1668 = 0.0916$.

2. 5. Evaluation of volatility and party system stability

The total volatility and its progress during the electoral periods shall be the first volatility indicator to be dealt with. The following table contains the data from 1994 to the present day.

Total volatility 1994 – 2012

Electoral period	TV (total volatility)
1998/1994	0.2262
	0.4299
2002/1998	0.4165
	0.6409
	0.5017
	0.5557
2006/2002	0.2911
	0.3317
	0.2922
	0.3328
2010/2006	0.3274
	0.3201
	0.33
	0.3227
2012/2010	0.2584

¹⁴ In this case, we could compute only one calculation because disputable cases could be quite clearly evaluated.

As can be seen from the table, there is quite a lot of values there, the number of the data had to be therefore reduced. The easiest way for the calculation of each of the periods of volatility has been chosen, using arithmetic averages (means), $ATV_{1998/1994} = 0.3281$; $ATV_{2002/1998} = 0.5287$; $ATV_{2006/2002} = 0.3120$; $ATV_{2010/2006} = 0.3250$; $ATV_{2012/2010} = 0.2584$. The volatility reached the highest number in 2002, therefore this year has been characterized as a turning point for the party system in Slovakia, when promoting the socio-economic cleavage as the primary cleavage of the Slovak party system started to be talked about. Slovakia, like other world economies, had been hit before the 2010 elections by the economic crisis, and it was the perfect moment for potential destabilization of the party system and the possible strengthening of radicalism. However, the overall volatility in 2010 has approximately the same value as in 2006, so there were no major changes that would indicate profound changes in the party system. It is also possible to evaluate the indication for the early elections in 2012. In terms of the previous history of the independent Slovakia, these elections were the most stable (according to TV). The following table sums up the party replacement.

Party replacement, 1994 – 2012

Electoral period	R (party replacement)
1998/1994	0.097
	0.3603
2002/1998	0.3318
	0.5751
	0.4242
	0.4828
2006/2002	0.0494
	0.0494
	0.0506
	0.0506
2010/2006	0.2446
	0.2622
	0.2471
	0.2647
2012/2010	0.156

The arithmetic means result in: $AR_{1998/1994} = 0.2287$; $AR_{2002/1998} = 0.4535$; $AR_{2006/2002} = 0.5$; $AR_{2010/2006} = 0.2546$; $AR_{2012/2010} = 0.156$. It has been again confirmed that the year 2002 marks a significant turning point. Of special interest are the 2010 and 2012 values which show that the low figures from 2006 suggesting the stabilization of the party system have not

been confirmed due to the rising figures in 2010. In this year, the main mover of this index was the SaS which had contributed and represented 50 % of the R value. The situation known from 2002 was repeated, when it was shown that a liberal party had a place in the party system, and its support exceeding 12 % of the preferences in the 2010 elections has just proved it. This claim turned out to be correct, because the SaS got into parliament for the second time. The second most important index-mover was the Most-Híd with more than 8 % of the valid votes. It was of course Igor Matovič in 2012 and his Ordinary People and Independent Personalities (OLaNO) that contributed mostly (52.5 per cent share in the index value¹⁵) to the index value in 2012 in comparison with other new parties. The following table provides the details of volatility of the existing parties, or of the demand volatility.

Volatility of existing parties (demand volatility), 1994 – 2012

Electoral period	Va = Vd (volatility of existing parties)
1998/1994	0.143
	0.1023
2002/1998	0.2127
	0.183
	0.2553
	0.2823
2006/2002	0.2397
	0.26
	0.2327
	0.253
2010/2006	0.1509
2012/2010	0.1668

The arithmetic mean of these values is as follows: AVd1998/1994 = 0.1227; AVd2002/1998 = 0.2333; AVd2006/2002 = 0.2464; AVd2010/2006 = 0.1509; AVd2012/2010 = 0.1668. The volatility of the existing parties had been growing until 2006, which means that people had changed their minds concerning the existing parties – those that participated in the elections t and those of $t + 1$. This cannot be applied to the year 2010 when the volatility decreased. This could confirm the statement that the existing political subjects operating in the electoral market really began to establish themselves firmly at least in the last two electoral terms. It is an indication that the existing parties have a solid position in the Slovak party system. It is expected that in future no

¹⁵ OLaNO received 218,537 votes out of 416,161 for the new political parties that participated in the elections of 2012.

such a fluctuation of players, the establishing of new parties, and then the defunction of players will be seen as could be observed mainly in the 1990s. There was a small increase of this indicator after the 2012 elections, but there is no need for a critical evaluation. This value, despite having lost more than a half of the electorate of the former two strongest right-wing parties, the SDKÚ and the SaS, is significantly higher in comparison with the 2010 data, so the premise (assumption) of the strengthening of party establishment (parties already represented in parliament) is indirectly confirmed by the values of this index in 2010 and 2012, and directly by the SaS as the first new party that got to parliament for the second time (in 2012). Finally, the supply volatility is summed up in the following table.

Supply volatility, 1994 – 2012

Electoral period	Vp (supply volatility)
1998/1994	0.0832
	0.3276
2002/1998	0.2038
	0.3479
	0.2464
	0.2734
2006/2002	0.0514
	0.0717
	0.0595
	0.0798
2010/2006	0.1765
	0.1692
	0.1791
	0.1718
2012/2010	0.0916

The arithmetic means of the supply volatility are as follows: $Vp_{1998/1994} = 0.2054$; $Vp_{2002/1998} = 0.2954$; $Vp_{2006/2002} = 0.0656$; $Vp_{2010/2006} = 0.1741$; $Vp_{2012/2010} = 0.0916$. In 2006, the supply volatility level was low which means that, on the one hand, new votes are not acquired by new parties, on the other hand, there is no massive extinction of the old parties.

In 2010, the situation changed, and the new parties started to assert themselves, particularly the mentioned Sloboda a Solidarita and the Most-Híd. In 2012, we register a decrease of this index, although in the system there appears a new party which was ranked the third place by the number of the obtained votes, but due to a large increase in popularity among the existing parties, primarily the Smer-SD, it is clear that the volatility level can be seen in

the demand component of the volatility at the expense of supply. In the offer, voters can find political parties that meet the requirements in terms of their preferences rather than not. And the elections are confirming the general rule (of the Slovak party system) that almost in every elections at least one new party (if we consider the comeback of the SNS to parliament as a newly reintegrated party, this thesis is also valid for the 2006 election) can be found in parliament. It is possible to conclude from the experience of the last three electoral periods that it is always a right-wing party desintegrating the right-wing spectrum of the party system.

The indicators of party replacement and volatility of the existing parties as well as both the supply and demand volatility should answer the question of the rate of volatility. The increased value of that specific index reminds us of the increasing instability of the system. The value of supply volatility in 2010, compared to the 2006 data, increased, having thus confirmed greater instability of the system. What has significantly changed within the trend is the demand volatility, or the volatility of the existing parties. This volatility had upward trend by 2006, having reflected the increasing fluctuation of the electorate within the existing parties. This instability phenomenon had been beginning to change when the value in 2010 had decreased, but in 2012 there was a slight increase that is associated with the rearrangement (regrouping) of voters not only in the right-wing spectrum (in 2010, it had all concerned the voters leaving one right-wing party for another) but also in the left-right spectrum. In 2012, supply volatility has decreased by half which adumbrates a return of stability to the system. In conclusion, this movement will be further analyzed with additional consideration of the real changes that the party system experienced during the last two elections.

Comparison of the partial values ratios on the total volatility

Calculation	Period 2006/2002	Period 2010/2006	Period 2012/2010
AR/ATV	0.1603	0.7833	0.6037
Avd/ATV	0.7897	0.4633	0.6455
Avp/ATV	0.2103	0.5356	0.3544

When will the party system stabilize? The answer is: when the ratio of the overall volatility of the volatility of the existing parties (the demand volatility) is increasing at the expense of the supply volatility. If we want a stable system, we need the votes to be distributed between the existing parties, and the removal of the disturbing element of the new political parties. Therefore the ratios of the arithmetic means of the party replacement, supply and demand volatility on the total volatility (TV) for each electoral period have been calculated as follows: $AR / ATV_{1998/1994} = 0.70$, $AR / ATV_{2002/1998} =$

0.8578; $AR / ATV2006/2002 = 0.1603$; $AR / ATV2010/2006 = 0.7833$; $AR / ATV2012/2010 = 0.6037$. As for the demand volatility, $AVd1998/1994 / ATV1998/1994 = 0.374$; $AVd2002/1998 / ATV2002/1998 = 0.4413$; $AVd2006/2002 / ATV2006/2002 = 0.7897$; $AVd2010/2006 / ATV2010/2006 = 0.4633$; $AVd2012/2010 / ATV2012/2010 = 0.6455$. As for the supply volatility, $Vp1998/1994 / ATV1998/1994 = 0.626$; $Vp2002/1998 / ATV2002/1998 = 0.5587$; $Vp2006/2002 / ATV2006/2002 = 0.2103$; $Vp2010/2006 / ATV2010/2006 = 0.5356$; $Vp2012/2010 / ATV2012/2010 = 0.3544$. The following table will serve as comparison of the last three electoral periods.

The data in the table can be interpreted as percentage ratios. It can be deduced from the table that the ratio of the new parties on the overall (total) volatility according to party replacement was in 2010 more than 78 %. This is an enormous increase from 16 % in 2006. The volatility of demand (AVd) recorded a decrease from 79 % (2006) to 46 %, i.e. about 33 %. In this case, the supply volatility difference between the years 2006 and 2010 (AVp) is approximately 33 %. These figures persuade us that the stability of the party system in 2010 had significantly decreased because the proportion of the new parties (AVp) on the overall volatility increased by 30 %, while the share of the volatility of the existing parties was reduced by 30 %. The party replacement confirms increased instability because the statistics shows up to 62 % growth of this indicator. The significant difference ($\Delta R = 62 \%$ and $\Delta AVp = 33 \%$) between the party replacement and the supply volatility has been caused by the fact that AR includes only information on the new political parties but, apart from the new parties, AVp absorbs into itself also the results of the defunct entities that disappeared during the previous term. If the party replacement value is bigger than the supply volatility, there is a shift of voters from the defunct parties to the established (existing) political parties. The other way around, if the system incorporates new political entities which deplete the votes of the existing parties, then the party replacement value is higher. Looking at the data from 2012, the party replacement fell by 18 % which means that the party system is beginning to stabilize, but this value is too high to talk about stability. Even more interesting is the difference between AVd and AVd in the comparison of the years 2010 and 2012. The increased volatility of the existing parties which one could hypothetically consider that due to the decrease in the preference of the right-wing political parties, there has been a massive transfer of the electorate in favour of the social-democratic Smer-SD, and at the same time as the supply volatility decreased by 18 % and the party replacement reaches higher values than Avp, this is the evidence of the electorate transfer from the existing parties in favour of the new ones. Thus, Igor Matovič gained

majority of these voters. So it is possible to see a rearrangement of the voters to the left in respect of the party system spectrum.

Conclusion

As for the party system of the Slovak Republic, the elections in 2010 meant a return of instability in comparison with 2006. In respect of the total volatility, the elections in 2010 and 2012 should not be considered a turning point in the Slovak party system. The elections in 2002 had been a turning point because apart from other political parties, the Aliancia nového občana (ANO) got into parliament as a liberal entity. The voters missed this kind of political party during the electoral period 2006 – 2010 what was also reflected in the increased instability in the party system between 2010 and 2012 as an evidence of significant absence in the (ideological) supply. The question is in which way are the 2010 and 2012 elections actually specific?¹⁶ In my opinion, they are specific in the establishment of liberalism in the party system of Slovakia. The supply volatility between the last two electoral periods was also reduced due to the occupancy of the right-wing party spectrum by ideological liberalism with the SaS as well as partially by the OĽaNO. I do not think that we are witnesses of a significant change of mechanism in the socio-economic formula (cleavage) of party competition. The mechanism of our party system has been forming this cleavage since 2002. Another fact is that the Smer-SD formed one-party government in the period when the volatility of the existing parties starts to prevail over the supply volatility, i.e. in the period when a trend towards stabilization can be expected. The trend of the gradual transfer of volatility between the existing parties will need to be confirmed by the results of the next elections, but theoretically we could perceive the whole thing that the Smer-SD is not necessarily at the very top of its preferences, when we could expect a correction. Of course, such assumptions are difficult to verify based on the historical data, and therefore to follow the motto „*Trend is your friend*” is not in place. In my opinion, the increasing preferences for the Smer-SD could be stopped by creating a consolidated right-wing alternative (that is no new idea) but this alternative should be social-liberal, not market-liberal. Social liberalism could also (after a change of generation) become a Slovak catch-allism in the future. But this would be the subject of a different study that would use other tools than those used in this study to confirm or negate their theses. The aim of this text was to evaluate the Slovak party system with a special focus on its volatility.

¹⁶ I do not think establishing the first one-party government in the history of independent Slovakia. The question relates to both elections, not only those in 2012.

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